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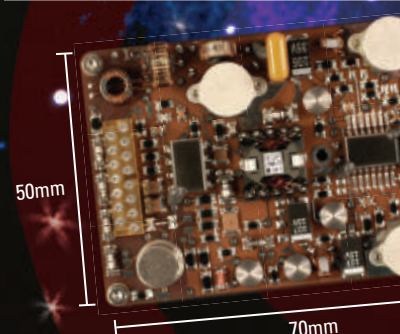
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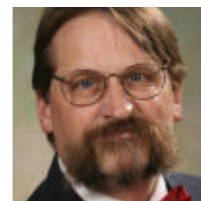
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Cutting the Army to historic low troop levels

A resurgent People's Republic of China is in the midst of a military buildup, terrorism is rampant through the Middle East, and Venezuela and the Ukraine are nearing civil war. In short, the world is as dangerous as it's ever been.

Some scholars point to an ominous number of political similarities in the world today to what was seen in the world of Pre-World War II in the late 1930s. A nuclear-capable North Korea and soon-to-be-nuclear-capable Iran are less than reassuring.

So what is the United States government about to do? Reduce the U.S. Army to its lowest troop levels since 1940 before Pearl Harbor; eliminate the Army's Ground Combat Vehicle program; retire Air Force A-10 close-air-support aircraft; cut the size of the Marine Corps; and place half the Navy's cruiser fleet offline or in reduced operating status for upgrading.

President Obama and Defense Secretary Chuck Hagel announced plans to reduce the nation's military forces to levels not seen in decades. Even Hagel admits the planned defense cuts will pose new national security risks for the U.S. in the future.

There are many reasons for these upcoming defense cuts, which have been piling on top of one another for years. The current force is "larger than we can afford to modernize and

keep ready," Hagel says. Others say it's time the U.S. stepped down from its role as World Policeman. Cutting defense, some say, will free up money for domestic programs. Some people call this smart economics. I call it whistling past the graveyard.

History shows us time and again that weakness and hesitancy on the world stage encourages stunts that lead to instability and can result in far worse. It was perceived lack of strength and unwillingness to step up to international threats on the part of Great Britain that helped lead not only to the start of World War II, but also to the start of World War I a hundred years ago this summer. A power vacuum in the world creates opportunities that are impossible to resist for adversaries.

History tells us that prolonged periods of weakness on the part of world powers in any era leads to big changes. Sometimes change is good, but history's lessons tell us that these kinds of changes have a tendency to kill millions and rearrange the global power structure in a way that leaves millions of others vulnerable to exploitation.

I realize that I'll be condemned in some quarters for holding this kind of view. The U.S. has been on top of the heap now for more than half a century. Perhaps it's time for others

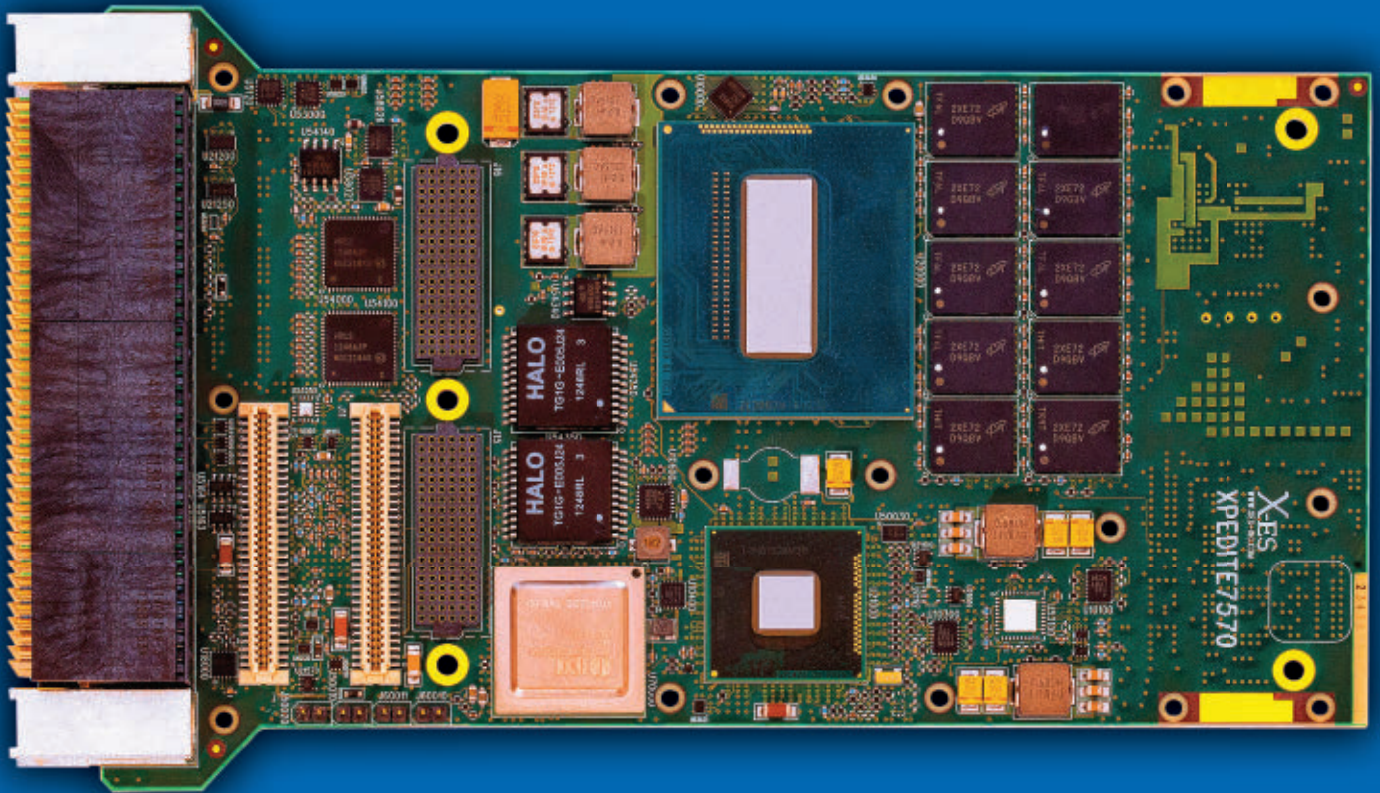
to step up to world leadership roles.

I can see the position that the U.S. has had its time in the sun, and it's time for a change. The results of the past two national elections show us that a growing number of our citizens might agree.

For those who believe it's time for the U.S. to step off the world's stage, I have a question: Is this really what you want? Is this really in your own personal interest? Consider what's at stake. Most people alive today have no experience with the U.S. as a secondary power subject to the will of others. Think what we take for granted: a free and open Internet, inexpensive imports at Walmart, a say in human rights issues throughout the world, travel access to most countries in the world, affordable education, and the list goes on. I'm not saying all those things will go away with the U.S. out of the spotlight, but are they guaranteed to continue in a reshuffling of world power? There are no guarantees.

Maybe what we value will continue, but then again maybe not. By the time things started going bad, most likely it would be too late. Before we rush headlong into a new world order, which a hollow U.S. military could usher in, let's take a look back at what we've enjoyed for so long, and at what might lie ahead. ↙

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Sierra Nevada and Northrop Grumman square-off for Marine Corps counter-IED technology

BY JOHN KELLER

QUANTICO, Va.—Two U.S. defense contractors who are specialists in radio-frequency (RF) and microwave systems design will compete for as much as \$180 million worth



Northrop Grumman and Sierra Nevada will compete to provide IED-detection gear for Marine Corps infantry.

of business to build systems to detect and defeat improvised explosive devices (IEDs) for the U.S. Marine Corps.

Officials of the Marine Corps Systems Command at Quantico Marine Base, Va., awarded contracts separately worth as much as \$90 million to Sierra Nevada Corp. in Sparks, Nev., and to Northrop Grumman Information Systems segment in Herndon, Va., for the counter radio-controlled improvised explosive device electronic warfare Marine Expeditionary Unit Special Operation Capable (CREW MEU SOC) dismounted systems.

The CREW MEU SOC systems for Marine Corps infantry will help

warfighters defeat a broad range of radio-controlled bombs, and provide warfighters on foot with the ability to avoid IED attacks.

The CREW MEU SOC program addresses an urgent and compelling need for a capability to counter the threat posed by IEDs, Marine Corps officials say.

Sierra Nevada and Northrop Grumman will compete for individual orders under terms of the contracts throughout a 5-year ordering period. The contractors each will deliver five CREW MEU SOC production systems for testing; after that, the remaining 360 production systems will be competed for each new order, Marine Corps officials say.

The CREW MEU SOC systems to detect and defeat hidden IEDs will have some of the most sophisticated counter-IED technologies available today, military experts say. The two companies will do the work on the contracts in Sparks, Nev., and Herndon, Va., and should be finished by February 2029. ◀

FOR MORE INFORMATION

visit **Sierra Nevada** online at www.sncorp.com, **Northrop Grumman Information Systems** at www.northropgrumman.com, and **Marine Corps Systems Command** at www.marcorsyscom.marines.mil.

IN BRIEF

▶ Navy orders 16 Boeing P-8A jets; program reaches full-rate production

U.S. Navy aircraft experts ordered 16 P-8A Poseidon maritime patrol jets from the Boeing Co. in Seattle in a contract modification worth \$2.1 billion. The P-8A is a military version of the Boeing 737-800 single-aisle passenger jet, and is designed for maritime patrol and anti-submarine warfare as a replacement for the Lockheed Martin P-3 Orion turboprop. This is the aircraft's first full-rate production lot and with this contract the program will enter full production. This order takes the Navy's P-8A fleet to 53. The P-8A will enhance the service's anti-submarine, anti-surface warfare, and intelligence, surveillance, and reconnaissance capabilities. Overall, the Navy plans to purchase 117 P-8As. Navy officials plan to use the P-8A in tandem with the Northrop Grumman RQ-4N Broad Area Maritime Surveillance (BAMS) unmanned aerial vehicle (UAV)—a maritime-patrol version of the Global Hawk long-range surveillance UAV. Plans call for using BAMS to detect potentially hostile submarines and surface ships, and upon detection, to call in the P-8A to take a closer look or to attack hostile vessels with torpedoes and missiles. ◀

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DARPA considers ASIC-based signal processing for the toughest EW and communications problems

BY JOHN KELLER

ARLINGTON, Va.—U.S. military researchers are considering a program to develop new kinds of

digital signal processing (DSP) based on application-specific integrated circuit (ASIC) technology for

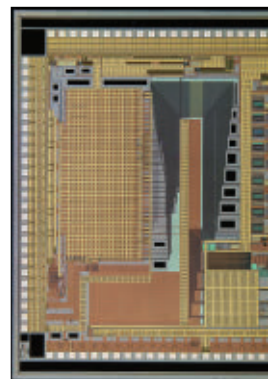
advanced sensors for aircraft and space, as well as for the next generations of military communications systems and electronic warfare (EW).

Scientists at the Defense Advanced Research Projects Agency (DARPA) in Arlington, Va., are reaching out to defense companies to find out if the kinds of signal-processing technologies they envision already exist in industry or on the drawing board.

DARPA officials released a request for information (DARPA-SN-14-19) for the Signal Processing Co-Processor for Sensors, Communications program, which seeks to develop a co-processor that can serve a variety of military signal processing electromagnetic functions for military programs. The RFI is on behalf of the DARPA Strategic Technology Office (STO).

Advanced defense systems require a combination of programmability and throughput, DARPA officials explain. While field-programmable gate arrays (FPGAs), are programmable, they are larger, slower, and much less power efficient than ASICs.

DARPA researchers are considering crafting an ASIC co-processor that can perform many kinds of signal processing functions and provide leap-ahead performance in the system's capabilities. This co-processor could be accessible by control or function calls from an FPGA or other suitable host processor.



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DARPA is asking about the feasibility of using ASICs for sensor, communications, and EW signal processing.

This kind of add-on co-processor would carry out program-specific computations with a controlled FPGA without the need to classify the co-processor. The coprocessor would be freely available to the government and its contractors without intellectual property rights limitations.

DARPA is asking for industry advice on considerations that should be given to data input/output, memory requirements, and other dedicated functions. For this project, DARPA is posing a set of questions to industry that include:

- Are there any co-processors that exist today, or that are being developed, that meet some or all of these requirements?
- Which types of sensor, communications, security, and EW applications would benefit?
- Which signal processing functions should be included, and for which applications?
- Are there libraries that should be provided with unlimited rights?
- How large should these functions be, such as the length of its largest FFT, and what radix levels should it support?
- What type of word size should be required, and must the co-processor be able to support variable word size?
- What are the appropriate input/output formats?
- What are the on-chip memory requirements?
- What is the most appropriate co-processor and accelerator architecture?

- How should the co-processor support latency or data synchronization?
- How does the co-processor interface with the FPGA or host processor?
- What support tools are

necessary?

E-mail questions or concerns to DARPA-SN-14-19@darpa.mil. ←

MORE INFORMATION IS online at <https://www.fbo.gov/spg/ODA/DARPA/CMO/DARPA-SN-14-19/listing.html>.



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After yearlong delay, Data Link Solutions to upgrade shipboard data networks

BY JOHN KELLER

SAN DIEGO—Military communications experts at Data Link Solutions LLC in Cedar Rapids, Iowa, won a long-delayed contract in February for a major data communications system upgrade that will enhance the ability of Navy surface warships to exchange text and imagery with aircraft and ground forces.

Officials of the Space and Naval Warfare Systems Command announced a \$25 million contract to Data Link Solutions for the Multifunctional Information Distribution System (MIDS) on Ship (MOS) Modernization (MOS MOD) program,

which had been held up for a year due to Pentagon budget cutbacks and congressional sequestration.

The original solicitation for the MOS MOD program was issued in September 2011, and an award had been expected in 2013.

The program seeks to alleviate obsolescence and supportability issues of the MIDS shipboard system, which receives and transmits text and imagery to and from military aircraft and ground forces to share the tactical picture in near-real time.

The goal is to replace old MIDS on Ship components, such as the system's high-power amplifier (HPA),



Data Link Solutions, a joint venture of Rockwell Collins and BAE Systems, will upgrade shipboard data communications.

MIDS low-volume terminal (LVT), power supplies, software, and related components. The project also will prepare the MIDS on Ship system to accept future enhancements, such as enhanced throughput, concurrent multi-netting, and concurrent contention receive.

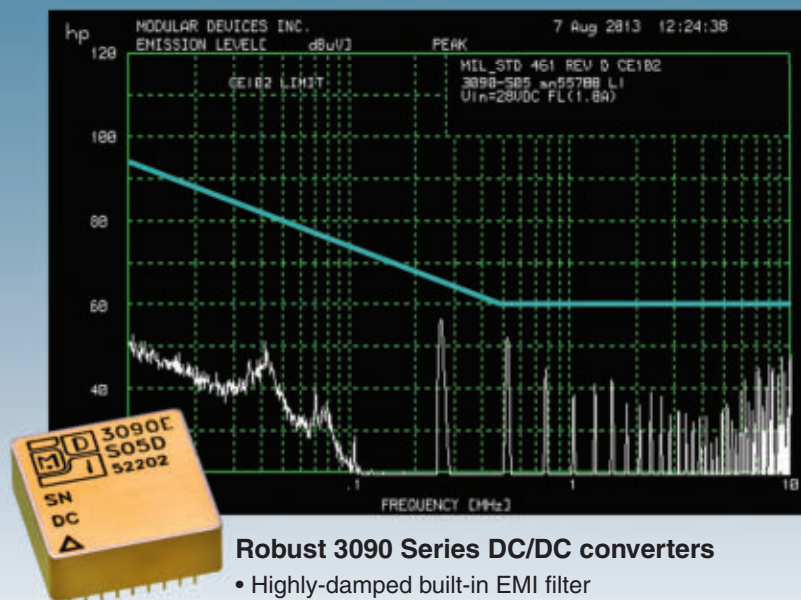
MIDS, the NATO term for the Link 16 military tactical data exchange network, represents an upgrade to the Joint Tactical Information Distribution System. Link 16 helps military forces exchange text messages and imagery data, and provides two channels of digital voice—one running at 2.4 kilobits per second and the other at 16 kilobits per second.

Data Link Solutions engineers will provide new hardware and software for a MOS MOD system that supports legacy MIDS JTRS and MIDS LVT-4 terminals for use on Navy surface warships. Company engineers also will build qualified and certified MOS MOD system hardware and spares, as well as provide logistics support. Data Link Solutions will do the work in Wayne, N.J., and Cedar Rapids, Iowa, and should be finished by February 2017. Contract options could increase the value to \$66.3 million and extend work through early 2022. ←

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ASW and surface warfare technology upgrades move to fleet



U.S. Navy shipboard electronics programs move forward on a variety of fronts, amid budget cuts and transitions that emphasize shallow-water littoral operations and unmanned marine vehicles.

BY **Edward J. Walsh**

Amid continuing budget turmoil and despite the impact of the 2013 budget sequestration, the U.S. Navy has continued to develop and field new capabilities for surface and anti-submarine warfare (ASW), mine countermeasures (MCM), and ballistic missile defense. New surface combatants, attack submarines, amphibious ships, and joint high-speed vessels (JHSV) moved past key milestones.

Systems development and engineering for littoral combat ships

(LCS), Arleigh Burke-class (DDG 51) destroyers, Ticonderoga-class (CG 47) cruisers, and other ships are stressing insertion of new processing and networking technologies for integration of weapons, sensors, and command-and-control systems.

Severe funding constraints led to widespread program slowdowns. A U.S. Department of Defense (DOD) report last June revealed that the sequester cut fiscal year 2013 and unobligated prior-year funding for Navy

shipbuilding by some \$1.7 billion.

Despite the tough funding climate, the Navy pursued upgrades to ASW systems for surface ships and submarines, addressing the expansion of naval capability among potential adversaries, such as China. In October of last year, as the Chinese People's Liberation Army's navy conducted two weeks of war games in the Pacific, Chinese media cited "awesome" progress by the Chinese navy in strengthening its strategic submarine force, reported to be the world's second-largest.

In a November report, Reuters noted that "for the first time in

centuries, China is building a navy that can break out of its confined coastal waters to protect distant sea lanes and counter regional rivals.” The report continued that the standoff between China and Japan over control of a group of small islands, called Senkakus in Japan and Diaoyu in China, “has given China an opportunity to flex its new maritime muscle.” The U.S. Naval Institute reported in November 2012 that the PLA navy and the Chinese Maritime Surveillance agency, or CMS, expect to operate more than 700 ships by 2020.

Upgrades for ASW were a major Navy priority in 2013. In a significant surface warfare milestone, the littoral combat ship USS Freedom (LCS 1) returned in late December from a

nearly 10-month deployment to the Western Pacific, deemed a “huge success” by the ship’s commander. However, Freedom also sailed without its full complement of weapon and sensor packages being configured for surface, anti-submarine warfare (ASW) and mine countermeasures (MCM) operations. The mission modules, being built, integrated, and tested separately from the ship, have been criticized widely.

Capt. John Ailes, the Navy’s LCS mission module integration program manager, says that a mission package consists of the weapon and sensor module for each of the three warfare areas, when integrated with a helicopter asset—the MH-60R for surface and ASW, the MH-60S for MCM, and the personnel—the

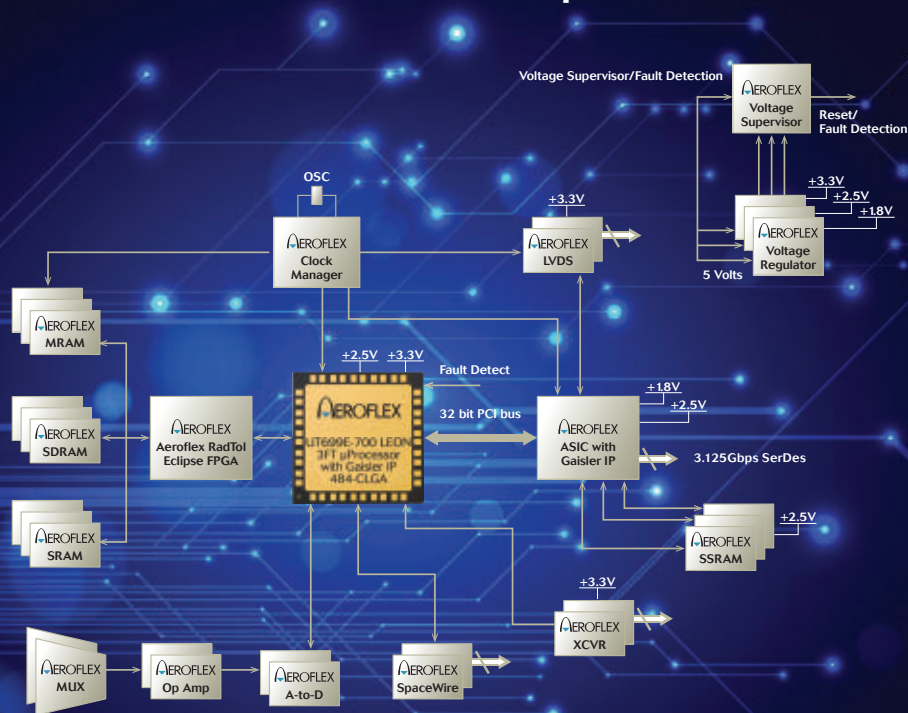
mission package detachment and the aviation detachment.

Shipbuilding

The Navy faces the challenge of inadequate funding for construction of the ships (surface and submarines) that top commanders say they believe the Navy will need in the future. Congressional Research Service analyst Ronald O’Rourke, in a November 2013 study, says “the Navy’s FY 2014 30-year (FY 2014-FY 2043) shipbuilding plan...does not include enough ships to fully support all elements of the Navy’s 306-ship goal over the long run.” The Navy now has about 280 ships.

The Navy, O’Rourke says, “projects that the fleet would remain below 306 ships during most of the 30-year

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period and experience shortfalls at various points in cruisers-destroyers, attack submarines, and amphibious ships.” He points out that the Congressional Budget Office, in its report of October 2013 on the shipbuilding plan, estimates that the plan would cost an average of \$19.3 billion per year, or about 15 percent more than the Navy estimates.

In the LCS shipbuilding strategy, one industry team, led by Mariette Marine and Lockheed Martin MS3, is building the Freedom variant, based on a conventional surface combatant design with a steel hull. A second team, of Austal USA and General Dynamics Advanced Information Systems, builds the Independence (LCS 2) variant based on a three-hull “trimarin” design with an aluminum hull.

The Navy hopes to build a total of 52 LCS vessels. The Navy in late September accepted delivery of Coronado (LCS 4), aiming at commissioning in April. In December, Milwaukee (LCS 5) and Jackson (LCS 6) were launched at the Marinette Marine and Austal USA shipyards, respectively. The two teams are building or

are under contract for ten more LCSs.

In a major step for the surface Navy, General Dynamics Bath Iron Works in late October launched the guided missile destroyer USS Zumwalt (DDG 1000) at its Bath, Maine, shipyard. It is the first of a three-ship class of next-generation destroyers armed for long-range land attack and fire support for Marine Corps and Army infantry units ashore.

Zumwalt, planned for delivery late this year, is 600 feet long and displaces 14,500 tons. The two following ships, Michael Monsoor (DDG 1001) and Lyndon B. Johnson (DDG 1002), are being built at Bath with Monsoor scheduled for delivery in 2016 and Johnson in 2018. Zumwalt and Monsoor both are built with composite deckhouses fabricated by Huntington Ingalls Industries in Gulfport, Miss., and shipped to the Bath yard. Composite structures are lighter than steel and present a lower radar signature, but are more expensive.

In August, however, the Navy awarded Bath a contract worth \$212 million to build a steel deckhouse for Johnson after failing to reach

agreement with Huntington over the cost of a composite deckhouse for the ship; officials of the Naval Sea Systems Command say the program office had identified weight savings in the design to compensate for the weight of the steel deckhouse.

The Navy’s attack submarine force achieved several milestones, including the christening, in early November, of the Virginia-class fast-attack submarine USS North Dakota (SSN 784) at the General Dynamics Groton, Conn., Electric Boat shipyard. The boat is the eleventh Virginia-class submarine. The North Dakota, planned for delivery this year, is the first built with a bow redesigned to accommodate two large Virginia-class payload tubes capable of launching Tomahawk land-attack cruise missiles and unmanned undersea vehicles. The tubes replace the configuration of 12 torpedo tubes of the first 10 boats of the class.

The christening follows commissioning of Minnesota (SSN 783), tenth of the class, in September. Electric Boat has started work on John Warner (SSN 785), South Dakota (SSN 790), and Delaware (SSN 791) — the last of the Virginia Block III contract.

In a major surface warfare step, the Navy in June awarded a multi-year contract for construction of Arleigh Burke-class destroyers, one for four ships with an option for a fifth, to General Dynamics Bath, and a second contract to Huntington Ingalls for five ships. One of the Bath ships is funded in 2013; the others are funded, one per year, from 2015 through 2017. The Huntington Ingalls ships are funded, one each year, from 2013 through 2017. The awards include options for engineering change proposals, design requirements,



Arleigh Burke-class Aegis destroyers all are going through an extensive modernization that will add new combat system hardware and software for ballistic missile defense and wide-area anti-air warfare. Shown here: Donald Cook (DDG 75) underway in the Mediterranean.

and post-delivery availabilities that could bring the Bath award to more than \$3.5 billion and the Huntington award to nearly \$3.4 billion.

The ships contracted are the Burke Flight IIA configuration, which started with DDG 79. The Navy plans to award a contract for a Flight III configuration in 2016, following a final decision on the Flight III design. The Navy originally intended to complete the Burke class with DDG 112, at 62 ships, but in 2008 restarted the program when it ended the Zumwalt program at three ships.

In June 2011, the Navy awarded the first restart contract to Huntington for DDG 113 and in September awarded a contract for DDG 114 and another to Bath for DDG 115 with an option for DDG 116. In November, Huntington Ingalls laid the keel for John Finn (DDG 113). DDGs 114 through 116 also are being built.

In October, the Navy took delivery of the San Antonio-class amphibious transport dock USS Somerset (LPD 25), the ninth of the planned 11-ship class amphibious assault ships being built by Huntington Ingalls. The San Antonios will replace 41 older amphibies of four ship classes. The ship completed acceptance trials in September.

In November, the amphibious assault ship USS America (LHA 6) completed builder's trials, aiming at delivery by Huntington Ingalls this year. The ship is the first of the LHA class that will replace the Tarawa-class LHAs, the last of which, Pelelieu (LHA 5), will be taken out of service when America is delivered. Huntington also is building Tripoli (LHA 7), scheduled for commissioning in 2018.

LCS shipbuilder Austal USA is under contract to build 10 joint

Zumwalt (DDG 1000), shown here after launch at Bath Iron Works, Bath, Me., is the first of a three-ship class of new destroyers introduces integrated electric drive and long-range land-attack capabilities.



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high-speed vessels, for rapid transit of personnel, vehicles, and materiel from amphibious ships to shore. The first ship, Spearhead (JHSV 1), in September completed initial operational test and evaluation, conducted over several months since delivery to the Navy in December 2012.

The JHSVs, displacing 2,500 tons, will be capable of hauling 600 tons of cargo and personnel at speeds of 35 to 40 knots, with a range of 1,200 miles. The JHSV construction, based on a design of a commercial ferry, required no development of military-unique systems or technologies.

In May of last year, the company delivered Choctaw County (JHSV 2) to the Navy, following acceptance trials in the Gulf of Mexico and, in June, launched Millinocket (JHSV 3) and lay the keel for Fall River (JHSV 4).

Anti-submarine warfare

The LCS ASW mission package—the last of the three mission packages to be fielded—will consist of the TB-37 multi-function towed array (MFTA) and an active emitting variable-depth sonar (VDS). The MFTA is part

of the SQQ-89(v)15 undersea warfare system installed aboard the Burkes and Ticonderogas.

Capt. Ailes explains that as the submarines of potential enemies have become quieter, they become more difficult to detect in deep water because of the acoustic layer that inhibits the penetration of active sonar signals. The LCS will deploy the VDS and the MFTA below the acoustic layer, where the VDS signal that will reflect off the submarine hull for detection by the MFTA.

The concept, Ailes says, is based on introduction of innovative software developed by the Lockheed Martin Corp. Mission Systems and Training (MS2) segment in Syracuse, N.Y., for the SQQ-89(v)15 and designated “advanced capability build 13,”

The ACB 13 program enables the integrated MFTA-VDS system to operate effectively through the noise clutter of shallow littoral waters, and at higher ship speeds than possible with earlier versions. An advanced development model, using a VDS developed by Thales, already has been tested. The program is still



Littoral combat ship Freedom (LCS 1) the first LCS in the fleet, here underway near Pearl Harbor following her western Pacific deployment last year, represents the “conventional” hull LCS variant. evaluating other VDS options.

The ASW package also will include a lightweight torpedo acoustic countermeasure, or TACM, towed behind the ship, that will emit high-powered signals to distort the homing sensor of an approaching torpedo. The MFTA-VDS system is scheduled to go through at-sea testing aboard Freedom in late 2014.

The PEO for Littoral Combat Ships is evaluating a persistent littoral undersea surveillance (PLUS) system consisting of five sea gliders developed by the University of Washington and six Remus long-endurance unmanned underwater vehicles (UUVs). While not part of the LCS ASW package, PLUS could be considered for future deployment for surface combatants.

The UUVs, fitted with sensors, submerge to collect environmental data that could reveal the presence of submarines. The data is transmitted to the smaller sea gliders, which rise to the surface to transmit the data to collection points ashore. The Naval Undersea Warfare Center tested the system in late September; testing will continue until early 2015, when the Navy will decide whether to test the system with the fleet.

The Navy moved ahead with other ASW systems, including work with Raytheon Integrated Defense Systems on improvements for the AQS-22 airborne low-frequency sonar (ALFS), which operates from the MH-60R



The Independence class LCS variant is on a trimarin hull. Shown here: the second trimarin, Coronado (LCS 4) underway after completing acceptance testing last fall.



helicopter from Burke DDGs, Ticonderoga CGs, Oliver Hazard Perry-class frigates, and aircraft carriers.

The effort will upgrade the sonar transmitter-receiver and introduce advanced beamforming and wave-form-generation capabilities for the in-water sensor.

Lockheed Martin developed the ALFS processing system, which is integrated with the Mk 54 lightweight ASW torpedo, enabling the helicopter to detect and attack submarines independent of other ships and aircraft. The Navy exercised an option to a contract award to Lockheed Martin Mission Systems and Training for definitization of FY 2013 production requirements and FY 2013 production of the SQQ-89(v)15, and awarded a new contract for production of the TB-37 MFTA.

The company also won contracts for development and production of the newest generation of the submarine acoustic rapid commercial off-the-shelf insertion (A-RCI) for 12 submarines. The A-RCI is the Navy's approach to streamlining the fielding of new processing technologies for submarine acoustic systems.

In June, Naval Air Systems Command awarded a production contract to ERAPSCO, a joint venture of Spartron and Ultra Electronics, for production of 9,400 passive SSQ-53F sonobuoys for detecting submarines. The sonobuoys detect and classify submarines, and gather environmental data on water conditions for analysis of sonar propagation and projections of acoustic range.

Surface Warfare

The Navy improved surface fleet capabilities through numerous

technology insertion and systems engineering programs. A major long-term modernization initiative for the 62 Burkes now in the fleet will be extended to new-build ships. Navy officials hoped in their FY 2013 budget proposal to decommission seven of

22 Ticonderoga-class cruisers. Congress rejected that plan and provided additional money to retain the ships.

The Navy tried again in its FY 2014 budget; again Congress provided money to keep the ships. The Navy points out, though, that the

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major cost in keeping the ships is the cost of personnel they require. Those 22 ships represent cruiser baseline 2 through 4. The baseline 2 ships (CGs 52-58) have been upgraded with a new Aegis combat system program called ACB-08 that provides improved anti-air warfare capability. Baseline 3 and 4 cruisers (CG 59 through 73) and all the Burke destroyers are getting new a baseline 9 combat system program, baseline 9A for the cruisers, and 9C for the DDGs now in the fleet.

BAE Systems will carry out the modernizations under a multi-year, multi-option Navy contract, for the work, at its San Diego, Norfolk, and Mayport, Fla., yards. Aegis prime contractor Lockheed Martin MS2 officials say baseline 9 decisively enhances the ships' ability to provide integrated air and missile defense or IAMD by "dynamically balancing" radar resources, using a new multi-mission signal processor.

The MMSP and baseline 9 support the Naval integrated fire control-counter-air (NIF-CA), which gives the ship the capability to engage a target it does not detect with its own sensors, by capturing data through the Raytheon-built Cooperative Engagement Capability (CEC) from remote airborne sensors such as the E 6D surveillance aircraft and the Army's joint land attack cruise missile defense elevated netted sensor system.

The offboard sensor data flows through CEC, which is integrated with the Aegis. The combat system generates targeting data to the SM 6 air defense missile. The Navy and Lockheed Martin conducted a live-fire test with NIF CA last August

aboard Chancellorsville (CG 58), the first cruiser to go through the modernization. The Burke-class John Paul Jones destroyer (DDG 53) also has completed its upgrade and is replacing Lake Erie (CG 70) in Hawaii as the cruiser goes through its modernization in San Diego. However, in mid-November a BQM-74 target drone, about 12 feet long, struck the central computer space of the Chancellorsville deckhouse while the ship was underway off San Diego conducting her combat system ship qualification trials. The repairs will cost about \$30 million and take about six months.

The CG and DDG modernization adds the evolved Seasparrow air-de-



The San Antonio (LPD 17) class of 11 amphibious ships will replace four classes of 41 older amphibies. Shown here New York (LPD 21) arriving in New York harbor.

fense missile and new block 1B of the Phalanx terminal defense gun. A newer iteration will bring in the SPQ-9B search radar and surface electronic warfare improvement program or SEWIP (block 2). The new-build destroyers, beginning with DDG 113, get the IAMD capability through a baseline 9D. Baseline 9E supports two Aegis Ashore systems, one to deploy in Rumania in 2015 and the second to Poland in 2018.

In a headline-making development for surface combatants, after a closely watched competition the

Navy in October awarded Raytheon Integrated Defense Systems a contract worth \$385.7 million for engineering and modeling development and design, development, integration and delivery of an integrated air and missile defense radar (AMDR), planned for the Flight III Burke-class destroyer program, scheduled to start in FY 2016.

The AMDR will be the foundation for IAMD capability for the Flight III ships into the long term future, replacing the Aegis SPY-1D(v). Raytheon partner General Dynamics Advanced Information Systems will develop the AMDR digital receiver and exciter. Other team members are Anar-

en, responsible for beamforming technology, and CGR Technologies, TTM Technologies, and Major Tool & Machine.

The AMDR integrates S-band and X-band radars and a radar suite controller for multi-dimensional target detection and tracking. The S-band system conducts wide-area search, tracking, ballistic missile detection, and communication with the ship combat system. The X-band performs horizon search, precision tracking, discrimination, communications, and terminal target illumination.

Kevin Peppe, Raytheon's vice president for Seapower Capability Systems said that "some may be surprised" at the Raytheon AMDR win. Raytheon, as systems integrator for the Zumwalt class, integrates the Raytheon S-band and a Lockheed Martin X-band system as the dual-band radar for those ships. Raytheon also long has built the SPY-1D(v) transmitter and the Aegis Mk 99 fire control system.

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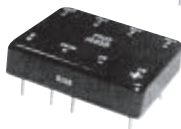
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Raytheon officials say the critical component of the company's AMDR design is the use of gallium nitride for monolithic microwave integrated circuits for the AMDR transmit-receive modules. The gallium nitride, they say, permits significant reductions in module size and weight.

In late October Lockheed Martin, which has built the Aegis system and acted as combat system integrator for decades, filed a protest of the award with the General Accounting Office. On January 10 the company suddenly withdrew the protest, "for the good of the Navy."

Even while it won't lead the AMDR work, Lockheed Martin still will play a major role in building and integrating ship combat systems. In March 2013 won a \$100.7 million award to act as Aegis combat system engineering agent, for which Raytheon also competed, and then, in late December a \$574 million contract for Aegis work for seven new-build Burke DDGs, with an option for Poland's Aegis Ashore system. The cruiser-destroyer modernization and Aegis Ashore programs also make Lockheed Martin a key player in development and fielding of sea-based ballistic missile defense.

In early December, Raytheon won a \$75 million contract to build hardware and electronics for Zumwalt and Michael Monsoor (DDGs 1000 and 1001). The work includes the towed-array sonar, canister components for the Mk 57 vertical launch system, and procurement for electronic elements for Lyndon B. Johnson (DDG 1002).

Zumwalt is fitted out with 20 MK 57 vertical launch modules, each housing four cells capable of launching Tomahawk cruise missiles for

long-range land attack. The class also introduces an advanced gun system capable of firing 155-millimeter GPS-guided long-range land-attack projectiles (LRLAPs) to ranges in the vicinity of 80 nautical miles.

Shipboard power

In mid-2013 the Navy's Electric Ship Office released a "Naval Power Systems Technology Development Roadmap," a long-term strategy for continuing the shift to an all-electric fleet over the 30-year shipbuilding plan. The roadmap examined potential opportunities for new technologies in near-term (five-ten years), mid-term (10-20 years), and long-term (20-30 years). In the next 10 years, the roadmap calls for development of an "energy magazine" to support advanced weapons and sensors; energy recovery capability; prototypes of a ship power-management controller, and advanced medium-voltage DC technologies as an alternative to AC power, among others.

Mid-term planning aims at a future destroyer (DDX) in 2031; a new LCX follow-on to the current LCS program in 2030; and a big-deck amphibious ship in 2024. Arctic operations and ship fitted with mission modules, and low observability are seen as major drivers.

The far-term projects introduction of new directed-energy weapons and higher-power sensors that will require huge increases in power. The roadmap explains that developments in industry will serve as benchmarks for exploration of many power technology directions, for example, controls, distribution systems, energy storage, electrical rotating machines, power converters, and prime movers.

In the near-term, the Navy has



The MH-60S Seahawk variant, deploying multiple S mine countermeasures systems, will serve as the aviation component of the LCS anti-mine mission package, while the "R" variant supports the surface and ASW mission packages.

established the goal of cutting fleet fuel consumption by 15 percent by 2020, although it has not set a baseline from which to calculate reductions.

Despite long-term interest in integrated electric power systems, most Navy surface combatants use gas turbine or diesel engines as prime movers to generate propulsion power. Power is managed by conventional switches, converters, and distribution systems. Ship systems, are supported by a separate power architecture.

The move to integrated electric drive is well underway. The Wasp-class amphib Makin Island (LHD 8), commissioned in 2009, is powered by hybrid diesel-electric power system of two General Electric LM2500+ gas turbine engines for high speeds and two electric motors powered by six diesel generators for lower speeds, roughly 12 knots and below, and introduces a zonal power distribution system.

The America (LHAR) class will get the same system. The Zumwalt class is powered by an integrated power system consisting of two electric motors powered by two 34-megawatt advanced induction motors built by GE Power Conversion; the restarted Burkes also will be powered

by a hybrid system.

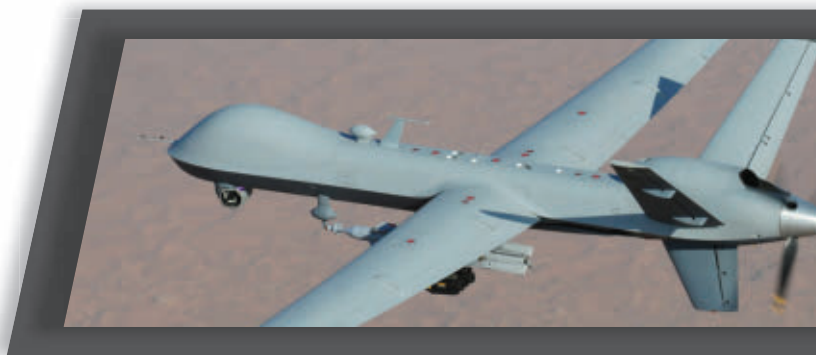
Research on power systems continues. In September 2013, the Naval Surface Warfare Center Carderock Division's Ship Systems Engineering Station tested a prototype 6,600-volt, 14 megawatt high speed generator—the most powerful high-speed generator ever built, officials say. The high-speed generator test program started in 2013 aimed at developing the power system for the now-canceled CG(X) program. The work now focuses on evaluating potential for high-speed generators for future ships.

The Office of Naval Research (ONR) in Arlington, Va., is working with an Electric Ship Research and Development Consortium (ESRDC) to developing an "electric ship" power generation architecture for future weapon and sensors, propulsion, and ship services. A first step is demonstration of a prototype solid-state power conversion module that incorporates semiconductors fabricated from silicon carbide which, because of higher energy density, can operate at higher voltages and frequencies than silicon. The prototype is being evaluated at the Center for Advanced Power Systems at Florida State University, one of the eight ESRDC members (others are MIT, University of Texas, University of South Carolina, Mississippi State, Purdue, the U.S. Naval Academy, and the Naval Postgraduate School).

"The only way we're going to get to the future [for shipboard power] is to start over with an entirely new architecture," says Sharon Beer-mann-Curtain, the ONR program officer, adding that such an architecture is needed to support future sensors and weapons such as lasers and railguns. ←

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Software considerations for multicore hardware environments

Industry offers guidance on overcoming software-development challenges to implementing multicore hardware.

BY Courtney E. Howard

Aerospace and defense officials and end users are eager to adopt multicore processors for a wide array of applications. A wealth of data- and processing-intensive tasks stands to benefit from robust multicore hardware. Yet, harnessing the powerful potential of the latest multicore hardware offerings first requires significant effort on the part of software developers to overcome challenges.

"We are seeing greater demand for faster, more powerful, and efficient processors with an eye toward memory caches, multicore, multithreading instruction pipelines, and other characteristics," says Glenn R. Johnson, system architect at Kontron in Poway, Calif. Commercial off-the-shelf (COTS) general-purpose processors hold many advantages for low-production-volume digital signal processing applications, such as sonar and radar, he says. Among the key advantages is scale of economy, lending to the availability of affordable and powerful processors.

Consider complexity

Complexity is among the primary

challenges when developing software for multicore architectures. "Multicore processors can make a system more complex, and this added complexity can increase verification and certification time, costs, and risks," says Joe Wlad, senior director of product management at Wind River in Alameda, Calif.

"Each core adds complexity to the design," says Marco Awater, senior software engineer at AcQ Inducom in Oss, The Netherlands. "It is not always true that using more cores gives better performance; a deep understanding of both the hardware's capabilities and the software's requirements is needed to build an optimal solution. The biggest advantage of moving from single-core to multicore is parallel processing. Part of the migration is an analysis of the application for opportunities for parallelization."

It is complicated to have different things happening at the same time, says Tucker Taft, director of language research at AdaCore in Lexington, Mass. Developers "would need to do additional synchronization, and that

adds complexity. If not synchronized properly, the user could end up with something different than intended. Further, if the programming language doesn't give [the software developer] support, that's painful."

Seek support

"One of the biggest challenges is that many programming languages do not support multiple cores," Taft says. "AdaCore has, from the beginning, supported multiple threads of control; it is built into the AdaCore language. Yet, with a lot of existing languages, certainly C++ and Java, that support was not included in the original design. Now the industry is moving to build various concurrent features into the programming languages. It could take years until the infrastructure is in place."

Even if the programming language of choice offers some support for multicore, "many of the tools, such as the debugger, might not know what to do with it; and cross development, which happens a lot in the embedded space, could present tool issues that could take years

to get debugged,” Taft says. “As languages add support for multicore, developers have to question ‘Is it the language or the tools causing the problems?’ There are many pieces that need be managed.”

Adopt an architecture

Developers should take care when selecting the optimal solutions for aerospace and defense projects and platforms, the full life cycle of which could span several decades.

“Choosing the right system architecture is critical,” stresses Wlad.

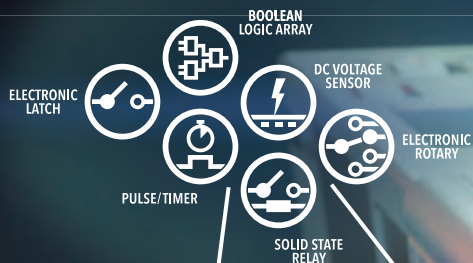
“Should an asymmetric multi-processing (AMP) or symmetric multi-processing (SMP) architecture be selected? Each configuration has its own implications with regard to reuse, expansion, and standards of conformance. System architecture design is critical to ensure the safety and reliability of the system, as well as ensure certifiability.”

The biggest challenge when migrating legacy software from single-core to multicore is choosing the right architecture, says Awater. “It is first important to determine

why multicore hardware is required. Common driving forces include hardware obsolescence, merging multiple systems into one, increasing system performance, or adding functionality to existing software. Understanding which factors are driving the move to multicore is critical for selecting the optimal multicore processing architecture (AMP or SMP), operating system, and processor.”

Make well-informed decisions on all aspects of the architecture, Awater says. “It is important to choose the right hardware platform in

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combination with operating system and the overall software architecture. Selecting an experienced partner to aid you in this process can help you mitigate risks and save costs.”

If software engineers must deploy on multicore, choose an architecture and supplier very carefully, Wlad recommends. “Pick one that has the financial stability, size, and history that can support you in a multi-year effort from architectural design to implementation to verification and certification. Both of these decisions will have great implications on your ability to make the maximum use of multicore, including future expansion and meeting certification requirements.”

Consider certification

“Certification guidance for multicore systems from regulatory agencies, such as the Federal Aviation Administration (FAA), is still preliminary and not complete,” Wlad notes. “This means that there could be unforeseen challenges with the initial certified multicore systems.”

Some designers involved in safety- and mission-critical applications have heartburn over multicore and requirements like DO-178, Taft says. “The FAA and ARINC haven’t yet figured out what they are going to require to ensure the kind of safety we all demand, but we will make sure our products support how it should be done.”

Both executives and developers at AdaCore are trying to figure out how to validate a multicore system to a DO-178 Level A safety-critical system and ARINC 653, Taft says. Other technology firms, including Green Hills Software, LynxWorks, and Wind River, also are working closely

with organizations, such as the FACE Consortium, to resolve current safety-critical software challenges.

Experts at government institutions, companies, and research labs are paying a lot of attention to the certification of multicore systems, Awater says. AcQ Inducom, which offers advice in selecting and designing multicore architectures and provides platform development and software integration services, enjoys “excellent relationships with leading system-on-chip (SoC) and operating system vendors grown out of years of collaboration,” he explains. “We are involved in multiple European research projects regarding certifiable multi-core solutions and integrated modular avionics (IMA), such as SCALable and Reconfigurable Electronics platforms and Tools (SCARLETT) and Avionics Systems Hosted on a distributed modular electronics Large scale dEmonstrator for multi-type of aircraft (ASHLEY).”

In the past, Kontron has focused on providing hardware, operating systems, and drivers, leaving applications development to the customers, Johnson admits. “The new vision for Kontron’s Military, Avionic, and Rail (MAR) unit is to provide higher level of systems level integration. Kontron has established working relationship with GEDAE which specializes in multi-core software deployment. This gives us the ability to assist our customers in deploying algorithms in multicore, multi-processor systems.”

Concurrent challenges

“Trying to run software on a single piece of hardware with different levels of criticality is a concern and a challenge,” Taft notes. For example,

“if an airplane’s flight control and entertainment system are sharing a single piece of hardware, partitioning could be used to put one system on one core and the other on another core, but that’s scary due to unspecified interaction between cores.” As a result, people have had to turn off all but one core of a multicore processor, he says.

“It’s inefficient,” says Ray Alderman, chairman of the board of the VITA Standards Organization in Fountain Hills, Ariz. “The infrastructure just isn’t there yet—software is not there, nor is bandwidth—to take full advantage of multicore capabilities and multi-threaded parallel processing. As a result, multicore systems are only 20 to 40 percent efficient; we are only using that amount of capabilities and performance, yet we are using lots of power to have the processor sitting there waiting for something to do.”

If an application must be certified, designers need to avoid shared resources between cores, Awater says. “Concurrent access can have a significant impact on the predictability of the worst case execution time (WCET), which is important for certification. By selecting a certifiable operating system, a lot of certification risks are mitigated. Furthermore, it is important to select a platform that has multicore system tracing tools available for the analysis of the complex system-level behavior.”

Shared resources

Multicore is a bit of a new beast because these aren’t two completely independent processors, Taft says. “Multiple cores share resources, such as a cache, and bizarre hybrids share a single floating-point unit or

memory-management unit. For any time-critical application, you need to determine how long it will take and multicore makes those calculations to estimate WCET more difficult. If one core is doing this, the other core might be slowed down, for example.”

AdaCore developers are enhancing productivity with multicore debugging, WCET, etc., Taft says. The company has a robust debugger for debugging multicore applications, enabling big systems to be built in a multicore environment more easily.

“Some companies, such as Intel, started adding new instructions for highly efficient locking, so Ada-Core is already experimenting with low-overhead locking and adding high-performance support for these programs.” Developers also are working in the area of language design, adding robust support for many-core, highly robust systems without adding to the programmer’s bugs, to create a language that is inherently safe.

“In the many-core world with graphics processing units [GPUs], we’re talking about thousands of processors. Adding a few multi-threading features to software won’t allow users to take advantage of all that,” Taft explains.

“The other side of the coin is that in the development of these systems, all the programmers are using host computers with 10 or 15 cores to make the development environment more productive,” Taft says. “We explain how users can take advantage of multicore by executing our tools, but we also eat our own dog food. In house we have a number of multicore systems for development and a system with 48 cores as a good test bed for experimental use and testing.”

When shopping for the optimal solution, ask whether the tool providers are using multicore and doing testing themselves, Taft recommends. “Ask vendors what multicore systems they use in house, and whether their tools are designed

using multicore hardware. It is a good indicator as you look for tools in this environment; find those using them in house, as well.” Also, he advises, start using tools and language oriented around parallelism and avoid using global variables. ←



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The challenge of efficiency in embedded power electronics

BY John Keller

Embedded processors are smaller, more powerful, and more power-efficient than ever before, and that is expected to continue. While this is good news for increased capabilities of embedded systems, it can put

power supply companies in a bind.

These efficient processors, although they operate at decreased voltages, still demand increasing amounts of electric current to perform a growing number of tasks.

This demand for increased current and decreased voltage puts power supply efficiency in the cross hairs.

"In a lot of these applications they need more power because they want to do more things; this calls for higher current," says Tom Curatolo, director of global defense and aerospace business at Vicor Corp. in Andover, Mass.

"The problem is now your current requirements on your load is going up substantially," which can compromise device efficiency," says Monty Pyle, vice president of sales and marketing at VPT Inc. in Blacksburg, Va.

The design challenges to today's embedded systems power supply companies do not end there. As it is for so many aspects of electronics today, systems designers are demanding the highest level possible of small size, weight, power consumption, and cost (SWaP-C).

"Size, weight, and reliability are very critical," points out Dennis Kelemen, administrator of the power supply division of Pico Electronics Inc. in Pelham, N.Y.

"The only thing that doesn't go up is the size of the platform," says Christophe Massenet, vice president of business development for the U.S. operations of Gaia Converter in Bordeaux, France. "Our equipment needs to be smaller, and the power density needs to go up." ←

COMPANY INFO

Absopulse Electronics
www.absopulse.com

Aeroflex Inc.
www.aeroflex.com

AJ's Power Source Inc.
www.ajpower.com

Analytic Systems
analyticsystems.com

Astrodyne Inc.
www.astrodyne.com

Behlman Electronics Inc.
www.behlmanpower.com

Comdel Inc.
www.comdel.com

ConTech
www.contech-us.com

CUI Inc.
www.cui.com

DRS Pivotal Power
www.drspowersolutions.com

Electromech Inc.
<http://electromechinc.com>

Energy Technologies Inc.
www.ruggedsystems.com

Falcon Electric Inc.
www.falconups.com

Gaia Converter Inc.
www.gaia-converter.com

HiTek Power Ltd.
www.hitekpower.com

International Rectifier
www.irf.com

Interpoint, a Crane Co.
www.interpoint.com

ITT Exelis Power Solutions
www.exelisinc.com/capabilities/Power-Systems

Kepeco Inc.
www.kepecopower.com

Martek Power Abbott
www.martekpower.com

MS Kennedy Corp.
www.mskennedy.com

Murata Power Solutions Inc.
www.murata-ps.com

North Atlantic Industries
www.naii.com

Parvus, a Curtiss-Wright Company
www.parvus.com

Pduke Technology Inc.
www.pduke.com

Pico Electronics Inc.
www.picoelectronics.com

Pioneer Magnetics
www.pioneeremag.com

Powerstax plc
www.powerstaxplc.com

Rantec Power Systems
www.rantec.com

Schaefer Inc.
www.schaeferpower.com

Solitron Devices, Inc.
www.solitrondevices.com

SynQor
www.synqor.com

TDK-Lambda Americas Inc.
www.tdk-lambda.com

Teledyne Microelectronics
www.teledynemicro.com

Tracewell Systems
www.tracewellsystems.com

Transistor Devices Inc. (TDI Power)
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Vicor Corp.
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Vishay Intertechnology Inc.
www.vishay.com

VPT Inc.
www.vpt-inc.com

XP Power
www.xppower.com



UNMANNED vehicles

Israel Aerospace Industries unveils medium-endurance UAV that runs on jet fuel, not gasoline

Unmanned aerial vehicle (UAV) designers at Israel Aerospace Industries (IAI) in Lod, Israel, have revealed the company's Super Heron heavy-fuel UAV with advanced avionics, triple redundancy, and advanced computerized systems for growth potential. The medium-altitude long-endurance (MALE) Super Heron features a heavy-fuel 200 horsepower engine and an advanced propulsion system, which enhances the UAV's capacity, rate of climb, and performance. Super Heron can fly faster than 150 knots true airspeed (KTAS), IAI officials say. Heavy fuels like jet fuel, diesel fuel, and kerosene, do not pose the same threat of igniting accidentally that gasoline does, and are considered safer to use than gasoline for military operations. IAI introduced the Super Heron UAV in February at the Singapore Air Show. The IAI Super Heron UAV offers enhanced processing capabilities, increased electrical power, and a standard interface architecture to enable simple integration of new sensor and weapon payloads, IAI officials say. The aircraft is based on the IAI Heron UAV.

FOR MORE INFORMATION visit IAI online at www.iai.co.il.

Navy chooses shipboard UAV data-control links from L3 Communications-West UAVs

BY John Keller

PATUXENT RIVER NAS, Md.—U.S. Navy shipboard unmanned aerial vehicle (UAV) experts needed a digital data link to control the MQ-8B and MQ-8C unmanned helicopters operating from the Littoral Combat Ship. They found their solution from L3 Communications-West in Salt Lake City.

Officials of the Naval Air Systems Command at Patuxent River Naval Air Station, Md., announced a \$17.6 million contract modification to L3 for surface terminal equipment for Hawklink Tactical Common Data Link (TCDL) and the Littoral Combat Ship, as well as for the Vortex Mini-TCDL Shipset components, to support the Fire Scout shipboard UAV.

The L2 T-series model-S surface terminal is a ruggedized communications terminal that has been integrated into the Littoral Combat ship and the Coast Guard National Security Cutter. The terminal is software configurable and supports standard CDL waveforms.

The system enables naval personnel aboard the Littoral Combat Ship to fly the Fire Scout unmanned helicopter remotely, and receive sensor information from the aircraft.

This terminal operates as part of a shipboard data link system or as a stand-alone, self-contained system for use in remote locations. The system consists of a 36-inch dual-axis antenna and a series of below-deck rackmount line-replaceable

units (LRUs) that contain the microwave modem assembly, MMA, CDL interfaces, and Ethernet options for open-systems interfaces.

The system fits into a half-rack space for a single-link configuration. It also has the option to use a portable computer for configuring and monitoring performance of the system, or may be integrated into a larger system application. The data link can be scaled to a multi-link configuration by adding LRUs and antennas.

The antenna is self-contained and houses the RF power amplifier, diplexer, and receiver low-noise amplifier. This Ku band system is designed to operate in all weather conditions. The antenna can be remotored as far as 150 feet in the baseline configuration, L3 officials say.

The Northrop Grumman MQ-8B Fire Scout is an unmanned version of the Schweizer 333 turbine-powered manned helicopter from Schweizer Aircraft Corp. in Horseheads, N.Y., which is a Sikorsky Aircraft company. The MQ-8C is a larger unmanned helicopter based on the Bell 407 manned helicopter modified with autonomous controls from the MQ-8B.

The Littoral Combat Ship is a class of relatively small surface vessels designed to operate in shallow coastal waters and harbors. The ships are slightly smaller than

CONTINUED ON PAGE 27 ➔



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Open-source Linux software to be foundation of Raytheon UAV control system upgrade

BY John Keller

PATUXENT RIVER NAS, Md.—U.S. Navy aviation experts will continue working with the Raytheon Technical Services Co. in Dulles, Va., to switch a major unmanned aerial vehicle (UAV) control system from Solaris to Linux software, and upgrade the system with universal UAV control qualities.



Raytheon will continue upgrading a Navy UAV control system to open-source Linux software.

Officials of the Naval Air Systems Command at Patuxent River Naval Air Station, Md., announced plans to issue a follow-on, sole-source contract to Raytheon to upgrade the company's Vertical Take-off and Landing Unmanned Air Vehicle (VTUAV) Tactical Control System (TCS), which was designed to help operators fly the Northrop Grumman MQ-8 Fire Scout unmanned helicopter.

The upcoming contract to Raytheon will switch the VTUAV TCS block II from the Solaris to the Linux version B2VL software, and continue evolving the system to the military's new unmanned aerial system (UAS) Control Segment (UCS) Architecture.

The Raytheon TCS is designed to operate UAVs in all branches of the U.S. military, as well as NATO STANAG 4586-compliant UAVs. Raytheon developed the TCS to run on the proprietary Sun Microsystems Solaris 8 software operating system, which is approaching the end of its useful life in U.S. military applications.

Raytheon will continue converting TCS software that runs the Fire Scout to the open-source Linux operating system. The Solaris and Linux operating systems both are based on the UNIX operating system.

The UAS Control Segment Architecture, or UCS, seeks to develop open-systems standards for a com-


mon UAV control system that can operate all U.S. Navy, Air Force, Army, and Marine Corps UAVs that weigh 20 pounds or more.

The goal of the UCS is to develop an architecture for all military services as a common basis for buying, developing, and upgrading a wide variety of U.S. military UAV control systems.

The upcoming contract to Raytheon also will call for the company to upgrade the TCS by integrating modern intuitive controls, automate testing procedures, and upgrade software operating in the field. The value of the contract has yet to be negotiated.

The TCS can be configured in racks for ship-based operations, shelterized as a land-based system, or integrated into a shelter on land vehicles such as the HMMWV.


There are five levels of TCS functionality. Levels I and II enable receipt of imagery. Levels III and IV provide command and control of the air vehicle and payload and imagery receipt. Level V provides command-and-control, payload control, imagery receipt, and the ability to take off and land.

Navy officials also are asking Raytheon to upgrade the TCS full-motion video capability; upgrade the system's shipboard messaging formats; and include training and simulation capability. 

FOR ADDITIONAL INFORMATION visit Raytheon Technical Services Co. online at www.raytheon.com/ourcompany/rps, and Naval Air Systems Command at www.navair.navy.mil.

NAVY CONTINUED FROM PAGE 25

Navy guided missile frigates, and have flight decks and hangars large enough UAVs and manned helicopters, can recover and launch small boats from a stern ramp, and can carry a small assault force with fighting vehicles. The ships emphasize speed, flexible mission module space, and a shallow draft.

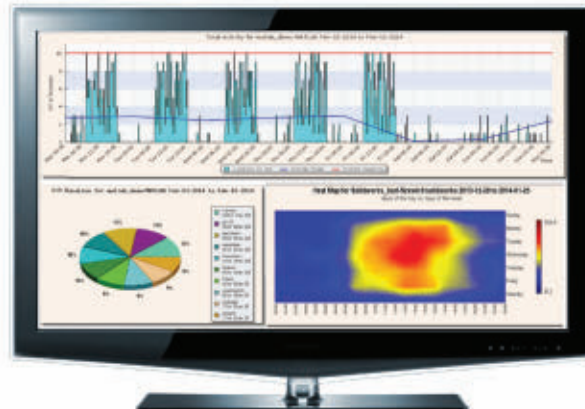
For this contract modification, L3 will do the work in Salt Lake City; Point Mugu, Calif.; and Patuxent River Naval Air Station, Md., and should be finished by late this year. 

FOR MORE INFORMATION visit L3 Communications-West online at www.21-3com.com/csw, and Naval Air Systems Command at www.navair.navy.mil.

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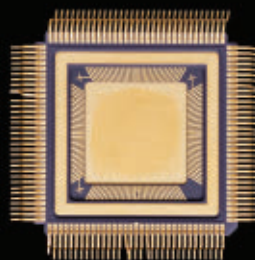
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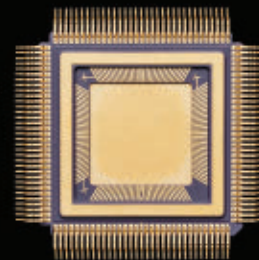
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► Long-range zoom lens introduced by Clear Align

Clear Align in Eagleville, Pa., is introducing the MirZ 8017 long-range midwave infrared (MWIR) zoom lens for MWIR cooled detectors in applications such as surveillance, intelligence, and border control. The electro-optical lens can resolve small targets like lighted cigarettes at distances as far as 12 miles, and offers compensated performance over a continuous zoom range over focal lengths from 80 to 1365 millimeters. With the infrared bandwidth, this lens works in conditions that stymie visible lenses: fog, smoke, haze, and air pollution. The MirZ 8017 is an IRZoom brand lens with a 17x continuous zoom capability with less than 0.65 percent distortion and resolution to 25 line pairs per millimeter. The lens offers electronic zoom, focus, and thermal compensation calibrated over its operating range so focus is not lost as operating conditions change.

► Tests begin for head-up displays by BAE Systems

Experts at BAE Systems Electronic Systems in Rochester, England, are field testing a lightweight head-up display for warfighters operating on foot. The field tests involve the BAE Systems Q-Warrior helmet-mounted display for the soldier who needs to identify hostile and friendly forces, as well as to coordinate small-unit actions. Its bright see-through display with high-resolution color enables the warfighter to see overlaid symbols and video representing waypoints, targets, and other important features.

Navy asks Navmar to develop biometrics security at Patuxent River NAS

BY John Keller

JOINT BASE MCGUIRE-DIX-LAKEHURST—U.S. Navy security authorities needed a biometrics system to control access to sensitive areas of Patuxent River Naval Air Station, Md. They found their solution at Navmar Applied Sciences Corp. in Warminster, Pa. Officials of the Naval Air Warfare Center at Joint Base McGuire-Dix-Lakehurst, N.J., announced a \$12.5 million contract to Navmar to develop a Biometric Identity Approval Sentinel.

Navy security authorities will use the Biometric Identify Approval Sentinel technology from Navmar to processes individuals rapidly for threat detection and biometric matching.

Biometrics refers to identifying people by their biological characteristics, such as their fingerprints, faces, and irises and retinas of their eyes. Biometric identification systems are extremely difficult to fool.

This Biometric Identity Approval Sentinel that Navmar will develop for the Navy will provide an integrated, accurate, configurable, and

deployable solution that combines current and new technologies to increase the safety, speed, and efficiency of access control at Patuxent River NAS.



U.S. Navy security experts are trying to blend biometrics like fingerprint and eye recognition to limit access to sensitive areas of military bases.

The facilities at Patuxent River are extremely sensitive. The base is home to Naval Air Systems Command, and much of the nation's combat aircraft technology is developed, managed, or procured from this facility.

Navmar will do the work at Patuxent River NAS, Md., and should be finished by February 2017. ◀

FOR MORE INFORMATION visit Navmar Applied Sciences online at www.Navmar.com, the Naval Air Warfare Center Lakehurst at www.navair.navy.mil, and Naval Air Systems Command at www.navair.navy.mil.

Raytheon to develop advanced IR focal plane arrays for Army night vision

BY John Keller

FORT BELVOIR, Va.—U.S. Army experts in night-vision sensors are working together with Raytheon Vision Systems (RVS) in Goleta, Calif., to develop advanced infrared focal plane array technology to enhance military infrared sensor capabilities.

Officials of the Army Contracting Command Aberdeen Proving Ground-Belvoir Division at Fort Belvoir, Va., announced plans to award a sole-source research contract to Raytheon to provide III-V infrared focal plane array (FPA) fabrication development. Specifically, Raytheon electro-optics scientists will refine and demonstrate high-performance infrared FPA technologies capable of mid-wave infrared (MWIR), long-wave infrared (LWIR), and LWIR/dual-band detection, Army officials say.

The Army contracting command is awarding the contract to Raytheon Vision Systems on behalf of the Army Night Vision & Electronic Sensors Directorate (NVESD) at Fort Belvoir. Raytheon Vision Systems is formerly the Santa Barbara Research Center (SBRC).

The two-year contract to Raytheon will be a follow-on to the Vital Infrared Sensor Technology Acceleration (VISTA) program, and will capitalize on previous research to refine and develop advanced infrared technologies, Army researchers say.

Raytheon Vision Systems is the only responsible source for the kind of research and development that Army night-vision researchers need, so the contract will be awarded sole-source, officials say.

Army work involving III-V infra-



Raytheon electro-optical experts are developing advanced infrared focal planes for future Army night vision projects.

red focal plane array based sensors includes III-V superlattice large format, small pixel midwave infrared (MWIR), long-wave infrared (LWIR), very-long-wave infrared (VLWIR), and dual-band (MW/LW, LW/LW, and short wavelength [SW]/LW) detector arrays.

Military applications for this kind of technology include wide-area coverage for situational awareness; detection of plumes and gunflashes detection; infrared search, identification and tracking; missile detection and interception; and hyperspectral imaging.

Related Army research also involves high-performance low cost III-V epitaxial wafers at increasing size; large gallium antimonide substrates with improved quality; advanced readout integrated circuits supporting advanced III-V detectors; FPA hybridization including small pixels, thermally compatible FPA packaging; and integrated cooler and Dewar assembly (IDCA) units. ←

FOR MORE INFORMATION visit Raytheon Vision Systems online at www.raytheon.com, and the Army Night Vision and Electronic Sensors Directorate at www.nvl.army.mil/.

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PRODUCT applications

WEAPONS CONTROL

Sechan to improve target-detection and fire-control for Navy's underwater mines

U.S. Navy littoral and mine warfare experts needed smart weapons control for air-dropped anti-ship and anti-submarine mines. They found their solution from Sechan Electronics Inc. in Lititz, Pa.



Officials of the Naval Surface Warfare Center Panama City Division in Panama City, Fla., announced a \$17.2 million contract to Sechan to develop and build the Target Detecting Device (TDD) MK 71 Mod 1 to support the Quickstrike Mine Improvement program.

The TDD contains a multi-sensor suite with digital circuitry that uses a Navy-supplied target-detection algorithm to determine a firing solution for the Navy's Mk 65 purpose-built underwater mine, as well as for the Mk 63 and Mk 62 general-purpose bombs that converted to function as bottom mines.

The TDD algorithm determines whether or not a valid target enemy ship or submarine is present by processing sensor input data based on timing, period, and amplitude. When the system detects a target, the algorithm issues a command to detonate the mine.

Navy ordnance experts lay minefields using the Mk 65, Mk 63, and Mk 62 by dropping the mines from aircraft such as the B-52H Stratofortress, F/A-18A/D Hornet, B-1B Lancer, and P-3C Orion. Parachutes can deploy on the mines to slow them before entering the water.

The Mk 65 mine is a dedicated thin-wall 2,300-pound mine, while the Mk 63 is a 1,000-pound mine and the Mk 62 is a 500-pound mine. The Mk 63 and Mk 62 are converted from conventional aircraft bombs, which eases logistics aboard deployed Navy aircraft carriers. All three mines are in the Navy Quickstrike mine family.

FOR MORE INFORMATION visit **Sechan Electronics** online at www.sechan.com, and the **Naval Surface Warfare Center Panama City Division** at www.navsea.navy.mil/nswc/panamacity.

EMBEDDED COMPUTING

Curtiss-Wright lands \$2.1 million Army contract for M1A2 Abrams tank embedded fire-control computers

U.S. Army armored combat vehicle experts needed embedded computers for ballistic fire control applications aboard the Army General Dynamics M1A2 SEP Abrams main battle tank. They found their solution from Curtiss-Wright Controls Defense Solutions in Santa Clarita, Calif.

Officials of the Defense Logistics Agency's TACOM Life Cycle Management Command (LCMC) activity in Warren, Mich., awarded a \$2.1 million contract to Curtiss-Wright for 100 Fire Control Communication Processor (FCCP) boards for the M1A2 tank vetronics. The board accepts data inputs for factors ranging to the tank's speed, uneven terrain, and atmospheric conditions to keep the weapon system's 120-millimeter main gun on target and aiming accurately, even while the tank is on the move.

The FCCP provides increased processing capability and uses the flexibility of PMC mezzanine cards (PMCs) to eliminate a separate card from the fire control electronics unit to reduce system cost and improving reliability, company officials say.

The FCCP boards that Curtiss-Wright is providing to the Army for the M1A2 tank do not represent leading-edge technology, but were designed in to the latest versions of the Abrams tank, and Army officials say no other product can meet the tank's size and technical requirements.

The Curtiss-Wright FCCP boards are based on the GPCP 750 6U VME single-board computer, designed



originally by Vista Controls Corp., which Curtiss-Wright acquired in 2001. The card is designed to operate in temperatures from -55 to 85 degrees Celsius, is radiation-hardened and conduction-cooled, has 512 kilobytes of cache, 32 megabytes of DRAM, 16 megabytes of flash memory, and 512 kilobytes of boot PROM. **FOR MORE INFORMATION** visit **Curtiss-Wright Controls Defense Solutions** online at www.cwcdefense.com.

HPEC

Air Force chooses GE technology for experimental computer that mimics brain processing

U.S. Air Force researchers needed high-performance embedded computing (HPEC) technology for powerful experimental data processors built to emulate the information paths of the human nervous system. They found their solution from GE Intelligent Platforms in Huntsville, Ala.

Officials of the Air Force Research Laboratory (AFRL) Information Directorate in Rome, N.Y., are awarding a contract to GE for an HPEC system that will enable the development and deployment of advanced neuromorphic architectures and algorithms for adaptive learning, large-scale dynamic data analytics and reasoning, officials say.

Neuromorphic computing uses electronic analog circuits to mimic neuro-biological architectures present in the nervous system. It uses

analog, digital, and mixed-mode analog/digital computing to run models of neural systems for perception, motor control, or multisensory integration. Some ambitious projects seek to use neuromorphic computing to reverse-engineer the human brain.

The HPEC system that GE is providing to the Air Force uses graphics processing unit (GPU) accelerators from NVIDIA Corp. in Santa Clara, Calif. The GPU accelerators are parallel processors, and help pull out important information from streaming radar data. The neuromorphic processor, a project of the AFRL Information Directorate's High Performance Systems Branch, is designed to support the U.S. military's High Performance Computing Modernization Program (HPCMP).

Technology from this program will help with next-generation radar programs such as Gotcha wide-area synthetic aperture radar, GE officials say. The Gotcha wide-area synthetic aperture radar (SAR) is a dual X-band and UHF airborne wide-angle staring radar system for persistent wide-area surveillance. GE's GPU-based HPEC system is housed in a 6U OpenVPX rackmount chassis capable of processing data as quickly as 20 trillion floating point operations per second (teraflops). The system is scalable and can be expanded to include additional racks and compute nodes.

FOR MORE INFORMATION visit **GE Intelligent Platforms** online at <http://defense.ge-ip.com>.



COMMUNICATIONS EQUIPMENT

Rockwell Collins to manufacture VLF communications system for B-2 jet bomber

Rockwell Collins in Richardson, Texas, is starting full-scale development of a very low frequency (VLF) radio for the U.S. Air Force B-2 Spirit strategic bomber to enable the aircraft crew to communicate with national command authorities while on long-range missions.

Officials of the Air Force Life Cycle Management Center at Wright-Patterson Air Force Base, Ohio, are awarding a \$46.7 million contract to Rockwell Collins for the B-2 Common Very Low Frequency Receiver increment 1 engineering manufacturing development (EMD) effort.

Rockwell Collins engineers will modify, qualify, and test a B-2 bomber VLF communications system consisting of a terminal and receiver, antenna, human machine interface display, and ancillary cabling, rack, and equipment to enable receipt and display of emergency action messages. The VLF radio will bridge between the UHF SATCOM and MIL-STAR systems and the future AEHF



SATCOM system. Rockwell Collins will develop the B-2's VLF communications system within four years to make the system available for the B-2 fleet by late 2017. ←

FOR MORE INFORMATION visit **Rockwell Collins** online at www.rockwellcollins.com.



RUGGED CABLING

Rugged backplane cable assemblies for high-speed data transfers introduced by Molex

Molex Inc. in Lisle, Ill., is introducing rugged backplane cable assemblies for high-speed data transfer among commercial backplanes, servers, and connectors in defense and aero-



space applications. The Molex cable assemblies help move data quickly between commercial backplanes or servers, to commercial-off-the-shelf (COTS) connectors including Impact, Impel, VHDM or full military-qualified interfaces, company officials say. Customized backplane cables have gone through engineering testing to ensure they meet their respective application-specified data rates and performance requirements and are designed to mate to many rugged connectors.

FOR MORE INFORMATION visit **Molex** online at www.molex.com.

FPGAS

Small-form-factor FPGAs for military, automotive, and industrial uses introduced by Microsemi

Microsemi Corp. in Aliso Viejo, Calif., is introducing small-form-factor



versions of the company's SERDES-based SmartFusion2 system-on-chip (SoC) and IGLOO2 field-programmable gate arrays (FPGAs) for military, automotive, communications, industrial automation, and imaging applications. The non-volatile configuration of these two FPGAs eliminates the need for external configuration memories to reduce the device size. Microsemi's mainstream flash-based FPGAs inherently reduce board space requirements. Microsemi's portfolio of flash-based programmable logic devices includes small-form-factor packages include devices that measure 11 by 11, 14 by 14, 19 by 19, and 22 by 22 millimeters.

FOR MORE INFORMATION visit **Microsemi** online at www.microsemi.com.

EMBEDDED COMPUTING

3U VPX FMC carrier with a Virtex-7 FPGA for radar and software-defined radio introduced by Pentek

Pentek Inc. in Upper Saddle River, N.J., is introducing the Flexor model 5973 3U VPX FPGA mezzanine card (FMC) carrier with a Virtex-7 FPGA and model 3312 multi-channel, high speed data converter FMC for radar and software-defined

radio applications. The FMC embedded computing modules combine the high performance of the Virtex-7 with the flexibility of the FMC data converter, creating a com-



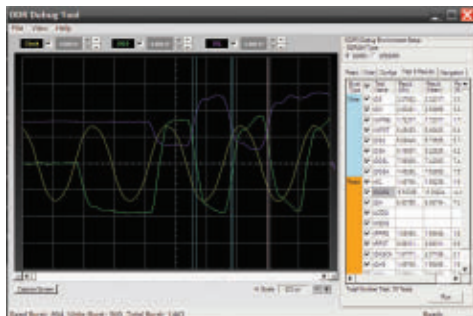
plete radar and software radio solution. The Flexor model 5973 has a VITA 57.1 FMC site, 4 gigabytes of DDR3 SDRAM, PCI Express (Gen. 1, 2 and 3) interface to x8, optional user-configurable gigabit serial I/O, and optional LVDS connections to the FPGA for custom I/O. The Flexor model 3312 FMC and Flexor model 5973 VPX carrier are for air-cooled, conduction-cooled, and rugged operating environments.

FOR MORE INFORMATION visit **Pentek** online at www.pentek.com.

TEST AND MEASUREMENT

Debug tool to help DDR memory designers with precompliance testing introduced by Agilent

Agilent Technologies Inc. in Santa Clara, Calif., is introducing the U7231B-3NL DDR3 and LPDDR3 debug tool to help DDR memory designers perform precompliance tests, discover the root cause of compliance failures, and make the most of design margins. The test & measurement tool enables designers to navigate to areas of interest



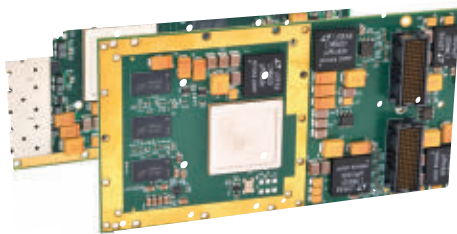
for further analysis and collect and analyze statistical data. The DDR3 and LPDDR3 debug tool runs on Infiniium 9000A, 90000A, and 90000 X- and 90000 Q-Series oscilloscopes. The tool includes statistical analysis on DDR3 and LPDDR3 timing measurements per the JEDEC standard as well as markers to indicate measurement points. The U7231B-3NL DDR3 and LPDDR3 debug tool works on saved waveform files from Agilent oscilloscopes.

FOR MORE INFORMATION visit Agilent online at www.agilent.com.

SWITCH FABRICS

10 Gigabit Ethernet XMC modules for network control and data storage introduced by Acromag

Acromag in Wixom, Mich., is introducing the XMC-6260 and XMC-6280 Express Mezzanine Card (XMC) modules for data-intensive, real-time embedded computing systems that require 10-gigabit Ethernet interfaces. Target applications include high-speed data storage, image collection and transfer, distributed control networks, and board-to-board interfaces. The XMCs use a TCP/IP



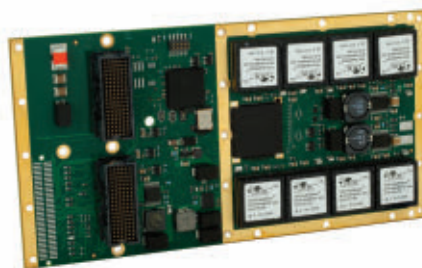
offload engine (TOE) ASIC connected to a PCI Express Gen2 x8 interface. The XMC-6260 has dual XAUI 10GBASE-KX4 ports and supports conduction-cooling to operate in temperatures from -40 to 85 degrees Celsius. The XMC-6280 features four SFP+ ports for fiber or copper cables. All versions are available with lead or lead-free solder.

FOR MORE INFORMATION visit Acromag online at www.acromag.com.

AVIONICS

MIL-STD-1553 XMC for embedded computing and avionics applications introduced by DDC

Data Device Corp. in Bohemia, N.Y., is introducing the BU-67112 MIL-STD-1553 Express Mezzanine Card (XMC) with front and rear I/O options for embedded computing and avionics applications. The BU-67112 XMC MIL-STD-1553 data bus interface comes in air- and conduction-cooled configurations, and supports a wide range of embedded applica-



tions. The BU-67112 XMC card uses the advanced MIL-STD-1553 technology, Total-AceXtreme, to deliver low power dissipation, high mean time between failures, and high performance for rugged environments. The high channel count can save space, weight, power, and cost in embedded systems, company officials say. The card offers IRIG 106 chapter 10 and Tx inhibit for flight data recorders, and on-board

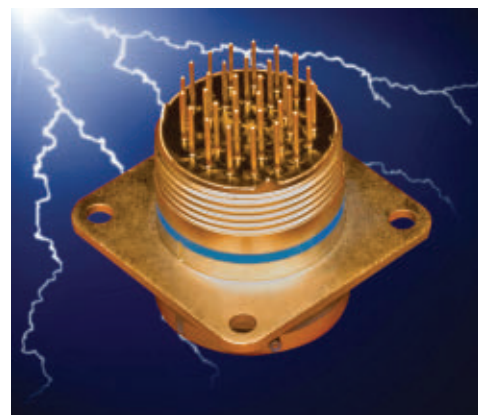
DMA engine that frees up host CPU resources.

FOR MORE INFORMATION visit DDC online at www.ddc-web.com.

RF CONNECTORS

Lightning-protected rugged circular connectors for aircraft RF and microwave introduced by API

API Technologies Corp. in Orlando, Fla., is introducing rugged EMI-filtered and unfiltered circular connectors for high performance RF/



microwave, power, and security applications that require adherence to RTCA/DO-160 Section 22 lightning requirements. RTCA/DO-160 Section 22 outlines environmental conditions and testing procedures for airborne equipment—particularly for protection against lightning—to provide increased safety, system capacity, and overall efficiency, company officials say. API's circular connectors feature a specially formulated potting compound and proprietary potting process to seal the filter elements. The potting insulates and protects the capacitive filter element and enables it to withstand very high voltage surges, such as those caused by lightning strikes. ←

FOR MORE INFORMATION visit API Technologies online at www.apitech.com.

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James Klein

TriQuint and RFMD have merged to form a new company (name to be announced) with combined revenue of more than \$2 billion, serving the defense/aerospace, network infrastructure, and mobile device communities. Here, a senior manager talks specifically about infrastructure and defense.

What does the merger mean to aerospace and defense?

Today at TriQuint, one third of our company revenue, one third of our business today is directly related to defense and aerospace predominantly in the radar market. Our gallium arsenide (GaAs) and gallium nitride (GaN) technologies are used in a variety of defense and aerospace programs; among those that we publicly speak about are the F-22 and F-35 military aircraft and ground-based radar systems including the [Lockheed Martin] TPQ-53.

TriQuint has a long legacy in the defense market and quite a bit of technology, with GaN and GaAs.

RFMD brings more access to silicon germanium, and the ability to package the semiconductors in a lower-cost format. We believe that putting these capabilities together will really give a broader portfolio of products that will also help us grow.

Will you expand the market focus?

Radar has been our core, and we will continue to expand into both the defense communications and electronic warfare businesses, as well as extend more into the international marketplace. Both TriQuint and RFMD have a somewhat of an international foothold, but it is a growing business.

Radar will continue to be a focus area for us. We are also focused on the optical driver business; that's the technology fueling the deployment of optical networks around the world. Both companies have a presence in base station components. The roll-out of LTE base stations around the world is a focus for us and an area where we are winning big.

BIO:

NAME: James Klein

TITLE: President of infrastructure and defense products

CO.: New company (TBA) formed by TriQuint and RFMD merger

ROLE: Global supplier of high-performance radio-frequency (RF) solutions and services

CONTACT: triquint.com, rfmd.com

RFMD brings a great focus on connectivity, WiLan, and the Internet of things. That will continue to be a focus going forward. Together we will pursue things like base station power with our GaN technology.

Do you aim to grow internationally?

During this flat time in the defense market, we have been able to grow our defense business. We have grown at about 9 percent year-over-year growth of the defense business. We have done that really by expanding our product portfolio along with bringing this new technology to bear in gallium nitride.

We have been focused domestically and internationally, and we have increased our international presence. We are seeing significant growth internationally; as an example, last year we grew about 50 percent in Europe. That will continue to be a focus for us, as we see the U.S. defense budgets flattening or slightly down, we will continue to push for a broader international presence.

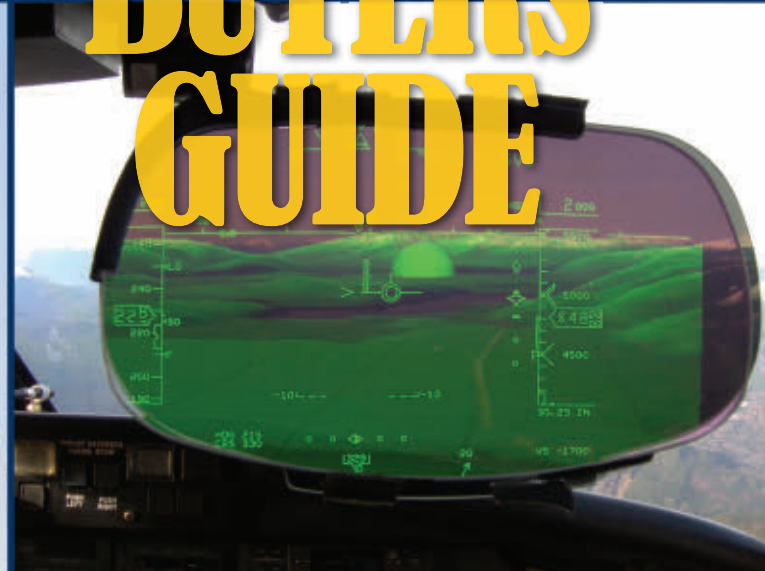
The combination of the two organizations gives us scale, gives us breadth in product portfolio, and will enable us to compete and grow in this infrastructure and defense market area. ←



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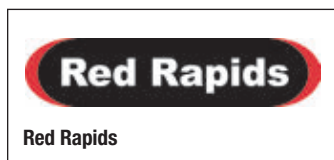
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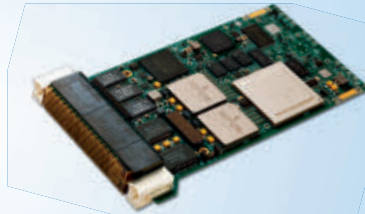


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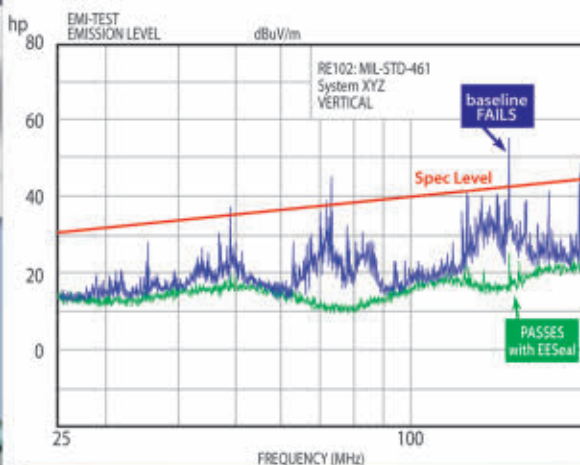
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(See ad page BG10)
Honeywell Aerospace
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 American Infrared Solutions (AIRS)
 Avalon RF
 Axcel Photonics Inc
 BE Meyers & Co Inc
 CohuHD
 Digital Systems Engineering Inc (DSE)
 EO Strategies
 Gaia Converter
 HoodTech Vision
 Infinite Optics Inc
 Interface Displays & Controls Inc

IRCameras LLC
 JJ Digital Technologies Pty Ltd
 Kappa optronics GmbH
 Kowa Optimed Inc
 L-3 Electron Devices
 Lense Optics Pvt Ltd
 Lenthor Engineering Inc
 Max Levy Autograph Inc
 NiCoForm Inc
 Night Optics USA Inc
 The Night Vision Store
 Reynard Corp
 Santa Barbara Infrared Inc
 Sensors Unlimited - UTC Aerospace Systems
 Sierra Olympic Technologies Inc (SOTI)
 SRI International Sarnoff
 SwissOptic AG
 Thermoteknix Systems Ltd
 West Coast Tech Ltd
 Xenics

OPTICAL AMPLIFIERS

Advanced Photonix Inc
 EigenLight Corp
 Keopsys SA
 MPB Communications
 nLIGHT
 Nufern
 Opto Diode Corp
 OSI OptoElectronics Inc
 Reynard Corp
 RPMC Lasers Inc
 Sacher Lasertechnik GmbH
 Sacher Lasertechnik LLC
 Specialised Imaging Inc

**OPTICAL COATINGS/
TREATMENTS**

Deposition Sciences Inc (DSI)
 Gooch & Housego Plc
 Infinite Optics Inc
 Kowa Optimed Inc
 L-3 Communications - Applied Optics Center
 Laser Components GmbH
 Lasertec Inc
 Lumetrics Inc
 Master Bond
 Max Levy Autograph Inc
 Nufern
 OptoCity
 OSI OptoElectronics Inc
 PG&O - Precision Glass & Optics

Raytheon ELCAN Optical Technologies
 Reynard Corp
 Sacher Lasertechnik LLC
 Surface Optics Corp
 SwissOptic AG
 Timbercon
 United Lens Co Inc
 West Coast Tech Ltd
 Westech Optical Corp
 ZC&R Coatings for Optics

OPTICAL DETECTORS

Advanced Photonix Inc
 Alternative Vision Corp
 Axcel Photonics Inc
 Blue Sky Research
 Esterline CMC Electronics
■ Falcon Electronics
(See ad page BG10)
 Gamma Scientific Light Measurement Solutions
 HGH Infrared Systems
 HoodTech Vision
 Kowa Optimed Inc
 Laser Components GmbH
 MAZeT GmbH
 MicroE Systems
 Microsemi Corp
 Opto Diode Corp
 OSI OptoElectronics Inc
 Photon Inc
 Princeton Lightwave Inc
 Sensors Unlimited - UTC Aerospace Systems
 Specialised Imaging Inc
 Tapeswitch Corp
 Thermo Scientific - CIDTEC
 Toshiba Imaging Systems Div
 u2t photonics AG
 Xenics
 Zephyr Photonics Inc

OPTICAL FIBER

Belden
 Blue Sky Research
 Corning Cable Systems
 Eco Ideas
 EigenLight Corp
 Fiberguide Industries Inc
 Go4Fiber Ltd
 HUBER+SUHNER AG
 ixFiber
 Krell Technologies Inc
 KVH Industries Inc
 L-com Global Connectivity

LEONI Fiber Optics Inc
 Micro Laser Systems Inc
 Moog Protokraft
 Nufern
 OFS
 Optical Cable Corp
 Optocon AG
 OPTOTEC SpA
 Panduit Corp
 Photon Control Inc
 Primus Cable
 Quagwire Technologies
 Sabritec
 Sacher Lasertechnik GmbH
 Space Photonics Inc
 TE Connectivity
 Timbercon

OPTICAL FILTERS

Alternative Vision Corp
 Deposition Sciences Inc (DSI)
 Infinite Optics Inc
 Iridian Spectral Technologies
 ISP Optics Corp
 iXFiber
 L-3 Communications - Applied Optics Center
 Lasertec Inc
 Max Levy Autograph Inc
 MAZeT GmbH
 Newport Corp
 OptoCity
 PG&O - Precision Glass & Optics
 Reynard Corp
 Surface Optics Corp
 TLC International
 United Lens Co Inc
 West Coast Tech Ltd
 ZC&R Coatings for Optics

OPTICAL IMAGING

Alternative Vision Corp
 American Infrared Solutions (AIRS)
 Avalon RF
 Delta Commercial Vision LLC
 Eco Ideas
 EO Strategies
 H&L Instruments LLC
 Headwall Photonics Inc
 HGH Infrared Systems
 HoodTech Vision
 Infinite Optics Inc

Iscan Inc
 ISP Optics Corp
 Keo Scientific Ltd
 Kowa Optimed Inc
 Lambda Research Corp
 Max Levy Autograph Inc
 OptoCity
 ORIENTIR
 Photron Inc
 Raytheon ELCAN Optical Technologies
 Reynard Corp
 Santa Barbara Infrared Inc
 SENER
 Sensors Unlimited - UTC Aerospace Systems
 Sierra Olympic Technologies Inc (SOTI)
 Specialised Imaging Inc
 SRI International Sarnoff
 Surface Optics Corp
 Telops Inc
 Toshiba Imaging Systems Div
 Video Scope International Ltd
 Westech Optical Corp
 Xenics

OPTICAL SWITCHES

Advanced Photonix Inc
 Aerospace Optics Inc
 DiCon Fiberoptics Inc
 ■ **Falcon Electronics**
(See ad page BG10)
 Fiberguide Industries Inc
 Gooch & Housego Plc
 Liteway Inc
 OSI OptoElectronics Inc
 Pickering Interfaces Inc
 Quagwire Technologies
 StacoSystems
 SurplusEQ.com Inc

OPTICAL TRANSCEIVERS

Applied Optoelectronics Inc
 Beyond Electronics Corp
 EigenLight Corp
 Esterline CMC Electronics
 H&L Instruments LLC
 Moog Protokraft
 Quagwire Technologies
 Space Photonics Inc
 Sparton Complex Systems
 Tektronix Component Solutions

Teledyne Microelectronic Technologies
 Third Millennium Engineering
 Zephyr Photonics Inc

OPTICS

Advanced Optics Inc
 Alternative Vision Corp
 Avo Photonics
 Carr Quality Compliance Consulting
 Del Mar Photonics Inc
 Deposition Sciences Inc (DSI)
 EigenLight Corp
 EO Strategies
 Gooch & Housego Plc
 Headwall Photonics Inc
 Infinite Optics Inc
 IRCameras LLC
 Iridian Spectral Technologies
 ISP Optics Corp
 Kowa Optimed Inc
 Krell Technologies Inc
 Kugler of America Ltd
 L-3 Communications - Applied Optics Center
 Lambda Research Corp
 LAS-CAD GmbH
 Laser Components GmbH
 Lasertec Inc
 Lensei Optics Pvt Ltd
 Max Levy Autograph Inc
 Micro Laser Systems Inc
 Newport Corp
 Optical Cable Corp
 OptoCity
 ORIENTIR
 PG&O - Precision Glass & Optics
 Photon Control Inc
 Quagwire Technologies
 Raytheon ELCAN Optical Technologies
 Reynard Corp
 Sacher Lasertechnik LLC
 Santa Barbara Infrared Inc
 Sensors Unlimited - UTC Aerospace Systems
 Space Photonics Inc
 Surface Optics Corp
 SurplusEQ.com Inc
 SwissOptic AG
 TE Connectivity
 Telops Inc
 TLC International

United Lens Co Inc
 Visotek Inc
 West Coast Tech Ltd
 Westech Optical Corp
 ZC&R Coatings for Optics
 Zephyr Photonics Inc

THERMAL IMAGING

Alternative Vision Corp
 American Infrared Solutions (AIRS)
 Axcel Photonics Inc
 CohuHD
 EO Strategies
 Headwall Photonics Inc
 HoodTech Vision
 IRCameras LLC
 Iridian Spectral Technologies
 ISP Optics Corp
 Kowa Optimed Inc
 L-3 Communications - Applied Optics Center
 Lenthor Engineering Inc
 Max Levy Autograph Inc
 NiCoForm Inc
 Night Optics USA Inc
 ORIENTIR
 Raytheon Vision Systems
 Reynard Corp
 Santa Barbara Infrared Inc
 Sensors Unlimited - UTC Aerospace Systems
 Sierra Olympic Technologies Inc (SOTI)
 Stanford Photonics Inc
 Telops Inc
 Thermoteknix Systems Ltd
 Wavelength Electronics Inc
 West Coast Tech Ltd
 Xenics

ULTRAVIOLET LIGHT SOURCES

Coherent Inc
 Gamma Scientific Light Measurement Solutions
 LED Waves
 Micro Laser Systems Inc
 OptoCity
 Photon Control Inc
 Reynard Corp
 SurplusEQ.com Inc

AUTOMATIC DEPENDENT SURVEILLANCE-BROADCAST (ADS-B) EQUIPMENT

Carr Quality Compliance Consulting
PureTech Systems
Rosco Vision Systems
Sparton Complex Systems

GPS SYSTEMS

Ashtech OEM
GPS Source Inc
Kearfott Corp
L-3 Communications Interstate Electronics Corp

Midian Electronics Inc
Mobile Mark
NCEE Labs
Rosco Vision Systems
RTD Embedded Technologies
SENER

Spectracom
Systel Inc
VectorNav Technologies LLC

TERRAIN

Avalon RF

PLATFORM SYSTEMS/SUBSYSTEMS

AUTOPILOTS

HoodTech Vision
Jewell Instruments

AVIONICS

AcQ Inducom
Advanced Conversion Technology Inc
Aerospace Optics Inc
Ametek Aerospace & Defense
Amphenol PCD
Avionics Interface Technologies (AIT)
AWT-Global LLC
Ballard Technology
Barco Federal Systems LLC



CES - Creative Electronic Systems SA

Clear-Com
Craig Technologies
■ **Crane Aerospace & Electronics**
(See ad page BG15)
Curtiss-Wright Controls Avionics & Electronics
Curtiss-Wright Controls Defense Solutions
Digital Systems Engineering Inc (DSE)
EaglePicher Technologies LLC
EdmondMarks Technologies
eInfochips
ELDEC
Elma Electronic Inc
EMTEQ
Essex Industries
Esterline CMC Electronics

■ **Extreme Engineering Solutions Inc (X-ES)**
(See ad page BG5)

■ **Falcon Electronics**
(See ad page BG10)

Holt Integrated Circuits
Honeywell Aerospace
Interpoint

Jewell Instruments
Kearfott Corp
Keltec
■ **Kontron**
(See ad page BG7)
Lenthor Engineering Inc
Merrimac
Moog Protokraft
Multisorb Technologies Inc
North Atlantic Industries Inc
Parvus Corp
PIC Wire & Cable
Psychsoftpc
Pulse Electronics
QSDM Inc
Sandel Avionics
SENER
Sensitron Semiconductor
Sensoray Co Inc
SIE Computing Solutions Inc
Signal Technology
SpaceAge Control Inc
Sparton Complex Systems
Speel Praha Ltd
StacoSystems
Statek Corp
TDL Inc
Ten Tech LLC Engineering Services
Teradyne
VDesign Technologies
VectorNav Technologies LLC

CABIN MANAGEMENT SYSTEMS

eInfochips
Faria Performance
Sensoray Co Inc

COUNTERMEASURES

CTT Inc
dB Control
MC Countermeasures Inc
Sensoray Co Inc
Sparton Complex Systems

ELECTRONIC FLIGHT INSTRUMENT SYSTEMS (EFIS)

Gaia Converter
Kappa optronics GmbH
Ten Tech LLC Engineering Services

LANDING SYSTEMS

Interface Inc

LIGHTING

DLS Electronic Systems Inc
Interface Displays & Controls Inc
MAZeT GmbH
Orled

LIGHT MANAGEMENT SYSTEMS

Alonex Electronic Engineering Ltd
MAZeT GmbH

NAVIGATION EQUIPMENT

Advanced Conversion Technology Inc
Applied Signal Technology Inc
AWT-Global LLC
Dawn VME Products
Esterline CMC Electronics
Interface Displays & Controls Inc
Kearfott Corp
KVH Industries Inc
Lenthor Engineering Inc
MICCAVIONICS GmbH
Mobile Mark
North Atlantic Industries Inc
QSDM Inc
Rockwell Collins
Sandel Avionics
SENER
Sensoray Co Inc
Statek Corp
VectorNav Technologies LLC

SATELLITE SYSTEMS

Berliner Glas KGaA Herbert Kubatz GmbH & Co
EaglePicher Technologies LLC

GE Intelligent Platforms
Lenthor Engineering Inc
Parvus Corp
Sabtech
Ten Tech LLC Engineering Services
ViaSat Inc

SECURITY SYSTEMS

Active Silicon Inc
Active Silicon Ltd
Alonex Electronic Engineering Ltd
Cepoint Networks LLC
GE Intelligent Platforms
Sensoray Co Inc
Tapeswitch Corp
Vidcie

SHIPBOARD/MARITIME ELECTRONICS

Advanced Conversion Technology Inc
Avionics Interface Technologies (AIT)
Axiomatic Technologies Corp
CES - Creative Electronic Systems SA

■ **Crane Aerospace & Electronics**
(See ad page BG15)

Dawn VME Products
Digital Systems Engineering Inc (DSE)
ELDEC
Elma Electronic Inc
GE Intelligent Platforms
Interpoint
Keltec

■ **Kontron**
(See ad page BG7)

KVH Industries Inc
L-com Global Connectivity
MC Countermeasures Inc
Merrimac
Moog Protokraft
North Atlantic Industries Inc
OPHIR RF
Parvus Corp
PICO Electronics Inc
PIC Wire & Cable
QSDM Inc
RGB Spectrum

SENER
Sensoray Co Inc
Signal Technology
Smiths Connectors
StacoSystems
TDL Inc
Thermacore Inc
Ultra Electronics EMS

TRAINING AND SIMULATION

Avionics Interface Technologies (AIT)
AWT-Global LLC
Barco Federal Systems LLC
CAE
CAE USA
CES - Creative Electronic Systems SA
Clear-Com
Craig Technologies
Delta Digital Video
Garwood Laboratories Inc
JENOPTIK I Defense & Civil Systems
L-3 Electron Devices

MC Countermeasures Inc
Milestones Building and Design
Psychsoftpc
Quantum3D Inc
RGB Spectrum
Rockwell Collins
SENER
Sensoray Co Inc
Simlat Ltd
Sparton Complex Systems
VT Systems

UNMANNED VEHICLES

AcQ Inducom
Active Silicon Inc
Active Silicon Ltd
Advanced Conversion Technology Inc
Barco Federal Systems LLC
Clear-Com
Craig Technologies
■ **Crane Aerospace & Electronics**
(See ad page BG15)

Curtiss-Wright Controls Avionics & Electronics
Delta Digital Video
EaglePicher Technologies LLC
EdmondMarks Technologies
ELDEC

■ **Extreme Engineering Solutions Inc (X-ES)**
(See ad page BG5)

■ **Falcon Electronics**
(See ad page BG10)

FLIR Systems Inc
GE Intelligent Platforms
Kappa optronics GmbH
Lenthor Engineering Inc
Moog Protokraft
Parvus Corp
Rigel Engineering LLC
Sabtech
Santa Barbara Infrared Inc
Sensitron Semiconductor
Simlat Ltd
VectorNav Technologies LLC

VETRONICS

Advanced Conversion Technology Inc
Aerospace Optics Inc
Ballard Technology
Barco Federal Systems LLC
CES - Creative Electronic Systems SA
Digital Systems Engineering Inc (DSE)
Elma Electronic Inc
GE Intelligent Platforms
Holt Integrated Circuits

■ **Kontron**
(See ad page BG7)

North Atlantic Industries Inc
Parvus Corp
Pleora Technologies Inc
Sensitron Semiconductor
SIE Computing Solutions Inc
TDL Inc
Thermacore Inc

WEIGHT AND BALANCE SYSTEMS

Sensoray Co Inc

RF AND MICROWAVE

AMPLIFIERS

Advanced Microwave Products
Aethercomm Inc
API Technologies Corp
AR Modular RF
Arrow Electronics Inc
Avalon RF
Carr Quality Compliance Consulting
Comdel Inc
CTT Inc
dB Control
Dynamac Inc
Excel Wireless
■ **Falcon Electronics**
(See ad page BG10)
GPS Source Inc
Intersil Corp
KAMAKA Electronic Bauelemente Vertriebs GmbH
Keltec
L-3 Communications Interstate Electronics Corp
L-com Global Connectivity
Mercury Systems
Merrimac
Microsemi Corp
Microvolt Electronics
Mistral Solutions
MS Kennedy Corp

National Semiconductor
NuWaves Engineering Ltd
OPHIR RF
Pickering Interfaces Inc
Powell Electronics
Sensitron Semiconductor
SHF Communication Technologies AG
Signal Technology
StratoPak Inc
Taconic
TESSCO Technologies

ANTENNAS

API Technologies Corp
ASC Signal Corp
Avalon RF
Ball Aerospace & Technologies Corp
Clear-Com
Cobham Antenna Systems
Comtelco Industries Inc
Excel Wireless
Fralock
GPS Source Inc
HUBER+SUHNER AG
L-3 Electron Devices
L-com Global Connectivity
Max Levy Autograph Inc
Microvolt Electronics

Mobile Mark
Powell Electronics
Taconic
TECOM Industries Inc
TESSCO Technologies
ViaSat Inc
Wide Band Systems Inc

DIPLEXERS/MULTIPLEXERS

API Technologies Corp
Carr Quality Compliance Consulting
Dielectric Laboratories
Dynamac Inc
GPS Source Inc
Microlab (A Wireless Telecom Group Co)
Microvolt Electronics
MtronPTI
NuWaves Engineering Ltd
Pickering Interfaces Inc
SHF Communication Technologies AG
TESSCO Technologies

DISCRETE COMPONENTS

Aeroflex Weinschel
BI Technologies
Cobham Antenna Systems
■ **Crane Aerospace & Electronics**
(See ad page BG15)

Dielectric Laboratories
Dynamac Inc
■ **Falcon Electronics**
(See ad page BG10)
Gooch & Housego Plc
GPS Source Inc
Integra Technologies
Mercury Systems
Microlab (A Wireless Telecom Group Co)
Microsemi Corp
Microvolt Electronics
Noisecom (A Wireless Telecom Group Co)
Positronic
Powell Electronics
Pulse Electronics
TE Connectivity
TTI Inc
u2t photonics AG
Wavelength Electronics Inc
Winchester Electronics

FILTERS

Aeroflex Signal & Control Solutions
Agilent Technologies Inc
API Technologies Corp
Dielectric Laboratories
DJM Electronics

Dynamac Inc
 Gooch & Housego Plc
 GPS Source Inc
 L-com Global Connectivity
 March Electronics Inc
 Max Levy Autograph Inc
 Mercury Systems
 Merrimac
 Microlab (A Wireless Telecom Group Co)
 Microvolt Electronics
 Mixed Signal Integration Corp
 MS Kennedy Corp
 MtronPTI
 NuWaves Engineering Ltd
 ■ **Quell Corp**
 (See ad page BG13)
 Radius Power
 Raycom Electronics
 Sealing Devices Inc
 Signal Technology
 StratoPak Inc
 Tektronix Component Solutions
 TTI Inc

FREQUENCY SYNTHESIZERS

Comdel Inc
 ■ **Crane Aerospace & Electronics**
 (See ad page BG15)
 Merrimac
 Microvolt Electronics
 Mistral Solutions
 NuWaves Engineering Ltd
 Signal Technology
 StratoPak Inc
 Wide Band Systems Inc

HYBRIDS

Advanced Photonix Inc
 BI Technologies
 ■ **Crane Aerospace & Electronics**
 (See ad page BG15)
 KAMAKA Electronic Bauelemente Vertriebs GmbH
 Merrimac
 Microlab (A Wireless Telecom Group Co)
 Microvolt Electronics
 Pulse Electronics
 Signal Technology
 Tektronix Component Solutions
 Teledyne Microelectronic Technologies

MICROWAVE SUBASSEMBLIES

Advanced Microwave Products
 Aeroflex Signal & Control Solutions
 Aeroflex Weinschel

Aethercomm Inc
 ■ **Crane Aerospace & Electronics**
 (See ad page BG15)
 CTT Inc
 Dielectric Laboratories
 Dynamac Inc
 HUBER+SUHNER AG
 Hunter Technology Corp
 Merrimac
 Microlab (A Wireless Telecom Group Co)
 Microvolt Electronics
 OPHIR RF
 Pickering Interfaces Inc
 RF Precision Products
 Servometer
 Signal Technology
 StratoPak Inc
 Tektronix Component Solutions
 Teledyne Microelectronic Technologies
 Teledyne Storm Microwave
 u2t photonics AG
 ViaSat Inc

MIXED-SIGNAL DEVICES

API Technologies Corp
 ASIC Advantage Inc
 BI Technologies
 Cobham Antenna Systems
 ■ **Crane Aerospace & Electronics**
 (See ad page BG15)
 Dynamac Inc
 ■ **Falcon Electronics**
 (See ad page BG10)
 GPS Source Inc
 HUBER+SUHNER AG
 Kensington Electronics Inc
 Logic PD
 Mercury Systems
 Merrimac
 Microvolt Electronics
 Mixed Signal Integration Corp
 Ridgetop Group Inc
 Signal Technology
 Sparton Complex Systems
 StratoPak Inc
 Tektronix Component Solutions

MMICS

Microvolt Electronics
 ViaSat Inc

OSCILLATORS/ SYNTHESIZERS

■ **Crane Aerospace & Electronics**
 (See ad page BG15)
 Device Engineering Inc

■ **Falcon Electronics**
 (See ad page BG10)
 Hunter Technology Corp
 Merrimac
 Microsemi Corp
 Microvolt Electronics
 Mixed Signal Integration Corp
 MtronPTI
 NuWaves Engineering Ltd
 Signal Technology
 Spectracom
 StratoPak Inc
 Tektronix Component Solutions
 Ultraview Corp

RF ATTENUATORS

Agilent Technologies Inc
 API Technologies Corp
 Coaxial Components Corp (Coaxicom)
 ■ **Crane Aerospace & Electronics**
 (See ad page BG15)
 Dynamac Inc
 Dynamic Systems Inc
 Excel Wireless
 Gooch & Housego Plc
 GPS Source Inc
 Honeywell Microelectronics & Precision Sensors
 HUBER+SUHNER AG
 Mercury Systems
 Merrimac
 Microlab (A Wireless Telecom Group Co)
 Microvolt Electronics
 Pickering Interfaces Inc
 RF Precision Products
 Signal Technology
 Teledyne Relays Europe
 Teledyne Relays US
 TESSCO Technologies

RF PACKAGING

Dynamac Inc
 EGIDE USA Inc
 Fralock
 HUBER+SUHNER AG
 Microvolt Electronics
 StratoPak Inc
 Taconic
 Tech Products Inc
 Tektronix Component Solutions
 Teledyne Microelectronic Technologies
 TESSCO Technologies

RF SWITCHES

Aeroflex Signal & Control Solutions
 Aethercomm Inc

Agilent Technologies Inc
 API Technologies Corp
 ■ **Crane Aerospace & Electronics**
 (See ad page BG15)
 Electro-Mech Components Inc
 Gooch & Housego Plc
 GPS Source Inc
 Honeywell Microelectronics & Precision Sensors
 Liteway Inc
 Mercury Systems
 Merrimac
 Microsemi Corp
 Microvolt Electronics
 Mistral Solutions
 Pickering Interfaces Inc
 Powell Electronics
 Signal Technology
 Tapeswitch Corp
 Teledyne Relays Europe
 Teledyne Relays US
 TTI Inc

SIGNAL GENERATORS

Agilent Technologies Inc
 Avera
 AWT-Global LLC
 Berkeley Nucleonics Corp
 Epiq Solutions
 GPS Source Inc
 MC Countermeasures Inc
 Noisecom (A Wireless Telecom Group Co)
 Pickering Interfaces Inc
 Quantum Composers
 Saelig Co Inc
 SHF Communication Technologies AG
 Spectracom
 ViaSat Inc

TRANSMIT/RECEIVE MODULES

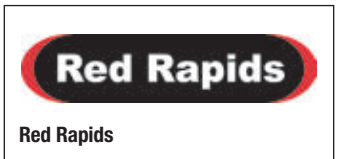
Advanced Microwave Products
 Aethercomm Inc
 Avalon RF
 Avera
 ■ **Crane Aerospace & Electronics**
 (See ad page BG15)
 CTT Inc
 Device Engineering Inc
 Epiq Solutions
 Innovative Integration
 Keltec
 Logic PD
 Merrimac
 Microvolt Electronics
 Modultight Inc
 NuWaves Engineering Ltd

OPHIR RF
Pentek Inc
Powell Electronics
Pulse Electronics
Signal Technology
StratoPak Inc
u2t photonics AG
VDesign Technologies

UP/DOWN CONVERTERS

4DSP LLC
Avalon RF
Averna
Behlman Electronics Inc
■ **Crane Aerospace & Electronics**
(See ad page BG15)
CTT Inc

Hunter Technology Corp
Innovative Integration
MEGA Electronics Inc
Merrimac
Mixed Signal Integration Corp
NuWaves Engineering Ltd
PICO Electronics Inc



Signal Technology
Tektronix Component Solutions

SAFETY EQUIPMENT AND COMPONENTS

ALARM SYSTEMS

AWTI - 3rd Eye MobileVision
General Digital Software Services
LRAD Corp
Puleo Electronics Inc
Rosco Vision Systems
Tapeswitch Corp

ANTI-ICING EQUIPMENT

All Flex Flexible Circuits & Heaters
Curtiss-Wright Controls Avionics & Electronics

ANTI-STATIC EQUIPMENT

■ **Quell Corp**
(See ad page BG13)

COLLISION AVOIDANCE SYSTEMS

AWTI - 3rd Eye MobileVision
General Digital Software Services
Tapeswitch Corp

EMI/RFI

DLS Electronic Systems Inc
Gaia Converter
Hi-Tech Controls

InTalTech Ltd
Kensington Electronics Inc
NCEE Labs
OPHIR RF
Optocon AG
■ **Quell Corp**
(See ad page BG13)
Raycom Electronics
Servometer
Systel Inc

FIRE DETECTION

Advanced Photonix Inc
Curtiss-Wright Controls Avionics & Electronics

STALL WARNING

General Digital Software Services

TERRAIN AWARENESS WARNING SYSTEMS (TAWS)

General Digital Software Services
MICCAVIONICS GmbH

WINDSHEAR WARNING SYSTEMS

General Digital Software Services

SERVICES

ASSEMBLY/SUBCONTRACT SERVICES

AbelConn LLC
Adaptive Innovations
ADCO Circuits
Advanced Industrial Coatings Inc
Aeroflex Colorado Springs
Aeroflex Plainview
Aeroflex RAD
Amphenol Alden Products Co
Austin Semiconductor Inc
Aviel Electronics
Avittor International Corp
Avon Engineering Supplies Ltd
Axcel Photonics Inc
Berliner Glas KGaA Herbert Kubatz GmbH & Co
BEST Inc
Chassis Plans
Contract Manufacturing Consultants Inc
Craig Technologies

CTT Inc
Custom Engineering Co
dB Control
DILAS Diode Laser Inc
EdmondMarks Technologies
Elan Technical Corp
Electro-Mech Components Inc
Essex Industries
Federal Electronics Inc
Fiberguide Industries Inc
FileCatalyst
Fischer Connectors Inc
Fralock
GDCA Inc
HALT and HASS Labs
Hunter Technology Corp
InTalTech Ltd
iXFiber
Jayco MMI Inc
Jewell Instruments
LAI International Inc
Latchways Plc

L-com Global Connectivity
Lenthor Engineering Inc
LEONI Fiber Optics Inc
Logic PD
March Electronics Inc
Master Bond
Milestones Building and Design
Motion Maker Engineering
MS Kennedy Corp
MTI Electronics
Murrietta Circuits
Nelson Design Services Inc
NiCoForm Inc
nLIGHT
Nordson ASYMTEK
NuWaves Engineering Ltd
OptoCity
OPTOTEC SpA
PIC Wire & Cable
Powell Electronics
Power Innovations International Inc
QSDM Inc

Reynard Corp
RF Precision Products
Sealcon LLC
Signet FPD Inc
Six Sigma
Sparton Complex Systems
S-Products Inc
Surface Mount Technology Corp
SwissOptic AG
Switching Power Inc
Sypris Electronics LLC
TASC Technical & Assembly Services Corp
TEAL Electronics
Tektronix Component Solutions
Teledyne Microelectronic Technologies
Thermocarbon Inc
Third Millennium Engineering
TLC International
Visotek Inc
Winchester Electronics
Winslow Automation

CONSULTANTS

Adaptive Innovations
Advanced Thermal Solutions Inc
AEI Systems
Aero Nav Laboratories
Aerosim Flight Academy
Alacrity Services Inc
Allied Industrial Marketing
Alphi Technology
Alternative Vision Corp
American Laser Enterprises LLC
A'n D Cable Products Inc
Atego
Beyond Electronics Corp
Carr Quality Compliance Consulting
Contract Manufacturing Consultants Inc
Crane Wireless Monitoring Solutions
Delta Commercial Vision LLC
DeTect Inc
Develeast SA
DLS Electronic Systems Inc
Dynamic Systems Inc
Electronic Concepts & Engineering Inc
Embassy Global LLC
Enea
EO Strategies
FileCatalyst
Forefronts Defense Systems
Garwood Laboratories Inc
Green Hills Software Inc
Growth Technical Marketing
HALT and HASS Labs
IEC & Associates
Impulse Accelerated Technologies
Industrial Training Consultants Inc
INICORE Inc
Integra Technologies
Jayco MMI Inc
Keo Scientific Ltd
The Light Brigade Inc
Logic PD
Milestones Building and Design
Motion Maker Engineering

Nelson Design Services Inc
Ness Engineering Inc
Northwest EMC Inc
NuWaves Engineering Ltd
Objective Interface Systems Inc
OptoCity
Orled
Pinnacle Data Systems
Power Innovations International Inc
Puleo Electronics Inc
Ridgetop Group Inc
Rigel Engineering LLC
San Francisco Circuits
Sparton Complex Systems
Specialised Imaging Inc
Strataplex Inc
SuperPower Inc
Synopsys Inc
Systel Inc
Tata Technologies Ltd
TeamEDA Inc
Ten Tech LLC Engineering Services
TLC International
Viking Equipment Finance
Visotek Inc

DESIGN ENGINEERING

Advanced Conversion Technology Inc
Advanced Industrial Coatings Inc
Advantech Corp
American Laser Enterprises LLC
API Technologies Corp
Axcel Photonics Inc
Barco Federal Systems LLC
Beyond Electronics Corp
Boker's Inc
Chassis Plans
Craig Technologies
■ **Crane Aerospace & Electronics**
(See ad page BG15)
Custom Engineering Co
Develeast SA
Digital Systems Engineering Inc (DSE)
DNB Engineering Inc

Duraflex Inc
EdmondMarks Technologies
elInfochips
Epiq Solutions
Fancort Industries Inc
GPS Source Inc
Handling Specialty Manufacturing Ltd
HITEC Sensor Solutions Inc
Hunter Technology Corp
INICORE Inc
InTalTech Ltd
Integra Technologies
Interconnect Systems Inc
Jazz Semiconductor Inc
Jewell Instruments
LAI International Inc
Lensel Optics Pvt Ltd
Marvin Land Systems Inc
Motion Maker Engineering
MSP Corp
Nallatech
Northwire Inc
OptoCity
Orled
Positronic
Power Innovations International Inc
Puleo Electronics Inc
Quantum Composers
Rambus Inc
Raycom Electronics
Raytheon Vision Systems
Reynard Corp
Rigel Engineering LLC
Sabtech
Santa Barbara Infrared Inc
SAP Americas Inc
SensUp
Signet FPD Inc
Surface Optics Corp
SynaptiCAD the Timing Diagram Co
Sypris Electronics LLC
Tata Technologies Ltd
Telesis Technologies Inc
Telops Inc

Thermocarbon Inc
Vadatech Inc
Vision Components
■ **VPT Inc**
(See ad page BG17)
VT Systems
Xiamen SET Electronics Co Ltd

DISTRIBUTORS

Aero Express Inc
Allied International
Alphabyte Technology
Alternative Vision Corp
American GMG Inc
Arrow Electronics Inc
Avon Engineering Supplies Ltd
BEST Inc
Butler Mfg
Cable Labels USA
Canyonwest Cases
DAC International Inc
■ **Falcon Electronics**
(See ad page BG10)
FileCatalyst
Fralock
JTime Inc
Kensington Electronics Inc
LPKF Laser & Electronics
Mooring Tech Inc
Motion Maker Engineering
Nelco Products
The Night Vision Store
Powell Electronics
Primus Cable
ProMation Engineering Inc
Psychsoftpc
Ronco
Saelig Co Inc
Sealcon LLC
Shields Co
Smitties Lights and Sirens
SuperPower Inc
TTI Inc
Weschler Instruments

SOFTWARE

APPLICATIONS

Active Sensing Inc
AIM-USA
Atego
Avionics Interface Technologies (AIT)
Avittor International Corp
Carr Quality Compliance Consulting
Compsim
ComSpec USA Ltd

Craig Technologies
dSPACE Inc
Dynamic Systems Inc
EcoSys
elInfochips
Esterline CMC Electronics
FileCatalyst
Generic Logic Inc
GridPlex Networks

Impulse Accelerated Technologies
Klocwork
K-Sun Corp
Logic PD
LinuxWorks Inc
Mega-Fabs Motion Systems Ltd
MICCAVIONICS GmbH
Objective Interface Systems Inc
Open IT Inc

Photron Inc
Puleo Electronics Inc
Real-Time Innovations
Sabtech
Telkonet Inc
Vision Components
VITEC
VXI Technology Inc

COMMUNICATIONS/ NETWORKING

Alacrity Services Inc
Applied Signal Technology Inc
Avalon RF
Barco Federal Systems LLC
Cable Labels USA
CES - Creative Electronic Systems SA
Clear-Com
Dynamic Systems Inc
Epiq Solutions
■ **Falcon Electronics**
(See ad page BG10)
FileCatalyst
Generic Logic Inc
Green Hills Software Inc
GridPlex Networks
H&L Instruments LLC
Honeywell Aerospace
Impulse Accelerated Technologies
Leidos
LinuxWorks Inc
Objective Interface Systems Inc
Panduit Corp
Pleora Technologies Inc
Primus Cable
Puleo Electronics Inc
Real-Time Innovations
Synopsys Inc
Sypris Electronics LLC
SYSGO
Telkonet Inc
Twisted Pair Solutions Inc
Vector Informatik GmbH
VITEC
ZNYX Networks

DATABASE MANAGEMENT

Active Sensing Inc
Averna
Leidos
McObject
MICCAVIONICS GmbH

DATABASES

Active Sensing Inc
McObject
TeamEDA Inc

DATA SECURITY

Alacrity Services Inc
Applied Signal Technology Inc
Atego
Avittor International Corp
Dynamic Systems Inc
■ **Falcon Electronics**
(See ad page BG10)
Global Training Solutions Inc
Green Hills Software Inc
Impulse Accelerated Technologies

Klocwork
Leidos
LinuxWorks Inc
Objective Interface Systems Inc
Telkonet Inc

DESIGN AND DEVELOPMENT TOOLS

Active Sensing Inc
AEi Systems
Aero Nav Laboratories
Agilent Technologies Inc
Aldec Inc
Atego
Avionics Interface Technologies (AIT)
Ballard Technology
BittWare
CES - Creative Electronic Systems SA
ComSpec USA Ltd
Data Device Corp (DDC)
DDC-I Inc
dSPACE Inc
ELANIX Inc
FileCatalyst
General Digital Software Services
Generic Logic Inc
Green Hills Software Inc
GUISYS Corp
Hitex Development Tools GmbH
Impulse Accelerated Technologies
Klocwork
Lambda Research Corp
LAS-CAD GmbH
Logic PD
LinuxWorks Inc
McObject
Mega-Fabs Motion Systems Ltd
Mentor Graphics
Motion Maker Engineering
nLIGHT
Objective Interface Systems Inc
Praxis Optics
Real-Time Innovations
SAP Americas Inc
SynaptiCAD the Timing Diagram Co
Synopsys Inc
Systel Inc
Vector Informatik GmbH
Vision Components

DOCUMENT MANAGEMENT SYSTEMS

Active Sensing Inc
FileCatalyst

ELECTRONIC DESIGN AUTOMATON (EDA)

Active Sensing Inc
eInfochips
FileCatalyst

Impulse Accelerated Technologies
SAP Americas Inc

GRAPHICS AND SIMULATION

Active Silicon Ltd
AIM-USA
Ballard Technology
CES - Creative Electronic Systems SA
Comsim
ComSpec USA Ltd
Craig Technologies
dSPACE Inc
Eco Ideas
eInfochips
FileCatalyst
Generic Logic Inc
Global Training Solutions Inc
GUISYS Corp
Impulse Accelerated Technologies
Industrial Training Consultants Inc
Objective Interface Systems Inc
Quantum3D Inc
Rastergraf Inc
Simlat Ltd
SynaptiCAD the Timing Diagram Co
Vector Informatik GmbH

INFORMATION SECURITY

Atego
Avittor International Corp
Dynamic Systems Inc
Global Training Solutions Inc
Green Hills Software Inc
Klocwork
Leidos
LinuxWorks Inc
Objective Interface Systems Inc
Sypris Electronics LLC
SYSGO

MOVING MAPS

Alacrity Services Inc
Interface Displays & Controls Inc
MICCAVIONICS GmbH

OPERATING SYSTEMS

Alacrity Services Inc
Beyond Electronics Corp
ComSpec USA Ltd
Dynamic Systems Inc
Enea
Global Training Solutions Inc
Green Hills Software Inc
Logic PD
LinuxWorks Inc
Microway Inc
Motion Maker Engineering
Santa Barbara Infrared Inc
SAP Americas Inc
SYSGO

Validated Software Corp

PRODUCT LIFE CYCLE MANAGEMENT (PLM)

Active Sensing Inc
Atego
Averna
Avionics Interface Technologies (AIT)
Craig Technologies
EcoSys
SAP Americas Inc
Systel Inc

PROGRAMMING LANGUAGES

Alacrity Services Inc
Atego
DDC-I Inc
Dynamic Systems Inc
eInfochips
Global Training Solutions Inc
Green Hills Software Inc
Impulse Accelerated Technologies
Klocwork
Mega-Fabs Motion Systems Ltd

REAL-TIME OPERATING SYSTEMS (RTOS) AND KERNELS

Avittor International Corp
CES - Creative Electronic Systems SA
DDC-I Inc
Dynamic Systems Inc
eInfochips
General Digital Software Services
Green Hills Software Inc
Hitex Development Tools GmbH
LinuxWorks Inc
SYSGO
Validated Software Corp

SOFTWARE CODE DESIGN, TEST, AND VERIFICATION

AIM-USA
Atego
Averna
Avionics Interface Technologies (AIT)
Craig Technologies
eInfochips
Green Hills Software Inc
Hitex Development Tools GmbH
Impulse Accelerated Technologies
Klocwork
LinuxWorks Inc
Puleo Electronics Inc
Ridgetop Group Inc
Sypris Electronics LLC
Validated Software Corp
Vision Components

CALIBRATION EQUIPMENT

4DSP LLC
Averna
Carr Quality Compliance Consulting
Cobham Antenna Systems
Gamma Scientific Light Measurement Solutions
Gooch & Housego Plc
HUBER+SUHNER AG
Interface
Interface Inc
Max Levy Autograph Inc
MC Countermeasures Inc
Omega Engineering Inc
OPAL-RT Technologies
OPHIR RF
Reynard Corp
Ross Engineering Corp
Santa Barbara Infrared Inc
Sensor Developments Inc
Spectracom
Steritool Inc
Weschler Instruments

COTS UPSCREENING

Aero Nav Laboratories
Austin Semiconductor Inc
Cascade TEK
■ **Falcon Electronics**
(See ad page BG10)
Garwood Laboratories Inc
Kappa optronics GmbH
North Atlantic Industries Inc
NuWaves Engineering Ltd
OPAL-RT Technologies
OPHIR RF
Tektronix Component Solutions

EMC COMPLIANCE

Aero Nav Laboratories
Agilent Technologies Inc
API Technologies Corp
DJM Electronics
DLS Electronic Systems Inc
DNB Engineering Inc
Electri-Flex Co
Fralock
Garwood Laboratories Inc
IEC & Associates
Northwest EMC Inc
OPHIR RF
Sparton Complex Systems

HALT/HASS

Adaptive Innovations
Aero Nav Laboratories
Averna
Cascade TEK
dB Control

DLS Electronic Systems Inc
Garwood Laboratories Inc
HALT and HASS Labs
IEC & Associates
Kappa optronics GmbH
Qualmark Corp
VXI Technology Inc

METERS

Advanced Thermal Solutions Inc
Agilent Technologies Inc
Boonton (A Wireless Telecom Group Co)
Carr Quality Compliance Consulting
Gamma Scientific Light Measurement Solutions
Gooch & Housego Plc
HIOKI EE Corp
Interface
JENOPTIK I Defense & Civil Systems
Jewell Instruments
Kurz Instruments Inc
Noisecom (A Wireless Telecom Group Co)
Omega Engineering Inc
Palmer Wahl Temperature Instruments
Process Technology
QuadTech Inc
Ross Engineering Corp
RWC Testing & Lab Supplies
SurplusEQ.com Inc
TEAL Electronics
Teradyne
TESSCO Technologies
Weschler Instruments

NETWORK ANALYZERS

AEi Systems
Agilent Technologies Inc
Anritsu Co
Avionics Interface Technologies (AIT)
CES - Creative Electronic Systems SA
Epiq Solutions
Go4Fiber Ltd
National Test Equipment
NextComputing
SurplusEQ.com Inc
TESSCO Technologies
Vector Informatik GmbH

NETWORK/DATABUS ANALYZERS

AIM-USA
Anritsu Co
Avionics Interface Technologies (AIT)
Ballard Technology
CES - Creative Electronic Systems SA
Data Bus Products
Data Device Corp (DDC)

HIOKI EE Corp
NextComputing
Teradyne
Vector Informatik GmbH

OPTICAL TEST AND MEASUREMENT

Advanced Thermal Solutions Inc
Agilent Technologies Inc
American Laser Enterprises LLC
AMOTronics
Anritsu Co
Averna
Berkeley Nucleonics Corp
Corning Cable Systems
DiCon Fiberoptics Inc
EigenLight Corp
Gamma Scientific Light Measurement Solutions
Garwood Laboratories Inc
Go4Fiber Ltd
Gooch & Housego Plc
H&L Instruments LLC
JENOPTIK I Defense & Civil Systems
Keo Scientific Ltd
Kingfisher International Pty Ltd
Kowa Optimed Inc
Krell Technologies Inc
Lambda Research Corp
Laser Components GmbH
Laser Technology Inc
The Light Brigade Inc
Luciol Instruments SA
Lumetrics Inc
Max Levy Autograph Inc
MAZeT GmbH
MicroE Systems
Micro Laser Systems Inc
MPB Communications
Newport Corp
OptoCity
Optocon AG
OPTOTEC SpA
Orled
Photon Control Inc
Photron Inc
Prior Scientific Inc
Quantum Composers
RAM Optical Instrumentation
Reynard Corp
RWC Testing & Lab Supplies
Sacher Lasertechnik GmbH
Sacher Lasertechnik LLC
Santa Barbara Infrared Inc
Sensoray Co Inc
SHF Communication Technologies AG
Specialised Imaging Inc
Surface Optics Corp
SurplusEQ.com Inc

SwissOptic AG
Telops Inc
TESSCO Technologies
Third Millennium Engineering
Timbercon
Toshiba Imaging Systems Div
Vision Components

OSCILLOSCOPES

AEi Systems
Agilent Technologies Inc
AMOTronics
Anritsu Co
GaGe
HIOKI EE Corp
Omega Engineering Inc
Ross Engineering Corp
SurplusEQ.com Inc
Telonic Instruments Ltd

PORTABLE TEST SYSTEMS

Advanced Thermal Solutions Inc
Agilent Technologies Inc
AIM-USA
Aircraft Instrument Support Services Inc
AMOTronics
Averna
Avionics Interface Technologies (AIT)
AWT-Global LLC
Ballard Technology
Berkeley Nucleonics Corp
Canyonwest Cases
Cepoint Networks LLC
Epiq Solutions
GaGe
Gamma Scientific Light Measurement Solutions
Garwood Laboratories Inc
Go4Fiber Ltd
HIOKI EE Corp
Innovative Integration
Interface
Logic PD
MC Countermeasures Inc
Motion Maker Engineering
NextComputing
North Atlantic Industries Inc
Omega Engineering Inc
Optocon AG
Oxford Instruments Industrial Analysis
Pentek Inc
Prior Scientific Inc
QuadTech Inc
Qualmark Corp
Ross Engineering Corp
RWC Testing & Lab Supplies
Santa Barbara Infrared Inc
Spectracom

Surface Optics Corp
Teradyne
United Electronic Industries Inc
Vector Informatik GmbH
VXI Technology Inc
Weschler Instruments

SOFTWARE-DRIVEN INSTRUMENTATION

Agilent Technologies Inc
AIM-USA
AMOTronics
Averna
Avionics Interface Technologies (AIT)
AWT-Global LLC
Boonton (A Wireless Telecom Group
Co)

Coherent Inc
ComSpec USA Ltd
GaGe
Gamma Scientific Light Measurement
Solutions
General Digital Software Services
GUISYS Corp
HIOKI EE Corp
Innovative Integration
Interface
L-3 Communications Interstate
Electronics Corp
Motion Maker Engineering
Photon Control Inc
Prior Scientific Inc
QuadTech Inc



Red Rapids

Santa Barbara Infrared Inc
SynaptiCAD the Timing Diagram Co
Teradyne
Ultraview Corp
Vision Components
VXI Technology Inc

SPECTRUM ANALYZERS

Agilent Technologies Inc
Anritsu Co

Averna
Coherent Inc
Epiq Solutions
FreeSpace Networks
Gamma Scientific Light Measurement
Solutions
MAZeT GmbH
Newport Corp
OptoCity
Oxford Instruments Industrial Analysis
Photon Control Inc
Saelig Co Inc
Spectracom
Surface Optics Corp
Telonic Instruments Ltd
TESSCO Technologies

THERMAL MANAGEMENT/COOLING SYSTEMS

CONDUCTION COOLING

Acromag Inc
Aspen Systems Inc
Celsia Inc
Dawn VME Products
■ **Extreme Engineering Solutions
Inc (X-ES)**
(See ad page BG5)
Fralock
InTalTech Ltd

Marlow Industries Inc
Mountain Secure Systems
Parker Aerospace
Systel Inc
Ten Tech LLC Engineering Services

CONVECTION COOLING

Allied International
Aspen Systems Inc

Celsia Inc
Dawn VME Products
■ **Extreme Engineering Solutions
Inc (X-ES)**
(See ad page BG5)
Fralock
Marlow Industries Inc
Mountain Secure Systems
Systel Inc
Ten Tech LLC Engineering Services

LIQUID COOLING

Aspen Systems Inc
Celsia Inc
Marlow Industries Inc
Microflexis
Mountain Secure Systems
Omega Engineering Inc
Parker Aerospace
Process Technology
ProMation Engineering Inc
Ten Tech LLC Engineering Services

**FOR UPDATES THROUGHOUT THE
YEAR**, go to the online version of the
Aerospace & Defense Electronics Buyer's
Guide, sponsored by these companies:

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& Aerospace**
Electronics

www.militaryaerospace.com

avionics
Intelligence

www.avionics-intelligence.com



3D Plus USA Inc

6633 W Eldorado Pkwy, Suite 420, McKinney, TX 75040, 214-733-8505, www.3d-plus.com
Supplies advanced high-density 3-D microelectronic products and die and wafer level stacking technology. Meets the demand for high reliability, high performance and very small size of today's and tomorrow's electronics. Meets the requirements of high technology industries in industrial, computing/telecom, security and defense, avionics, medical and space markets.

4DSP LLC

1210 San Antonio St, Suite 801, Austin, TX 78701, 800-816-1751, sales@4dsp.com, www.4dsp.com
Develops and manufactures commercial off-the-shelf (COTS) digital signal processing (DSP) board-level electronics, FPGA intellectual property (IP Core) and system level products.

Abbott Technologies Inc

8203 Vineland Ave, Sun Valley, CA 91352, 800-367-8200, www.abbott-tech.com
Offers a source for power management solutions for some of the most demanding real-world applications that require unusually high levels of reliability and performance.

AbelConn LLC

9210 Science Center Dr, New Hope, MN 55428, 763-533-3533, www.abelconn.com
Manufactures backplanes, associated connectors, and custom interconnect products strictly for the military and aerospace sectors. Has QPL/QML listings for MIL-A-28870 and MIL-C-55302, among others, and is qualified to ISO 9000:2000 and AS9100.

AbraxSys Corp

4919 Jamestown Ave, Bldg 204F, Baton Rouge, LA 70808, 225-928-4733, contact@abraxsyscorp.com, www.abraxsyscorp.com
Manufactures industrial, marine, military grade LCD display monitors, rugged computers, panel PCs, touch screen systems, sunlight/daylight readable high bright technology, LED displays, and large screen public information flat panel digital systems for critical applications and harsh environments.

Absopulse Electronics Ltd

110 Walgreen Rd, Ottawa, ON K0A 1L0, Canada, 613-836-3511, john@absopulse.com, www.absopulse.com
Designs and manufactures custom and standard power conversion products including AC/DC and DC/DC converters, battery chargers/rectifiers, power systems in 19- and 23-inch racks, sine-wave inverters, single- or three-phase frequency converters, backlight inverters, and variable frequency converters.

Accel Connectors Inc

42020 Winchester Rd, Temecula, CA 92590-4804, 951-296-9435, sales@accelconnectors.com, www.accelconnectors.com
Supplies MIL-SPEC and commercial connectors, relays, switches, and related accessories. Provides on time deliveries at competitive prices.

ACCES I/O Products

10623 Roselle St, San Diego, CA 92121, 858-550-9559, sales@accessio.com, www.accessio.com
Designs and manufactures a range of PC/104, PCI, and ISA bus-based data-acquisition tools and accessories, from simple digital I/O cards to sophisticated multifunction, multimode cards, wireless, and remote data-acquisition modules.

Acnodes Corp

14628 Central Ave, Chino, CA 91710, 909-597-7588, info@acnodes.com, www.acnodes.com
Manufactures, designs, and markets industrial computers and display solutions for diverse industries ranging from automation to military. Has an array of technological innovations in the area of rackmount servers, embedded computers, panel PCs and rugged monitors that create simpler and more valuable products to customers.

AcQ Inducom

Rijijstraat 20, Oss 5347 KN, The Netherlands, 31-412-641-922, info@acq.nl, www.acq.nl
Develops and produces non-certified and certified high-tech modular hardware and software solutions for on-board and ground avionics applications, utilizing DO-178B and DO-254 in various DAL as well as standard products for various open standards like VMEbus, cPCI and other bus standards.

Acromag Inc

Embedded Solutions Group Div, 30765 S Wixom Rd, Wixom, MI 48393-7037, 248-295-0310, solutions@acromag.com, www.acromag.com
Manufactures measurement and control products for the military, transportation, manufacturing and research industries. Embedded computing solutions operate on VME, VPX, PCI, CompactPCI and COM Express platforms, as well as IP, PMC and XMC mezzanine module standards. Functions include SBCs, FPGAs, data storage, Ethernet communication and I/O processing.

Active Sensing Inc

PO Box 1236, Castle Rock, CO 80104-1236, 720-862-3001, sales@activesensing.com, www.buyplm.com
Offers simple, flexible product data management software for growing companies including bill of materials management, revision and change control, and product file management for electronics, industrial machinery, medical devices, automotive and aerospace.

Active Silicon Inc

479 Jumpers Hole Rd, Suite 301, Severna Park, MD 21146, 410-696-7642, info@activesilicon.com, www.activesilicon.com
Designs and manufactures frame grabbers and embedded vision systems in PCI express, COM express, PCI/104-express, PMC, and cPCI form factors. Available for Windows, DOS, Linux, VxWorks, QNX and Mac OS X. Provides support for CoaXPress, HD-SDI, Camera Link (including PoCL), LVDS and analog cameras.

Active Silicon Ltd

Pinewood Mews, Bond Close, Iwer SLO 0NA, UK, 44-1753-650-600, info@activesilicon.com, www.activesilicon.com
Designs and manufactures frame grabbers and embedded vision systems in PCI Express, COM Express, PCI/104-Express, PMC, and cPCI form factors. Available for Windows, DOS, Linux, VxWorks, QNX and Mac OS X. Provides support for CoaXPress, HD-SDI, Camera Link (including PoCL), LVDS and analog cameras.

Adaptive Innovations

1315 Nelson St, Unit 8, Lakewood, CO 80215, 303-362-0400, info@a-i-corp.com, www.a-i-corp.com
Provides electro-mechanical engineering specializing in the design and building of custom fixturing, equipment and machine-automation systems. Expertise is designing and fabricating HASS, ESS, and vibration test fixtures, automated testers, pick-n-place machines and sorters, and custom equipment, with a proven track record of delivering successful projects.

ADCO Circuits

2868 Bond St, Rochester Hills, MI 48309, 248-853-6620, sales@adcocircuits.com, www.adcocircuits.com
Supplies complex Class II and III circuit board assemblies and complete systems to military/aerospace companies, such as General Dynamics, L-3, Parker and Eaton. Is ISO 9001 certified and ITAR registered. Advanced manufacturing and test capabilities available including micro-BGA, AOI, in-circuit test, functional test, and burn-in.



Advanced Conversion Technology Inc

2001 Fulling Mill Rd, Middletown, PA 17057, 717-939-2300, sales-ma@actpower.com, www.actpower.com
Designs and manufactures an extensive range of custom AC/DC and DC/DC power supplies (linear, rack-mounted VME, rugged, etc) as well as custom sensors and instrumentation for various applications since 1981. Designs meet the typical MIL standards including MIL-STD-704, MIL-STD-1399, MIL-STD-1275, MIL-STD-461, and MIL-STD-810. ISO-9001. Made in the US.

Advanced Fiberoptics Engineering Ltd

16 Thorney Leys Business Pk, Witney, Oxfordshire OX28 4GE, UK, 44-1993-709-030, sales@afe-uk.com, www.adfen.com

Advanced Industrial Coatings Inc

950 Industrial Dr, Stockton, CA 95206, 209-234-2700, info@aic-coatings.com, www.aic-coatings.com

Advanced Interconnections Corp

5 Energy Way, West Warwick, RI 02893,
401-823-5200, info@advanced.com,
www.advanced.com

Designs and manufactures electronic interconnect products including IC sockets and adapters, board-to-board connectors and screw-machined terminals. New products include high-density SMT connectors and fine pitch BGA socketing systems for both RoHS compliant and exempt high reliability applications. Standard and custom connector designs available.

Advanced Micro Devices Inc

1 AMD Pl, Sunnyvale, CA 94088, 408-749-4000,
info@amd.com, www.amd.com

Provides innovative semiconductor design to lead the next era of vivid digital experiences. Provides graphics and computing technologies to power a variety of devices including PCs, game consoles and the powerful computers that drive the Internet and businesses.

Advanced Microwave Products

8748 Technology Way, Reno, NV 89521,
775-345-9933, sales@advmw.com,
www.advmw.com

Designs and manufactures microwave transmitters and receivers for military, UVS, UAV, UGV, and surveillance applications. Offers miniature video/audio/data transmitters and receivers including COFDM and encrypted product lines from UHF through C-band. All product lines are capable of harsh environments and offer high performance in compact, rugged packaging.

Advanced Night Visions Systems Inc (ANVS)

801 W Robinson Dr, Suite 500, North Salt Lake, UT 84054, 801-519-0500, support@anvsinc.com,
www.anvsinc.com

Manufactures and distributes various night vision and thermal imaging devices. Works with industry-leading manufacturers and actual end-users to develop and put the most technologically advanced vision enhancing devices into service.

Advanced Optics Inc

PO Box 117, Pewaukee, WI 53072-0117,
262-548-1155, sales@advancedoptics.com,
www.advancedoptics.com

Manufactures precision and custom optical components. Product line includes optical flats, flat mirrors, optical windows, and specialty optics. From commercial flatness to 1/20 wave, many catalog optics are in stock for immediate delivery.

Advanced Optowave Corp

105 Comac St, Ronkonkoma, NY 11779-6931,
631-750-6035, info@a-optowave.com,
www.a-optowave.com

Manufactures DPSS lasers with the mission to provide optimal laser solutions with the highest customer values. All wavelengths in nanosecond and ultrashort pulses.

Advanced Photonix Inc

Opto Solutions Div, 1240 Avenida Acaso, Camarillo, CA 93012, 805-987-0146,
sales@advancedphotonix.com,
www.advancedphotonix.com

Supplies optoelectronic solutions which are based on the company's patented silicon large area APD, PIN photodiode, FILTRODE detectors, and LED assemblies. Manufactures and designs high-performance standard and custom opto devices, X-ray, UV, blue, red-enhanced, high-speed/low-noise silicon photodiodes, single and multi-element arrays, and hybrids (filter/amplifier).

Advanced Photonix Inc

Picometrix Div, 2925 Boardwalk, Ann Arbor, MI 48104, 734-864-5600,
sales@advancedphotonix.com,
www.advancedphotonix.com

Supplies electro-optic solutions and terahertz sensors and instrumentation to a global OEM customer base.

Advanced Thermal Solutions Inc

89-27 Access Rd, Norwood, MA 02062,
781-769-2800, sales@qats.com, www.qats.com

Engineers and manufactures complete thermal and mechanical packaging solutions from analysis and testing to final production. Provides a range of heat sinks and laboratory-quality thermal instrumentation, along with thermal design consulting services and training. Provides the industry with a one-stop-shop for thermal management and packaging solutions.

Advantech Corp

11380 Reed Hartman Hwy, Cincinnati, OH 45241,
513-742-8895, eainfo@advantech.com,
www.advantech.com

Offers product offerings from intelligent HMI platforms, industrial Ethernet, wireless communication, automation controllers, automation software, embedded automation computers, distributed I/O modules, wireless sensor network solutions, plug-in I/O and industrial communication solutions for a wide array of industries.

AEI Systems

5933 W Century Blvd, Suite 1100, Los Angeles, CA 90045, 310-216-1144, loyal@aeng.com,
www.aeng.com

Performs worst-case circuit analysis for power, linear, and RF systems, and MTBF, FMECA, stress, signal integrity and radiation analysis. Offers SPICE modeling.

AEM Inc

6610 Cobra Way, San Diego, CA 92121,
858-481-0210, garym@aem-usa.com,
www.aem-usa.com

Manufactures high-reliability solid body fuses for space and military applications. Offers ferrite chip beads and a tin whisker mitigation process for monolithic chip components. Puts the lead back into 100% tin terminated components.

AE Petsche Co

(div of Arrow Electronics), 2112 W Division St, Arlington, TX 76012, 817-461-9473,
info@aepetsche.com, www.aepetsche.com

Provides mil-aero wire and cable, connectors and harness management products.

Aero Express Inc

1825-1 SW Market St, PO Box 1212, Lee's Summit, MT 64082, 816-246-4500,

sales@aeroexpress.com, www.aeroexpress.com

Buys, sells, trades, rents and leases new and used instrument and avionics test equipment for the ramp and bench. Specializes in RVSM, Mode S and TCAS test equipment. Assists in determining the test equipment required to best utilize and increase profitability.

Aeroflex Colorado Springs

(div of Aeroflex), 4350 Centennial Blvd, Colorado Springs, CO 80907, 719-594-8035,
info-ams@aeroflex.com, www.aeroflex.com/hirel

Supplies integrated circuits and circuit card assemblies for aerospace and defense applications. Standard products include MIL-STD-1553 databus, transceivers, LEON 3FT microprocessors, memories, logic, FPGAs, microcontrollers, clocks, LVDS, Muxs and SpaceWire. Semi-custom products include RadHard ASICs and FPGA-to-ASIC conversions.

Aeroflex Metelics Hi-Rel Components

(div of Aeroflex), 9 Hampshire St, Lawrence, MA 01840, 978-683-4122,
metelics-sales@aeroflex.com,
www.aeroflex.com/ams/metelics

Manufactures high-reliability semiconductors for the military, defense, satellite and aerospace industries as well as serving as a high-reliability test facility for up-screening devices for critical customer applications. The company's product portfolio includes rectifiers, switching diodes, zener diodes and more. Headquartered in Lawrence, Massachusetts.

Aeroflex Motion Control Products

(div of Aeroflex), 350 Kennedy Dr, Hauppauge, NY 11783, 631-231-9100, sales-motion@aeroflex.com,
www.aeroflex.com/motion

Offers a range of capabilities in the design and manufacture of components and systems for the aerospace market. Products include DC motors, rotary and linear actuators, gearheads, gimbals, scanners, slip rings, twisted capsules and electronic controllers. Slip rings may be purchased on-line.

Aeroflex Plainview

(div of Aeroflex), 35 S Service Rd, Plainview, NY 11803, 800-843-1553, info-ams@aeroflex.com,
www.aeroflex.com/hirel

Provides products for satellite, avionics, and shipboard applications, such as 1553 databus/transceivers, voltage regulators, PWM, motor controllers, analog multiplexers, RDCs, op amps, comparators, D-to-A converters, point of load, battery electronic units, along with hybrid and MCM packaging technology.

Aeroflex RAD

(div of Aeroflex), 5030 Centennial Blvd,
Colorado Springs, CO 80919, 719-531-0800,
info-ams@aeroflex.com, www.aeroflex.com/rad
Offers radiation testing, screening and assembly
services such as MIL-STD radiation effects test
services, high/low dose Co60 gamma tests, neutron
displacement damage testing, single event effects
testing, and device preparation for single event effects
(SEE) testing. Offers rad-tolerant A-to-D converters and
a MOSFET family.

Aeroflex Signal & Control Solutions

(div of Aeroflex), 40 Industrial Way, Eatontown, NJ
07724, 732-460-0212, ascs-sales@aeroflex.com,
www.aeroflex.com/ascs
Supplies high-performance, solid-state RF and
microwave components and subsystems serving the
military, aerospace, commercial and instrumentation
markets. The company's 47,000 square foot facility
is located in Eatontown, New Jersey, to serve US
and international customers. Resources include
comprehensive in-house design, manufacturing and
testing.

Aeroflex Weinschel

(div of Aeroflex), 5305 Spectrum Dr, Frederick, MD
21703, 301-846-9222,
weinschel-sales@aeroflex.com,
www.aeroflex.com/weinschel
Offers products including fixed attenuators for test,
metrology and space applications, continuously
variable, manual step, solid-state digital step
and programmable step attenuators, high-power
terminations, resistive splitters and dividers, manual
phase shifters, and Planar Blind-Mate and Planar
Crown connectors. In addition, products include coaxial
components covering DC-40 GHz.

Aerojet

2001 Aerojet Road, PO Box 537012, Sacramento,
CA 95853-7012, 916-355-4000, ir@gencorp.com,
www.aerojet.com
Developes and manufactures aerospace propulsion
systems; precision tactical weapon systems; and
armament systems, including warhead and munitions
applications.

Aero Nav Laboratories

14-29 112th St, College Point, NY 11356,
718-939-4422, slevine_sales@aeronavlabs.com,
www.aeronavlabs.com
Provides a range of environmental simulation testing
for the commercial, military, marine, medical, and
aerospace communities. Testing includes shock,
vibration, temperature, salt spray, sand/dust, and
more. Also provides engineering services and contract
manufacturing.

Aerosim Flight Academy

2700 Flight Line Ave, Sanford, FL 32773,
407-330-7020, info@aerosimacademy.com,
http://academy.aerosim.com
Is a pilot training academy based in Sanford, Florida.
Offers both classroom and hands-on training in
aviation and helps students to prepare for a career as
a professional pilot.

Aerospace Optics Inc

3201 Sandy Ln, Ft Worth, TX 76112-7203,
817-451-1141, sales@vivisun.com,
www.vivisun.com
Innovator in the aerospace industry. The VIVISUN line
of ruggedized, illuminated push-button switches and
indicators continues to offer the best in class solution
for MIL-SPEC and aviation applications worldwide.

Aerotech Inc

101 Zeta Dr, Pittsburgh, PA 15238, 412-963-7470,
sales@aerotech.com, www.aerotech.com
Manufactures automated alignment, positioning, and
motion-control systems and components, including
gimbals, multi-axis photonic/electro-optic direct-drive
nanopositioners, gantry systems, goniometers, linear,
rotary and lift stages, single- and multi-axis motion
controllers, drives, linear and rotary motors, and
custom systems.

Aethercomm Inc

3205 Lionshead Ave, Carlsbad, CA 92010,
760-208-6002, sales@aethercomm.com,
www.aethercomm.com
Designs and manufactures high-power RF and
microwave systems, subsystems and amplifier
modules from DC to 40 GHz. Products are employed in
radar, electronic warfare and communication systems
and can be found on most fighter and attack aircraft in
the US inventory.

Agilent Technologies Inc

1400 Fountaingrove Pkwy, Mailstop M2SA,
Santa Rosa, CA 95403-1799, 707-636-9016,
www.agilent.com
Is a premier measurement company and technology
leader in communications, electronics, life sciences
and chemical analysis.

Agilent Technologies Inc

5301 Stevens Creek Blvd, Santa Clara, CA 95051,
800-829-4444, www.agilent.com/find/photonic
Provides high-performance test equipment for the
radar test and electronic warfare (EW) test industries,
as well as milcomms, and satellite testing industries.

AIM-USA

7 Neshaminy Interplex, Suite 211, Trevose, PA
19053, 267-982-2600, salesusa@aim-online.com,
www.aim-online.com
Manufactures and designs avionics test and simulation
products for MIL-STD-1553, STANAG3910/EFEX,
ARINC429, AFDX/ARINC664P7, Panavia serial link,
Fibre Channel and MIL-STD-1760 applications
including high-performance test and simulation
modules, embedded interfaces, data bus analyzers,
network analyzers and customized systems.

AirBorn

4321 AirBorn Dr, Addison, TX 75001-0519,
972-931-3200, prodinfo@airborn.com,
www.airborn.com
Designs and manufactures high-reliability standard and
custom nano, microminiature, PWB connectors, and
terminal blocks for a variety of applications, including
aerospace, medical, defense satellite electronics, oil
and gas exploration, and telecommunications.

Aircraft Instrument Support Services Inc

900 E Pecan St, Suite 300-231, Pflugerville, TX
78660, 512-252-3031, ralphposey@sbcglobal.net,
www.aissinc.net
Manufactures instrument and avionics test equipment.

Air Electro

9452 Desoto Ave, Chatsworth, CA 91311,
818-407-5400, www.airelectro.com
Manufactures connectors and supplies contacts for
the aerospace, defense, transportation and avionics
industries.

Aitech Defense Systems Inc

(sub of Aitech Rugged Group Inc), 19756 Prairie St,
Chatsworth, CA 91311, 888-248-3248,
sales@rugged.com, www.rugged.com
Provides military and space-qualified, commercial
off-the-shelf (COTS) embedded computing products for
rugged defense, aerospace and astronautics (space)
applications as well as provides radiation tolerant and
full MIL-SPEC solutions. Provides industry-standard,
open architecture VMEbus, CompactPCI and high-speed
serial fabric OpenVPX-based boards, power subsystems,
mass memory, enclosures and more.

Alacriety Services Inc

Data Center Operations Div, 1202 S Washington St,
Suite 616, Clifton, VA 22314, 888-538-8440,
info@alacriety-services.com,
www.alacriety-services.com
Offers data center operations including relocations
(domestic, international, and conflict), data center
engineering, and data center design. Provides
relocation of sensitive, high-value equipment.

Aldec Inc

2260 Corporate Cir, Henderson, NV 89074,
702-990-4400, sales@aldec.com, www.aldec.com
Specializes in design, development and verification
technologies for complex FPGA, ASIC, SoC and
embedded system designs.

All Flex Flexible Circuits & Heaters

1705 Cannon Ln, Northfield, MN 55057,
507-663-7162, information@allflexinc.com,
www.allflexinc.com
Manufactures flexible circuit and heaters providing
prototype to production volumes. Circuits include
single-sided, double-sided, multilayer, long Maxi-flex,
and rigid flex. Also manufactures custom and stock
polyimide and silicone rubber heaters, comprehensive
SMT and thru-hole component assembly. Serves
the medical, aerospace, military, industrial, and
instrumentation markets. Is AS9100C, ISO 9001:2008,
MIL-50884E and ITAR certified.

Allied Industrial Marketing

W62 N248 Washington Ave, Suite 208, Cedarburg,
WI 53012, 262-618-2403,
info@alliedindustrialmarketing.com,
www.alliedindustrialmarketing.com
Provides an unbiased, independent resource
for a variety of power quality services including
analysis, filter design and simulation, training and
seminars as well as technical marketing support
for key components required for the assembly of
high-performance power quality equipment.

Allied International

7 Hill St, Bedford Hills, NY 10507, 914-241-6900,
alec@alliedinter.com, www.alliedinter.com
Distributes components for extreme defense environments including temperature, shock, vibration, humidity, sand and dust. Offers LMB Aerospace electronics cooling and scavenge fans and blowers, Dearborn Electronics ceramic, plastic film, electrolytic and tantalum capacitors, and the new Thinfan, a lightweight and quiet plastic fan conforming to MIL-810 environmental standards

Allied Motion Technologies Inc

455 Commerce Dr, Suite 5, Amherst, NY 14228,
716-242-7535, inquiry@alliedmotion.com,
www.alliedmotion.com
Focuses exclusively on serving the motion control market. Designs and manufactures motor and electronic motion control products for a broad range of industries in the global commercial, industrial, and aerospace and defense sectors.

Allied Wire & Cable

101 Kestrel Dr, Collegeville, PA 19426,
484-928-6700, info@awcwire.com,
www.awcwire.com
Manufactures and distributes value-added electrical wire, cable, tubing, connectors, and components, serving the military and aerospace industries.

Alonex Electronic Engineering Ltd

PO Box 1377, Holon 5811203, Israel,
972-3-503-7095, i.alonex@gmail.com,
www.alonex.com
Provides professional electronic engineering services for product design and manufacturing. Performs complicated repairs of electronic boards on the component-level including full circuit refurbishment, industrial and non-standard embedded computer systems maintenance, discontinued products redesign, retrofitting and remanufacturing.

Alphabyte Technology

1449 Outwest Ct, Cool, CA 95614, 530-889-5517,
robert@datatapes.biz, www.datatapes.biz
Supplies equipment for computer, aerospace, medical and seismic requirements including storage media and data tape cartridges, including optical media, tape libraries, auto loaders, and drives. IT and computer-related products and equipment available. Offers electronic equipment, terminators, amplifiers, cables, switches, network analyzers and security equipment.

Alphi Technology

1898 E Southern Ave, Tempe, AZ 85282-5836,
480-838-2428, sales@alphitech.com,
www.alphitech.com
Provides MIL-1553, FPGA, data acquisition, digital servo control, DSP, industry packs, CompactPCI I/O, PMC, XMC, PCI, PCi Express, Mini PCI, PCi Express Mini and VME products. COTS products include industry pack carriers, special I/O-A/D, D/A, communication, digital I/O and custom design boards.

ALTEK Manufacturing

22819 E Appleway Ave, Liberty Lake, WA 99019,
509-924-3731, altek@altek-inc.com,
www.altek-inc.com
Operates as a full-service injection mold manufacturer in the Spokane area. Since 1976, the company has offered customers a wide range of contract manufacturing and product realization services to serve the aerospace industry. Take advantage of the injection molding, precision machining and high-performance components and subassemblies.

Altera Corp

101 Innovation Dr, San Jose, CA 95134,
408-544-7000, newsroom@altera.com,
www.altera.com
Provides custom logic solutions (FPGAs/CPLDs/ASICs) that address design concerns, from power consumption to performance to cost, serving the automotive, broadcast, computer/storage, industrial, medical, military, test/measurement and wireless/wireline industries. Solutions portfolio contains fully-integrated software development tools, embedded processors, optimized IP cores, reference designs and development kits.

Alternative Vision Corp

4729 E Sunrise Dr, #331, Tucson, AZ 85718,
520-615-4073, info@alt-vision.com,
www.alt-vision.com
Provides optics and imaging components and equipment including monochrome, color and infrared CMOS image sensors, visible, SWIR, MWIR and LWIR lenses, LED illuminators, multispectral cameras, smart cameras and custom development.

Alturdyne Power Systems

660 Steele St, El Cajon, CA 92020, 619-440-5531,
info@alturdyne.com, www.alturdyne.com
Offers custom engine generator sets using turbine, recip, or rotary engines for MIL-SPEC special projects.

AMCO Enclosures - an IMS Engineered Products Brand

1 Innovation Dr, Des Plaines, IL 60016,
847-391-8100, www.amcoenclosures.com,
www.amcoenclosures.com
Offers a full line of electronic enclosures for mil/aero, test/measurement and data including seismic, shielded and 901D shock/vibration versions. The heavy duty aluminum framing system is perfect for custom designs and consists of 8 castings and 12 extrusions that can be shipped as completely assembled design, kits, or material to stock.

American Crane & Equipment Corp

531 Old Swede Rd, Douglassville, PA 19518,
610-385-6061, sales@americancrane.com,
www.americancrane.com
Offers a wide range of services and capabilities, from complex custom and standard equipment to components and parts to meet all material handling needs. Is a complete source for high-quality specialty lifting equipment for the aerospace and nuclear industries.

American GMG Inc

29430 Union City Blvd, Union City, CA 94587,
510-675-9793, sales@american-gmg.com,
www.american-gmg.com
Produces and distributes molybdenum, niobium, rhenium, tantalum and tungsten metals, high-purity minor metals and oxides, rare earth metals and oxides, germanium metal and its related products, PBN crucibles and other products.

American Infrared Solutions (AIRS)

1 Wall St, Hudson, NH 03051, 662-626-2499,
rmannello@go-airs.com, www.go-airs.com
Offers a large format FPA and high-performance imaging. State-of-the-art technologies, designs, and vertically integrated manufacturing allow the company to provide system integrators and instrumentation developers advanced, mission-critical imaging capability. Has developed cameras, modules and IDCA for tactical missions, ISR and scientific instrument applications.

American Laser Enterprises LLC

28221 Beck Rd, Suite A-4, Wixom, MI 48393,
248-449-3714, info@a-l-e.net, www.a-l-e.net

American Opto Plus LED Corp

1206 E Lexington Ave, Pomona, CA 91766,
909-465-0080, info@aopled.com, www.aopled.com
Manufactures LED lamps, displays, SMD lamps and many other LED related products.

Ametek Aerospace & Defense

50 Fordham Rd, Wilmington, MA 01887,
978-988-4711, aerosales@ametek.com,
www.ametekaerodefense.com
Manufactures highly engineered and cost-effective engine/airframe sensor suites including airborne data management, AMPHION arc fault protection-detection and power distribution, cooling/heating/ventilating environmental control systems, motors, fans, blowers, heaters, heat exchangers, emergency generators, solid-state circuit breakers, fault detection devices, power conversion units, hydraulic pumps, flap motors, starter generators and more.

AMOTronics

Otto-Blumenthal-Str 25, Aachen 52074, Germany,
49-241-8867-128, info@amotronics.de,
www.amotronics.de
Provides fast data acquisition with up to 1 GS/s with fiber-coupled measurement probes for synchronous measuring in large areas of several square miles (eg 50 miles). Optimal to observe test explosions from a safe distance. Multi-channel configurations and custom adaptations are possible based on a modular transient recorder platform.

Ampex Data Systems Corp

500 Broadway, Redwood City, CA 94063-3436,
650-367-2011, info@ampex.com, www.ampex.com
Supplies high-capacity, high-performance digital storage systems capable of functioning in demanding environments on land, at sea or in the air. Works closely with its customers to provide solutions to complex data capture requirements that may involve major modifications to an existing product or development of an entirely new product.

Amphenol Aerospace

(sub of Amphenol Corp), 40-60 Delaware Ave, Sidney, NY 13838, 800-678-0141, cservice@amphenol-aa.com, www.amphenol-aerospace.com

Manufactures interconnect products for the military, commercial aerospace and industrial markets. Designs, manufactures and markets cylindrical and rectangular, electronic, fiber optic, EMI/EMP filter, and a variety of special applications connectors and interconnect systems.

Amphenol Alden Products Co

117 N Main St, Brockton, MA 02301, 508-427-7000, joe.talkowski@amphenolalden.com, www.amphenolalden.com

Manufactures high-performance connectors and cable assemblies for military, industrial, and medical applications. Develops "Art to Part" high reliability, rugged interconnect solutions. Provides collaborative engineering and a wide variety of manufacturing capabilities, including assembly and overmolding.

Amphenol PCD

(div of Amphenol Corp), 72 Cherry Hill Dr, Beverly, MA 01915, 978-624-3400, info@amphenolpcd.com, www.amphenolpcd.com

Designs, manufactures, and supplies interconnect products for military and aerospace applications. Provides users in the military and aerospace markets with a variety of reliable, high-performance connectors, rugged system packages, and system attachments.

Ampro ADLINK Technology Inc

5215 Hellyer Ave, #110, San Jose, CA 95138, 408-360-0200, info@adlinktech.com, www.adlinktech.com

Develops and introduces innovative computing technologies by implementing embedded computing roadmaps and selecting computer solutions that best fit target markets. This enables the company to provide the highest quality and performance products with the long life cycles required by embedded and applied computing markets.

AMREL/American Reliance Inc

3445 Fletcher Ave, El Monte, CA 91731, 626-443-6818, www.amrel.com

Manufactures high-performance, rugged mobile computers for the military and federal government. Customizable COTS systems feature a modular platform, allowing for easy upgrading, field servicing, and device integration. Certified to MIL-STD 810F, MIL-STD 461E for ruggedness, and electromagnetic emissions control.

AMWEI Thermistor

11-502 Songpingshan, Langshan Rd Nanshan, Shenzhen, Guangdong 518057, China, 86-755-2657-0111, sales@amwei.com, www.amwei.com

Manufactures PTC and NTC thermistors (thermally sensitive resistors) and thermistor temperature sensor probes. Thermistors are used for overcurrent overload protection, temperature sensing measurement protection, in-rush current suppressing limiting, heating, and soft switching.

A'n D Cable Products Inc

1460 Washington Blvd, Suite A-102, Concord, CA 94521, 925-672-3005, sales@andcable.com, www.andcable.com

Provides products including cable management, copper Cat5E/Cat6 and preterminated fiber cables. Has developed a quick and easy cable labeling system called Unitag and labor saving custom straps for a major server manufacturer.

Anritsu Co

1155 E Collins Blvd, Suite 100, Richardson, TX 75081, 800-267-4878, moreinfo@anritsu.com, www.us.anritsu.com

Provides solutions for existing, next-generation wired, wireless communication systems and operators. Products include wireless, optical, microwave/RF and digital instruments as well as operations support systems for R&D, manufacturing, installation, and maintenance. Also provides precision microwave/RF components, optical devices and high-speed electrical devices for communication products and systems.

Aoming Electronic Co Ltd

901 #4 Bldg, Haifuli, Yatai Plaza, Haicang, Xiamen, Fujian 361026, China, 86-592-6053088, sales@gebright.com, www.gebright.com

Dedicates itself to the R&D and manufacturing of Eyescare LED lamps, which only produce high-quality LED light, relying upon deep plowing lighting technology of "greening for home and energy star saving." The exclusive Eyescare technology was researched and developed by the company's scientific and technical personnel.

API Technologies Corp

4705 S Apopka Vineland Rd, Suite 210, Orlando, FL 32819, 855-294-3000, sales@apitech.com, www.apitech.com

Provides RF/microwave, microelectronics, and security technologies for critical and high-reliability applications, including aerospace, defense, industrial, medical, energy, and communications. (NASDAQ: ATNY).

AppliedMicro

215 Moffett Pk Dr, Sunnyvale, CA 94089, 408-542-8600, support@amcc.com, www.apm.com

Provides semiconductor technology and energy efficient sustainable solutions to process, transport and store information for the next generation. Provides an Internet data center and telecommunication carrier central office equipment.

Applied Optoelectronics Inc

13111 Jess Pirtle Blvd, Sugar Land, TX 77478, 281-295-1800, info@ao-inc.com, www.ao-inc.com

Develops and manufactures advanced semiconductor diode lasers. The lasers are used in the wireless, cable television (CATV), and telecommunications industries, as well as for spectroscopy systems.

Applied Signal Technology Inc

400 W California Ave, Sunnyvale, CA 94086, 408-749-1888, customer@appsig.com, www.appsig.com

Provides digital signal processing products, systems, and services in support of intelligence, surveillance, and reconnaissance (ISR) for the collection of COMINT, ELINT, and sensor signal processing for radar, sonar, electromagnetic, and imaging missions.

AR Modular RF

21222 30th Dr SE, Suite 200, Bothell, WA 98021, 425-485-9000, armodularsales@arworld.us, www.arww-modularrf.com

Manufactures broadband 30–512 MHz battle-tested communications booster amplifiers, KMW1031 20W man-pack, AR-35 35W portable or one of the vehicle mounting units like the 50W AR-50 system.

Arnold Magnetics Corp

841 Avenida Acaso, Camarillo, CA 93012, 805-484-4221, www.amcpower.com, www.amcpower.com

Manufactures rugged COTS, configurable AC/DC power supplies, DC/DC converters, power distribution assemblies and transformer rectifier units. Offers custom designs and build-to-print capabilities. Has supported the military/aerospace and high-rel industrial markets for over 50 years.

Arraid Inc

9414 E San Salvador Dr, Suite 250, Scottsdale, AZ 85258, 480-699-3047, jenkins@arraid.com, www.arraid.com

Develops and produces new plug-compatible replacements for old disk drives and tape drives produced by DEC, Encore, Gould, HP and more.

Arrow Electronics Inc

7459 S Lima St, Bldg 1, Englewood, CO 80112, 800-833-3557, www.arrow.com

Provides semiconductor and passive, electro-mechanical and connector (PEMCO) products and services. Supports its extensive product offering with supply chain solutions, world-leading engineering and design services, technical expertise, demand creation and fulfillment, and skilled sales teams to effectively meet customer needs.

ASC Signal Corp

1120 Jupiter Rd, Suite 102, Plano, TX 75074, 214-291-7654, satcomtechsupport@ascsignal.com, www.ascsignal.com

Manufactures satellite earth station, air traffic control radar antenna and high-frequency antenna products for broadcast, government, military and enterprise satellite communication applications.

Ashine Industries Inc

5 Orchid Ct, Toronto, ON M2L 2X8, Canada, 416-493-5187, ashine@ashine.com, www.ashine.com

Ashtech OEM

Trimble Navigation Div, Rue Thomas Edison,
ZAC de la Fleuriaye, BP 60433, Carquefou
Cedex 44474, France, 33-2-28-09-38-00,
oemsales@ashtech.com, www.ashtech.com
Provides precision GPS and GPS+GLONASS products
for positioning, guidance, navigation, and timing with a
wide range of solutions for diverse, high-performance
applications such as survey, vehicle navigation,
avionics, and others.

ASIC Advantage Inc

1290-B Reamwood Ave, Sunnyvale, CA 94089,
408-541-8686, sales@asicadvantage.com,
www.asicadvantage.com
Specializes in the development and production of
products within power management, LED lighting,
portable electronics, sensors and instrumentation, and
motor controls. Products range from high-volume,
low-cost ICs to complex system-on-chip. Analog and
digital mixed signal expertise includes high-voltage and
radiation tolerant applications.

Aspen Systems Inc

184 Cedar Hill St, Marlborough, MA 01752,
508-481-5058, jburnett@aspensystems.com,
www.aspensystems.com
Develops custom environmental control systems for
liquid, air, and cold plate electronics using highly
miniaturized vapor compression systems to customers'
specifications. Standard products are qualified and
shipping into programs across DOD. Has created
SWAP effective solutions for transit case, manned,
unmanned, and aerostat vehicles.

Astro-Med

Test & Measurement Product Group Div, 600 E
Greenwich Ave, West Warwick, RI 02893,
401-828-4000, mtgroup@astromed.com,
www.astro-med.com/ruggedized_products
Designs and manufactures ruggedized printers and
Ethernet switches used in demanding military and
defense applications, including airborne, shipboard,
and ground vehicle applications.

Atego

5930 Cornerstone Ct W, Suite 250, San Diego, CA
92121, 858-457-2700, info@atego.com,
www.atego.com
Offers mission- and safety-critical solutions to
mil-aero, telecommunications, industrial automation
and transportation industries. Aonix PERC is the
leading high-reliability, real-time embedded Java
solution. Is a leading Ada supplier with a significant
number of certified Ada applications at the highest
level of criticality, with its ObjectAda and RAVEN
technologies.

Atego

701 Eagle Tower, Montpellier Dr, Cheltenham
GL50 1TA, UK, 44-1242-229-300, info@atego.com,
www.atego.com
Offers solutions for all complex, mission and
safety-critical systems and software. Is an
independent supplier of systems engineering and
embedded/real-time software development tools and
solutions.

Atmel Corp

2325 Orchard Pkwy, San Jose, CA 95131,
408-441-0311, www.atmel.com
Designs and manufactures microcontrollers, capacitive
touch solutions, advanced logic, mixed-signal,
nonvolatile memory and radio frequency (RF)
components.

Austin Semiconductor Inc

8701 Cross Pk Dr, Austin, TX 78754,
512-339-1188, sales@austinsemiconductor.com,
www.austinsemiconductor.com
Has supplied technology solutions to the high-reliability
marketplace for more than 20 years. Being fully
QML certified and ISO 9001/AS9100 registered, the
company meets and exceeds the demands of military,
aerospace, transportation, industrial embedded, and
medical diagnostic markets. Current product offerings
include a line of hi-rel ceramic components and more.

Avalon RF

344 Coogan Way, El Cajon, CA 92020,
619-401-1967, rich@avalonrf.com,
www.avalonrf.com
Provides cost-effective COFDM robust wireless video
link solutions and two-way digital wireless control for
UAVs, robots, and PTZ controls for the military and
surveillance. Uses true diversity wireless COFDM digital
with NTSC or PAL and the new HD COFDM low latency,
long distance-40 miles, high-resolution 1080/720 new
release.

Averna

87 Prince St, Montreal, QC H3C 2M7, Canada,
514-842-7577, sales@averna.com,
www.averna.com
Provides manufacturing solutions for
communications/electronics device-makers worldwide,
helping to deliver a better end-user customer
experience. Key clients use Proligent, RF Test
Instruments, and other test solutions to accelerate
product development, reduce manufacturing costs,
achieve superior quality throughout the life cycle, and
solve critical supply chain issues.

Aviel Electronics

(div of RF Industries), 3060 E Post Rd, Suite 100,
Las Vegas, NV 89120, 702-739-8155,
aviel@rfindustries.com, www.avielelectronics.com

Avionics Interface Technologies (AIT)

3703 N 200th St, Elkhorn, NE 68022,
402-763-9644, sales@aviftech.com,
www.aviftech.com
Designs and manufactures avionics modules and
analyzers for Fibre Channel, HS1760E/MIL-STD-1760,
MIL-STD-1553, ARINC 429, ARINC 664, and
time-triggered applications. All avionics interfaces
include a high-level application programmer interface
and device drivers for many of the most popular
operating systems.

Avitech International Corp

8655 154th Ave NE, Redmond, WA 98052,
425-885-3863, sales@avitechvideo.com,
www.avitechvideo.com
Designs, develops and distributes multiviewers for the
professional A/V, broadcast, security and surveillance
and IT markets.

Avittor International Corp

2050 South Blvd, Suite 1064, Bloomfield Hills, MI
48303, 248-894-1900, asanne@avittor.com
Brings a broad range of engineering resources
and technical innovation to a variety of engineering
fields. The engineering solutions help clients improve
innovation in engineering and operational efficiency to
potentially create and retain valuable markets.

Avnet Inc

2211 S 47th St, Phoenix, AZ 85034,
800-408-8353, customer.care@avnet.com,
www.em.avnet.com/milsupport
Distributes electronic components, connectors,
semiconductors, technology solutions, computer
products and embedded technology.

Avon Engineering Supplies Ltd

5 Old Mill Close, Bristol, South Gloucestershire
BS37 8QD, UK, 44-1454-324-546,
info@avontapdie.co.uk, www.avontapdie.co.uk
Manufactures and supplies HSS cutting tools. Holds
very large stocks of HSS taps, dies and die nuts. Sells
thread forms including metric, UNC, UNF, BSP, NPT,
BSPT, BSW, BA, ME, BSF and many more available all
from stock worldwide.

Avo Photonics

700 Business Center Dr, Suite 125, Horsham, PA
19044, 215-441-0107, sales@avophotonics.com,
www.avophotonics.com
Designs, develops, and manufactures confidential,
client-owned opto-electronic solutions for military,
aerospace, medical, industrial and communications
applications. Offers support throughout all stages of a
product life cycle from design to volume production.

AWT-Global LLC

117 Grand Ave, Hackettstown, NJ 07840,
973-321-3423, info@awt-global.com,
www.awt-global.com
Offers advanced wireless technology for defense,
aerospace and telecommunication. Provides radar
simulators with up to 128 simultaneous signals
for radar receiver testing and training of operating
personal and wireless test and measurement products.

AWTI - 3rd Eye MobileVision

9940 W Sam Houston Pkwy, Suite 330, Houston, TX
77099, 866-804-2984, info@awti.com,
www.awti.com
Specializes in cutting-edge, risk mitigation technology
that provides the tools needed to modify drivers'
behavior, reduce accident costs, and generate more
revenue from vehicles. Specializes in driver behavior
modification, backup cameras, object detection
systems (radar), and tire pressure monitoring.

Axcel Photonics Inc

45 Bartlett St, Marlborough, MA 01752,
508-481-9200, sales@axcelphotonics.com,
www.axcelphotonics.com

Manufactures semiconductor lasers, specializing in high-power diode lasers from 780–1064 nm. Product lines include lasers for solid-state laser pumping, medical/dental, telecommunication, imaging, laser display, printing, and spectroscopy applications. Lasers are available as either singlemode or multimode devices.

Axiomatic Technologies Corp

5915 Wallace St, Mississauga, ON L4Z 1Z8, Canada,
905-602-9270, sales@axiomatic.com,
www.axiomatic.com

Designs and manufactures CAN networked electronic controls, gateways, I/O, valve drivers, angle sensors, displays, resolvers, DC/DC converters, LVDT simulators, battery chargers, motor controllers, transient surge suppressors, and current/voltage/PWM converters.

Ball Aerospace & Technologies Corp

(sub of Ball Corp), 1600 Commerce St, Boulder, CO 80301, 303-939-6100, info@ball.com,
www.ballaerospace.com

Designs, develops and manufactures innovative aerospace systems. Produces spacecraft, instruments and sensors, RF and microwave technologies, data exploitation solutions and a variety of advanced aerospace technologies and products that enable exciting missions.

Ballard Technology

(an Astronics Co), 11400 Airport Rd, Suite 201, Everett, WA 98204, 425-339-0281,
sales@ballardtech.com, www.ballardtech.com

Develops and manufactures avionics test and embedded solutions for MIL-STD-1553, ARINC 429, 629, 708, 717, 664 (AFDX), and other protocols. Products include computer interface cards, tethered interfaces (USB and Ethernet), stand-alone interface devices, rugged embedded computers, and software. Also produces embedded ethernet switches for military and flight systems.

Barco

11101 Trade Center Dr, Rancho Cordova, CA 95670,
1-888-414-7226, www.barco.com

Designs and develops visualization solutions for a variety of selected professional markets including control rooms, defense and aerospace, digital cinema, healthcare, media and entertainment, and simulation and virtual reality.

Barco Federal Systems LLC

3059 Premiere Pkwy, Suite 100, Duluth, GA 30097,
678-475-8080, www.barco.com

Specializes in C4ISR visualization systems and products and capabilities for land, airborne, expeditionary, and maritime applications for both military and commercial customers. The “visualization and SA products” include direct view displays primarily based on today’s LCD technology, ruggedized embedded computing, video networking with record and playback capabilities.

BEEcube Inc

39465 Paseo Padre Pkwy, Suite 3700, Fremont, CA 94538, 510-252-1136, sales@beecube.com,
www.beecube.com

Provides advanced all programmable FPGA platforms for real-time prototyping, development and deployment in such applications as software defined radio, RF data capture, advance radar, military WLAN, UWB and optical interface. Product line includes FPGA systems, mixed-signal FMC cards, optimized IP cores and intuitive software development tools.

Behlman Electronics Inc

(sub of Orbit International), 80 Cabot Ct, Hauppauge, NY 11788, 631-435-0410 x195,
sales@behlman.com, www.behlman.com

Manufactures standard, custom, COTS, form-fit-function replacement and build-to-print AC power sources, converters and frequency converters, inverters, on-line UPS, DC/DC, and AC/DC. Applications include ATE, avionics test and repair, motor generators replacement, motor test, and IEC testing.

Belden

7733 Forsyth Blvd, Suite 800, St Louis, MO 63105,
206-905-1395, info@belden.com, www.belden.com

Manufactures specialty cable for communications, broadcast, industrial, network, sound, security, and alarm applications. Product lines include multiconductor, electro optics, coaxial, high-performance twisted pair, high-temperature, flat cable, hook-up, and lead wire.

BellowsTech LLC

1289 N US Hwy 1, Suite 1, Ormond Beach, FL 32174, 386-615-7530, bellows@bellowstech.com,
www.bellowstech.com

BE Meyers & Co Inc

9461 Willows Rd NE, Redmond, WA 98052,
425-881-6648, sales@bemeyers.com,
www.bemeyers.com

Manufactures lasers and night vision devices primarily for military and law enforcement applications. Specializes in lasers for pointing, aiming, marking, and illuminating, weapon mounted lasers, and more.

Berkeley Nucleonics Corp

2955 Kerner Blvd, San Rafael, CA 94901-5533,
415-453-9955, info@berkeleynucleonics.com,
www.berkeleynucleonics.com

Provides precision electronic instrumentation for test, measurement, and nuclear research. Products range from pulse generators and digital delay generators to specialized hand-held instruments and portal monitors capable of radiation detection and isotope identification.

Berliner Glas KGaA Herbert Kubatz GmbH & Co

Space Div, (sub of Berliner Glas Group), Waldkraiburger Str 5, Berlin 12347, Germany,
49-3060-9050, info@berlinerlas.de,
www.berlinerlas.com

Customizes space systems which have to cope with strong cosmic radiation, shock and vibration stresses and severe temperature fluctuations, such as optical systems for free space communication or modules for satellites, from idea to serial production, using leading edge material and manufacturing technology like anodic bonding of glass and ceramics.

BEST Inc

3603 Edison Pl, Rolling Meadows, IL 60008,
847-797-9250, bwet@solder.net, www.solder.net
Offers contract PCB rework and repair services, professional soldering skills training/certification and rework and repair products at an ITAR registered facility. Specializes in the rework of BGAs, LGAs as well as difficult to repair PCBs. Other rework service include the reballing of BGAs.

Beyond Electronics Corp

3209 Gresham Lake Rd, Suite 113, Raleigh, NC 27615, 919-231-8000,
sales1@beyondelectronics.us,
www.beyondelectronics.us

Designs and manufactures high-reliability computer equipment and software for a large array of applications ranging from military mission critical modules to automotive real time control. The experience includes graphics, image processing, networking, real-time software, complex FPGA development, high-performance communications and high-performance computing.

Binder-USA

3903 Calle Tecate, Camarillo, CA 93012,
805-437-9925, sales@binder-usa.com,
www.binder-usa.com

Designs and manufactures circular connectors and cordsets for use in industrial environments including factory automation, process control, and medical technology applications.

BI Technologies

(sub of TT Electronics), 4200 Bonita Pl, Fullerton, CA 92835, 714-447-2345, sales@bitechnologies.com,
www.bitechnologies.com

Manufactures power resistors, and resistor networks, chip resistor arrays, integrated DC passive networks, trimming and precision potentiometers, position sensors, transformers, inductors, and hybrid microelectronics for communication, computer, automotive, medical, and industrial applications.

BittWare

9 Hills Ave, Concord, NH 03301, 603-226-0404,
info@bittware.com, www.bittware.com

Designs and deploys high-end signal processing board-level solutions that significantly reduce technology risk and time-to-revenue for OEM customers. Solutions are exclusively based on the latest FPGA technology from Altera and industry-standard COTS form factors including PCIe, VPX/OpenVPX, AMC, XMC. Has over two decades of experience.

Blue Sky Research

1537 Centre Pointe Dr, Milpitas, CA 95035,
408-941-6068, sales@blueskyresearch.com,
www.blueskyresearch.com

Is a volume manufacturer of fiber-coupled, free-space and multi-wavelength laser modules, semiconductor laser devices, and OEM laser components. Offers off-the-shelf or custom solutions which provide the best possible balance of performance, value and quality. Vis-IR wavelengths available. Fielded over 1 million lasers since inception in 1989. Manufactured in the US.

Boker's Inc

3104 Snelling Ave, Minneapolis, MN 55406-1937,
612-729-9365, sales@bokers.com,
www.bokers.com

Manufactures flat washers, spacers and shims with an outside diameter from 0.080" to 12" and material thickness from 0.005" to 0.134". Also inventories thousands of stock tools in order to manufacture specific non-standard washer sizes without tool charges with diameters from 0.080" to 5.140".

Boonton (A Wireless Telecom Group Co)

25 Eastmans Rd, Parsippany, NJ 07054,
973-386-9696, info@boonton.com,
www.boonton.com

Designs and manufactures RF, microwave, audio, modulation and impedance test instrumentation, and sensors for military and commercial applications. Offers various power meters in multiple formats including stand alone, USB and peak.

Bravo Communications Inc

3463 Meadowlands Ln, San Jose, CA 95135,
408-297-8700, sales@bravobravo.com,
www.bravobravo.com

Broadax Systems Inc

17539 E Rowland St, City of Industry, CA 91748,
626-964-2335, info@bsicomputer.com,
www.bsicomputer.com

Designs and manufactures ruggedized flat-panel displays and computers.

Butler Mfg

1540 Genessee St, Kansas City, MO 64102,
816-968-3000, mbruns@buttermfg.com,
www.buttermfg.com

Provides buildings for industry. The company maximizes productivity with clear-span structural framing, weathertight standing-seam metal roof systems, and an energy-efficient building envelope. Can compress building schedules to get up and running faster.

Cable Labels USA

Network Connections Group USA Div, Lake Mary Blvd, Lake Mary, FL 32746, 407-321-7394,
info@cablelabelsusa.com, www.cablelabelsusa.com

Provides the most cost-effective cable labeling products to ensure successful completion of projects based on sensible engineering and budgetary requirements. Offers cost-effective tech cable labels made in the US.

CAD/CAM Services Inc

1529 Brooklane, Suite 201, Celina, TX 75009,
800-938-7226, scott@cadcam.org,
www.cadcam.org

CAE

8585 Cote de Liesse, St Laurent, QC H4T 1G6,
Canada, 514-341-6780, milsim@cae.com,
www.cae.com

Specializes in modeling, simulation and training for civil aviation and defense. The company's business is diversified, ranging from the sale of simulation products to providing comprehensive services such as training and aviation services, integrated enterprise solutions, in-service support and crew sourcing.

CAE USA

(div of CAE), 4908 Tampa W Blvd, Tampa, FL 33634,
813-885-7481, milsim@cae.com, www.cae.com

Specializes in modeling, simulation and training for civil aviation and defence. The company's business is diversified, ranging from the sale of simulation products to providing comprehensive services such as training and aviation services, integrated enterprise solutions, in-service support and crew sourcing.

CALCULEX Inc

132 W Las Cruces Ave, Las Cruces, NM 88001,
505-525-0131, sales@calculex.com,
www.calculex.com

Provides front-end electronics for high-rate digital instrumentation data recorders.

Camber Corp

4885 Alpha Rd, Suite 110, Dallas, TX 75244,
972-308-2008, radar@camber.com,
www.camber.com

Designs and manufactures RF, IR and EO sensor simulators, maintenance training simulations, real-time visual applications interfaced to the latest image generators and the environmental models/databases required to support them. Designs and manufactures custom PCI and VME video and interface boards.

Canyonwest Cases

PO Box 19827, 14411 N Hampstead Dr, Fountain Hills, AZ 85269, 480-816-9652,
sales@canyonwestcases.com,
www.canyonwestcases.com

Provides military-grade reusable cases of all shapes and sizes. Custom products include hard cases, soft cases and foam interiors. Provides stock cases from top manufacturers including SKB, Pelican, Gator, Parker, Hardigg and others. Emergency lighting products include the Pelican remote area lighting systems (RALS) portable lights.

Carr Quality Compliance Consulting

28536 Oakmont, Mission Viejo, CA 92692,
949-306-4354, fred@usaqms.com,
www.usaqms.com

Offers AS9100 ASD (aviation, space and defense) quality system management consulting. Services include internal audit, GAP analysis, management review, new quality program implementation and pre-assessment for AS9100 registration certificate.

Cascade TEK

5245-A NE Elam Young Pkwy, Hillsboro, OR 97124,
503-648-1818, www.cascadetek.com,
www.cascadetek.com

Operates as an A2LA accredited, DSCC MIL-STD 202 testing facility, well equipped to perform environmental tests required by MIL-STD and RTCA-D0-160. Offers vibration, shock, acceleration, blowing sand/dust, ingress protection, salt/fog, thermal shock, temp/humidity, altitude, and combined temp/vibration. Is also ISTA certified for package testing.

CAS DataLoggers

12628 Chillicothe Rd, Unit J, Chesterland, OH 44026, 440-729-2570, sales@dataloggerinc.com,
www.dataloggerinc.com

Manufactures data acquisition and control systems including high-performance real-time systems for use in data acquisition, test and control applications featuring microsecond precision. Configuration assistance, custom programming, custom system design and assembly, post-sales technical support, and repair and calibration services are included.

Celsia Inc

18470 Murphy Springs Ct, Morgan Hill, CA 95037,
408-577-1407, gmeyer@celsiatechnologies.com,
www.celsiatechnologies.com

Provides standard and custom advanced thermal solutions for challenging applications. Designs and manufactures thermal solutions based on two-phase heat transfer technology for the most challenging thermal problems.

Central Semiconductor Corp

145 Adams Ave, Hauppauge, NY 11788,
631-435-1110, tdonofrio@centralsemi.com,
www.centralsemi.com

Manufactures discrete semiconductors packaged in both through-hole and surface mount case types. Products include transistors, MOSFETs, diodes, rectifiers, current limiting diodes, bridge rectifiers, thyristors and silicon carbide devices.

Cepoint Networks LLC

1 W Otterson St, Nashua, NH 03060,
603-883-7979 x103, sales@cepoint.com,
www.cepoint.com

Manufactures rugged, portable and rackmount computers, and airborne DVR systems with IRIG-B time stamp for real-time video acquisition. Products include Mult-I/O PCI bus portable PC w/SSD, and Studio 9000-DVR rack-mountable DVR. Both DVI/VGA, HD-SDI video and data capture systems records directly to hard disk.



CES - Creative Electronic Systems SA

38 Ave Eugène Lance, Grand-Lancy CH-1212, Switzerland, 41-22-884-51-00, ces@ces.ch, www.ces.ch

Designs and manufactures complex high-performance avionics, defense and communication boards, subsystems and complete systems for 30 years. Is involved in the most advanced aerospace and defense programs throughout Europe and the US, and delivers innovative solutions worldwide. Headquartered in Geneva, Switzerland.

Chassis Plans

10123 Carroll Canyon Rd, San Diego, CA 92131, 858-571-4330, davidl@chassisplans.com, www.chassis-plans.com

Designs, builds, and integrates military- and industrial-grade rackmount computer systems and LCD displays and keyboards that support mission-critical applications for defense, aerospace, and homeland security are experts at custom system design and manufacture when an off-the-shelf solution is not available.

Cirexx International Inc

791 Nuttman St, Santa Clara, CA 95054, 408-988-3980, dkaufman@cirexx.com, www.cirexx.com

Offers quick-turn fabrication of rigid-flex, flex and rigid PCBs. Is MIL-PRF-31032 and AS9100C certified. Offers one piece to program volumes. Specializes in upfront engineering services. Also, provides design layout services, and in-house PCBA assembly services certified to J-STD-001 ES.

Clary Corp

150 E Huntington Dr, Monrovia, CA 91016, 626-359-4486, sales@clary.com, www.clary.com

Focuses on providing protection for critical applications where downtime is simply not an option. In the 1970's, the company designed the first all solid-state uninterruptible power supply (UPS) and ever since, has been refining this technology to meet the expanding needs of customers the world over.

Clear-Com

1301 Marina Village Pkwy, Suite 105, Alameda, CA 94501, 855-237-4624, magsales@clearcom.com, www.clearcom.com

Delivers professional communication solutions for command and control, training and simulation, test and evaluation, and more. For over 40 years, The company's partyline, digital matrix, wireless, and IP-based intercom solutions have led the industry with high-quality audio performance that meets critical needs in a variety of settings.

ClearDrain

(div of Melville Industries Inc), PO Box 555, Willingboro, NJ 08046, 856-461-0091, sales@cleardrainusa.com, www.cleardrainusa.com Manufactures the ClearDrain system which eliminates air dryers on vehicles and equipment. Made in the US. Weighs 7.2 lbs installed. Temperatures range from -100°F to +185°F. All components are stainless and brass. Electronics are solid-state. System is self-cleaning, self-defrosting and self-lubricating. Dessicant free. Offers a full five-year unlimited hours/mileage,

Coaxial Components Corp (Coaxicom)

1501 SE Decker Ave, # 201, Stuart, FL 34994-3964, 866-262-9426, sales@coaxicom.com, www.coaxicom.com Manufactures all series of coaxial connectors/adapters, cable assemblies, attenuators, terminations, phase adjusters, DC blocks and more. Parts are in accordance with MIL-PRF-39012, MIL-A-55339, MIL-C-83517 and MIL-STD-348 as applicable.

Cobham Antenna Systems

Microwave Antennas Div, Lambda House, Little Green, Newmarket, Suffolk CB8 9RG, UK, 44-1638-731-888, newmarket.sales@cobham.com, www.cobham.com/antennasystems/microwaveantennas

Designs and manufactures high-quality antennas for aerospace, military and security applications including electronic warfare (EW), UAV, ground, air, body worn and many more. Antennas are developed quickly and effectively to customer's specific requirements.

Cobham Mission Systems

2734 Hickory Grove Rd, Davenport, IA 52804, 563-383-6000, cms.iainfo@cobham.com, www.cobham.com

Designs, develops and manufactures critical technology for air-to-air refueling, weapons release, life support and explosive ordnance disposal robot applications and operates/maintains more than 150 aircraft on specialist flight operations.

Coherent Inc

5100 Patrick Henry Dr, Santa Clara, CA 95054, 408-764-4983, tech.sales@coherent.com, www.coherent.com

Designs, manufactures and markets laser sources, laser tools, accessories and components for a wide range of markets and applications since 1966. Also offers leading-edge beam forming and beam guidance systems as well as laser beam measurement and control equipment.

Coherent Logix Inc

1120 S Capital of Texas Hwy, Bldg 3, Suite 310, Austin, TX 78746, 512-382-8940, www.coherentlogix.com

Provides low-power, high-performance, C-programmable processors for the embedded systems market.

CohuHD

12367 Crosthwaite Cir, Poway, CA 92064, 858-391-1795, news@cohuhd.com, www.cohuhd.com

Manufactures high-definition video systems designed for the performance requirements associated with critical infrastructure applications. Solutions integrate the latest high-definition video imaging and compression technologies into the company's rugged camera products.

Combined Systems Inc

388 Kinsman Rd, Jamestown, PA 16134, 724-932-2177, mjovenall@combinedsystems.com, www.combinedsystems.com

Engineers, manufactures and supplies company tactical munitions and crowd control devices to armed forces, law enforcement, corrections and homeland security agencies.

Comco Inc

2151 N Lincoln St, Burbank, CA 91504, 818-841-5500, sales@comcoinc.com, www.comcoinc.com

Manufactures micro-abrasive blasting materials used in a range of military and aerospace electronics applications. The MicroBlaster is used for conformal coating removal and in the manufacture of actuator pumps, pneumatic valves, gyro components, thermocouples, load cells, and strain gauges. Also used for maintenance on turbine blades.

Comdel Inc

11 Kondelin Rd, Gloucester, MA 01930, 978-282-0620, amy_greaves@comdel.com, www.comdel.com

Offers RF generators, DC power supplies and matching networks that are used by the leading semiconductor equipment manufacturers, solar cell/photovoltaics manufacturers and IC makers throughout the world. The combination of products and people provides customers with advanced power supply technology, proven techniques and product reliability ensuring lasting partnerships.

Compsim

1040 Thornridge Ct, Brookfield, WI 53045, 262-797-0418, info@compsim.com, www.compsim.com

Offers KEEL (knowledge enhanced electronic logic) technology which allows a subject matter expert to model, and then deploy, right-brain decisions in applications and/or devices. KEEL is 100% auditable. It can be used in very complex, nonlinear systems (dynamically changing systems) without using mathematical formulas.

ComSpec USA Ltd

Chicago Sky Light Div, PO Box 333, Gilberts, IL 60136-0333, 847-836-2569, paul@chicagoskylight.com, www.chicagoskylight.com Distributes Sky Scapes, a durable, lightweight decorative fluorescent light diffusers that replace existing light panels. Diffusers measure 23.75x47.75" and 0.45 mils thick. Diffusers drop into a standard 2x4" light frame. Sky Scapes will make every day, a bright sunny day. Designs offer many unique sky scenes.

Comtelco Industries Inc

501 Mitchell Rd, Glendale Heights, IL 60139,
630-790-9894, sales@comtelcoantennas.com,
www.comtelcoantennas.com

Offers a complete line of base station antennas, yagi antennas, mobile antennas, wireless internet antennas, sector antennas, panel antennas, GPS antennas, portable antennas, plus antenna accessories including antenna mounting hardware, cables and connectors.

Concorde Battery Corp

2009 San Bernardino Rd, West Covina, CA 91790,
626-813-1234,
customer-service@concordebattery.com,
www.concordebattery.com

Manufactures over 90 models of OE and FAA, ANAC, Argentinean, Canadian and EASA certified direct replacement batteries. As a designer of application specific solutions, the sealed lead acid batteries are installed by the majority of aircraft manufacturers and are in service in military aircraft worldwide.

Conduant Corp

1501 S Sunset St, Suite C, Longmont, CO 80501,
303-485-2721, info@conduant.com,
www.conduant.com

Provides real-time, long-duration digital recording and playback systems. Data recorders are used in environments where large volumes of raw, high-speed data streams are generated (radio astronomy, high-resolution video imaging, radar surveillance and signal processing) recording/playback at 800 MB/sec. Provides a variety of I/O options, including PCI Express.

Connection Technology USA

40538 La Purissima Way, Fremont, CA 94539,
510-509-0305, andrew_wang@ctsystem.com,
www.ctsystem.com

Offers comprehensive product portfolios including OAM solutions, IN-Band/SNMP managed fiber switch, media converters (stand-alone, slide-in module) and chassis, CWDM solutions and household triple play devices.

Contract Manufacturing Consultants Inc

8201 164th Ave NE, Suite 200, Redmond, WA
98052, 425-453-8044, admin@cmcseattle.com,
www.cmcseattle.com

Helps leading technology companies create world-class outsourcing strategies and programs for printed circuit board assembly, mechanical subassembly and complete end-products. Other major service areas include outsourcing/insourcing feasibility, vendor risk assessment, cost model-based price benchmarking and litigation consulting.

Cool Innovations Inc

141 Cidermill Ave, #2, Concord, ON L4K 4G5,
Canada, 905-760-1992,
sales@coolinnovations.com,
www.coolinnovations.com

Offers standard and exotic aluminum and copper pin fin heat sinks that are suitable for a variety of devices ranging from miniature semiconductors to large power devices.

CoorsTek Armor Solutions Inc

N Table Mountain, 16000 Table Mountain Pkwy,
Golden, CO 80403, 303-271-7000,
info@ctarmor.com, www.coorstek.com

Supplies a variety of critical components for the aerospace and aviation industries including alumina thick and thin-film substrates used in the manufacture of hybrid circuits for on-board applications. Engineers take advantage of the electrical, thermal, and mechanical characteristics of technical ceramic materials in many harsh-environment applications.

Corning Cable Systems

(div of Corning Inc), 800 17th St NW, Hickory, NC
28601, 828-901-5000,
www.corning.com/cablesystems

Manufactures fiber-optic communications system solutions for voice, data and video network applications worldwide. Offers the broadest range of end-to-end fiber-optic product solutions for customers' telecommunications networks, pioneering many of the global product solutions commonly used in state-of-the-art cabling systems.

Craig Technologies

Aerospace & Defense Manufacturing Center (ADMC),
8550 Astronaut Blvd, Cape Canaveral, FL 32920,
321-613-5620, quotes@craigtechinc.com,
www.craigtechinc.com/admc.htm

Provides precision machining, custom avionics, specialty manufacturing, and test and evaluation capabilities to complement the company's award-winning engineering and technical services in the 161,000 sf Aerospace & Defense Manufacturing Center (ADMC) which houses over 2000 pieces of unique equipment. Is EDWOSB, SDVOSB, ISO 9001/AS9100 certified and ITAR compliant.

■ Crane Aerospace & Electronics

(div of Crane Co), 10301 Willows Rd NE,
Redmond, WA 98052, 425-882-3100,
electronics@crane-eg.com, www.craneae.com

Supplies high-density, high-reliability components and electronics to the aerospace and defense markets that are designed for some of the toughest environments including ground based, airborne and space flight. When failure is not an option, partner with the company, a trusted market leader in critical applications.
(See ad page BG15)

Crane Wireless Monitoring Solutions

Crane Controls Div, (div of Crane Co), 3301 Essex Dr,
Richardson, TX 75082, 469-330-3100,
sales@cranewms.com, www.cranewms.com

Provides wireless sensor networks for industrial, commercial and government applications. With radio communications and wireless systems, the company designs and manufactures unattended ground sensor systems and Zigbee-based wireless mesh network solutions. The company also provides wireless communications R&D services.

Critical I/O

36 Executive Pk, Suite 150, Irvine, CA 92614,
949-553-2200, info@criticalio.com,
www.criticalio.com

Provides high-performance interfaces for embedded, avionics, and military applications. The company has brought high-performance Ethernet interfaces to the real-time and embedded systems marketplace. With Silicon Stack Ethernet architecture, critical I/O enables high-performance Ethernet-based systems to compete with costly proprietary fabrics.

Crystal Group Inc

850 Kacena Rd, Hiawatha, IA 52233,
319-378-1636, rfq@crystalrugged.com,
www.crystalrugged.com

Designs and manufactures deployment-ready, rugged servers, displays, networking, embedded, and storage devices that fit mission-critical applications. Excels at providing commercial-off-the-shelf (COTS) and custom designed systems tailored to specifications. All products are designed and built to meet/exceed MIL-STDs 810F/G, 167-1, 461E/F and MIL-S-901D.

Crystal Image Technologies

(div of Global Infrastructure Solutions), 15400 W
64th Ave, Suite E9-156, Arvada, CO 80007,
800-542-2489, sales@rackmountsales.com,
www.rackmountsales.com

Offers a wide range of rack mount LCD panels and drawers including dual and triple rack-mount LCD drawers and panels and a full line of standard and custom keyboard drawers and KVM switches.

CSP Inc

MultiComputer Div, 43 Manning Rd, Billerica, MA
01821, 978-663-7598, info@csapi.com,
www.csapi.com

Designs and manufactures commercial high-performance computer signal processing systems. These systems are dense and rugged with powerful real-time I/O and require minimum physical space or power. Systems are used on land, airborne, and shipboard platforms for high-speed digital signal processing in radar, sonar, and surveillance applications.

CTT Inc

241 E Java Dr, Sunnyvale, CA 94089,
408-541-0596, sales@cttinc.com, www.cttinc.com

Supplies customers worldwide with power amplifiers, low-noise amplifiers, frequency converters, frequency multipliers, transmitters, transceivers, and receivers within the frequency spectrum of 10 MHz to 100 GHz. The new GaN and GaAs-based solid-state amplifier designs offer cost-effective performance solutions for both military and commercial applications.

Curtiss-Wright Controls Avionics & Electronics

(sub of Curtiss-Wright Controls), 665 N Baldwin Pk Blvd, City of Industry, CA 91746, 626-851-3100, cwc-ae@curtisswright.com, www.cwc-ae.com
Designs and manufactures rugged data acquisition, recording and controller subsystem solutions for the aerospace market. It invests heavily in R&D to ensure it maintains the technology leadership required to deliver high-performance COTS and custom engineered products. The core capabilities include certified system and software integration.

Curtiss-Wright Controls Defense Solutions

(sub of Curtiss-Wright Controls), 20130 Lakeview Center Plaza, Suite 200, Ashburn, VA 20147, 703-779-7800, defensesales@curtisswright.com, www.cwcdefense.com
Specializes in rugged electronic modules and systems for defense applications. Has unmatched capabilities and product breadth from industry standard-based COTS modules to complete electronic subsystems. Modules and systems are deployed in a wide range of demanding defense and aerospace applications.

Custom Circuit Boards

17650 N 25th Ave, #2, Phoenix, AZ 85023, 888-906-6331, pcb@customcircuitboards.com, www.customcircuitboards.com
Specializes in quick turnaround PCB prototyping. Premium turnaround times include 24 hours and 48 hours and a standard lead time of 10 days. Submit PCB information today to get a fast and accurate quote direct from the manufacturer.

Custom Engineering Co

2800 McClelland Ave, Erie, PA 16510, 814-898-2800, emcdermit@customeng.com, www.customeng.com
Offers a skilled workforce of nearly 200 with a proven performance record in satisfying the diverse needs of customers around the globe who are world leaders in the transportation, power generation, steel, air compression, chemical processing, petrochemical, forest products, plastics, aerospace and laminate industries.

Cyberchron Rugged Systems

(div of C-Systems Corp), 2700 Rt 9, PO Box 160, Cold Spring, NY 10516, 845-265-3700, cfadden@cyberchron.com, www.cyberchron.com
Engineers, designs, and manufactures ruggedized computer and electronics systems, workstations, servers, laptops, displays, keyboards, NAS and SAN systems, custom and semi-custom units, and configurations. All products are designed and tested to meet extended environmental and EMI specifications.

DAC International Inc

6702 McNeil Dr, Austin, TX 78729, 512-331-5323, dacinfo@dacint.com, www.dacint.com
Specializes in the sale and distribution of sophisticated avionics products, systems and test equipment to the world's airlines, corporate aircraft, modification centers, aircraft manufacturers, special mission, and military markets.

Data Bus Products

80 Chase Rd, Manhasset, NY 11030, 516-365-8464, customerservice@ databusproducts.com, www.databusproducts.com
Manufactures MIL-STD-1553 databus couplers, terminators, relays, bus switches, splitters, cable assemblies, connectors and adapters. All products are manufactured in accordance with avionic equipment flight envelope parameters.

Data Device Corp (DDC)

105 Wilbur Pl, Bohemia, NY 11716, 631-567-5600, service@ddc-web.com, www.ddc-web.com
Designs and manufactures high-reliability MIL-STD-1553, ARINC 429, AFDX, Fibre Channel, synchro/resolver, solid-state power controllers and motor drive, cards, components, and software for aerospace, defense, and industrial applications.

Dataforth Corp

3331 E Hemisphere Loop, Tucson, AZ 85706, 520-741-1404, sales@dataforth.com, www.dataforth.com
Manufactures high-performance signal conditioning and data communications products used in industrial, automation, and data acquisition.

Dawn VME Products

47915 Westinghouse Dr, Fremont, CA 94539, 800-258-3296, mail@dawnvme.com, www.dawnvme.com
Manufactures commercial to full rugged embedded packaging solutions based on the VITA and PICMG system architectures. Products include development systems, rack-mount powered chassis and enclosures, backplanes, system health monitors, accessories, extender boards, protoboards, overlays, front and filler panels. Backplanes and chassis available for VPX, VME, VME64x, VITA41 (VXS) and more.

dB Control

(sub of HEICO Corp Electronic Technologies Group (ETG)), 1120 Auburn St, Fremont, CA 94538, 510-656-2325, marketing@dbcontrol.com, www.dbcontrol.com
Designs and manufactures reliable high-power microwave TWT amplifiers (TWTAs), microwave power modules (MPMs) and high-voltage power supplies (HVPS) for radar, electronic countermeasures (ECM), data links, communications and instrumentation applications. Also provides depot repair services, specialized contract manufacturing and high-voltage, RF, microwave, and environmental testing services.

DDC-I Inc

4600 E Shea Blvd, Suite 102, Phoenix, AZ 85028, 602-275-7172, sales@ddci.com, www.ddci.com
Offers complete solutions for embedded software developers with a focus on mission- and safety-critical applications. Products include safety critical, real-time embedded operating systems certified to DO-178B Level A since 1998, multi-language compilers, integrated development environments and run-time systems. Services include custom software development and legacy software modernization solutions.

Del Mar Photonics Inc

4119 Twilight Ridge, San Diego, CA 92130, 858-876-3133, sales@dmphotonics.com, www.dmphotonics.com
Offers a product portfolio including a CW single-frequency ring Dye/Ti:sapphire lasers and spectrometers, ultrafast solid-state and fiber oscillators and amplifiers, diode pumped solid-state lasers, autocorrelators, pulse pickers, fluorescence, transient spectroscopy and multiphoton microscopy systems, femtosecond and Raman ready AFM and NSOM, terahertz THz set ups, NIR-MWIR-LWIR cameras, and optical and crystal components.

Delta Commercial Vision LLC

21 Maple Glenn Rd, Mount Laurel, NJ 08054, 609-969-3430, jc@deltaimager.com, www.deltaimager.com
Offers custom imaging system design, including multi-spectra (200–15,000 nm), 360 panoramic, and imaging processing embedded boards.

Delta Digital Video

(div of Delta Information Systems Inc), 300 Welsh Rd, Bldg 3, Suite 120, Horsham, PA 19044, 215-657-5270, ddv@delta-info.com, www.deltadigitalvideo.com
Designs and manufactures video compression and scan conversion products for aerospace applications. Develops standards-based video compression products to support ISR applications, with a special emphasis on unmanned vehicles. The scan converter products support the recording and display of stroke and high-resolution video in tactical and simulator applications.

Deposition Sciences Inc (DSI)

3300 Coffey Ln, Santa Rosa, CA 95403, 707-573-6700, solutions@deposci.com, www.deposci.com
Delivers durable, optical thin-film filter coatings. Coating capabilities range from the ultraviolet (UV) through visible to near-infrared (NIR), midwave-infrared (MWIR) out to the longwave-infrared (LWIR) region. The evaporative capability and proprietary MicroDyn reactive sputtering deposition process enable superior, multilayer thin-film coatings for precision optics.

Design Criteria Inc

1821 W 4000 S, Suite 200, Roy, UT 84067, 801-393-1414, power@designcriteria.com, www.designcriteria.com
Supplies custom military power supplies and DC/DC converters. Offers a cost effective solution to design and manufacture custom power supplies, DC/DC converters, magnetics, high-voltage power supplies, power distribution units, laser diode drivers, high-power illuminators for harsh environments.

DesignLED Technology (HK) Co Ltd

B Bldg, Taohuayuan Innovation Zone, Xixiang St,
Bao'an Dist, Shenzhen, Guangdong 518102, China,
86-755-27960837, info@designledpro.com,
www.designledpro.com

Manufactures giant LED screens with P6 and P10 twisted/flexible LED screens and lightweight LED tiles, VMS traffic systems and more. Is a private-owned company based in Shenzhen, China with 20 years experience.

DeTect Inc

1430 Harrison Ave, Panama City, FL 32401,
850-763-7200, sales@detect-inc.com,
www.detect-inc.com

Specializes in remote sensing technologies and systems for aviation safety. The MERLIN Aircraft Birdstrike Avoidance Radar system is the most widely used bird radar technology available for bird-aircraft strike hazard (BASH) management and for real-time detection and tracking of hazardous bird activity at commercial airports and military airfields.

Develeast SA

Palazzo la Grida, Roveredo, GR 6535, Switzerland,
41-789-564-207, info@develeast.ch,
www.develeast.ch

Offers design and verification services oriented towards companies working within programs that will be certified to the DO-254 standard including DO-254 certifiable IP cores that can be quickly integrated in the customer's DO-254 design, DO-254 verification IP cores and DO-254 design and verification services at all levels of the DO-254 process.

Device Engineering Inc

480 E Alamo Dr, Chandler, AZ 85225,
480-303-0822, info@deiaz.com, www.deiaz.com
Specializes in fabless semiconductor manufacturing to supply a portfolio of standard products targeted primarily toward avionics including transceivers, receivers, and drivers for Arinc 429 and other communications protocols, discrete/digital converters, and other general purpose components. Also supplies a select offering of mixed-signal ASICs and analog arrays.

DeWAL Industries

15 Ray Trainor Dr, Narragansett, RI 02882,
401-789-9736, cbrooks@dewal.com,
www.dewal.com

Manufactures PTFE, used in wire and cable construction and pressure-sensitive PTFE and UHMW-PE films and tapes for aerospace, aviation, electrical/electronic, mechanical/industrial, and thermal spray applications. The high-performance polymer films and tapes are precision cut and used for resistance to abrasion, high-temperature, high-pressure and chemical resistance.

Dexter Magnetic Technologies Inc

1050 Morse Ave, Elk Grove Village, IL 60007,
847-956-1140, info@dextermag.com,
www.dextermag.com

Specifies, designs and fabricates permanent magnets and magnetic assemblies and is a large global supplier of magnetic cores and accessories. With more than three dozen patents, facilities certified to AS9100-C and magnetic design support tools, the company is an essential magnet partner.

Diamond-MT Inc

213 Chestnut St, Johnstown, PA 15906,
814-535-3505, shorn@diamond-mt.com,
www.paryleneconformalcoating.com

Specializes in contract applications of parylene, acrylic, silicone, urethane and epoxy conformal coatings for Department of Defense and commercial electronic systems.

DiCon Fiberoptics Inc

1689 Regetta Blvd, Richmond, CA 94804,
510-620-5200, sales@diconfiberoptics.com,
www.diconfiberoptics.com

Offers fiber-optic switches for aerospace, military, test and measurement and other applications. Is a US manufacturer, AS9100C certified, ITAR registered and a fiber-optic switch expert (since 1986). The MEMS optical switches have been proven in aerospace and military systems and offers unsurpassed lifetime and durability.

Dielectric Laboratories

2777 Rt 20 E, Cazanovia, NY 13035,
315-655-8710, www.dilabs.com

Provides application-specific microwave and millimeter-wave components, serving customers in military, fiber-optic, wireless, medical, transportation, semiconductor, and avionics markets. Also provides high-frequency single- and multilayer capacitors, resonators, filters, heat sinks, and custom microwave solutions.

Digi-Key Corp

701 Brooks Ave S, Thief River Falls, MN 56701,
800-344-4539, sales@digikey.com,
www.digikey.com

Distributes electronic components and ships products to more than 130 countries worldwide from its single location in northwestern Minnesota. Offers products from leading manufacturers and focuses on customer service.

Digital Lightwave Inc

1780 102nd Ave N, St Petersburg, FL 33716,
727-442-6677, sales@lightwave.com,
www.lightwave.com

Digital Systems Engineering Inc (DSE)

17491 N 93rd St, Scottsdale, AZ 85255,
480-515-1110, info@digitalsys.com,
www.digitalsys.com

Harsh-duty ruggedized flat-panel display design and manufacturing for airborne, military, and marine surveillance applications. Rugged high-definition technology, touch, advanced programmable button interfaces, PTZ control, NVIS technology, integrated digital video recording (DVR) and playback, flexible video and computer input configurations for critical video monitor applications.

DILAS Diode Laser Inc

9070 S Rita Rd, Suite 1500, Tucson, AZ 85747,
520-232-3480, sales@dilas-inc.com,
www.dilas.com

Operates a high-volume, ISO certified and ITAR compliant facility. Designs, develops, and manufactures high-power, high-brightness diode laser components, modules and systems, including fiber-coupled products for the military and aerospace industries. Offers customized packages where space, weight and efficiency is at a premium.

Discovery Technology International

6968 Professional Pkwy E, Sarasota, FL 34240,
941-907-4444, info@discovtech.com,
www.discovtech.com

Develops, manufactures and markets specialized instrumentation and devices. Provides precision piezoelectric motion control and flow control devices (piezo valves) used worldwide within various hi-tech industrial and scientific markets.

DJM Electronics

2907 Shelter Island Dr, 105-138, San Diego, CA 92106, 866-356-3532, sales@djmelectronics.com, www.djmelectronics.com

Manufactures 100 dB filters available for high-speed digital signals. The patent pending technology passes only the digital signal while maintaining 100 dB shielding effectiveness from 10 kHz–10 GHz and beyond. Offers fast Ethernet, Gigabit Ethernet or USB 2.0 in shielded enclosures.

DLP Design Inc

1605 Roma Ln, Allen, TX 75013, 469-964-8027, support@dlpdesign.com, www.dlpdesign.com
Offers products including USB adapters, USB security dongles, development and evaluation boards, temperature/humidity sensors and RF/RFID products. Can also provide FPGA design/simulation and training materials development.

DLS Electronic Systems Inc

1250 Peterson Dr, Wheeling, IL 60090,
847-537-6400, jblack@dlsemc.com,
www.dlsemc.com

Provides EMC/EMI and environmental testing to MIL-STD 461-A-F, MIL-STD 810, and RTCA DO-160-C-G, Boeing, Airbus FAA AC20-136B, Eurocea-14 and SAE ARP5412/5416 including multiple burst/multiple stroke lightning tests for military, avionics and aerospace. Conforms to MIL-STD 704 A-F and MIL-STD 1399. Offers 19 on-staff engineers and is EMC NARTE certified.

DNB Engineering Inc

3535 W Commonwealth Ave, Fullerton, CA 92833,
714-870-7781, tonyp@dnbenginc.com,
www.dnbenginc.com

Provides engineering and design services. Is fully staffed to provide customers with EMC (electromagnetic compatibility), lightning, HIRF, environmental, product safety and regulatory testing. Regularly performs tests in these categories, including but not limited to, MIL-STD-461, RTCA DO-160, MIL-STD-810, MIL-STD-202 and EIA-364 (MIL-STD-1344 superseded) requirements.

Dot Hill Systems Corp

1351 S Sunset St, Longmont, CO 80501,
303-845-3200, www.dothill.com

Develops high-quality, commercial and military-grade storage products supporting the mission-critical applications of government customers worldwide. The company's dedicated government and defense team has the experience to quickly understand the unique and complex needs of government and defense environments.

dSPACE Inc

(div of dSPACE GmbH), 50131 Pontiac Trail, Wixom, MI 48393-2020, 248-295-4700,
info@dspaceinc.com, www.dspaceinc.com

Provides hardware and software tools for developing and testing sophisticated electronic control systems. For over 25 years, the company's high-quality, off-the-shelf software and hardware tools have played a vital role in product innovation across the industries, including aerospace and defense.

Duraflex Inc

765 Industrial Dr, Cary, IL 60013, 847-462-1007,
info@duraflexinc.com, www.duraflexinc.com

Operates as a manufacturer/service provider of highly engineered metal-to-rubber bellows and expansion joints including edge-welded, hydroformed, exhaust assemblies and flexible connectors for engineered piping systems.

Dynamac Inc

1229 Capitol Dr, Addison, IL 60101, 630-543-0033,
mkeane@dynamac-usa.com,
www.dynamac-usa.com

Offers a full-service, precision CNC state-of-the-art robotic machining facility. Runs uninterrupted production "lights out" 24/7. Offers multi-axis 4, 5, and 7 axis with live tooling and twin spindles and new vertical and horizontal mills. The customer base includes aerospace and defense.

Dynamic Systems Inc

15331 NE 90th St, Redmond, WA 98052,
425-216-1204, rob@dsisales.com,
www.a-barcode.com

Offers barcode tracking applications that include tools and equipment, inventory, ID badge systems, job costing, time and attendance, document tracking, capital assets, wireless, site survey and labels/tags.

EaglePicher Technologies LLC

C and Porter Sts, PO Box 47, Joplin, MO 64802,
417-623-8000,
inquiry.technologies@eaglepicher.com,
www.eaglepicher.com

Produces batteries and energetic devices for the defense, aerospace, medical, commercial, grid energy storage, oil, and gas industries. The company provides the most experience and broadest capability in battery electrochemistry of any battery supplier in the US.

Eco Ideas

3/215 Neb Ext, Alwar 301001, India,
91-97-82943675, mohitkhairia@gmail.com,
www.saveman.weebly.com

Offers sustainable development.

EcoSys

385 Interlocken Crescent, Broomfield, CO 80021,
720-214-1000, info@ecosys.net, www.ecosys.net
Specializes in enterprise project controls software. The easy-to-use web-based platform, EcoSys EPC, helps organizations worldwide plan and manage project portfolios, control project costs, and improve project performance including project cost management, PPM, capital program management, budgeting, forecasting, estimating, workforce planning and earned value management (EVM).

EdmondMarks Technologies

3535 Bldg 3, Rt 66, Neptune, NJ 07753,
732-643-0290, mmarks@edmondmarks.com,
www.edmondmarks.com

Provides full-service electronic manufacturing services with full turnkey capabilities. Services include SMT, BGA, uBGA, FPT, Flip Chip and PTH thru hole technologies. Offers full in-house PCB design and test capabilities.

EDT Inc

Electronic Technologies Group Div, (sub of HEICO Corp), 1400 NW Compton Dr, Suite 315, Beaverton, OR 97006, 503-690-1234, info@edt.com,
www.edt.com

Designs and manufactures high-speed interfaces, recorders, extenders, and simulators for such formats as 1553B, LVDS/RS422, 1GbE-10GbE (optical and electrical), STM1/OC3-STM64/OC192, E1-E4, RF, IRIG-B, and Camera Link. Multiple form factors (PCIe, PCI, cPCI, PMC) and platforms (Windows, Linux) available. Free API and SDK, with generous engineer-to-engineer support. Consulting available.

EGIDE USA Inc

4 Washington St, Cambridge, MD 21623,
410-901-6220, sales@egide.fr, www.egide.fr

Designs and manufactures hermetic packages using glass-to-metal seal (GTMS), ceramic-to-metal seal (CTMS), and HTCC technology. Products are used in applications such as IR detectors, power converters, and modulators for the space, defense, aeronautic, industrial, telecommunications, and medical markets. The company has locations in France, US, UK, and Morocco.

EigenLight Corp

30 Centre Rd, Somersworth, NH 03878,
603-692-9200, sales@eigenlight.com,
www.eigenlight.com

Specializes in low-loss fiber-optic power monitoring equipment and components that provide in-line measurement of the optical power for a wide-range of fiber-optic applications, including long-haul, metro, FTTX and data center optical performance monitoring as well as power monitoring within optical networking subsystems and fiber lasers.

einfochips

11 A/B Chandra Colony, Off CG Rd, Ellisbridge, Ahmedabad, Gujarat 380001, India,
91-79-26563705, marketing@einfochips.com,
www.einfochips.com

Provides global product engineering solutions with a Fortune 500 aerospace and defense clientele. Offers end-to-end product life cycle services with proven capabilities across ASIC/FPGA, board and mechanical design, firmware and software. Is engaged with five of the world's top ten commercial aerospace organizations.

ELANIX Inc

30699 Russell Ranch Rd, Suite 170, Westlake Village, CA 91362-7328, 818-597-1414,
elanix@elanix.com, www.elanix.com

Offers SystemView, the windows-based design tool for system-level modeling of mixed signal communications, distortion true RF/analog and bit-true DSP systems. Provides industry and government with software and services to realize innovative design architectures keeping pace with today's time-to-market requirements. Provides worldwide university support.

Elan Technical Corp

141 Kings Hwy E, Fairfield, CT 06825,
203-335-2115, elantechanical@sbcglobal.net,
www.elantechanical.com

ELDEC

(div of Crane Aerospace & Electronics), 16700 13th Ave W, Lynnwood, WA 98037, 425-743-1313,
electronics@crane-eg.com, www.craneae.com

Designs and manufactures electronic and electro-mechanical products for critical aerospace and defense applications. The high-density, high-reliability products include power supplies, power management systems, battery chargers and transformer rectifier units. When failure is not an option, partner with a trusted market leader in critical applications.

Electri-Flex Co

Flexible Conduit Div, PO Box 72260, 222 W Central Ave, Roselle, IL 60172, 630-529-2920,
mktg@electriflex.com, www.electriflex.com

Offers nearly 40 varieties of liquid-tight, flexible electrical conduit ranging from UL-listed and CSA-certified products to specialized ones designed for extreme temperatures, halogen-free, low smoke, EMI/RFI shielding and custom color configurations. Shield-Flex (EMI/RFI shielding) conduit is ideal for the military, defense, government, aerospace, telecommunications and industrial markets.

Electro-Mech Components Inc

1826 Floradale Ave, S El Monte, CA 91733-3689,
626-442-7180, info@electromechcomp.com,
www.electromechcomp.com

Designs and manufactures push-button illuminated switches, indicator lights, and multiswitch interlocking assemblies for aircraft, avionics, gaming, medical, communications, transportation, or any OEM front-panel application. Specializes in custom switch requirements and designs.

Electronic Concepts & Engineering Inc

1465 Timberwolf Dr, Holland, OH 43528,
419-861-9000, sales@eceinc.com,
www.eceinc.com

Develops ruggedized, high-reliability electronic solutions, hardware/software for aerospace, ground, and marine applications in the defense and commercial markets. Services include electronic circuit design, real-time software development, product qualification testing/validation, control system analysis, PC board design, package/enclosure design, graphical user interface, tool development, manufacturing, and more. Is ISO 9001/AS9100 certified.

Elma Electronic Inc

44350 S Grimmer Blvd, Fremont, CA 94538,
510-656-3400, sales@elma.com, www.elma.com

Provides rugged chassis, ATRs and boards for integrated high-performance embedded computing solutions to companies in the avionics and defense markets. Provides standard and rugged VME, VPX and SFF processor boards, storage, NAS, networking, I/O boards and software support enable a standard or custom solutions. Is ISO 9001 and AS9100 certified.

Embassy Global LLC

PO Box 105, Orchard Park, NY 14127,
800-309-6150, inquiries@embassyglobalpr.com,
www.embassyglobalpr.com

Specializes in a unique form of integrated technical marketing, PR and business development with 100% dedication to worldwide advancement of design, testing and evaluation technologies. Using its field-proven experience, the company promotes to one of the industry's largest promotional networks, as well as via its own network of global OEMs.

EMTEQ

5349 S Emmer Dr, New Berlin, WI 53151,
262-679-6170, sales@emteq.com,
www.emteq.com

Provides A-kits including RF, trays/pallets, wiring, Ethernet, databus, and antenna doublers. Also offers LRUs, exterior LED lighting including 400 cd anticollision, interior LED lighting including NVIS green, red, white, wash, dome, and reading, engineering design, testing, reporting, consulting services, technical and installation support and certification.

Enea

1711 W Greentree Dr, Suite 108, Tempe, AZ 85284,
480-753-9200, info@enea.com, www.enea.com

Provides operating systems embedded in so many base stations and mobile phones that five billion calls a day depend on the company's technology. Offers customized services as part of the operating systems solutions.

EngineerSupply

21430 Timberlake Rd, Unit 349, Lynchburg, VA 24502, 800-591-8907,
customerservice@engineersupply.com,
www.engineersupply.com

Provides engineering tools and supplies, blueprint storage, surveying equipment, drafting supplies, school supplies, construction calculators, office furniture, engineering office supplies, and measuring tools.

EO Strategies

12 Prospect St, Holliston, MA 01746,
774-217-1122, rickm@eo-strategies.com,
www.eo-strategies.com

Offers consultation to help realize visions through strategic assessment and action, provide a focus on successful execution, and build a valued image of companies.

Epiq Solutions

165 Commerce Dr, Suite 204, Schaumburg, IL 60173, 847-598-0218, info@epiqsolutions.com,
www.epiqsolutions.com

Designs and builds state-of-the-art, low-power, reconfigurable radio systems for mission-critical applications. With expertise spanning RF system design to physical layer signal processing and higher layer protocol processing, the company provides engineering development services for customers requiring specialized signal processing hardware and software.

Ericsson

6300 Legacy Dr, Plano, TX 75024, 972-583-0000,
media.relations@ericsson.com, www.ericsson.com
Provides telecommunications equipment and services to mobile and fixed network operators. Is a strong player in core networks, microwave transport, Internet Protocol (IP) networks and fixed-access solutions for copper and fiber.

Essex Industries

7700 Gravois Rd, St Louis, MO 63123,
314-832-4500, info@essexind.com,
www.essexindustries.com

Manufactures custom-engineered platform controls for commercial airlines, military fixed-wing and rotary aircraft as well as military ground vehicles. Also produces thousands of MIL-SPEC, ANSI and NAS aircraft components. In addition, manufactures life support and ground support equipment that covers pilot, crew and medical oxygen requirements.

Esterline CMC Electronics

600 Dr Frederik Philips Blvd, Ville St-Laurent, QC H4M 2S9, Canada, 514-748-3148,
rex.hygate@cmcelectronics.ca,
www.cmcelectronics.ca

Provides cockpit avionics upgrades and systems integration including flight management systems, mission computing, display and control systems, navigation sensors, human factors engineering, GPS sensors for ground/airborne use, satellite communications antennas, enhanced vision systems, electronic flight bags, portable mission displays, hybrid microcircuits, display components and panels, and optoelectronic components.

Esterline Power Systems

(div of Esterline Technologies), 6900 Orangethorpe Ave, PO Box 5032, Buena Park, CA 90622-5032,
714-736-7598, info@leachintl.com,
www.esterline.com

Offers products including LEACH MIL-qualified subminiature relays, DC/AC contactors (ELCUs, RCCBs, GFI, high-voltage 270V DC), time-delay/sensing relays, next generation solid-state power controllers, keyboards and illuminated switches, and electrical power distribution assemblies/equipment for commercial and military aerospace applications. Provides lower cost, lighter weight power switching and control solutions.

EURESYS Inc

(div of EURESYS SA), 27126-B Paseo Espada, Suite 704, San Juan Capistrano, CA 92675,
949-743-0612, sales.americas@euresys.com,
www.euresys.com

Offers a complete range of innovative and high-performance image acquisition subsystems for high-end video surveillance and industrial machine vision applications, as well as robust and powerful image analysis tools for industrial machine vision applications.

EURESYS SA

Ave du Pre Aily, 14, Angleur B-4031, Belgium,
32-4-367-72-88, sales.europe@euresys.com,
www.euresys.com

Offers a complete range of innovative and high-performance image acquisition sub-systems for high-end video-surveillance and industrial machine vision applications, as well as robust and powerful image analysis tools for industrial machine-vision applications.

■ Evans Capacitor Co

72 Boyd Ave, East Providence, RI 02914,
401-435-3555, chasd@evanscap.com,
www.evanscap.com

Manufactures high-energy density capacitors for demanding defense and aerospace applications. Typical applications are high current pulse (such as phased array radar, laser, lidar) and hold up, in power supplies where quality, reliability, size, and weight, are the factors of component selection. Is ISO 9001, AS9001 and ITAR registered. (See ad page BG18)

Excelitas Technologies

1330 E Cypress St, Covina, CA 91724,
626-967-9521, aes.na@excelitas.com,
www.excelitas.com/pages/product/
high-reliability-power-supplies.aspx

Designs and manufactures high-performance, high-reliability mission-critical power supplies used in today's defense and aerospace applications. Offers full custom design and qualification capabilities. Is AS9100C, ISO:14001 and OHSAS:18001 certified and a 6 Sigma and Lean practitioner.

Excel Wireless

12 Tarnside Ct, Blythewood, SC 29016,
803-788-9788, sales@excel-wireless.com,
www.excel-wireless.com

Distributes cell phone boosters, WiFi access points, cable assemblies, RF connectors and wireless antennas.

Exelis C4i

12930 Worldgate Dr, 4th Fl, Herndon, VA 20170,
877-266-6712, contact@c4i.com, www.c4i.com

Provides defense organizations with the ability to communicate securely or publicly, streamline standard operating procedures, combine legacy and modern technologies, automate alarm monitoring and crisis response, and inter-service communication, all crucial functions in the defense industry.

■ Extreme Engineering Solutions Inc (X-ES)

3225 Deming Way, Suite 120, Middleton, WI 53562, 608-833-1155, sales@xes-inc.com,
www.xes-inc.com

Designs and builds single-board computers, I/O boards, power supplies, backplanes, chassis, and system-level solutions for embedded computing customers. Offers cutting-edge performance and flexibility in design, plus an unparalleled level of customer support and service.

(See ad page BG5)



■ Falcon Electronics

47 Mall Dr, Suite 5, Commack, NY 11725,
631-351-8515, bflynn@falconelec.com,
www.falconelec.com

Distributes military, hi-rel and space-grade semiconductors including ARINC 429/1553 databus products, power supplies, data acquisition circuits, solid-state data storage and full MIL-SMD static RAMs. Supplies companies including API Technologies, Datel, DPACI, FMJ, Holt, ISC8, Microsemi, PDI, Semtech, SMART Modular Technologies, TT electronics, Vishay, Western Digital and Xtreme Semiconductor.

(See ad page BG10)

Falcon Electronics

1505 W University Dr, Suite 105, Tempe, AZ 85281,
480-829-1100, ian@falconelec.com,
www.falconelec.com

Distributes military, hi-rel and space-grade semiconductors including ARINC 429/1553 databus products, power supplies, data acquisition circuits, solid-state data storage and full MIL-SMD static RAMs. Supplies companies including API Technologies, Datel, DPACI, FMJ, Holt, ISC8, Microsemi, PDI, Semtech, SMART Modular Technologies, TT electronics, Vishay, Western Digital and Xtreme Semiconductor.

Fancort Industries Inc

31 Fairfield Pl, West Caldwell, NJ 07006,
973-575-0610, info@fancort.com,
www.fancort.com

Designs and manufactures lead trim/form equipment and services for surface-mount or through-hole applications for a wide variety of optical components. Footprint layout services available.

Faria Performance

PO Box 983, Uncasville, CT 06382, 860-848-9271,
bill.d@faria-instruments.com,
www.faria-instruments.com

Is a custom gauge manufacturer that designs and builds gauges for the commercial, military, and marine industries. Currently the gauges are used in military vehicles, marine industry, fire and rescue vehicles, construction equipment, ATVs, and more. Every military HMMWV (Humvee) built today is equipped with the instrumentation package.

Fastener Specialty Inc

2435 109th St, Grand Prairie, TX 75050-1113,
972-988-0064, sales@fastenerspecialty.com,
www.fastenerspecialty.com

Manufactures high-quality nut ring mounting brackets for all military and commercial cylindrical connectors and other aerospace/industrial mounting needs.

Faster Technology LLC

1812 Ave D, Suite 202, Katy, TX 77493,
281-391-5482, info@fastertechnology.com,
www.fastertechnology.com

Develops high-performance Xilinx FPGA solutions that maximize processing throughput while minimizing latency. Is a Xilinx Alliance Program Partner, an Impulse Platform Partner, and member of both the Xilinx SignOnce IP License and SignOnce Services Agreement Programs.

Federal Electronics Inc

75 Stamp Farm Rd, Cranston, RI 02921,
401-944-6200, sales@federaelec.com,
www.federaelec.com

Provides electronic manufacturing services focusing on military/high-end commercial applications. Services include advanced technology PCBAs, copper cable and wire harness assemblies, electro-optic interconnect assemblies, higher/frame level assemblies, and system integration. Additional administrative/engineering capabilities include functional test development/deployment, DFMA analysis, and supply chain management solutions.

FEI-Zyfer Inc

(sub of Frequency Electronics Inc), 7321 Lincoln Way, Garden Grove, CA 92841-1428,
714-933-4000, sales@fei-zyfer.com,
www.fei-zyfer.com

Develops and manufactures commercial-off-the-shelf (COTS) and custom designs to meet requirements for precise time and frequency references. Engineering expertise in both oscillator and system design ensures that customers are provided with the most reliable and accurate systems available. SAASM military and C/A systems available with Rubidium or OCXO.

Ferrotec USA Corp

33 Constitution Dr, Bedford, NH 03110,
603-472-6800, corporateinfo@ferrotec.com,
www.ferrotec.com

Provides hermetic rotary seals that protect sensitive electronics and optics in pods and moving equipment from external contamination in many challenging environments, including airborne, marine, and ground-based installations. The novel Ferrofluidic seal provides a secure environmental barrier, and maintains low, predictable frictional drag over wide thermal and environmental ranges.

Fibercore Ltd

University Pkwy, Southampton, Hampshire SO16 7QQ, UK, 44-23-8076-9893,
info@fibercore.com, www.fibercore.com

Fiberguide Industries Inc

(div of Halma Plc), 1 Bay St, Stirling, NJ 07980,
908-647-6601, info@fiberguide.com,
www.fiberguide.com

Offers multimode, singlemode and graded-index fibers from UV-IR and temperatures -269°C to +700°C. Designs/engineers assemblies with widest range of end fittings and outer jackets. Offers 2-D arrays, V-Groove arrays designed for optical switch and arrayed active devices and reflection/backscattering probes for measuring specular or diffuse reflection. Is ISO 9001:2008 certified.

Fibernet Spain

Fiber Optics and Photonics Div, Torres Quevedo 7 PTM, Tres Cantos, Madrid 28760, Spain,
34-91-807-65-20, www.fibernet.es,
www.fibernet.es

Offers fiber optics and photonic designs and sensing systems.

Fibersense & Signals Inc

146 Peelar Rd, Concord, ON L4K 2C9, Canada,
866-453-9292, sales@fibersensefirst.com,
www.fibersensefirst.com

Develops and manufactures fiber-optic, optoelectronic, photonic and laser-related products. Designs and fabricates devices, systems and instrumentation for aerospace command and control applications, sensing, experimental medical, surgical and diagnostic procedures, telecommunications, environmental monitoring, imaging, target recognition, laser ignition, high-power fiber-optic networks and fiber-optic illumination.

FileCatalyst

1725 St Laurent Blvd, Ottawa, ON K1G 3V4, Canada,
613-667-2349, aatkinson@filecatalyst.com,
www.filecatalyst.com

Provides file transfer solutions that accelerate, manage and optimize large file transfers securely across global networks. Organizations use FileCatalyst to solve issues related to content distribution, file sharing and off-site backups. Founded in 2000, the company has more than a thousand clients, including the US Army.

Fischer Connectors Inc

1735 Founders Pkwy, Suite 100, Alpharetta, GA 30004-7606, 770-352-0606, mail@fischerconnectors.com, www.fischerconnectors.com

Designs, manufactures and distributes high-performance connectors and cable assembly solutions. Known for reliability and precision, the products are commonly used by military forces worldwide. Primary design and manufacturing facilities are located in Switzerland, with subsidiaries and distributors located worldwide.

FLIR Systems Inc

27700A SW Parkway Ave, Wilsonville, OR 97070, 503-498-3457, david.strong@flir.com, www.flir.com/gs

Designs, manufactures, and markets thermal imaging and stabilized camera systems for a variety of thermography and imaging applications including condition monitoring, research and development, manufacturing process control, airborne observation and broadcast, search and rescue, drug interdiction, surveillance and reconnaissance, navigation safety, border and maritime patrol, environmental monitoring, and ground-based security.

Forefronts Defense Systems

(sub of Forefronts Technologies Group), PO Box 427, Dufur, OR 97021-0427, 541-467-2511, operations@forefronts.com, www.forefronts.com

Provides consulting services for heterogeneous HPCC system integration, COTS, custom engineering to government and industry. Offers custom system design and development in support of critical mission applications, proof of concept, precursor and prototype development targeted at technology transfer and licensing of production systems.

Forza Silicon

2947 Bradley St, Suite 130, Pasadena, CA 91107, 626-796-1182, info@forzasilicon.com, www.forzasilicon.com

Frako Capacitors

(sub of Frako Kondensatoren GmbH), W62 N248 Washington Ave, Suite 208, Cedarburg, WI 53012, 262-618-2403, info@alliedindustrialmarketing.com, www.alliedindustrialmarketing.com

Fralock

(div of Lockwood Industries), 28525 W Industry Dr, Valencia, CA 91355, 714-357-5603, jimc@fralock.com, www.fralock.com

Fabricates and distributes EMI shielding, polyimide flex cables and interconnects thermal interface materials, electrical insulating materials, tapes and adhesives, cirlex, kapton anad telflon. All materials can be custom cut to specifications. Is ISO 9001:2000 and AS9100 registered, approved QPL supplier MIL-DTL-83528 and ITAR compliant.

Freescale Semiconductor

6501 Wm Cannon Dr W, Austin, TX 78735, 512-895-6178, www.freescale.com

Provides embedded processing solutions for the automotive, consumer, industrial and networking markets. From microprocessors and microcontrollers to sensors, analog ICs and connectivity, the technologies are the foundation to the innovations that make the world greener, safer, healthier and more connected.

FreeSpace Networks

The Old Grammar School, Phonenix Bank, Market Drayton, Shropshire TF9 1JR, UK, 44-1630-655-933, info@freespacenetworks.co.uk, www.freespacenetworks.co.uk

Designs and manufactures a range of high-performance industrial point-to-point outdoor wireless bridging solutions. The range of wireless products deliver an unparalleled level of performance and enable secure and cost-effective deployment of Wi-Fi, across short and long range distances.

Fullriver Battery USA

1211 Flynn Rd, Unit 102, Camarillo, CA 93012, 800-522-8191, sales@fullriverdcbattery.com, www.fullriverdcbattery.com

Specializes in manufacturing only sealed, maintenance-free AGM batteries.

Futura Automation Pvt Ltd

Plot S4, Off 3rd Cross, 1st Stage, Peenya Industrial Area, Bangalore, Karnataka 560058, India, 91-80-28375290, info@futuraautomation.com, www.futuraautomation.com

Specializes in conceptualization, design and manufacture of custom-designed rugged computers and displays for military and industrial applications. Designs and manufactures form-fit products for obsolete hardware like old generation CRT displays. Established in 1992.

GaGe

900 N State St, Lockport, IL 60441, 514-633-7447, prodinfo@gage-applied.com, www.gage-applied.com

Gaia Converter

4038 le Corbusier Blvd, Laval, QC H7L 5R2, Canada, 514-333-3169, salesus@gaia-converter.com, www.gaia-converter.com

Manufactures over 3500 power modules to help power supplies comply with MIL-STD-461, 1275, 704, DO-160 or equivalent standards. Offers DC converters from 4–200W, AC/DC PFC converters from 35–350W, EMI filters and input transient protections for modular power architectures.

Gamma Scientific Light Measurement Solutions

9925 Carroll Canyon Rd, San Diego, CA 92131, 858-279-8034, contact@gamma-sci.com, www.gamma-sci.com

Helps leading manufacturers, universities and government institutions achieve precision light measurements. Military solutions include NVIS radiometers, NVIS sectorradiometers for ANVIS testing of cockpit displays, integrating spheres, photometers and radiometers. Exceeds MIL-L-85762A and MIL-STD-3009 requirements. Is an ISO/IEC 17025 accredited calibration laboratory.

GammaTech Computer Corp

48303 Fremont Blvd, Fremont, CA 94538, 800-995-8946, marketing@gammatechusa.com, www.gammatechusa.com

Offers cost-effective, high-performance mobile computing solutions. Its award-winning line of rugged notebooks and tablets are designed to increase mobile productivity.

Garwood Laboratories Inc

7829 Industry Ave, Pico Rivera, CA 90660, 562-949-2727, sales@garwoodlabs.com, www.garwoodlabs.com

Provides certification testing for commercial and military aerospace components for domestic and international standards for aerospace, military and telecommunications markets since 1954. Specializes in FAA, RTCA and FCC certification, lightning strike simulation per Boeing and Airbus, RTCA/DO, MIL-STD and EUROCAELED testing and offer climatics, shock and vibration and EMC/EMI/RF testing services.

GDCA Inc

1799 Portola Ave, Livermore, CA 94551, 925-456-9900, sales@gdca.com, www.gdca.com
Manufactures legacy embedded computer products with a variety of architectures, such as VME, STD, and CompactPCI. Has licensed end-of-life products from OEMs such as Motorola, Curtiss-Wright, Radisys, Performance Technologies, Force Computers, Prolog, Dy4, Ziotech, and others. Acquires legacy products, manages obsolescence, and continues to manufacture or support them indefinitely.

Gear Keeper/Hammerhead Industries Inc

1501 Goodyear Ave, Ventura, CA 93003, 805-658-9922, info@gearkeeper.com, www.gearkeeper.com

GE Intelligent Platforms

(div of General Electric), 7401 Snaproll NE, Albuquerque, NM 87109, 505-875-0600, www.ge.ip.com

Provides embedded computing solutions. Products include single-board computers, networking products, avionics interfaces, rugged flat-panel monitors, and complete computer systems.

GE Intelligent Platforms

(div of General Electric), 12090 S Memorial Pkwy, Huntsville, AL 35803, 434-978-5100, ge-ip.info@ge.com, www.defense.ge-ip.com
Provides embedded computing systems and modules for a wide range of applications in the military, defense and homeland security. Offers a line of products including data acquisition, SBCs, network switches and fully integrated rugged mission systems.

General Atomics Aeronautical Systems Inc

14200 Kirkham Way, Poway, CA 92064, 858-312-2810, pr-asi@ga-asi.com, www.ga-asi.com
Manufactures remotely piloted aircraft (RPA), tactical reconnaissance radars, and electro-optic surveillance systems, including the Predator/Gray Eagle RPA series and the Lynx multimode radar. Provides long-endurance, mission-capable aircraft with the integrated sensor/data link systems required for persistent situational awareness/rapid strike.

General Digital Software Services

8 Nutmeg Rd S, South Windsor, CT 06074, 860-282-2900 x159, jconsolini@generaldigital.com, www.gdsoftwareservices.com
Provides IV&V in safety critical software specializing in avionics testing to DO-178B including requirements-based testing, coding, code review, tool qualification, and unit testing. The company has 25 years experience performing software testing on many military and commercial projects including Boeing, Airbus, Apache, for jets, helicopters, UAVs and more.

General Dynamics C4 Systems

8201 E McDowell Rd, Scottsdale, AZ 85257, 480-441-3033, info@gdc4s.com, www.gdc4s.com
Provides affordable access to computing platforms built especially for the tactical environment. Provides secure C4I solutions that integrate custom-developed and COTS products for the military and commercial markets. Offers automated approaches to mission planning, battlespace management, targeting/fire support, mapping, charting and geodesy, and simulation.

General Dynamics Itronix Corp

12825 E Mirbeau Pkwy, Spokane, WA 99216, 509-624-6600, www.gd-itronix.com
Offers reliable, rugged mobile computing solutions.

General Micro Systems Inc

8358 Maple Pl, Rancho Cucamonga, CA 91730, 909-980-4863, www.gms4sbc.com
Provides a diverse line of single-board computers. Is an established VME and cPCI supplier, shipping SBCs on VME platforms since the VMEbus inception in 1981.

Generic Logic Inc

6 University Dr 206-125, Amherst, MA 01002, 413-253-7491, sales@genlogic.com, www.genlogic.com
Offers the GLG toolkit, a RAD tool for developing dynamic data-driven graphical displays and real-time HMI screens with GIS mapping capabilities and cross-platform deployment for C/C++, Java and web.

Getac

43 Tesla, Irvine, CA 92618, 949-681-2900, getacsales_us@getac.com, www.us.getac.com
Manufactures rugged notebook computers offering industry-leading features and performance. Products are backed by a 5-year bumper-to-bumper warranty.

GET Engineering Corp

9350 Bond Ave, El Cajon, CA 92021, 619-443-8295, jhalsted@getntds.com, www.getntds.com
Designs and manufactures MIL-STD-1397 NTDS and LINK 11 support products for TADIL-A, TADIL-B, and other tactical data links. This includes industry standard form factor interface adapters for NTDS and ATDS, cables, and interconnect devices. Offers new NTDS to fiber-optic converters. Custom engineering available for all tactical data links.

Global Training Solutions Inc

3163 Winston Churchill Blvd, PO Box 26067, Mississauga, ON L5L 5W7, Canada, 416-806-5777, info@globaltrainingsolutions.ca, www.globaltrainingsolutions.ca
Provides E-learning, CBT and classroom training programs. Topics include NERC compliance, electrical circuits, health, safety and environment, T&D, electrical, control circuits, industrial controls, troubleshooting simulations, gas turbines, industrial skills, information security, substations, and PLC circuits.

Go4Fiber Ltd

3/F Tung Lee Bldg, 9 Lai Yip St, Kwun Tong, Hong Kong, 852-2174-1338, sales_group@go4fiber.com, www.go4fiber.com
Specializes in design, manufacturing and logistics with teams located in Hong Kong and China. Has the absolute advantage of offering a variety of quality fiber-optic and networking products at very attractive prices.

Gooch & Housego Plc

Dowlish Ford, Ilminster, Somerset TA19 0PF, UK, 44-1460-256-440, sales@goochandhousego.com, www.goochandhousego.com
Has expertise across a broad range of optical technologies including acousto-optics, electro-optics, fiber optics, and precision optics. From manufacturing sites in the UK and US, the company provides optical system design, engineering, manufacturing of components and systems for harsh environments including terrestrial, marine, space and aerospace.

GPS Source Inc

64 Mission Dr, Pueblo West, CO 81007, 719-561-9520, sales@gpssource.com, www.gpssource.com
Offers a full line of GPS distribution products. Specializes in Assured PNT, Distributed PNT, military qualified GPS electronic components, other services and solutions that improve the ability to bring GPS inside denied spaces. GPSS is an AS9100 certified company and 100% veteran owned.

Green Hills Software Inc

30 W Sola St, Santa Barbara, CA 93101, 805-965-6044, info@ghs.com, www.ghs.com
Provides embedded development solutions that solve the most rigorous embedded development problems. The technically vetted engineers and award-winning product line, including the multiply certified INTEGRITY RTOS, award-winning compilers and debuggers, development tools and communications software, combine to create a unique package for the embedded industry.

Greenlee, a Textron Co

4455 Boeing Dr, Rockford, IL 61109, 815-397-7070, www.greenlee.com
Helps customers take technology from the benign, protected, and controlled environments of office buildings and labs to the extremely hostile environments exposed at high altitudes, below the sea, and in space.

Greenliant Systems

3970 Freedom Cir, Suite 1000, Santa Clara, CA 95054, 408-200-8000, sales@greenliant.com, www.greenliant.com
Develops energy-efficient, highly reliable and secure storage solutions for the embedded systems and enterprise datacenter markets by leveraging more than 20 years of solid-state storage design expertise. Offers long-term support and industrial grade storage products to meet military customers' requirements.

GridPlex Networks

7000 Terminal Sq, Upper Darby, PA 19082, 610-734-1245, chairman.gridplex@gmail.com, www.gridplexnetworks.com
Offers adaptive automation solutions, fully-integrated adaptive energy management and automation systems that combine and optimize electricity generation and usage with on-site microgrids, local demand control, advanced lighting systems and grid-based power.

Growth Technical Marketing

6501 Hercus Ct, San Jose, CA 95119, 408-780-4769, tim@growthtechnicalmarketing.com, www.growthtechnicalmarketing.com
Provides business and marketing strategy and new product introduction support. With a broad variety and depth of experience in the electronics industries, the company can complement and accelerate existing marketing efforts to meet critical time-to-market objectives. Based in Silicon Valley.

GSS Avionics Ltd

Woodthorpe House, Stemberge, Martock, Somerset TA12 6BW, UK, 44-845-299-7960, frank@gssavionics.com, www.gssavionics.com
Develops cutting-edge software applications, products, and tools to analyze, investigate and test avionic data bus systems.

GUISYS Corp

40W320 Lafox Rd, Campton Hills, IL 60175,
630-762-8540, stever@guisys.com,
www.guisys.com

Is dedicated to providing the ultimate intuitive graphical user interface systems and solutions to facilitate access, use and efficiency of electronic systems.

HALT and HASS Labs

(sub of Ops A La Carte), 990 Richard Ave, Suite 101,
Santa Clara, CA 95050, 408-654-0499,
mikes@opsalacarte.com, www.haltandhasslabs.com

Offers professional consultation focused on reliability engineering services, reliability management, and reliability education to assist customers in developing and executing any and all elements of reliability throughout their organization and their product's life cycle.

Handling Specialty Manufacturing Ltd

Rail and Material Handling Div, (sub of Whiting Equipment Canada), 219 S Service Rd W,
Grimsby, ON L3M 1Y6, Canada, 905-945-9661,
mhaurilak@handling.com, www.handling.com

Engineers and manufactures custom heavy-duty material handling equipment, as well as whiting rail equipment.

H&L Instruments LLC

34 Post Rd, PO Box 580, North Hampton, NH
03862-0580, 603-964-1818,
rlandman@hlinstruments.com,
www.hlinstruments.com

Manufactures the 900C Edge Profile Comparator for inspecting aircraft turbine engine fan blades. The Model 900C aids technicians in shaping blades to achieve normal engine performance. Other products include fiber-optic transceivers, modems and programmable logic controller communications for supervisory control and data acquisition (SCADA) systems.

Harbour Industries LLC

(a Marmon Wire & Cable/Berkshire Hathaway Co),
4744 Shelburne Rd, Shelburne, VT 05482,
802-985-3311, sales@harbourind.com,
www.harbourind.com

Manufactures high-temperature and high-performance cable for the military, commercial, and industrial markets.

HDL Research Lab Inc

406 W Blue Bell Rd, PO Box 2108, Brenham, TX
77834-2108, 979-836-2300, sales@hdlpower.com,
www.hdlpower.com

Designs and manufactures COTS and custom power supplies, converters, inverters and power distribution units for military use including hi-temp, rad-hard, low/high-voltage, and tin-lead high-rel soldering up to 25 KW. Offers environmental test lab, XRF, X-ray and AOI. Teaming ensures system integration, lower costs, shorter schedules and less risk. AS9100 certified.

Headwall Photonics Inc

Hyperspectral Sensor & Raman Imaging Div, 601
River St, Fitchburg, MA 01420, 978-353-4100,
marketing@headwallphotonics.com,
www.headwallphotonics.com

Designs and manufactures spectral imaging sensors, including hyperspectral and Raman. The sensors are designed for imaging in harsh environments including aircraft, UAVs, unmanned robotic vehicles, ground-based, and satellite instruments. Designed for high-performance, wide field-of-view, and image spectral/spatial resolution. Spectral regions from UV, VNIR, SWIR, MWIR to LWIR available.

Henniker Plasma

Unit B3, Trident Business Pk, Daten Ave, Warrington,
Cheshire WA3 6AX, UK, 44-1925-830-771,
info@plasmatreatment.co.uk,
www.plasmatreatment.co.uk

Offers plasma treatment equipment including plasma cleaners, plasma etchers, plasma coating and plasma surface modification. Supplies plasma treatment equipment and processes, from low-cost benchtop plasma cleaners and plasma etchers for R&D applications, to industrial scale plant machines for high throughput processes.

HEPA Corp

3071 E Coronado St, Anaheim, CA 92806,
714-630-5700, info@hepa.com, www.hepa.com

Provides advanced design HEPA and ULPA filters in all standard styles, plus roomside replaceable modules, energy-savers, high-temperature, low-AMC, fan filter units, and the exclusive Q3-4000 gridless cleanroom ceiling system.

HGH Infrared Systems

1 Broadway, 14th Fl, Cambridge, MA 02142,
617-401-2196, hgh@hgh.fr, www.hgh.fr

Offers a 360 degree, real-time, panoramic IR thermal imaging camera, the IR Revolution 360. Features include exceptional image quality, automatic detection and tracking, and variable FOVs. Manufactures advanced IR detector products for test and measurement, R&D, industrial tasks, and military operations.

High Energy Devices LLC

26 Hollenberg Ct, Bridgeton, MO 63044,
314-291-0030, info@highenergydevices.com,
www.highenergydevices.com

Designs and manufactures multi-electrode spark gaps that protect components, transfer stored energy, provide nano-second switching, serve as pulse generators, control ignition systems, and a host of other applications. Choose from 400V to 60 kV gaps. Offers a high level of flexibility for responding to short-term and scheduled delivery requirements.

Highway Products Inc

7905 Agate Rd, White City, OR 97503,
800-866-5269, kc@800toolbox.com,
www.800toolbox.com

Manufactures custom metal toolboxes, service bodies, flatbeds and customized cargo management units for trucks.

Hilux LED Co Ltd

2F, B Bldg, Big Guangming Industry Pk, Shiyan Town,
Bao'an Dist, Shenzhen, Guangdong 518108,
China, 86-755-29368805, xililed@hotmail.com,
www.xililed.com

Specializes in researching, producing, selling and servicing LED advertising modules, LED flexible strips, LED rigid bars and more.

HIOKI EE Corp

81 Koizumi, Ueda, Nagano 386-1192, Japan,
81-268-28-0562, os-com@hioki.co.jp,
www.hioki.com

Provides advanced test and measuring instruments through superior design, manufacturing, sales and services. Offers over 200 products characterized by leading edge technology, safety and quality for applications in R&D, maintenance and quality control, and manufacturing.

Hi-Tech Controls

7374 S Eagle St, Centennial, CO 80112-4240,
303-680-5159, info@hitechcontrols.com,
www.hitechcontrols.com

Carries cable and wires (domestic/international) including tray-rated NFPA 79, hook-up wires, control, data, intrinsically safe, servo/VFD, rubber/all-weather, harmonized, oil-resistant, industrial enclosures and solid/transparent covers. Offers hinged/non-hinged, UV/impact resistant, indoor/outdoor/explosive applications materials such as PC, polystyrene, ABS, polyester, aluminum, and stainless steel. Cable accessories include cable glands, circular connectors and more.

HITEC Sensor Solutions Inc

537 Great Rd, Littleton, MA 01460, 978-742-9032,
sales@hitecorp.com, www.hitecorp.com

Offers strain gage installation service including custom strain gage based force, load, torque and pressure transducer design and manufacture.

Hitex Development Tools GmbH

Greschbachstr 12, Karlsruhe D-76229, Germany,
49-721-9628-0, sales@hitex.de, www.hitex.com

Offers sophisticated solutions to support embedded engineers with special focus and wealth of experience in safety-critical applications. Provides any service to support safety projects including consulting, software tools, precertified components, and starter kits. Offers the unit test tool Tessy and code analysis tools for ensuring software quality.



Holt Integrated Circuits

23351 Madero, Mission Viejo, CA 92691-2730,
949-859-8800, info@holtic.com,
www.holtic.com

Supplies ICs for avionics and military data bus applications. Offers a wide range of ARINC 429 products, MIL-STD-1553 BC/MT/RT protocol ICs, transceivers and transformers. Other IC offerings include ARINC 825 (CAN), ARINC 717, RS-485/422, analog switches and discrete-to-digital sensing. Products are specified by more than 400 avionics manufacturers worldwide.

Honeywell Aerospace

(div of Honeywell Inc), 1944 E Sky Harbor Cir, PO Box 2102-103, Phoenix, AZ 85034, 800-601-3099,
customerservice@honeywell.com,
www.honeywell.com

Provides integrated avionics, engines, systems and service solutions for aircraft manufacturers, airlines, business and general aviation, military, space and airport operations. Delivers commercial and defense and space products, systems and services across the aerospace industry.

Honeywell Microelectronics & Precision Sensors

(div of Honeywell Inc), 12001 State Hwy 55,
Plymouth, MN 55441, 763-954-2301,
customerservice@honeywell.com,
www.honeywellmps.com

Designs, manufactures, tests, and supplies packaging of semiconductor integrated circuits (ICs) and sensors for military, aerospace and a wide variety of commercial industries. The trusted wafer foundry supports design through manufacturing, testing and packaging of precision sensors and radiation hardened ASICs.

Honeywell Solid State Electronic Center

(div of Honeywell Inc), 12001 State Hwy 55,
Plymouth, MN 55441, 800-323-8295,
customerservice@honeywell.com,
www.honeywell.com

Provides a full range of aerospace products and services for military and commercial programs. Combines 40 years experience with innovative technology to help customers pioneer new frontiers, reduce risks, and effectively serve crucial government programs.

HoodTech Vision

(div of Hood Technology), 3100 W Cascade Ave,
Hood River, CA 97031, 425-445-8884,
chris@hoodtech.com, www.hoodtech.com

Designs and manufactures advanced stabilized imaging platforms for small unmanned and manned aircraft, ground systems, and marine systems. Payloads deliver the most intelligence, surveillance, reconnaissance (ISR) performance and highest ISR value per unit dollar, unit mass, unit power, and unit volume.

Horizon Display

(div of Horizon Technology), 1 Rancho Cir, Lake Forest, CA 92630, 949-595-8248,
display@horizontechnology.com,
www.horizondisplay.com

Specializes in the acquisition of COTS plasma and LCD displays. Supports prototyping through full scale production. Also integrates touch screen technology into COTS displays, as well as protective substrates, privacy filters, and sunlight readability.

HUBER+SUHNER AG

Degersheimerstr 14, Herisau, Appenzell Ausserrhoden 9100, Switzerland, 41-71-353-4111,
info@hubersuhner.com, www.hubersuhner.com

Uses many years of experience and technological expertise to offer solutions for cables, connectors, antennas, and connection-ready cable systems that comply with international standards. Whether in the air, on land or at sea, quality in modern defense technology solutions permits no compromise.

Hunter Technology Corp

1940 Millmont Dr, Milpitas, CA 95035-2578,
408-957-1300, info@hunter-technology.com,
www.hunterpcb.com

Provides a full range of electronic manufacturing services (EMS) including printed circuit board design and layout, PCB HDI fabrication, PCB assembly, contract manufacturing, and test and systems integration.

IBI Systems Inc

6842 NW 20th Ave, Ft Lauderdale, FL 33309,
954-978-9225, ibisys@aol.com,
www.ibi-systems.com

Offers rugged computer systems for rack-mount or portable applications, specializing in custom configurations.

IEC & Associates

2474-108 Walnut St, Cary, NC 27518,
919-413-1290, mark.keith.pe@ieca-inc.com,
www.ieca-inc.com

Provides electrical and electronic forensic and investigative engineering services, patent infringement analysis, reverse engineering, product teardowns, design engineering, failure analysis, and expert witness services.

IEH Corp

140 58th St, Suite 8E, Brooklyn, NY 11220,
718-492-4448, ieh@iehcpr.com,
www.iehcpr.com

Manufactures PCB, cable and custom connectors, using Hyperboloid contact technology, an advanced contact design especially suited for harsh environments. These low-insertion force connectors exhibit extraordinary immunity to shock and vibration (over 300 g), duty cycles exceeding 100,000 matings, improved current-carrying capability and very low contact resistance.

Impact Technical Services Ltd

3 Kingsley St, Leicester LE2 6DY, UK,
44-116-244-8855, enquiries@impactts.co.uk,
www.impacttechnicalservices.co.uk

Offers COSHH LEV all types of service including examination and testing, design, service and maintenance, fan balancing including vibration analysis and condition monitoring, complete extraction systems, maintenance and spare parts.

Impulse Accelerated Technologies

800 Bellevue Way, Suite 400, Bellevue, WA 98004,
425-605-9543, info@impulseeaccelerated.com,
www.impulseeaccelerated.com

Helps design teams accelerate C algorithms on Xilinx and Altera FPGAs, reducing system bottlenecks and facilitating rapid iteration. These methods are typically used for custom DSP or wire-speed packet inspection. Provides assistance on a wide range of tools and design types.

Industrial PC Inc

8531 Bash St, Indianapolis, IN 46250,
888-255-5508, www.industrialpc.com
Supplies rack-mount, embedded, panel and single-board computers.

Industrial Training Consultants Inc

2969 Hwy 11, Pelham, AL 35124, 205-663-4960,
contact@itctrng.com, www.itctrng.com

Develops customized, site- or equipment-specific training programs for operations, maintenance, and safety. Generic programs available include maintenance, preventive maintenance, safety and industry specific. Offers various media. Has over 25 years experience.

Infinite Graphics

4611 E Lake St, Minneapolis, MN 55406,
612-721-6283, services@igi.com, www.igi.com

Infinite Optics Inc

1712 Newport Cir, Suite F, Santa Ana, CA 92075-5118, 714-557-2299,
stan@infiniteoptics.com, www.infiniteoptics.com

Designs and deposits thin-film optical coatings utilizing EB-Gun and IAD. Coatings range from 190 nm to 20 microns including AR, NIR, FLIR, SWIR, visible and UV filters, cold and hot mirrors, beamsplitters and mirror metallization. Polishes flats up to 10 in. and coat substrates up to 32 in.

InfoSight Corp

20700 US Hwy 23, PO Box 5000, Chillicothe, OH 45601, 740-642-3600, sales@infosight.com, www.infosight.com

Offers barcode tracking of mission-critical parts and assemblies. Manufactures industrial marking machines, metal tags, printers and barcode reading equipment for manual and automatic identification.

INICORE Inc

5600 Mowry School Rd, Suite 180, Newark, CA 94560, 510-445-1529, www.inicore.com

Emphasizes the design and reusability of IP-based system-on-silicon solutions. Expertise in architecture, IP, methodology and tool handling provide an environment that helps shorten the design cycle and speeds time to market. Offers feasibility studies, concept analysis, architecture definition, code generation and implementation and IP core development.

Innovasic Inc

5635 Jefferson St NE, Suite A, Albuquerque, NM 87109, 505-883-5263, sales@innovasic.com, www.innovasic.com

Produces integrated circuits for customers with long product life cycles including industrial, transportation, instrumentation, and medical applications. Supplies extended-life processors, peripherals, ASICs and mixed-signal devices for embedded communication and control.

Innovative Integration

2390 Ward Ave, Simi Valley, CA 93065, 805-578-4260, nhenderson@innovative-dsp.com, www.innovative-dsp.com

Specializes in signal processing and data acquisition hardware that combine DSPs and FPGAs with performance analog. Product family includes PCI Express, PMC, XMC, FMC modules, multi-channel transceiver/receiver systems, data loggers, and embedded PC and wireless IP cores. Manufactured in the US by the parent company, Interconnect Systems Inc.

InTalTech Ltd

HaMazmera, 3, Ness-Ziona 74047, Israel, 972-8-940-0002, office@intaltech.com, www.intaltech.com

Develops, manufactures and markets the TBDock ToughBook docking station solutions, MILCOMM communication products and MILCONN connectivity solutions for the military, industrial and medical business markets. Furthermore, the company is a design center providing development, engineering, qualification and manufacturing services for mechanical and electronic hardware projects.

Integra Technologies

3450 N Rock Rd, Bldg 100, Wichita, KS 67226, 800-622-2382, joe.holt@integra-tech.com, www.integra-tech.com

Provides engineering expertise in house to support all technologies including RF, digital, linear, mixed signal and memory. Specializes in software development, hardware design and development, electrical test, qualification testing, ESD and latch-up testing. The electrical test expertise encompasses both final test and probe, including bumped wafer probe.

Interconnect Devices Inc

(sub of Smiths Interconnect), 5101 Richland Ave, Kansas City, KS 66106, 913-342-5544, info@idinet.com, www.idinet.com

Designs and manufactures spring contact probes and OEM connectors for the military industry. The company's innovative spring probe technology offers advantages in reliability, performance, resistance, and efficiency. When integrated with its custom interconnects, the technology provides unlimited options and optimal performance for the most critical environments.

Interconnect Systems Inc

759 Flynn Rd, Camarillo, CA 93012-8056, 805-482-2870, info@isipkg.com, www.isipkg.com

Provides design and manufacturing of 3-D and multi-chip modules, IC obsolescence and footprint adapters, miniaturized FPGA computing systems, FPGA processor boards, near-sensor image-processing solutions, and connectors.

Interface

7401 E Butherus Dr, Scottsdale, AZ 85260, 480-948-5555, www.interfaceforce.com

Offers load cells for static and fatigue testing. Aerospace companies such as Boeing, Airbus, Lockheed, Northrop, Bombardier, Embraer, Gulfstream, and Cessna have depended on the company for years.

Interface Displays & Controls Inc

4630 North Ave, Oceanside, CA 92056, 760-945-0230, info@interfacedisplays.com, www.interfacedisplays.com

Specializes in designing, reverse-engineering and manufacturing cockpit controls, rugged computing and display devices and external aviation lighting for military and commercial applications. All products are available with NVIS compatibility and are applicable for aviation, marine and transportation industries. Is a certified ISO 9001/AS9100, veteran-owned small business.

Interface Inc

7401 E Butherus Dr, Scottsdale, AZ 85255, 480-948-5555, aero@interfaceforce.com, www.interfaceforce.com

Manufactures LowProfile load cells. Guarantees the highest performance and most accurate load cells available—from grams to millions of pounds, in hundreds of configurations. The company supplies to Boeing, Airbus, NASA, Ford, GM, NIST and thousands of measurement labs.

International Rectifier

HiRel Div, 205 Crawford St, Leominster, MA 01453, 978-534-5776, hirel_sales@irf.com, www.irf.com

Designs, develops, and manufactures high-reliability power conversion solutions for space, military, commercial aircraft, heavy-duty industrial, and medical markets. Offers radiation hardened, high-temperature, and standard hybrid DC/DC converters with built-in EMI filtering. All are available with complete analysis reports for thermal, reliability, FMEA, electrical stress, radiation susceptibility, and worst case.

International Rectifier San Jose

HiRel Div, 2520 Junction Ave, San Jose, CA 95134, 408-434-5000, hirel_sales@irf.com, www.irf.com

Designs, develops, and manufactures high-reliability power conversion solutions for space, military, commercial aircraft, heavy-duty industrial, and medical markets. Offers radiation hardened, high-temperature, and standard hybrid DC/DC converters with built-in EMI filtering. All are available with complete analyses reports for thermal, reliability, FMEA, electrical stress, radiation susceptibility, and worst case.

Interpoint

(div of Crane Aerospace & Electronics) (sub of Crane Co), 10301 Willows Road NE, Redmond, WA 98052, 425-882-3100, power@crane-eg.com, www.craneae.com/interpoint

Supplies high-density, high-reliability Interpoint microelectronics, DC/DC converters and EMI filters to the aerospace and defense markets that are designed for some of the toughest environments including ground based, airborne and space flight when failure is not an option. Offers partnership with a trusted market leader in critical applications.

**Intersil Corp**

1650 Robert J Conlon Blvd NE, Palm Bay, FL 32905, 321-724-7000, www.intersil.com

Specializes, designs and manufactures high-performance analog semiconductors. Products include amplifiers, analog front ends, communication interfaces, data converters, digital potentiometers, display solutions, DSL solutions, optical storage products, power management products, power sequencers, real-time clocks, smart batteries, switches/MUXs, VoIP products and ICs for military, space, and rad-hard applications.

InterTest Inc

303 State Rt 94, Columbia, NJ 07832, 908-496-8008, bginfo@intertest.com, www.intertest.com

Intronics Power Inc

1400 Providence Hwy, Norwood, MA 02062,
781-551-5511, Imarro@intronicspower.com,
www.intronicspower.com

Offers standard and custom high reliability DC/DC power converters, AC/DC power supplies, analog functional modules, CRT correctional devices and legacy analog devices. Power ratings from 1–500W available. Designed and manufactured to custom specifications and/or military requirements in the US. Is ISO 9001:2000 certified.

IRCameras LLC

30 S Calle Cesar Chavez, Suite D, Santa Barbara, CA 93103, 877-472-2637, sales@ircameras.com,
www.ircameras.com

Provides technologically advanced infrared imaging systems for scientific, industrial and military applications. In addition to standard commercial cameras and IDCAs, offers custom design and build services to meet unique optical, packaging and space-constrained requirements.

Iridian Spectral Technologies

2700 Swansea Crescent, Ottawa, ON K1G 6R8, Canada, 613-741-4513, inquiries@iridian.ca,
www.iridian.ca

Provides optical thin-film filters and coating services for use in spectroscopic analysis, environmental monitoring and visible and IR sensing and imaging. Can custom manufacture single filters from 300 nm–14 µm in wavelength to meet requirements and scale this to high volume as needed.

IRT Integrated Rectifier Technologies Inc

15360-116th Ave, Edmonton, AB T5M 3Z6, Canada, 780-447-1114, sales@irtrectifier.com,
www.irtrectifier.com

Designs, manufactures and supplies rectifiers/control panels for cathodic protection of metal structures.

Iscan Inc

21 Cabot Rd, Woburn, MA 01801, 781-932-1199, info@iscaninc.com, www.iscaninc.com

Manufactures automatic video tracking systems for weapons pointing, test-range tracking, and advanced seekers. Also offers eye-movement monitoring systems for advanced man-machine interfaces, including cockpit fire control.

ISP Optics Corp

50 S Buckhout St, Irvington, NY 10533, 914-591-3070, sales@ispopitics.com,
www.ispopitics.com

Designs and manufactures high-precision, infrared, custom and catalog optics including aspheric and diffractive elements, multi-element systems, custom and standard infrared coatings, and infrared opto-mechanical and IR zoom lens assemblies from prototype to production quantities utilizing conventional and diamond turning methodologies.

iXfiber

Rue Paul Sabatier, Lannion 22300, France, 33-2-96-04-10-50, info@ixfiber.com,
www.ixfiber.com

Offers specialty optical fiber, components (based on Fiber Bragg Grating (FBG) technology) and systems for telecommunications, defense, sensor and industrial markets. Main products are PM fiber for fiber optical gyroscope, double clad fiber for fiber laser and FBG for fiber laser mirror and fiber sensor applications (space and terrestrial grade).

Jayco MMI Inc

1351 Pico St, Corona, CA 92881, 951-738-2000, danstead@jaycopanels.com, www.jaycopanels.com

Designs, develops, and manufactures custom switch products for man-machine interface. Feature options can include backlighting, tactile feel, sealing, shielding, chemical protect and more. Is an ITAR registered company. Supplies custom switch panels and controls to all industries.

Jazz Semiconductor Inc

4321 Jamboree Rd, Newport Beach, CA 92660, 949-435-8000, info_a&d@towerjazz.com,
www.jazzsemi.com

Providess multi-project wafer (MPW) services to include CIS in addition to high-speed SiGe and SOI RF CMOS. These offerings will be available for onshore or ITAR-controlled prototype and manufacturing services of advanced semiconductors for the US Department of Defense (DoD) and the broader aerospace and defense community.

JENOPTIK I Defense & Civil Systems

Sensors Systems Div, Pruessingstr 41, Jena, Thuringia 07745, Germany, 49-3641-65-3041, sensorsystems.dcs@jenoptik.com,
www.jenoptik.com/dcs

Develops and manufactures compact, powerful and reliable infrared and laser sensor solutions for defense and security applications. Products include long-range laser rangefinders and high-resolution thermal imagers for reconnaissance and surveillance, electro-optic day/night target acquisition systems, real-time thermographic cameras and modules for system integration.

Jewell Instruments

850 Perimeter Rd, Manchester, NH 03103, 800-227-5955, sales@jewellinstruments.com,
www.jewellinstruments.com

Manufactures and distributes panel meters, avionics components, inertial sensors, and precision solenoids. As a world leader, the company provides custom solutions for a diverse group of industries, including aerospace, medical, industrial, telecommunications, and many more.

JJ Digital Technologies Pty Ltd

45 Gilby Rd, Unit 132, Mt Waverley, VIC 3149, Australia, 61-3-9701-0976, sales@jjdigital.com.au,
www.jjdigital.com.au

J-TEC Associates Inc

5005 Blairs Forest Ln NE, Suite L, Cedar Rapids, IA 52402-8832, 319-393-5200,
j-tec@j-tecassociates.com, www.j-tecassociates.com

Sells proprietary flow measurement products, one of which is the Crosswind Sensor that is part of the fire control system for the large weapon system on the M1A2 tank, the Stryker MGS, and other military vehicles.

JTime Inc

228 Windsor River Rd, Suite 225, Windsor, CA 95492, 707-837-9570, sales@jtime.us,
www.jtime.us

Distributes Meinberg precise time and frequency products, GPS and IIRG synchronized PCI slot cards, network time servers, and complete time and frequency systems that include IEEE 1588 PTP V2 products from Meinberg and Oregano.

KAMAKA Electronic Bauelemente Vertriebs GmbH

Ulmer Str 130, Aalen, Baden Württemberg 73431, Germany, 49-7361-96620, karasch@kamaka.de,
www.kamaka.de

Specializes in the sectors of hi-rel products, aerospace semiconductors, military solutions, high-temperature applications and defense power supplies. Is a solution provider for obsolescence management strategy. Offers an anti-counterfeiting program.

Kamatics Corp

1330 Blue Hills Ave, Bloomfield, CT 06002, 860-769-3277, john.bertolini@kaman.com,
www.kamatics.com

Produces and markets widely used proprietary aircraft bearings and components. Offers complex metallic and composite aerostructures for fixed and rotary wing aircraft and safing and arming solutions for missile and bomb systems. Subcontracts helicopter work and supports the company's helicopters.

Kappa optronics GmbH

Kleines Feld 6, Gleichen, Niedersachsen D-37130, Germany, 49-5508-974-0, info@kappa.de,
www.kappa.de

Develops and manufactures application-specific camera solutions from 20–20,000 units. With rugged camera design for harsh environments, the target markets include civil and military aviation.

KASO Plastics

5720-C NE 121st Ave, Suite 110, Vancouver, WA 98682, 360-254-3980, sales@kaso.com,
www.kaso.com

Offers full service thermoplastic injection molding, operating in the Portland/Vancouver metro area. Provides a broad cross section of injection molding services for the medical, military, and consumer industries. Specializes in fine tolerance injection molding service for all detailed plastic parts and components.

Kearfott Corp

(sub of Astronautics Corp of America), 1150 McBride Ave, Little Falls, NJ 07424, 973-785-6000, www.kearfott.com

Designs and manufactures inertial guidance, navigation and precision motion control components and systems used in ground vehicle and artillery applications, manned and unmanned aircraft platforms, maritime vessels and space and missile systems.

Keltec

(div of Crane Aerospace & Electronics) (sub of Crane Co), 84 Hill Ave W, Ft Walton Beach, FL 32548-3858, 850-244-0043, power@crane-eg.com, www.craneae.com/power

Offers custom high-voltage and low-voltage power supplies, DC/DC converters, TWT amplifiers, Klystron amplifiers and transmitters to the aerospace and defense markets that are designed for tough environments including ground-based, airborne and space critical applications. Offers a partnership with a trusted market leader in critical applications.

Kensington Electronics Inc

11801 Stonehollow Dr, Suite 150, Austin, TX 78758, 512-339-3300, aerospacedefensesales@keiconn.com, www.keiconn.com

Distributes rugged, waterproof, shock and vibration proof, connectors for high reliability applications in the mil-aero markets. Can also build overmolded, custom cable assemblies in a facility which is ISO 13485, ISO 9001/AS9100 certified and UL/CSA safety-approved and includes a Class 1000, Class 10000 clean work area. Is women-owned.

Kentucky Trailer Technologies

1240 N Pontiac Trail, Walled Lake, MI 48309, 248-960-9700, www.kytrailer.com

Manufactures a variety of custom specialty vehicles with special focus on enclosed vehicle transporters for the automotive and motorcycle/leisure transport markets, standard and/or expandable trailers, trucks and containers for mobile marketing, mobile broadcasting/production, mobile command, mobile medical, mobile training centers and other mobile platforms for commercial and government customers.

Keopsys SA

2 Rue Paul Sabatier, Lannion 22300, France, 33-2-96-05-08-00, websales@keopsys.com, www.keopsys.com

Manufactures fiber amplifiers and laser products for a large variety of applications such as telecommunications, remote and in-situ sensing, scientific/research, and industrial and military.

Keo Scientific Ltd

1300 8th St SW, Suite 404, Calgary, AB T2R 1B2, Canada, 403-383-7192, trondsen@keoscientific.com, www.keoscientific.com

Designs and builds highly sensitive scientific instrumentation capable of wavelength-resolved imaging of subvisual emissions (airglow, aurora) from the upper atmosphere, as well as periscope (articulated mirror) assemblies and calibrated low brightness sources (LBS).

Kepco Inc

131-38 Sanford Ave, Flushing, NY 11355, 718-461-7000, hq@kepcopower.com, www.kepcopower.com

Manufactures programmable instrumentation, modular and hot-swappable DC power supplies from 3.3–2000V, 10W–3 kW. LXI approved Ethernet, GPIB, RS-232, and analog programming are supported. Modular DC electronic loads from 1–5 kW are offered with maximum 800 Amp capability.

Kimball Electronics Group

(sub of Kimball International), 1600 Royal St, Jasper, IN 47549, 812-817-2433, patrick.prondzinski@kimball.com, www.kegroup.com

Offers complete product life cycle support for electronic manufacturing assemblies in the medical, industrial, automotive, and public safety market segments. The electronics design and electronic manufacturing services (EMS) core focus is vital in the creation of durable products that require high reliability.

Kimmon Koha USA Inc

(sub of Kimmon Koha Co Ltd), 7002 S Revere Pkwy, Suite 85, Centennial, CO 80112, 303-754-0401, p.townsend@kimmon.com, www.kimmon.com

Sells and services 325 and 442 nm helium cadmium laser systems in North America and Mexico along with a line of solid-state lasers operating at 375, 405, 445 and 488 nm.

Kingfisher International Pty Ltd

30 Rocco Dr, Scoresby, VIC 3179, Australia, 61-3-9757-4100, sales@kingfisher.com.au, www.kingfisherfiber.com

Manufactures fiber-optic test equipment. Products include optical power meters, laser LED light sources, optical loss test sets with ORL meters, optical talk sets, variable optical attenuators, clip-on identifiers, cold clamp-precision optical cable markers, visible fault finders, and flexible real-time measurement software. Offers durable equipment that features low cost of ownership.

Klocwork

15 New England Executive Pk, Burlington, MA 01803, 866-556-2967, info@klocwork.com, www.klocwork.com

Helps developers create more secure and reliable software. The tools analyze source code on-the-fly, simplify peer code reviews and extend the life of complex software. Over 1000 customers in the mobile device, consumer electronics, medical technologies, telecom, automotive, military and aerospace sectors rely on the development tools.

Kontron

14118 Stowe Dr, Poway, CA 92064, 858-677-0877, info@us.kontron.com, www.kontron.com

Designs and manufactures standard-based and custom embedded solutions for OEMs, systems integrators, and application providers. Product portfolio includes boards and mezzanines, computer-on-module, HMIS and displays, systems, and custom capabilities. Is a member of the Intel embedded and communications alliance.

(See ad page B67)

Kowa Optimed Inc

20001 S Vermont Ave, Torrance, CA 90502, 310-327-1913, kowa-usa-info@kowa.com, www.kowa-usa.com

Manufactures top quality CCTV and machine-vision lenses with over 50 years of technical experience. New products include a 10 megapixel lens series, a megapixel varifocal IR-corrected lens series, a P-iris lens series, and a megapixel long range zoom lens series.

Krell Technologies Inc

1126 Campus Dr W, Morganville, NJ 07751, 732-617-7091, sales@krelltech.com, www.krelltech.com

Manufactures automated and integrated connector polishing/inspection systems for high-volume production, portable polishing and inspection kits for shipboard and aircraft field service, in-line video-inspection equipment, and interferometers. Also offers optical cleaning supplies and lensing systems for processing bare fiber.

K-Sun Corp

370 SMC Dr, PO Box 309, Somerset, WI 54025, 715-247-4440, info@ksun.com, www.ksun.com

Provides labeling, marking, signage, industrial identification systems and electronic labeling machines, software, and supplies used in industries across the world. Offers the new green machine, an eco-friendly/technologically advanced labeling system.

Kugler of America Ltd

48 South Rd, Unit 1, Somers, CT 06071, 860-749-6400, info@kuglerofamerica.com, www.kuglerofamerica.com

Manufactures high-quality metal mirrors from flat, aspheric, cylindrical up to free form, including application specific optical coatings. Ranges from UV to FIR, imaging, up to high multi-KW power.

Kurz Instruments Inc

2411 Garden Rd, Monterey, CA 93940, 831-646-5911, sales@kurzinstruments.com, www.kurzinstruments.com

Manufactures thermal mass flow meters for industrial gases, combustion air, biogas, flue gases and many other applications.

KVH Industries Inc

50 Enterprise Center, Middletown, RI 02842,
401-847-3327, info@kvh.com, www.kvh.com
Offers fiber-optic gyro-based products including stand-alone sensor and integrated inertial navigation systems to support defense and commercial applications including optical/antenna/turret stabilization, precision navigation, pointing, and guidance solutions. Products utilize patented digital signal processing and fiber-optic gyro technologies. Is ISO 9001 certified.

L-3 Communications - Applied Optics Center

9827 Chartwell Dr, Dallas, TX 75243,
885-276-1110, info.aoc@l-3com.com,
www.l-3com.com/aoc
Provides advanced optical solutions and assemblies for commercial/defense markets worldwide. Products include thin-film coatings, optical assemblies, laser-protection filters, precision-optical assemblies, optical components, large-format optical thin-film coatings, thin-film patterning and rapid component and subassembly prototyping for imaging, machine-vision, display, industrial, defense and aerospace.

L-3 Communications Interstate Electronics Corp

(div of L-3 Communications), 602 E Vermont St, Anaheim, CA 92803, 714-758-0500,
greg.martz@l-3com.com, www.iehome.com
Offers GPS technologies and produces ruggedized displays for military and industrial applications.

L-3 Electron Devices

960 Industrial Rd, San Carlos, CA 94070,
650-591-8411, scl.marketing@l-3com.com,
www.l-3com.com
Provides sophisticated, high-fidelity training systems and equipment to enhance operational proficiency on a wide variety of platforms, from advanced military and commercial aircraft to land-based vehicles. Works closely with customers to develop tailored training solutions, offering a range of services, including front-end analysis, program design, simulator design and production.

L-3 Infrared Products

(div of L-3 Communications), 13532 N Central Expwy, MS-37, Dallas, TX 75243, 972-528-1300,
www.l-3com.com/irp
Delivers superior, high-performance infrared technology solutions and camera systems for a wide variety of thermal imaging applications. Whether performing critical missions, gathering intelligence or conducting situation analysis, products perform when the stakes are high.

LADD Distribution

4849 Hempstead Station Dr, Kettering, OH 45429,
800-223-1236, ladd.us@te.com, www.laddinc.com
Specializes in the distribution, marketing and technical support of DEUTSCH industrial electrical connectors and accessories.

LAI International Inc

708 W 22nd St, Tempe, AZ 85282, 480-968-6228,
info@laico.com, www.laico.com
Is a contract manufacturer of make-complete precision-engineered components and assemblies for aerospace, power generation, defense, medical and other advanced technology industries. The company's technology, engineering and manufacturing solutions are used to build components for airframes, aircraft engines, power generators, defense systems and medical devices.

Lambda Research Corp

25 Porter Rd, 2nd Fl, Littleton, MA 01460-1434,
978-486-0766, sales@lambdare.com,
www.lambdare.com
Provides a full suite of world-class optical software, including TracePro for illumination design, analysis, and optimization software, TracePro Bridge which runs inside SolidWorks to provide 3-D MCAD interoperability, and OSLO for lens design. TracePro models optical and illumination designs to provide innovative solutions and outstanding analysis capabilities.

Landpower Solar Technology Co Ltd

1-3 Fanghu W 2nd Rd, Huli Dist, Xiamen, Fujian 363000, China, 86-158-05915745,
sales@landpowersolar.com,
www.landpowersolar.com

■ Lansdale Semiconductor Inc

5245 S 39th St, Phoenix, AZ 85040,
602-438-0123, lansdale@lansdale.com,
www.lansdale.com

Is a semiconductor aftermarket manufacturer supplying over 3000 military and commercial grade integrated circuits. Technologies include DTL, RTL, TTL, STTL, LSTTL, PROMS, CMOS and analog ICs produced using the original tooling. (See ad page BG3)

LAS-CAD GmbH

Brunhildenstr 9, Munich 80639, Germany,
49-89-173607, info@las-cad.com,
www.las-cad.com
Develops the program LASCAD for simulating lasers design. Thermal and structural finite element analysis, Gaussian ABCD and physical optics code are integrated in LASCAD to analyze thermal lensing, stability, power output, beam quality, multimode and Q-switched operation of solid-state lasers.

Laser Components GmbH

Werner-von-Siemens-Str 15, Olching D-82140, Germany, 49-8142-2864-0,
info@lasercomponents.com,
www.lasercomponents.com
Produces components for laser technology and the optoelectronics industry in house. Many products are developed based on customer request. For example, the company manufactures pulsed laser diodes at 905 and 1550 nm and matching avalanche photodiodes for laser range finding applications.

Laser Technology Inc

1055 W Germantown Pike, Norristown, PA 19403-3912, 610-631-5043, sales@laserndt.com,
www.laserndt.com
Manufactures shearography, holography and thermography NDT systems and instruments for nondestructive testing. Provides field testing and NDT engineering services for aerospace.

Lasertec Inc

3 Guan Qian Rd, Jinan, Fuzhou, Fujian 350014, China, 86-591-88056805, sales@lcoptical.com,
www.lcoptical.com
Supplies KTP and optics elements for OPO laser systems.

LASERVISION GmbH & Co KG

(sub of UVEX Safety Group), Siemensstr 6, Furth 90766, Germany, 49-911-9736-8100,
info@laservision.com, www.uvex-laservision.de

Latchways Plc

Hopton Pk, Devizes, Wiltshire SN10 2JP, UK, 888-250-8357, info@latchways.com,
www.latchways.com
Offers WinGrip, which provides safe and flexible fall protection for use in the manufacturing/maintenance of aircraft. It is secured using vacuum anchors and may be fitted to wings, fuselage or HTP. WinGrip is quick to deploy, simple to use and is suitable for work inside the hangar/outside on the apron.

L-com Global Connectivity

45 Beechwood Dr, North Andover, MA 01845,
978-682-6936, sales@l-com.com, www.l-com.com
Manufactures wired and wireless connectivity products, offers a wide range of solutions and unmatched customer service for the electronics and data communications industries. Trusted for over 25 years, headquartered in North Andover, MA. Is ISO 9001:2008 certified.

The LED Studio

28 Hanger Way, Petersfield, Hampshire GU31 4QE, UK, 44-7738-069-241, sales@theledstudio.co.uk,
www.theledstudio.co.uk
Specializes in the supply and control of high-specification LED signs and real-time data acquisition systems that use the most up to date technologies available in the industry.

LED Waves

4100 1st Ave, 3rd Fl N, Brooklyn, NY 11232, 800-986-0169, www.ledwaves.com
Specializes in high-end retrofit and customized LED lights. Send project specs for a perfect LED lighting solution that is long-lasting, dependable, and energy-saving. Ask LED specialists for a free estimate. Is a service disabled veteran owned small business based in Brooklyn.

Leidos

(Engineering Div), 11951 Freedom Dr, Reston, VA 20190, 571-526-6000, leidosengineering@leidos.com, www.leidos.com/engineering

Is a scientific, engineering, and technology applications company that uses its deep domain knowledge to solve problems of vital importance to the nation and the world, in energy and the environment, national security, critical infrastructure, and health. Is a Fortune 500 company.

LEMO USA Inc

(sub of LEMO SA), 635 Park Ct, PO Box 2408, Rohnert Park, CA 94927-2408, 707-578-8811, info@lemousa.com, www.lemo.com

Provides a lightweight, compact aluminum connector. M-series connector is focused on the design that requires a MIL-38999 type of connector but in a smaller lightweight package. The high-performance M series provides a ratchet locking screw coupling system enabling a single grip, quick and secure, coupling for high vibration.

Lensel Optics Pvt Ltd

66/2, D2, MIDC, Chinchwad, Pune, Maharashtra 411019, India, 91-202-7474340, milind@lenseloptics.com, www.lenseloptics.com

Provides optical design, precision optical components in glass and plastic. Services include design to tooling and mold development, prototyping and volume manufacturing. Is ISO 9000 certified. Offers Aspheric surfaces, hybrid systems, BBAR coatings VIS-NIR, multi-element assembled lens systems, TIR systems, cylindrical surfaces, anamorphic lenses, catadioptric systems and optics sizes 8–300 mm.

Lenthor Engineering Inc

1506 Gladding Ct, Milpitas, CA 95035, 408-957-3487, davidm@lenthor.com, www.lenthor.com

Provides design, fabrication, and in-house assembly of flex and rigid-flex PWBs. Can respond to both time-critical and scheduled delivery requirements. Is MIL-STD 50884 compliant, ISO 9001:2008, and ITAR registered. Offers full electronic imaging with LDI and ink jet screen printing.

LEONI Fiber Optics Inc

(sub of LEONI GmbH), 209 Bulfinch Blvd, PO Box 615, Williamsburg, VA 23188, 757-258-4805, contact@leoni.com, www.leoni-fiber-optics.com

Manufactures electro-optic devices for spectroscopy, laser delivery and manipulation, sensing, and process control. Products include spot-to-slit arrays, fluorescence, absorption/dip probes, process/instrumentation interfaces, laser-to-fiber couplers, collimators, high-power connectors, vacuum, and harsh environment feedthroughs and probes. Custom assemblies and prototypes are addressed on a daily basis.

The Light Brigade Inc

837 Industry Dr, Tukwila, WA 98188, 206-575-0404, sales@lightbrigade.com, www.lightbrigade.com

Offers training courses that cover fiber-optic design, maintenance, and testing for military and aerospace applications, as well as advanced courses such as fiber characterization, harsh environments, and video for security or surveillance. Also offer professional-quality fiber-optic training DVDs. Can also create fiber-optic training materials customized to specifications.

Liteway Inc

166 Haverford Rd, Hicksville, NY 11801, 516-931-2800, sales2@liteway.com, www.luxlink.com

Specializes in the technology of fiber optics. Using the latest semiconductor and optical technology, the company designs and manufactures communication products that transport video, audio and data signals over fiber-optic cables. Private labeling and custom products are also available.

Lockheed Martin Santa Barbara Focal Plane

346 Bollay Dr, Goleta, CA 93117, 805-571-2300, sbfp@sbfp.com, www.sbfp.com

Designs, custom develops and manufactures multi-spectral infrared focal plan array detectors, camera cores and complete camera imaging systems. The broad spectrum of products cover applications from high-end military and space systems to commercial off-the-shelf components and camera systems.

Logic PD

411 Washington Ave N, Suite 400, Minneapolis, MN 55401, 612-672-9495, contact.us@logicpd.com, www.logicpd.com

Provides product innovation expertise with the ability to discover, design, develop and deliver market-leading products under one roof. Experienced team of creative problem solvers and cutting-edge modular technology products supported by its partner ecosystem enable companies to focus on inventing revolutionary intellectual property.

LPKF Laser & Electronics

12555 SW Leveton Dr, Tualatin, OR 97062-6073, 503-454-4200, info@lpkfusa.com, www.lpkfusa.com

Manufactures in-house, rapid PCB prototyping equipment, as well as production laser systems for a variety of applications, including RF, microwave, flex, and 3-D MID circuitry.

LRAD Corp

16990 Goldentop Rd, Suite A, San Diego, CA 92127, 858-676-1112, info@lradx.com, www.lradx.com
Uses powerful directed long range, highly intelligible voice messages and alters over distances of 600 meters to 3.5 km. The voice messages can be clearly heard and understood inside homes, buildings and vehicles. The systems are rugged, man portable, and easy to operate.

Luciol Instruments SA

7B Rt Suisse, Mies 1295, Switzerland, 41-22-755-5650, info@luciol.com, www.luciol.com

Manufactures high-resolution optical time-domain reflectometers (OTDRs). These instruments characterize and troubleshoot short optical fiber assemblies. They detect faults, breaks and bends in the fiber. OTDRs are fully portable systems, suitable for aerospace and military applications. They are available for most fiber types and wavelengths.

Lumetrics Inc

Eagle's Landing Business Pk, 1565 Jefferson Rd, #420, Rochester, NY 14623, 585-214-2455, sales@lumetrics.com, www.lumetrics.com

Is a nondestructive metrology solutions provider for industries as diverse as aerospace, medical, ophthalmic, glass, film, scientific and others. Incorporates the proprietary OptiGauge thickness measurement system and Shack-Hartmann wavefront analysis systems to solve complex measurement and inspection problems. Designs and builds complete inspection systems.

Lux Research Inc

234 Congress St, 5th Fl, Boston, MA 02110, 617-502-5300, info@luxresearchinc.com, www.luxresearchinc.com

Provides strategic advice and ongoing intelligence for emerging technologies. Leaders in business, finance and government rely on the company to help them make informed strategic decisions. Through the unique research approach focused on primary research and our extensive global network, the company delivers insight, connections and a competitive advantage.

**LinuxWorks Inc**

855 Embedded Way, San Jose, CA 95138, 408-979-3900, inside@lnxw.com, www.linuxworks.com

Specializes in secure virtualization and real-time operating systems. The LynxSecure separation kernel and hypervisor form a platform for the development of high-assurance systems and cloud deployments for sensitive data. Has created technology successfully deployed in products by leading communications, avionics, aerospace/defense, and consumer electronics companies.

Macrolink Inc

1500 N Kellogg Dr, Anaheim, CA 92807, 714-777-8800, www.macrolink.com

Designs and manufactures sophisticated products for the VMEbus and concurrent computer marketplaces. These products include communications, mass storage, memory expansion, specialized I/O, system modules and related subsystems. Rugged/MIL VME chassis, ATR chassis and portable rugged workstations are the latest additions to the product line.

Macro Sensors

(sub of American Sensor Technologies), 7300 US Rt 130 N, Pennsauken, NJ 08110, 856-662-8000, positionsensors@macrosensors.com, www.macrosensors.com

Offers a line of linear and rotary sensors that are used for position measurement and feedback in a variety of aerospace/defense applications including control surface position, engine control feedback and pilot control inputs.

March Electronics Inc

25 Feldland St, Bohemia, NY 11716, 800-444-6056, sales@marchelectronics.com, www.marchelectronics.com

Serves as QPLD value-added distributor for MIL-C-38999, 83513, 55302, and 28748 connectors. Also available are M39012, M39016, M39029, connectors, relays, and contacts. Distributes a complete line of products for Tyco Electronics, G&H Technology, Continental Connector, Winchester, Delta, Microdot, CIL, Hartman, Kilovac, Dale Connectors, Nanonics, Ultimate Connectors, General Connectors, Wire-Pro, Preci-Dip, and more.

Marlow Industries Inc

10451 Vista Pk Rd, Dallas, TX 75238-1645, 214-340-4900, sales@marlow.com, www.marlow.com

Martin Froeschner & Associates

14300 Mines Rd, Livermore, CA 94550, 925-989-4930, sales@mfaoptics.com, www.mfaoptics.com

Marvin Land Systems Inc

261 W Beach Ave, Inglewood, CA 90302, 310-674-5030, sales@marvinland.com, www.marvingroup.com

Designs and manufactures mechanical, electrical and electronics assemblies and systems used in combat vehicles and turnkey conversion programs for tracked vehicle upgrades. Also provides technical assistance, training, and logistics in support of these programs.

Maryn International Ltd

Bay 5, 4216-54th Ave SE, Calgary, AB T2C 2E3, Canada, 403-252-2239, info@maryngroup.com, www.maryninternational.com

Provides lubrication products engineered for extreme applications. Provides diesel fuel additives, fuel system cleaners, and high-performance greases to maximize fluid life.

Master Bond

154 Hobart St, Hackensack, NJ 07601, 201-343-8983, main@masterbond.com, www.masterbond.com

Develops a range of products for use in electronic and electro-optic applications, including a complete line of optical potting and encapsulating compounds some of which are also thermally and electrically conductive. Adhesives are formulated to operate over a wide temperature range and hold up to cryogenic temperatures and shock.

Materion Advanced Materials Group

(div of Materion), 2978 Main St, Buffalo, NY 14214, 800-327-1355, advancedmaterials@materion.com, www.materion.com

Is a global supplier of premier specialty materials and services for industries including aerospace, military, LED, semiconductor, advanced memory and optical coatings. Offerings include precious and non-precious thin-film deposition materials, inorganic chemicals, microelectronic packaging products, precision parts cleaning, and precious and valuable metal reclamation.

Matrox Imaging

1055 St-Regis Blvd, Dorval, QC H9P 2T4, Canada, 800-804-6243, imaging.info@matrox.com, www.matroximaging.com

Develops component-level solutions and is recognized for providing OEMs and integrators in the manufacturing, medical diagnostic and security industries with innovative yet cost-effective solutions. Components include cameras, interface boards and processing platforms, all designed to provide optimum price-performance within a common software environment.

Maxim Integrated Products

160 Rio Robles, San Jose, CA 95134, 408-601-5432, candice.nepomuceno@maximintegrated.com, www.maximintegrated.com

Designs, develops, and manufactures analog, mixed-signal, high-frequency, and digital circuits.

Max Levy Autograph Inc

Military and Materials Div, (sub of II-VI Inc), 2710 Commerce Way, Philadelphia, PA 19144, 215-842-3675, sales@maxlevy.com, www.maxlevy.com

Specializes in ultra-precision patterned plano and curved components and 3-D structures for the photonic, biomedical, mil-aero, semiconductor, and metrology industries. Applications range on substrates sizes up to 6' x 10' from the X-ray out to infrared.

MAZeT GmbH

Göschwitzer Str 32, Jena 07745, Germany, 49-3641-2809-0, sales@mazet.de, www.mazet.de

Manufactures JEMCOLOR sensors that measure colors based on CIE1931 or spectral analysis. They are long-term stable, compact and cost-efficient. Commonly used in aviation cabin lighting control to maintain accurate CCT or color values over long life cycles, while reducing maintenance costs and eliminating binning effects.

MC Countermeasures Inc

260 Hearst Way, Suite 600, Kanata, ON K2L 3H1, Canada, 613-592-0818, info@mc-cm.com, www.mc-cm.com

Specializes in radar EW test, training and validation equipment. The Integrated Radar EW Test and Training System (IREWTS) is a multi-function software-defined radar EW solution for lab, test range and airborne requirements and available standard in a ruggedized 19 inch rack mount chassis or MIL-SPEC 810-G ATR.

MCG Surge Protection

12 Burt Dr, Deer Park, NY 11729, 631-586-5125, info1@mcgsurge.com, www.mcgsurge.com

Provides AC power lines, data/signal/telephone lines, and DC and low-voltage current surge protectors. UL 1449, 3rd Ed listed, MIL-SPEC and ISO 9001:2008 certified. Offers a 20-year warranty. Custom orders welcome. Offers OEM applications, industrial, commercial and smart home applications since 1967.

McObject

33309 1st Way S, Suite A-208, Federal Way, WA 98003, 425-888-8505, info@mcobject.com, www.mcobject.com

Offers proven real-time embedded database management system (DBMS) software, including high availability and clustering capabilities, that makes real-time embedded systems smarter, more reliable and cost-effective to develop and maintain. Customers include industry leaders such as BAE Systems, Northrop Grumman, EADS, SAIC, Lockheed Martin, Aselsan, STM, Sandel Avionics and Boeing.

Mech-Tronics

100 Campus Dr, Mount Holly, NJ 08060, 609-267-0680, sales@mech-tronics.net, www.mech-tronics.net

Manufactures bobbin and toroidal magnetic coil windings to customer print or specs. Serves aerospace, communications, laboratory and test equipment, lighting, nuclear, security and welding industries. Specializes in PC board-mount in medium/high frequency. Manufactures miniature to medium size transformers including E-Core, Ferrite, high-voltage, pot-core and Toroidal.

MEGA Electronics Inc

4-B Jules Ln, New Brunswick, NJ 08901, 732-249-2656, sales@megaelectronics.com, www.megaelectronics.com

Supplies DC/DC converters up to 250W and AC/DC power supplies to 960W. Available with silicon potting to survive rapid temperature swings. Non-isolated switching regulators possible with high efficiencies to eliminate the need for heat sinks.

Mega-Fabs Motion Systems Ltd

Bldg 13 Industrial Pk, PO Box 540, Yokneam 20692, Israel, 972-4-989-1050, info@mega-fabs.com, www.mega-fabs.com

Designs, manufactures, and markets software intensive programmable DSP-based motion-control products including DSP motion-control modules, multi-axis motion controllers, motion systems, drives, motion analyzers, and motion-development tools.

Mentor Graphics

1811 Pike Rd, Longmont, CO 80501, 720-494-1000, leslie_vangrove@mentor.com, www.mentor.com

Provides electronic design automation and embedded software.

Mercury Systems

199 Riverneck Rd, Chelmsford, MA 01824-2820,
866-411-6729, ir@mcry.com, www.mcry.com
Designs and builds end-to-end, open-sensor processing subsystems for critical commercial, defense and intelligence applications. Offers a product set that spans the entire ISR sensor processing chain, from acquisition to dissemination, helping customers address the broad range of sensor processing.

Merrimac

(div of Crane Aerospace & Electronics) (sub of Crane Co), 41 Fairfield Pl, West Caldwell, NJ 07006,
973-575-1300, mw@crane-eg.com,
www.craneae.com/mw

Develops state-of-the-art electronic components, subsystems and system solutions for critical defense and space applications. Manufactures a range of RF, microwave and millimeter wave products for military communications networks/systems related to EW, precision guidance, radar and ISR. Offers partnership with a trusted market leader in critical applications.

MICCAVIONICS GmbH

Am Lindenberg 8, Weil der Stadt 71263, Germany,
49-7033-1380-200, info@miccavionics.com,
www.miccavionics.com

Offers highly innovative, integrated time-critical solutions of an information mission management and command and control system for use in multilevel, airborne networked defense and civil environments. The company offers top-level customer-specific development, software and hardware according to international aviation or military standards.

MicroE Systems

(div of GSIG), 125 Middlesex Tpke, Bedford, MA 01730, 781-266-5700, info@microesys.com,
www.microesys.com

Offers COTS optical encoders for applications that require performance, accuracy, small size and energy efficiency for the aerospace and defense industries. The innovative technology and manufacturing techniques help keep cost down without sacrificing performance. The broad product line provides solutions for a wide range of motion control applications.

Microflexis

Lupinenweg 1, Hamburg 22549, Germany,
49-15225-7950-28, sales@microflexis.com,
www.microflexis.com

Focuses on the development and manufacture of specifically thin and flexible microfluidic chips, ultra-thin microfluidic cold plates and other microstructured products for innovative applications.

Microlab (A Wireless Telecom Group Co)

25 Eastmans Rd, Parsippany, NJ 07054,
973-386-9696, info@microlab.fx.com,
www.microlab.fx.com

Provides high-performance/low-PIM passive RF components and integrated solutions for wireless applications, such as distributed antenna systems, macro-site base-stations and secure communications. Power splitters, directional couplers, terminations and filters are also used in military systems, such as electronic counter measures and missile guidance.

Micro Laser Systems Inc

12841 Western Ave, Unit H, Garden Grove, CA 92841, 714-898-6001, sales@microlaser.com,
www.microlaser.com

Manufactures high-performance, free-space and fiber-coupled diode laser systems from 375–2000 nm and up to 5W. Many lasers operate with narrow linewidth and very high stability. Accessories include beam expanders, focusing optics and small to large fiber collimators. Custom lasers and fiber collimators are routinely manufactured for OEM users.

Microsemi Corp

1 Enterprise, Aliso Viejo, CA 92656, 949-380-6100,
www.microsemi.com

Provides semiconductors for communications, defense, security, aerospace, industrial and medical applications. Products include high-performance, radiation-hardened analog mixed-signal ICs, FPGAs, SoCs and ASICs, power management products, timing and voice processing devices, RF solutions, discretes, security technologies and scalable anti-tamper products, PoE ICs and midspans, and custom design capabilities and services.

Microvolt Electronics

6810 Meadowdale Town Ctr Cir, Mississauga, ON L5N 7T5, Canada, richard@mvelectronics.net,
www.microvoltcanada.com/linecard.html

Represents military and space (hi-rel) RF component manufacturers such as Minicircuits, Vectron, 3Gmetalworx, Cernex and EZForm. Call or email 24/7 for a quote. Operating since 1991.

Microway Inc

Server Systems Div, 12 Richards Rd, Plymouth, MA 02360, 508-746-7341, sales@microway.com,
www.microway.com

Delivers rugged/industrial grade, custom Linux clusters and servers, integrating 64-bit sixteen core Optrons or 12 core Xeons, Nvidia GPUs, InfiniBand, and 10 GbE. Provides high-performance COTS devices to agencies, including NASA, NIST, NIH, AF, Army and Navy. GSA schedule number GS-35F-0431N.

Midian Electronics Inc

2302 E 22nd St, Tucson, AZ 85713, 520-884-7981,
sales@midians.com, www.midians.com

Manufactures and sells tactical voice security products for use in military two-way radio systems.

Milestones Building and Design

557 W Kellogg Rd, Bellingham, WA 98226,
360-366-3077, milestones@milestonesbd.com,
www.mbdbuildings.com

Supplies crossover fabric covered buildings, the original fabric buildings utilizing structural, rigid steel beams instead of hollow-tube, open web trusses. Permanent or temporary, they are IBC code compliant including wind and snow loads. Variable foundations make the fabric buildings portable. Made in the US, from 30' to 300' + wide.

Minco

7300 Commerce Ln, Minneapolis, MN 55432,
763-571-3121, sales@minco.com, www.minco.com

Designs, manufactures, and markets components for critical applications by providing engineering services that help customers plan and integrate components into products to ensure a high level of reliability. Customized flexible Thermofoil heaters, flex circuits, sensors, instruments, and integrated components have proven themselves in applications worldwide.

Mission Micro Molding Corp

28536 Oakmont, Mission Viejo, CA 92692,
949-306-4354, info@missionmicromolding.com,
www.missionmicromolding.com

Offers small to micro-sized injection molded parts to the industry. Provides ISO 9001 and ISO 13485 and ITAR compliance. The company can prototype and offer short run as well as high volume production runs in its cleanroom facility.

Mistral Solutions

Product Engineering and Defense Solution Div, 60 Adarsh Regent, Domlur Ext, Bangalore 560 071, Bangalore, Karnataka 560071, India,
91-80-30731500, info@mistralsolutions.com,
www.mistralsolutions.com

Offers of end-to-end solutions that meet the complex requirements of defense applications. These include complex hardware design, software development, integration of multi-vendor COTS products and turnkey solutions

Mixed Signal Integration Corp

2157 O'Toole Ave, Suite 50, San Jose, CA 95131,
408-434-6305, info@mix-sig.com,
www.mix-sig.com

Specializes in the manufacture and sale of turnkey analog and mixed signal standard products and custom ASICs in CMOS technologies.

Mobile Mark

3900-B River Rd, Schiller Park, IL 60176,
847-671-6690, info@mobilemark.com,
www.mobilemark.com

Designs and manufactures site, mobile and device antennas for 137 MHz–9 GHz. Applications include GPS tracking and fleet management, cellular GSM/CDMA, LTE, WiMAX, WiFi, RFID, public safety, military and machine-to-machine (M2M). Engineering and custom design services available. Antennas for the US market are made in the US.

Mobile Desk

Mobile Office Solutions Div, 8080 Beckett Center Dr, Suite 105, West Chester, OH 45069-1873, 877-663-3375, sales@mobiledesk.com, www.mobiledesk.com

Manufactures heavy-duty laptop mounts, truck console communications center, screen out technology, mobile office solutions for cars, trucks and utility fleet vehicles.

Modular Industrial Computer Inc

6635 Lee Hwy, Chattanooga, TN 37421, 423-499-0700, marka@mic.com, www.mic.com

Provides industrial/ruggedized computers, displays, computer and peripheral enclosures specifically designed to meet the harsh demands of NEMA 4/4X/12 computing environments. The extensive field proven product portfolio offers a complete array of product solutions.

Modulight Inc

Hermiankatu 22, Tampere 33720, Finland, 358-20-743-9000, sales@modulight.com, www.modulight.com

Provides solutions to optical applications for industrial, entertainment, medical, space, and defense industries. Product lines include various types of semiconductor diode lasers, covering a selection of wavelengths, from visible to IR, with output power levels, ranging from milliwatts to more than 100W. Lasers for illumination, range finding, and perimeter security available.

Molex Inc

Fiber Products Group Div, 5224 Katrine Ave, Downers Grove, IL 60515, 630-512-8787, fiberoptics@molex.com, www.molex.com/fiber

Supplies interconnect products. Focuses on the design, development, and distribution of innovative solution products that touch every walk of life. The company's portfolio of more than 100,000 products includes everything from electronic, electrical and fiber-optic interconnect solutions to switches and application tooling.

Momentive Performance Materials Inc

260 Hudson River Rd, Waterford, NY 12188, 614-986-2497, 4information@momentive.com, www.momentive.com

Momentum Services

(div of MOGAS Industries Inc), 14330 E Hardy St, Houston, TX 77039, 281-449-0291, rwilson@momentumsvcs.com, www.momentumsvcs.com

Provides cleanroom services and precision cleaning for manufacturing, aerospace, medical, military, R&D technology, food and more. Specific applications within these industries require the absolute removal of impurities that degrade a product or that can be a safety hazard to equipment or to equipment or a danger to people.

MONTI Tools Inc

(sub of MONTI Werkzeuge GmbH), 10690 Shadow Wood Dr, Suite 113, Houston, TX 77043, 832-623-7970, info@monti-tools.com, www.monti-tools.com

Specializes in the development and manufacture of powered hand-held tools for professional surface preparation. The technology is available in over 80 countries and used in various industries around the globe.

Moog Protokraft

4545 W Stone Dr, Bldg 135, Kingsport, TN 37660, 423-578-7200, salesmp@moog.com, www.protokraft.com

Designs and manufactures electronic components and subsystems for use in harsh environment networking and communications applications.

Mooring Tech Inc

488 Edgewood Ave SE, Atlanta, GA 30312, 877-532-8088, info@buytough.com, www.buytough.com

Delivers the latest Toughbook models with exclusive pricing for military personnel and higher volume orders. Panasonic authorized and preferred provider of Panasonic Toughbook ruggedized MIL-STD-810G laptop and tablet PCs. Call BuyTough today to get the most reliable, trusted PCs for government and military operations.

Motion Maker Engineering

414 8th St SW, Forest Lake, MN 55025, 651-243-2520, polson@motionmaker.net, www.motionmaker.net

Is an independent manufacturing representative group specializing in robotics and lasers for the high technology manufacturing industry of today. The group does OEM representation (B2B), marketing, consulting, and project management for many global industries including robotics, lasers, cladding, cold spray and 3-D printing for the additive manufacturing processes.

Mountain Secure Systems

(sub of Phillips Service Industries), 1350 Kansas Ave, Longmont, CO 80501-6546, 303-827-2159, rod.copeland@mountainsecuresystems.com, www.mountainsecuresystems.com

Offers rugged electronics that will go anywhere. From the weightlessness of outer space to the crushing depths of the oceans, the company makes them rugged so electronics can go to the extreme. Extreme temperature, altitude, humidity and condensation, shock and vibration, explosive decompression, and dust and dirt are no problem.

MPB Communications

(sub of MPB Technologies Inc), 147 Hymus Blvd, Point Claire, QC H9R 1E9, Canada, 514-694-8751, info@mpbc.ca, www.mpbc.ca

Manufactures optical amplifiers, Fiber lasers, visible fiber lasers, and Fiber Bragg grating sensors (temperature and strain) for military and aerospace applications. Custom designs featuring low mass, low power consumption, and low fit rates are the specialty.

MPL AG

Taefernstr 20, Daettwil CH-5405, Switzerland, 41-56-483-34-34, sales@mpl.ch, www.mpl.ch

Develops and manufactures highly-integrated fanless rugged industrial PCs, embedded CPU boards, and complete systems with high-quality standards. All products are based on unique concepts for harsh environments, long-term availability, and high reliability.

MSE-Tetragenics

SCADA Systems, Software, Simulators Div, 200 Technology Way, Butte, MT 59701, 406-533-6800, tgcontact@mse-ta.com, www.tetragenics.com

MS Kennedy Corp

4707 Dey Rd, Liverpool, NY 13088, 315-701-6751, g.overend@mskennedy.com, www.mskennedy.com

Provides hybrid microcircuits, motor controls, amplifiers, voltage regulators, radiation hardened electronic components, space and military qualified microelectronics, power hybrids, and custom hybrids.

MSP Corp

5910 Rice Creek Pkwy, Suite 300, Shoreview, MN 55126, 651-287-8100, sales@mspcorp.com, www.mspcorp.com

Specializes in applied aerosol technologies. Manufactures instrumentation, materials, and equipment for scientific research and industrial applications. The company's expertise is in micro and nano particle generation, measurement, and control.

MTI Electronics

W133 N5139 Campbell Dr, Menomonee Falls, WI 53217, 262-783-6080, sales@mtielectronics.com, www.mtielectronics.com

Provides contract electronic assembly and electronic manufacturing services including printed circuit board (PCB) assembly services, box build and PCB prototypes. ISO 9001:2008, ISO 13485:2003, AS9100C certified and ITAR registered. Services include program management, new product introduction, supply-chain management, SMT, BGA and conformal coating.

MtronPTI

(sub of LGL Group Inc), 2525 Shader Rd, Orlando, FL 32807, 407-298-2000, info@mtronpti.com, mtronpti.com

Offers high-reliability, harsh environment RF/microwave filters and low-noise, vibration insensitive oscillators for mil-aero communication, Internet, and instrumentation applications. Vertically integrated with complete control of basic material science, design and manufacturing, the company uses close working relationships to reduce risk and lower costs for timing and spectrum control.

Multisorb Technologies Inc

325 Harlem Rd, Buffalo, NY 14224, 716-824-8900,
info@multisorb.com, www.multisorb.com

Engineers customized sorbents (desiccants, other absorbers) that reduce environmental and atmosphere related problems encountered in avionic sensors and controls, radar, communication equipment, lasers, and a variety of other electronic equipment. Challenges can range from performance/reliability issues to problematic situations, such as condensation build-up in navigational lighting.

Murrietta Circuits

5000 E Landon Dr, Anaheim, CA 92807,
714-970-2430, sales@murrietta.com,
www.murrietta.com

Specializes in the design, fabrication, assembly and testing of circuit boards. Has been in business for over 25 years and holds ISO/AS9100 certifications.

Nallatech

(sub of Interconnect Systems Inc), 759 Flynn Rd,
Camarillo, CA 93012, 805-383-8997,
sales@nallatech.com, www.nallatech.com

Supplies accelerated-computing solutions. Designs and manufactures FPGA products for high-performance computing applications and rugged embedded computing platforms. Customers benefit from improved performance, lower costs, reduction in size, weight and power. Is a subsidiary of Interconnect Systems Inc.

Nanning Lijie Energy Saving Electric Co Ltd

6/F Lab Bldg, Zhengxin Hi-Tech Pk, 2 Gaoxin 7th Rd,
Nanning, Guangxi 530001, China,
86-771-2386698, evan.f.yang@gmail.com,
www.nnljdq.en.alibaba.com

National Bronze Mfg Co

28070 Hayes Rd, Roseville, MI 48066,
586-791-2000, sales@nationalbronze.com,
www.nationalbronze.com

Manufactures and distributes bronze bushings, custom bronze bearings, precision machined parts and various non-ferrous alloys in cored bar, plate, sheet and hex form.

National Instruments

11500 N Mopac Expwy, Austin, TX 78759-3504,
877-387-0015, www.ni.com/vision

Offers virtual instrumentation. Leveraging the PC and related technologies, virtual instrumentation increases productivity and lowers costs through easy-to-integrate software, such as NI LabVIEW, and modular hardware, such as PXI modules for data acquisition, instrument control, and machine vision.

National Semiconductor

2900 Semiconductor Dr, Santa Clara, CA
95051-0608, 408-721-5000, www.national.com

Creates energy-efficient analog and mixed-signal semiconductors as well as SolarMagic power optimizers. Products include power management circuits, display drivers, audio and operational amplifiers, communication interface products and data conversion solutions.

National Test Equipment

1935 Plaza Real, Oceanside, CA 92056,
760-639-1700, sales@ntecusa.com,
www.nationtestequipment.com

Repairs, sells, rents and leases electronic test and measurement equipment. Highly skilled technicians thoroughly repair, test and calibrate with NIST traceability and provide manuals and accessories at significant cost savings.

NCEE Labs

4740 Discovery Dr, Lincoln, NE 68521,
402-323-6233, info@nceelabs.com,
www.nceelabs.com

Provides FCC, CE testing, precompliance and prescans EMC testing, EMC compliance testing, product safety testing, environmental testing, nondestructive X-ray testing and product certification MIL-STD 810. Is ISO 17025 accredited.

Nelco Products

Mid Atlantic Div, 49 S Maple Ave, Marlton, NJ
08053, 866-635-2660, nelconj@comcast.net,
www.nelcoproducts.com

Supplies cable assembly components, such as cable ties, heat shrink tubing, solder sleeves, wire marking systems, expandable sleeveings, and terminals. Meets all MIL SPECS.

Nelson Design Services Inc

3501 W Moreland Rd, Willow Grove, PA 19090,
215-784-9600, sales@nelson-design.com,
www.nelson-design.com

Specializes in PC board design layout, electrical and mechanical engineering and design, and CAD drafting services, as well as fabrication and assembly services. Provides complete support services for the design, development, engineering, manufacturing, and testing of electronic-based products and equipment.

Ness Engineering Inc

PO Box 261501, San Diego, CA 92196,
858-566-2372, nessengr@san.rr.com,
www.nessengr.com

Neuro Logic Systems Inc

451 C-Constitution Ave, Camarillo, CA 93012,
805-389-5435 x218, sales@nlsdisplays.com,
www.nlsdisplays.com

Nevada Nanotech Systems Inc

1315 Greg St, Suite 103, Sparks, NV 89431,
775-972-8943, rwhitten@nevadanano.com,
www.nevadanano.com

Develops and manufactures MEMS-based sensor modules and subsystems for a diverse array of chemical detection and characterization applications.

Newport Corp

1791 Deere Ave, Irvine, CA 92606, 800-222-6440,
sales@newport.com, www.newport.com

Supplies advanced technology products and solutions for scientific research, life and health science, aerospace and defense, photovoltaics, industrial manufacturing, semiconductors, and microelectronics markets.

NextComputing

4 Townsend W, Bldg 17, Nashua, NH 03063,
603-886-3874, sales@nextcomputing.com,
www.nextcomputing.com

Offers systems built to provide a utility to the warfighter. With effective video capture, storage and playback users can undertake high-bandwidth, real-time visualization, streaming and analysis with ease even under the most demanding and extreme conditions. The portable "flextop" takes test and measurement solutions anywhere.

NiCoForm Inc

72 Cascade Dr, Rochester, NY 14614,
585-454-5530, inform@nicoform.com,
www.nicoform.com

Produces precision electroformed bellows, IR radiation shields, microfluidic molds and net-shape 3-D NiColoy electroforms.

Night Optics USA Inc

(div of ATK Bushnell Outdoor Products), 15182 Triton
Ln, Suite 101, Huntington Beach, CA 92649,
714-899-4475, info@nightoptics.com,
www.nightoptics.com

Provides professional quality, competitively-priced night vision products. The company is widely recognized as an innovative industry leader.

NIGHTSTICK by Bayco

640 S Sanden Blvd, Wylie, TX 75098,
800-233-2155, www.baycoproducts.com

The Night Vision Store

2422 Lilyfield Dr, Trophy Club, TX 76262-3414,
817-490-0501, sales@nightvisionstore.com,
www.nightvisionstore.com

Provides homeland security equipment from ITT, FLIR, L3, Armasight, ATAC 360, Night Optics USA, Yukon, ATN, US Night Vision, Northrop-Grumman Thermal Eye and NcStar Optics. Products are great for security professionals, wildlife observation, boating, commercial fishing, police/law enforcement, and search and rescue.

nLIGHT

5408 NE 88th St, Bldg E, Vancouver, WA 98665,
360-566-4460, sales@nlight.net, www.nlight.net

Designs and manufactures active and passive fibers, semiconductor diode lasers, and integrated photonic assemblies for the military and aerospace community. Components are available as COTS devices customized for specific applications and/or vertically integrated with engineering and manufacturing services to enable high-value solutions from the company's ISO-certified ITAR-compliant, US facilities.

Noisecom (A Wireless Telecom Group Co)

25 Eastmans Rd, Parsippany, NJ 07054,
973-386-9696, info@noisecom.com,
www.noisecom.com

Provides RF and microwave noise test instruments, including noise generators, noise sources, noise figure generation, and radar impairment. Offers UFX-EbNo series precision C/N noise generator, an automated instrument ideal for communication applications. JV9000 is a noise/spur generator specifically designed to inject noise and deterministic jitter (DJ) signals into Vcc lines.

Noramco Wire & Cable

70 Glacier St, Coquitlam, BC V3K 5Y9, Canada,
604-472-6970, norbby@noramco.ca,
www.noramco.ca

Distributes electrical, electronic, datacom, fiber-optic cable, cable accessories and wire in Canada.

Nord-Lock Inc

(sub of Nord-Lock International), 1051 Cambridge Dr, Elk Grove Village, IL 60007, 224-875-3333,
info-usa@nord-lock-inc.com, www.nord-lock.com

Provides solutions including multifunctional wedge-locking technology, superbolt tensioners and expansion bolts.

Nordson ASYMETEK

(sub of Nordson Corp), 2747 Loker Ave W, Carlsbad, CA 92010-6603, 760-431-1919,
info@nordsonasymtek.com,
www.nordsonasymtek.com

Supplies automated fluid dispensing and conformal coating equipment for precision applications like medical and biotechnical devices, semiconductor packaging, PCB assembly, LEDs, flat panel displays, and solar and photovoltaic products. An ISO 9001:2012-certified company, is recognized for innovative equipment backed by an award-winning global support network.

Noren Products Inc

1010 O'Brien Dr, Menlo Park, CA 94025,
650-322-9500, sales@norenproducts.com,
www.norenproducts.com

Provides thermal solutions in a variety of industries and market sectors. The company is widely recognized for its ability to solve challenging design issues with its unique heat pipe technology, engineering team and fabrication expertise.

North Atlantic Industries Inc

110 Wilbur Pl, Bohemia, NY 11716, 631-567-1100,
info@naai.com, www.naii.com

Provides specialized embedded electronics and computing for sense and response-intensive, mil-aero applications. Accelerates clients' time-to-mission with a unique approach based on a Custom-on-Standard Architecture (COSA) that delivers the best of both worlds: custom solutions from standard COTS components.

Northrop Grumman Cutting Edge Optonics

20 Point W Blvd, St Charles, MO 63301,
636-916-4900, st-ceolaser-info@ngc.com,
www.as-northropgrumman.com

Supplies advanced laser diode and DPSS laser technology. Specializes in developing and manufacturing high-performance laser diode arrays, laser gain modules, control electronics and complete laser systems for military, aerospace and commercial applications.

Northrop Grumman Information Technology

9326 Spectrum Center Blvd, San Diego, CA 92123,
800-884-1336, www.is.northropgrumman.com

Provides technological products, services, and solutions in systems integration, defense electronics, information technology, advanced aircraft, ship building, and space technology.

Northwest EMC Inc

22975 NW Evergreen Pkwy, Suite 400, Hillsboro, OR 97124, 888-364-2378, alangford@nwemc.com,
www.nwemc.com

Capabilities includes military and aerospace markets with testing to 40 GHz including radiated susceptibility at 200 V/m. Is an independent, accredited, commercial EMC compliance test laboratory. Locations in California, Minnesota, New York, Oregon, and Washington.

Northwire Inc

110 Prospect Way, Osceola, WI 54020,
715-294-2121, cableinfo@northwire.com,
www.northwire.com

Designs military wire for harsh duty environments. Offers design-to-deliver in five days for fast fielding and excels in custom cable creation for unique requirements. Has four decades of experience engineering MIL SPEC cable. Holds AS9100 Rev C and ISO 9001:2008 qualifications among its extensive certifications.

Novacam Technologies Inc

277 Lakeshore Rd, Suite 4, Pointe-Claire, QC H9S 4L2, Canada, 514-694-4002,
info@novacam.com, www.novacam.com

Designs and manufactures Microcam 3-D/4-D fiber-based profilometers used in metrology, inspection of turbine blades and vanes, and process control, measuring film thickness, surface characterization, roughness, and profilometry in inhospitable environments.

NOVA Power Solutions Inc

(sub of LTI DataComm), 23020 Eaglewood Ct, Suite 100, Sterling, VA 20166, 703-401-4660,
louie.leitao@novapower.com, www.novapower.com

Provides mission-critical rugged uninterruptable power supplies (UPS), power conditioners, and battery backup modules. Has over 30,000 units successfully deployed worldwide in some of the world's toughest environments. Offers customized power protection solutions to meet the specific requirements of each and every customer.

Nufern

7 Airport Pk Rd, East Granby, CT 06026,
860-408-5000, info@nufern.com, www.nufern.com

Manufactures specialty optical fibers, precision wound optical fiber coils, fiber lasers and amplifiers. Integrated team has the experience, resources, and facilities required to design, manufacture, test and qualify highly-engineered optical fibers and fiber-based products for diverse applications and industries.

NuWaves Engineering Ltd

132 Edison Dr, Middletown, OH 45044,
513-360-0800, support@nuwaves-ltd.com,
www.nuwaves-ltd.com

Provides radio frequency (RF) systems, subsystems, RF products, embedded systems and engineering design services.

Objective Interface Systems Inc

220 Spring St, Suite 530, Herndon, VA 20170-6201,
703-295-6500, www.ois.com

Provides high-performance technologies for constructing high-performance and secure communications systems from tiny embedded systems to multi-enterprise large scale cloud computing infrastructures. Products are used in complex and demanding environments such as aerospace, defense, automotive, telecommunication, banking, robotics, industrial automation and other mission critical systems.

OFS

55 Darling Dr, Avon, CT 06001, 860-678-0371,
ofs@ofsoptics.com, www.ofsoptics.com

Offers fibers, cables, and components optimized for the harshest environments and designed for high-power generation and reliable, trouble-free, long-term installation including power combiners, FlightGuide cables, and PYROCOAT high-temperature coating. Provides ISO-controlled quality standards. Was selected for JFS, F/A-22, F-16, and more.

Olympus IMS

Industrial Microscopy & Metrology Div, 3500 Corporate Pkwy, Center Valley, PA 18034-0610,
484-896-5000, industrial.info@olympus.com,
www.olympus-ims.com

Offers a range of industrial microscopes and micro-imaging systems for semiconductor wafer manufacturing, advanced materials analysis, microlithography, metallography and other precision applications. Provides solutions specifically designed to meet the requirements of precision manufacturers from the aerospace and automotive markets to materials science, MEMS and electronic components.

Omega Engineering Inc

1 Omega Dr, Stamford, CT 06907, 203-359-1660,
info@omega.com, www.omega.com

Offers more than 100,000 products for measurement and control of temperature, heating, humidity, pressure, strain, force, flow, level, pH and conductivity, and a new line of sanitary products. Also designs and manufactures patented wireless communication products and offers a complete line of automation and data acquisition products

Omnetrics Connector Corp

7260 Commerce Cir E, Minneapolis, MN 55432,
763-572-0656, sales@omnetics.com,
www.omnetics.com

Offers COTS, standard, and custom micro and nano miniature connectors built to meet and exceed MIL-DTL 32139 and 83513. Full line includes single, dual row, and circular configurations for use in military/aerospace, avionics, medical, and high-end commercial applications.

One Stop Systems Inc

2235 Enterprise St, Suite 110, Escondido, CA
92029, 760-745-9883, sales@onestopsystems.com,
www.onestopsystems.com

Designs and manufactures custom and semi-custom computing systems and components for converged communications, industrial control, and defense/security applications. Is a premier provider of PCIe-over-cable products for the embedded market.

OPAL-RT Technologies

1751 Rue Richardson, Suite 2525, Montreal, QC
H3K 1G6, Canada, 514-935-2323,
darcy.laronde@opal-rt.com, www.opal-rt.com

Supplies real-time digital simulation platforms which are used to integrate, test and validate avionics systems (flight control, electrohydraulic systems for landing gear, control surfaces, FADEC, air management, and more). The systems use commercial-off-the-shelf, PC and FPGA hardware and are fully integrated with Matlab/Simulink.

Open IT Inc

2 Pk Ten Pl, 16300 Katy Freeway, Houston, TX
77094, 281-599-3400, www.openit.com

Offers software which enable fully customizable usage reporting, granular charge-back for hardware and software usage, and automated, industry-leading license harvesting capabilities across Windows/Unix/Linux platforms.

OPHIR RF

5300 Beethoven St, Los Angeles, CA 90066,
310-306-5556, info@ophirrf.com, www.ophirrf.com

Designs and manufactures high-power, solid-state, broadband, and band-specific amplifiers. Products range in frequency from 10 kHz to 8 GHz, with power levels from 1W to above 2 kW. Designs and manufactures products in the US.

Optical Cable Corp

5290 Concourse Dr, Roanoke, VA 24019,
540-265-0690, info@occfiber.com,
www.occfiber.com

Manufactures MIL-PRF-85045 cables for military ground tactical applications. Services both domestic and international defense communities with tactical products. Manufactures low-smoke, zero halogen cables for shipboard applications.

OptoCity

645 Bashford Rd, Raleigh, NC 27606,
910-331-4862, tom@optocity.com,
www.optocity.com

Provides quality crystal and optical components including low-cost half/quarter waveplates, polarizing beamsplitter cubes, glan-thompson polarizers, penta prism/corner cube retroreflectors/lenses/windows/mirrors/filters NLO crystal types BBO, LBO, KTP, KTA, MgO:LiNbO₃, crystal oven temperature controllers, laser crystal types Nd:YVO₄, Nd:YAG, Cr⁴⁺:YAG diffusion bonding, polishing coating services and manufactures custom/in-stock product.

Optocon AG

Pohlandstr 17, Dresden 01309, Germany,
49-351-3101957, info@optocon.de,
www.optocon.de

Specializes in fiber-optic temperature measurement including fiber-optic thermometers and fiber-optic temperature sensors.

Opto Diode Corp

(member of the ITW Photonics Group), (sub of ITW),
750 Mitchell Rd, Newbury Park, CA 91320,
805-499-0335, sales@optodiode.com,
www.optodiode.com

Manufactures visible LEDs and IR LEDs, silicon photodetectors, and radiation detectors for visible, UV, extreme UV, and soft X-ray energy measurement in a US-based fabrication facility. Customized LED wavelengths, power output, packaging, angle of emission, and testing methods are available.

OPTOTEC SpA

Via B Zenale, 44, Garbagnate Milanese, (MI) 20024,
Italy, 39-02-995-151, info@optotec.it,
www.optotec.it

Satisfies severe performance standard fiber assembly on civil, avionic and on peace-keeping military applications supplying high-performances cable assemblies. Qualified to assembly a variety of tactical and military connectors on custom and MIL specifications.

OptoTherm Inc

2591 Wexford-Bayne Rd, Suite 304, Sewickley, PA
15143, 724-940-7600, sales@optotherm.com,
www.optotherm.com

Manufactures high-performance thermal imaging systems for use in circuit board failure analysis and microscopic thermographic analysis of semiconductor and MEMS devices.

ORIENTIR

199 Western Rd, High-Tech Dist Western Zone,
Chengdu, Sichuan 611731, China,
86-28-8795-7656, sales@orient-ir.com,
www.orient-ir.com

Provide high-quality infrared optics as germanium, silicon, gallium arsenide, calcium fluoride and sapphire crystals.

Orled

7313 SW Tech Center Dr, Portland, OR 97223,
503-968-1375, sales@orled.com, www.orled.com
Specializes in LED rings for microscopes to enhance clarity and visibility. Performs OEM of custom products including inspection, lighting, LED lighting with cameras, street lighting and LED panels.

OSI Optoelectronics Inc

(div of OSI Systems Inc), 12525 Chadron Ave,
Hawthorne, CA 90250, 310-978-0516,
info@osioptoelectronics.com,
www.osioptoelectronics.com

Designs and manufactures high-performance standard, custom, and OEM silicon and InGaAs photodiodes, as well as a range of optoelectronic components and subassemblies for aerospace, defense, security, inspection, medical, communications, and industrial automation applications. Also offers added value turnkey electronics built in state-of-the-art manufacturing facilities worldwide.

Oxford Instruments Industrial Analysis

300 Baker Ave, Suite 150, Concord, MA
01742-2124, 978-369-9933,
industrial@oxinst.com, www.oxford-instruments.com
Manufactures benchtop, portable, and handheld X-ray fluorescence (XRF) for materials identification and coating thickness analysis with a focused on quality control.

Palmer Wahl Temperature Instruments

234 Old Weaverville Rd, Asheville, NC 28804,
828-658-3131, info@palmerwahl.com,
www.palmerwahl.com

Panasonic Computer Solutions Co

3 Panasonic Way, 2F-5, Secaucus, NJ 07094,
888-223-1012, www.panasonic.com/toughbook
Offers Panasonic Toughbook laptops from fully-rugged MIL-STD-810G workhorses to semi-rugged powerhouses to business-rugged thin and lightweight models. Panasonic Toughbook laptops give government employees and military personnel maximum productivity and reliability.

Panduit Corp

18900 Panduit Dr, Tinley Park, IL 60487,
708-532-1800, cs@panduit.com, www.panduit.com
Engineers and manufactures end-to-end networking and electrical solutions that assist customers in deploying the latest technologies. Global expertise and industry relationships make the company a partner dedicated to delivering technology driven solutions and service.

Parker Aerospace

Thermal Management Systems Div, (sub of Parker Hannifin), N 2218 Molter Rd, Liberty Lake, WA 99019, 509-232-3435, tms@parker.com, <http://tms.parker.com>

Provides electronics survivability in the harshest military and aerospace environments. From ground combat vehicles to high-altitude unmanned aircraft, applications include signals intelligence (ASIP), electronics surveillance (BAMS), airborne radar processing (TRACER), command and control (CPP-L and EFV), tactical radar processing (HALS) and ground-based radar processing (MEADS).

Parvus Corp

(sub of Eurotech), 3222 S Washington St, Salt Lake City, UT 84075, 801-483-1533, sales@parvus.com, www.parvus.com

Provides rugged hardware platforms to the military and homeland security. Specializes in ruggedized mobile networking solutions, displays, and embedded computer technologies to suit demanding application requirements.

Passat Inc

1124 Kingsbury Rd, Owings Mills, MD 21117, 410-609-2006, info@passatinc.com, www.passatitd.com

Manufactures diode-pumped solid-state lasers and DPSS laser components. Our picosecond DPSS UV lasers feature high pulse peak power, the highest power-to-price ratio and wavelength conversion efficiency. Our turn-key nanosecond DPSS lasers enjoy compact rugged design, high stability and efficiency.

Peerless Electronics Inc

700 Hicksville Rd, Suite 100, Bethpage, NY 11714, 516-594-3500, drome@peerlesselectronics.com, www.peerlesselectronics.com/store

Distributes military and aerospace switches, relays, circuit breakers, fuses, terminal boards, indicator lights, lamps, potentiometers, contactors, and connectors. Stocks Sensata, Honeywell Sensing & Control, Micro Switch, Leach, Eaton, Klixon, Tyco Electronics, Tyco Aerospace, Bussmann, Marathon, Kulka, Dialight, Clarostat, OTTO Controls and Oak. Approved to FAA AC0056, AS9100.

PEIGenesis

2180 Hornig Rd, Philadelphia, PA 19116, 215-673-0400, pasales@peigenesis.com, www.peigenesis.com

Provides automated assembly of ITT Cannon connectors, Amphenol, Cinch and LEMO connectors. Production capabilities meet and exceed the highest military and industrial standards for consistent quality, inspection, marking and packaging. Factories are DoD and QPL approved.

Pelican Products Inc

23215 Early Ave, Torrance, CA 90505, 310-326-4700, sales@pelican.com, www.pelican.com

Designs and manufactures high-performance protective case solutions and advanced portable lighting.

PennWell Marketing Solutions

1421 S Sheridan Rd, Tulsa, OK 74112, 240-595-2352, marketingservices@pennwell.com, www.pennwellmarketing.com

Provides full marketing and communications services. Programs range from strategic consulting to website creative and development, social media campaigns, lead generation, microsites, print ad development, trade show brochures and booth design.

Pentek Inc

1 Park Way, Upper Saddle River, NJ 07458, 201-818-5900, info@pentek.com, www.pentek.com
Designs COTS digital signal processing (DSP), software radio, FPGA and data acquisition commercial and conduction-cooled boards for VME, cPCI, PCIe, VPX, AMC and XMC. Builds high-performance, portable, rackmount and rugged recording systems. Is ISO 9001:2000 certified.

PerkinElmer

1330 E Cypress St, Covina, CA 91724, 626-967-9521, dave.pope@perkinelmer.com, www.perkinelmer.com

Designs and manufactures high-performance power supplies used in military applications. Products include COTS DC/DC converter modules, as well as full custom design and qualification capabilities.

PG&O - Precision Glass & Optics

3600 W Moore Ave, Santa Ana, CA 92704, 714-540-0126, info@pgo.com, www.pgo.com

Specializes in precision optics and optical thin-film coatings. Provides windows, mirrors, prisms, and assembled optics. The extensive in-house glass inventory ensures quick turnaround on a large variety of optics and thin-film coatings, from square, rectangular and circular parts to complex shapes and precision optical prisms.

Phihong

47800 Fremont Blvd, Fremont, CA 94538, 510-445-0100, usasales@phihongusa.com, www.phihong.com

Supplies power solutions, including power supplies, adapters, and power-over-Ethernet products, to networking and consumer electronics OEMs. Has engineering and manufacturing facilities in North America, Taiwan and mainland China.

PHLOX SA

Eiffel Pk A, 415, Rue Claude Nicolas Ledoux, Aix-En-Provence cedex 3 13854, France, 33-4-42-90-76-20, info@phlox-gc.com, www.phlox-gc.com

Develops and commercializes high technology products for backlighting and industrial lighting. It is more specifically involved in backlighting for liquid crystal displays (in aerospace, civil and military) and machine-vision lights.

Phoenix International

812 W Southern Ave, Orange, CA 92865, 714-283-4800, info@phenxint.com, www.phenxint.com

Manufactures rugged COTS mass data storage systems that plug-and-play with any host operating system/network. Systems range in size and application from multi-terabyte Fibre Channel RAID, NAS, and storage area network (SAN) configurations, to plug-in conduction cooled VPX and VME solid-state disk storage modules. Is AS9100 rev C/ISO 9001:2008 certified.

Photon Control Inc

8363 Lougheed Hwy, Suite 200, Burnaby, BC V5A 1X3, Canada, 604-422-8861, sales@photon-control.com, www.photon-control.com

Provides precision measurement solutions, specializing in OEM manufacturing, UV/VIS/NIR spectroscopy, fiber-optic temperature and positioning sensors, along with optical flow meters in various industries worldwide.

Photron Inc

9520 Padgett St, Suite 110, San Diego, CA 92126, 858-684-3555, image@photron.com, www.photron.com

Offers high-speed digital imaging solutions using both CCD and megapixel resolution (up to 10,000 fps) CMOS sensors. Systems include PC-based systems to High-G cameras, remote, multi-head systems, and image analysis software. Ideal for automotive crash testing, military, medical, scientific, R&D, industrial, sports, and entertainment markets.

Pickering Interfaces Inc

221 Chelmsford St, Suite 5, Chelmsford, MA 01825, 781-229-5882, ussales@pickeringtest.com, www.pickeringtest.com

Designs critical test and measurements systems. Understands that aerospace and defense test engineers face intense demands to find advanced test technologies. The PXI and LXI functional test and hardware-in-the-loop (HIL) simulation switching solutions have been specified into many different aerospace and defense applications throughout the world.

PICO Electronics Inc

143 Sparks Ave, Pelham, NY 10803, 914-738-1400, info@picoelectronics.com, www.picoelectronics.com

Manufactures military, COTS, and industrial DC/DC converters, high-voltage modules, AC/DC power supplies, inductors, and transformers. MIL-PRF units, environmental screening, and custom specifications are available from ISO 9000:2000 approved facility.

PIC Wire & Cable

(sub of The Angelus Corp), N53 W24747 S Corporate Cir, Sussex, WI 53089-0330, 262-246-0500, sales@picwire.com, www.picwire.com

Provides electronic cables, cable connectors, avionic cable assemblies and antenna gaskets for demanding military, corporate and commercial applications that include airplanes, helicopters, ground vehicles, rail transport and marine vessels.

Pinnacle Data Systems

350 Automation Way, Birmingham, AL 35210,
888-895-1004,
mitch.anderson@pinnacledatasystems.com,
www.pinnacledatasystems.com

Provides effective delivery of business critical documents for many Fortune 500 companies. Has invested millions of dollars in technology and process improvements including full color, an on-line portal for document content control, approval, reporting and archive, along with a robust electronic document presentment and delivery solution.

PIXELTEQ

8060 Bryan Dairy Rd, Largo, FL 33777,
727-545-0741, info@pixelteq.com,
www.pixelteq.com

Provides OEM spectral sensing and imaging solutions, patterned optical filters, and custom electro-optical devices for a variety of aerospace, biomedical, industrial, scientific, and security applications.

Pleora Technologies Inc

340 Terry Fox Dr, Suite 300, Ottawa, ON K2K 3A2,
Canada, 613-270-0625, info@pleora.com,
www.pleora.com

Invented high-performance frame grabbers and embedded hardware for the delivery of video over Gigabit Ethernet, and leads the market in video interfaces for USB 3.0 and wireless. Engineers video interface solutions for system manufacturers and camera companies, focusing on shortening time-to-market, reducing risk, and lowering system costs.

Pneumafil Corp

(part of Nederman Group), PO Box 16348, Charlotte,
NC 28297-8804, 704-398-7735,
mpinfo@pneumafil.com, www.pneumafil.com

Designs and builds high-quality rugged enclosures for military and aerospace programs. Offers close tolerance machining, fabrication, welding, assembly and surface finishing.

Poco Graphite

Specialty Materials Div, (sub of Entegris), 300 Old
Greenwood Rd, Decatur, TX 76234, 940-627-2121,
www.poco.com

Manufactures graphite and silicon carbide materials for use in aerospace applications. For use in systems that require unparalleled precision, high-performance, chemical resistance, high stiffness, oxidation resistance and high-temperature environments including jet engine bushings and seals and high-performance optics.

Positronic

423 N Campbell Ave, Springfield, MO 65806,
417-866-2322, info@connectpositronic.com,
www.connectpositronic.com

Manufactures high-reliability power connectors, D-subminiature connectors, rectangular connectors, and circular connectors. Offers many performance options, including MIL-SPEC and space flight. Has supported military electronics for more than 40 years. The company offers customer support through detailed catalogs, easy-to-use website and local technical customer service.

Powell Electronics

200 Commodore Dr, Swedesboro, NJ 08085,
800-235-7880, info@powell.com, www.powell.com

Is an authorized electronic component distributor of military connectors, switches and relays. Offers authorized, traceable QPLed products. Is AS9100 and ISO certified.

Power Design Services

121 E Brokaw Rd, San Jose, CA 95112,
408-437-1931, sales@powerdesignservices.com,
www.powerdesignservices.com

Provides printed circuit boards, PCBs, flex circuits and prototype design, fabrication, and assembly with quick turnaround and hands-on customer service.

Power Innovations International Inc

1305 S 630 E, American Fork, UT 84003-3375,
805-785-4123, kareng@power-innovations.com,
www.power-innovations.com

Provides uninterruptible power quality (UPQ) systems, customized/custom PDUs, and mobile power generation technology. UPQ started with traditional UPS technology and moved forward to address power quality for critical applications, and incorporates additional features and functions. UPQ systems are always on-line and are available in 500VA—1000 kVA for global power standards.

Praxis Optics

11127 Jordan Ave NE, Albuquerque, NM 87122,
505-239-9095, optalix@praxis-optics.com,
www.praxis-optics.com

Preciseley Microtechnology Corp

11421 Saskatchewan Dr, Edmonton, AB T6G 2M9,
Canada, 708-902-4137, info@preciseley.com,
www.preciseley.com

Designs and manufactures reliable high-performance MEMS micromirrors and micromirror arrays with wide ranging applications including fiber telecom and instrumentation as VOAs, optical filters, optical switches and more.

Preformed Line Products

660 Beta Dr, Mayfield, Village, OH 44143,
440-461-5200, inquiries@preformed.com,
www.preformed.com

Specializes in designing, engineering and manufacturing innovative, quality products for network connectivity in global communications and energy markets.

Primus Cable

36595 Kevin Rd, Wildomar, CA 92595,
951-824-1571, sales@primuscable.com,
www.primuscable.com

Supplies CAT5, CAT5e, CAT6, CAT6a, CAT7, and CAT3 bulk cable, coaxial cable, fiber-optic cable, wire, connectivity and tools for voice/data/networking, telecommunications, security and audio/video applications. Also carries a wide range of patch cables, keystone jacks, patch panels, racks and enclosures plus everything else needed to complete installations.

Princeton Lightwave Inc

2555 US Rt 130 S, Suite 1, Cranbury, NJ 08512,
609-495-2600, sales@princetonlightwave.com,
www.princetonlightwave.com

Produces high-performance InP photodetectors and laser covering shortwave infrared. The extensive integration technologies enable solutions from components to turnkey subsystems for defense, imaging, instrumentation, and optical communications. Products include linear and 2-D arrays, cameras for 3-D ladar, single photon detectors, avalanche photodiodes, high-power diode lasers, and superluminescent diodes.

Printed Circuits Inc

1200 W 96th St, Minneapolis, MN 55431-2699,
952-888-7900, bburns@printedcircuits.com,
www.printedcircuits.com

Manufactures high-reliability, complex rigid flex and multilayered flexible circuits.

Prior Scientific Inc

80 Reservoir Pk Dr, Rockland, MA 02370-1062,
781-878-8442, info@prior.com, www.prior.com

Manufactures microscope automation equipment including high-precision motorized microscope stages, automated slide and well plate loaders, LED and metal halide fluorescence illuminators, Piezo Z stages, motorized filter wheels, high-speed shutters, custom and OEM electromechanical and optical systems.

Process Technology

7010 Lindsay Dr, Mentor, OH 44060,
440-974-1300, info@process-technology.com,
www.processtechnology.com

Provides quality wet process heating and cooling equipment.

ProMation Engineering Inc

16138 Flight Path Dr, Brooksville, FL 34604,
352-544-8436, dean.geraci@promationei.com,
www.promationei.com

Manufactures a wide array of reliable industrial electric actuators including quarter-turn, failsafe quarter-turn spring-return electric and linear electric actuators, as well as custom control interfaces. Products are designed for harsh industrial environments and feature rugged board design to reduce connection failures and epicyclic gearing for increased mechanical reliability.

Protavic America

(sub of Protex International), 8 Ricker Ave,
Londonderry, NH 03053, 603-623-8626,
protavic@gmail.com, www.protavicamerica.com

Offers conductive adhesives, structural adhesives, potting and encapsulation resins, UV sealants and high-performance coatings.

Pryme

911 Mariner St, Brea, CA 92821, 714-257-0300,
sales.service@pryme.com, www.pryme.com

Manufactures high-quality products to professional users of two-way radios. Recently introduced a wide variety of new products, including the GPSMIC speaker microphones, enabling the location of users in the field via GPS.

Psychsoftpc

PO Box 232, Quincy, MA 02171, 617-471-8733, sales@psychsoftpc.com, www.psychsoftpc.com
Manufactures high-performance graphics workstations for scientific, engineering, chemical modeling, automotive design, avionics modeling, aerodynamics research, GIS and 3-D rendering applications. Offers Tesla-based personal supercomputers for computationally intensive applications at the desk and Linux based HPC clusters.

Puleo Electronics Inc

39 Hutcheson Pl, Lynbrook, NY 11563, 516-599-4875, sales@puleoinc.com, www.annunciator.com
Focuses on three areas including monitor and control systems, hardware and software, power distribution and protection systems and interconnection devices used in electronic systems.

Pulse Electronics

Military & Aerospace Div, 12220 World Trade Dr, San Diego, CA 92128, 215-781-6400, www.pulseelectronics.com
Supplies a variety of avionics and high-speed interface transformers, transceivers and power supply magnetics for military, aerospace and space applications. Included is a complete line of MIL-STD-1553 interface transformers, Fibre Channel and FireWire transceivers and transformers as well as military/aerospace-grade Ethernet transformers.

PureTech Systems

1950 W Rose Garden Ln, Suite 140, Phoenix, AZ 85027, 602-424-9842, info@puretechsystems.com, www.puretechsystems.com
Develops and markets the patented PureActiv video analytics surveillance software product, which is used for perimeter protection of critical facilities and infrastructure. Current customers include large deployments in seaports, airports, utilities, military bases, and railroads.

Pyromation Inc

5211 Industrial Rd, Ft Wayne, IN 46825, 260-484-2580, sales@pyromation.com, www.pyromation.com
Produces thermocouples, RTDs and thermowells in North America. An ISO 9001-registered firm and Lean manufacturing enterprise, has an on-site NVLAP accredited metrology laboratory providing temperature calibrations traceable to NIST standards for sensors and instruments. Founded in 1962.

QSDM Inc

6470 Kestrel Rd, Mississauga, ON L5T 1Z7, Canada, 905-565-1800, marketing@qsdm.com, www.qsdm.com
Designs and manufactures high-reliability electronic equipment for aerospace and related applications. Full-service EMS, registered to ISO 9001:2008 and AS9100C.

QuadTech Inc

19772 Pauling, Foothill Ranch, CA 92610, 949-600-6400, sales@chromausa.com, www.chromausa.com
Provides AC/DC power sources, and electrical safety test and passive components measurement solutions. These solutions help manufacturers test the safety and quality of electrical products, ensuring compliance to FDA and other regulatory agencies. Is now a Chroma Systems Solutions company.

Quagwire Technologies

20 N Wacker Dr, Suite 1200, Chicago, IL 60606, 847-331-3255, sales@quagwire.com, www.quagwire.com
Supplies advanced optical transceivers, components, and active optical cables for all data communication and telecommunication networking applications. All of the transceivers are fully-compatible with all major OEMs (Cisco, Juniper, Brocade, and more).

Qualmark Corp

10390 E 48th Ave, Denver, CO 80238, 303-254-8800, sales@qualmark.com, www.qualmark.com
Provides HALT/HASS (highly accelerated life test/highly accelerated stress screen) systems and services that advance product reliability and reduce warranty costs for leading manufacturers and their global supply chains. Manufactures the Typhoon series, the QFusion system for performing production HASS, and soon to launch a new portable HALT system in 2014.

Quantum3D Inc

5400 Hellyer Ave, San Jose, CA 95138, 408-600-2500, sales@quantum3d.com, www.quantum3d.com
Develops and manufactures real-time visual simulation and ruggedized embedded computing systems.

Quantum Composers

212 Discovery Dr, Bozeman, MT 59718, 406-582-0227, sales@quantumcomposers.com, www.quantumcomposers.com
Manufactures digital delay pulse generator, autofocus and laser technology. Offers a full suite of pulse generator and laser products designed to meet the needs of any application and has a team of design engineers who specialize in custom and OEM development.

■ Quell Corp

5639 Jefferson NE, Albuquerque, NM 87109, 505-243-1423, eeseal@quell.us, www.eeseal.com
Manufactures EESeal insert brand of EMI filters as ESD protection to connectors in seconds. The thin elastomeric insert easily slips onto the pins without soldering. It's a proven, reliable, permanent solution. Fits MS circular, DSub and most connectors. Free custom samples are available in 24 hours. Is ISO 9001 and AS9100 certified.
(See ad page BG13)

Quicklogic Corp

1277 Orleans Dr, Sunnyvale, CA 94089-1138, 408-990-4000, www.quicklogic.com
Develops and markets low-power customizable semiconductor solutions for tablets, smartbooks, netbooks, cloudbooks, smartphones, datacards and mobile enterprise products.

Radisys

5435 NE Dawson Creek Dr, Hillsboro, OR 97124, 503-615-1100, info@radisys.com, www.radisys.com
Specializes in embedded wireless infrastructure solutions for telecom, aerospace, defense and public safety applications.

Radius Power

1751 N Batavia St, Orange, CA 92865, 714-289-0055, customerservice@radiuspower.com, www.radiuspower.com
Manufactures power transformers and chokes, interconnect and cable assemblies.

Rambus Inc

1050 Enterprise Way, Suite 700, Sunnyvale, CA 94089, 408-462-8000, www.rambus.com
Provides engineering services to its licensees to ensure its technologies are successfully integrated into its customers' products.

RAM Optical Instrumentation

(div of Quality Vision International Inc), 1175 North St, Rochester, NY 14621, 585-758-1300, info@ramoptical.com, www.ramoptical.com
Offers a line of semi-automatic and automatic, noncontact measuring systems for the shop floor or gage lab. RAM systems feature a versatile motorized zoom optical system, a high-resolution video camera and the industry leading measurement software, Measure-X.

Rantec Power Systems Inc

1173 Los Olivos Ave, Los Osos, CA 93402, 805-596-6000, powersys@rantec.com, www.rantec.com
Designs and manufactures power supplies for the military and aerospace markets. Is an engineering-based company, with expertise in all aspects of power supply design, manufacturing and test.

Rastergraf Inc

1810-J SE First St, Redmond, OR 97756, 510-849-4801, sales@rastergraf.com, www.rastergraf.com
Supplies display, capture/display and PMC carrier boards for the embedded computing industry. Offers solutions for standard hardware platforms and operating systems. The graphics controllers include XMC, PMC and CompactPCI (CPCI). The operating system support includes Linux, Windows, and VxWorks.

Rave Computer Assoc Inc

7171 Sterling Ponds Ct, Sterling Heights, MI 48312,
586-939-8230, sales@rave.com, www.rave.com
Manufactures computers providing commercial off-the-shelf and custom engineered solutions optimized for specific customer requirements. Provides commercial-off-the-shelf (COTS), modified COTS, and custom-engineered systems for use in commercial, industrial and military applications ruggedized to meet MIL-SPEC standards. These include rack-mount, mobile and small form factor systems. Is ISO 9001:2008 certified.

Raycom Electronics

1 Raycom Rd, PO Box 250, Dover, PA 17315,
717-292-3641,
raycomsalesservice@electrotechnik.com,
www.raycomelectronics.com
Manufactures custom transformers and inductors used in avionics, defense, and space applications. Specializes in the design and manufacture of custom magnetics for high-end commercial, industrial, military (MIL-PRF-27 and MIL-PRF-21038), avionics, and mission critical space (MIL-STD-1553 and MIL-STD-981) applications. Specific products include inductors, chokes, toroidal transformers, Scott-T transformers, MIL-PRF-21038/27 and more.

Raytheon ELCAN Optical Technologies

450 Leitz Rd, Midland, ON L4R 5B8, Canada,
705-526-5401, info@elcan.com, www.elcan.com
Specializes in the design and manufacture of technologically sophisticated and superior quality opto-electronic systems and subassemblies that meet strict military and commercial specifications. Offers superior design and engineering capabilities, proprietary production technologies and fully integrated manufacturing capabilities to provide custom, turnkey solutions.

Raytheon Vision Systems

75 Coromar Dr, Goleta, CA 93117-3090,
805-968-3511, rvsmarketing@raytheon.com,
www.raytheon.com/businesses/ncs/rvs
Develops and produces state-of-the-art detection and imaging devices for applications in the X-ray, visible, infrared, terahertz and millimeter wave regions of the electromagnetic spectrum.

R Blaine Industries Inc

(sub of Richard Blaine International Inc), 1517 Hill Rd, Suite 5F, Reading, PA 19602, 610-236-1445,
info@vtecpi.com, www.vtecpi.com
Manufactures polyimide, hybrid polymer materials and products including VTEC polyimide liquids, custom parts, stock shapes for machining, and powder molding resins. Manufactures parts to customer specifications from most materials. Machining, micro-hole drilling, fluoropolymer and anodize coating services offered. Makes parts from quartz, silicon, ceramic, all metals and plastics.

Real-Time Innovations

385 Moffett Park Dr, Sunnyvale, CA 94089,
408-990-7400, info@rti.com, www.rti.com
Provides high-performance messaging and integration infrastructure for distributed real-time applications. Provides a rapidly growing market for data distribution service (DDS) compliant middleware. A range of industries leverage the company's software and design expertise, including defense, intelligence, simulation, industrial control, power generation, transportation, finance, medical, and communications.



Red Rapids
797 N Grove Rd, Suite 101, Richardson, TX 75081, 972-671-9570, sales@redrapids.com, www.redrapids.com
Offers a catalog of signal acquisition and generation hardware products that are targeted at communication, telemetry, radar and surveillance systems. Products include signal converters, transmitters, receivers and FPGA DSP accelerators. All of the products are built around open architecture standards for embedded systems (XMC/VPX/cPCI) and server/desktop computers (PCIe).

Red Rock Technologies Inc

206 W Julie Dr, Suite 2, Tempe, AZ 85283-2895,
480-483-3777, info@redrocktech.com,
www.redrocktech.com
Provides rugged disk storage boards in VME, VPX, PMC and XMC form factors and drop in replacements for obsolete SCSI drives for long-term support of legacy systems.

REMA USA LLC

101 Park Place Ct, Greenville, SC 29607,
864-655-8981, info@rema-usa.com,
www.rema-usa.com
Manufactures interconnect products from locations in Germany, China and the US. Supplies electric power connections and the tools to service them. The company's aptitude spans from 5-640A, and includes the operator interface devices such as joystick, and tiller handles.

Repair Zone

(sub of York Repair Inc), 615 Andre St, Bay City, MI 48706, 989-922-0043, support@repairzone.com, www.repairzone.com
Buys, exchanges, or repairs servo motors or industrial electronics from Allen Bradley, Indramat, Fanuc, Modicon, Siemens and more. Provides fast service, and a one-year warranty, and savings up to 70% compared to OEM.

Reynard Corp

1020 Calle Sombra, San Clemente, CA 92673,
949-366-8866, sales@reynardcorp.com,
www.reynardcorp.com
Supplies custom and standard optical components and thin-film coatings 0.2-50 microns (UV to far-IR) to demanding specifications for military, aerospace, medical and telecommunication applications. In-house services include design, optical and mechanical fabrication, photolithography processing, component subassembly and MIL-SPEC environmental testing.

RF Precision Products

(div of RF Industries), 7610 Miramar Rd, San Diego, CA 92126, 858-549-6340, rfp2@rfindustries.com, www.rfp2.com
Designs and manufactures precision grade, high-frequency connectors and adapters for OEM, military and metrology lab applications.

RGB Spectrum

950 Marina Village Pkwy, Alameda, CA 94501,
510-814-7000, sales@rgb.com, www.rgb.com
Provides display processing, recording, and signal distribution solutions, specializing in command-and-control, simulation, and training. Products include multiviewers, multiscreen display processors, JPEG 2000 codecs and recorders, DVI matrix switches, and scan converters.

Ridgetop Group Inc

3580 W Ina Rd, Tucson, AZ 85741, 520-742-3300,
information@ridgetopgroup.com,
www.ridgetopgroup.com
Provides advanced electronic prognostics and health management (PHM) solutions, semiconductor IP blocks, and built-in self-test (BIST) solutions for critical applications. The company has a proven library of IP cores and board-level solutions for optimized integrated subsystems and systems.

Rigel Engineering LLC

1690 S Tropical Trail, Merritt Island, FL 32952,
321-499-2536, sales@rigel-eng.com,
www.rigel-eng.com
Fills the void between a customer's need of a quality electronic product and the high cost that is usually associated with such items. Believes the customer is entitled to a quality product at low cost with great long-term customer support.

Rittal Corp

425 N Martingale Rd, Suite 400, Schaumburg, IL 60173, 937-399-0500,
customerservicefax@rittal-corp.com, www.rittal.us
Manufactures industrial and IT enclosures, racks, and accessories, including climate control and power management systems for industrial, data center, outdoor, and hybrid applications. The company's RimatriX5 family of data center infrastructure products employs flexible and scalable modular designs and award-winning technologies to meet practically any size or type of need.

Rochester Electronics

16 Malcolm Hoyt Dr, Newburyport, MA 01950,
978-462-9332, sales@rocelec.com,
www.rocelec.com

Manufactures and distributes discontinued semiconductor manufacturers. Is authorized by over 40 leading semiconductor manufacturers. Purchases all remaining finished devices, wafer/die and available intellectual property. All products are 100% manufacturer traceable and certified. Product offering includes more than five billion finished devices, ten billion die and over 20,000 continuing manufacturing device types.

Rockwell Collins

1822 Deere Ave, Irvine, CA 92606, 949-221-5329,
www.rockwellcollins.com

Provides innovative vision, optical, and soldier systems solutions for the military, aerospace, professional, medical, and training/simulation communities.

rodatron GmbH

(div of roda MilDef GmbH), Gewerbepark BWB 29,
Bruckmühl D-83052, Germany, 49-8062-7268-0,
info@rodatron.com, www.rodatron.com

Designs and manufactures all kinds of power supplies, DC/DC-converters and battery chargers for harsh environments, mobile equipment and military applications. The range is from low power up to high power with several k watts and/or 100 amps. Company holds ISO 9001-quality approval.

Ronco

267 N Rivermede Rd, Concord, ON L4K 3N7,
Canada, 905-660-6700, info@ronco.ca,
www.ronco.ca

Provides solutions for head, hand and body protection. The mission is to provide customers with consistent quality products that enhance user safety, confidence and productivity, at competitive prices.

Rosco Vision Systems

90-21 144th Pl, Jamaica, NY 11435-4397,
800-227-2095, tonyp@roscomirrors.com,
www.roscovision.com

Provides products that have been maximizing automotive safety and preventing accidents for over 100 years. Supplies backup camera systems, mirrors, visors, and other visual safety solutions.

Ross Engineering Corp

540 Westchester Dr, Campbell, CA 95008,
408-377-4621, info@rossengineeringcorp.com,
www.rossengineeringcorp.com

Designs, tests, and manufactures high-voltage control, measurement, and safety devices for electronic, lab, industrial, and military industries. Is ISO 9001:2008 QMS and ISO/IEC 17025:2005 certified and accredited high-voltage calibration.

Rotronic Instrument Corp

135 Engineers Rd, Hauppauge, NY 11788,
631-427-3898, rose@rotronic-usa.com,
www.rotronic-usa.com

Manufactures and distributes high-precision humidity and temperature instruments for measurement of RH, dew point and moisture in industrial process and meteorological applications, as well HVAC instrumentation for precision measurements in semiconductor fabrication and specialized pharmaceutical areas. Provides quality service to Canada, the US, and Mexico.

Royal Aeronautical Society

4 Hamilton Pl, London W1J 7BQ, UK,
44-20-7670-4345, raes@aerosociety.com,
www.aerosociety.com

Is a world professional body dedicated to the entire aerospace community. It exists to further the advancement of aeronautical art, science and engineering.

RPMC Lasers Inc

203 Joseph St, O'Fallon, MO 63366,
636-272-7227, rpmlas@rpmlasers.com,
www.rpmlasers.com

Offers 1500 DPSS lasers, lamp lasers, fiber lasers and diode lasers. Provides, ultrafast, picosecond, nanosecond, cw MIL-SPEC/standard and custom laser designs including eyesafe, MWIR, SWIR, and FIR. Illuminators, designation, ladar, lidar, range finding, PIV, R&D and much more available. Custom lasers can be designed as well.

RTD Embedded Technologies

103 Innovation Blvd, State College, PA 16803,
814-234-8087, sales@rtd.com, www.rtd.com
Specializes in the research, design, and manufacturing of highly reliable, innovative, rugged, and modular computer boards and systems with emphasis on the PC/104, PC/104-Plus, PCI-104, PCI/104-Express, PCle/104, desktop, and 19-inch rack specifications.

RUD Chain Inc

(sub of RUD Ketten), 840 N 20th Ave, PO Box 367,
Hiawatha, IA 52233, 800-553-7993,
sales@rudchain.com, www.rudchain.com

Specializes in providing highly-engineered solutions for standard and special applications for all load securing systems, lifting equipment, non-skid chains and technical and logistics support by land, air and sea, delivering high-performance chain products to suit the most demanding industrial and military applications.

RWC Testing & Lab Supplies

1821 N Zaragosa Rd, PMB 640, El Paso, TX 79936,
915-852-3375, customerservice@rwcetesting.com,
www.rwcetesting.com

Distributes many laboratory and measuring instruments, including tachometers, stroboscopes, ultrasonic wall thickness gauges, pH meters, conductivity meters, turbidity meters, oxygen meters, refractometers, tension meters, wall mount/portable gas detectors and more. Industries served include the scientific, industrial, military and commercial sectors as well as educational institutions.

Sabritec

Smiths Interconnect Div, (div of Smiths Group),
17550 Gillette Ave, Irvine, CA 92614,
949-250-1244, customerservice@sabritec.com,
www.sabritec.com

Specializes in the design and manufacture of filter connectors, Fibre Channel, Ethernet, IEEE 1394 FireWire, electro-optic, coaxial, and triax connectors and contacts. Designs customized interconnect solutions for unique applications/programs.

Sabtech

23231 La Palma Ave, Yorba Linda, CA 92887,
714-692-3800, sales@sabtech.com,
www.sabtech.com

Provides military forces worldwide COTS solutions for C5ISR including custom chip sets, board level products and software for combat systems. Experts at bridging legacy systems with solid-state technology, designs FPGAs and ASICs as well as payload and data I/O solutions for NTDS, Ethernet, 1553 and other protocols.

Sacher Lasertechnik GmbH

Rudolf Breitscheid Str 1-5, Marburg D-35037,
Germany, 49-6421-305-290,
contact@sacher-laser.com, www.sacher-laser.com

Manufactures high-power tunable external-cavity laser diodes in Littman and Littrow configuration, wavelength range 375–1800 nm, power <1000 mW for applications in absorption spectroscopy, cooling, and trapping, and Raman spectroscopy. All key technologies like patented cavity design, patented AR-coating (R<5E-5) for laser diodes and low-noise electronics are available.

Sacher Lasertechnik LLC

5765 Equador Way, Buena Park, CA 90620,
714-670-7605, sales@sacher.us,
www.sacher-laser.com

Manufactures high-power tunable external-cavity laser diodes in Littman and Littrow configuration, wavelength range 375–1800 nm, power <1000 mW for applications in absorption spectroscopy, cooling, and trapping, and Raman spectroscopy. All key technologies like patented cavity design, patented AR-coating (R<5E-5) for laser diodes and low-noise electronics are available.

Saelig Co Inc

71 Perinton Pkwy, Fairport, NY 14450,
585-385-1750, sales@saelig.com, www.saelig.com

Operates as a sales and marketing agent and distributor for more than 100 manufacturers. Provides test equipment and components from entry-level to premium specification economical oscilloscopes, PC and RF spectrum analyzers, USB and logic analyzers, waveform generators, digital pattern generators, pure RF sources, DMMs, and wireless and wired data loggers.

Sandel Avionics

2401 Dogwood Way, Vista, CA 92081,
760-727-4900, sales@sandel.com,
www.sandel.com

Manufactures ruggedized cockpit displays for rugged fixed wing and rotorcraft applications. Products include primary navigation and attitude displays. Terrain awareness and warning systems (TAWS), HeliTAWS and AHRS. Options include TACAN display and NVIS compatibility.

San Francisco Circuits

1660 S Amphlett Blvd, #200, San Mateo, CA 94402,
info@sfcircuits.com, www.sfcircuits.com

Provides a unique one-stop solution for all military (MIL-SPEC) and aerospace PCB services including design, fabrication and assembly.

Santa Barbara Infrared Inc

30 S Calle Cesar Chavez, Suite D, Santa Barbara, CA 93103, 805-965-3858, sales@sbir.com,
www.sbir.com

Designs and manufactures technologically advanced test instrumentation used to test, calibrate and validate the performance of infrared (IR) and electro-optical (E-O) sensor components and systems.

SAP Americas Inc

3999 W Chester Pkwy, Newton Square, PA 19073,
610-661-1000, pam.jeffries@sap.com,
www.sap.com

Provides software for aerospace and defense that quickly adapts to industry challenges such as globalization, market volatility, and shrinking budgets. Whether a defense contractor or an airframe manufacturer, the company can help ensure organizations have the agility and technology needed to fuel tomorrow's innovation today.

SEAKR Engineering Inc

6221 S Racine Cir, Centennial, CO 80111-6427,
303-790-8499, r2@seakr.com, www.seakr.com

Develops solid-state storage solutions, offering high-performance and reliability for the user community. Corporate experience spans over 20 years, delivering more than 1200 data storage and processing systems to the US government and foreign service customers.

Sealcon LLC

7374 S Eagle St, Centennial, CO 80112-4240,
303-699-1135, info@sealconusa.com,
www.sealconusa.com

Provides customers with cable and wire management solutions. Offers RoHS/Deca BDE, liquid tight strain relief, cord grips, explosion proof, hazardous areas cable glands, (ATEX, EX-e, EX-D, IECEx) circular connectors (M16, M23, M27, M40, RJ45), industrial enclosures (plastic and metal), conduit systems, UL, UR, CSA, VDE, CE, and more.

SeaLevel Systems

2779 Greenville Hwy, PO Box 830, Liberty, SC 29657, 864-843-4343, sales@sealevel.com,
www.sealevel.com

Manufactures sync/async communication products and industrial computers. Produces products in America for military, government, and commercial customers. Forte is using in-house engineering skills to create custom adaptations of COTS product lines for military and government projects.

Sealing Devices Inc

4400 Walden Ave, Lancaster, NY 14086,
716-684-7600, seals@sealingdevices.com,
www.sealingdevices.com

Manufactures molded rubber parts. Offers fabrication conversion of seals, gaskets, o-rings, EMI shielding, sponge, vents, tapes, adhesives and sealants for mil-aero applications.

Semicoa Corp

333 McCormick Ave, Costa Mesa, CA 92626,
714-979-1900, jpark@semicoa.com,
www.semicoa.com

Provides expertise in the design, development and manufacturing of discrete semiconductors and bipolar diodes for high-reliability space, military and commercial markets.

SENER

c/ Severo Ochoa 4, Parque Tecnologico de Madrid, Tres Cantos, Madrid 28760, Spain,
34-91-807-7318, info@sener.es,
www.sener-group.com

Offers cutting-edge technological solutions in engineering and construction, energy and environment, and aeronautics, where the company is present in consortiums such as ITP (aeronautical engines, gas turbines). Also is a benchmark engineering company in the aerospace sector, among others.

Sensitron Semiconductor

(div of RSM Electron Power Inc), 221 W Industry Ct, Deer Park, NY 11729-4681, 631-586-7600,
sales@sensitron.com, www.sensitron.com

Manufactures high-reliability power electronic solutions including motor controllers, smart power management and conversion, diodes and voltage protection components and embedded boards. Has over 40 years of serving the complete spectrum of reliability markets including space, aerospace, medical and defense. Is JAN qualified, AS9100 registered and ISO 9001:2000.

Sensoray Co Inc

7313 SW Tech Center Dr, Tigard, OR 97223,
503-684-8005, sales@sensoray.com,
www.sensoray.com

Specializes in the development of custom OEM embedded electronics for industrial, aerospace, defense, medical and security applications. Products include a range of video capture, data acquisition and machine control for platforms including Ethernet, USB, PC/104, PCI and PCI Express. Offers drivers for Windows or Linux, and live technical support.

Sensor Developments Inc

1050 W Silver Bell Rd, PO Box 290, Lake Orion, MI 48359, 248-391-3000, sales@sendev.com,
www.sendev.com

Designs and manufactures strain gaged based force and torque sensors, instruments and complete test systems. Products are used in a wide range of industries and applications, including automotive, aerospace, medical, nuclear, agricultural and many others. ISO 17025 certified calibrations for any force and torque sensors available.

Sensors Unlimited - UTC Aerospace Systems

330 Carter Rd, Suite 100, Princeton, NJ 08540,
609-333-8200, sui_sales@utas.utc.com,
www.sensorsinc.com

Manufactures near-IR (NIR) and shortwave IR (SWIR) cameras (available fully packaged or as OEM imaging modules), linear arrays, high-speed detectors and III-V 4-inch wafer foundry services. Sensor imaging products are indium gallium arsenide (InGaAs)-based, feature easy integration, use standard glass optics and require no cooling.

SensUp

11 Rue du Clos Courtel, Rennes 35000, France,
33-2-99-54-89-78, www.sensup-tech.com

Designs and manufactures OEM (original equipment manufacturer) optical systems based on laser technology. Products and applications include laser rangefinders for medium- and long-range targets distance measurement and lidar systems for localization, obstacle detection and avoidance.

Servometer

501 Little Falls Rd, Cedar Grove, NJ 07009-1291,
973-785-4630, info@servometer.com,
www.servometer.com

Designs and manufactures custom electrodeposited miniature metal bellows, bellows assemblies, bellows-type flexible shaft couplings, gold plated bellows contacts, and light weight, structurally rigid electro forms in various sizes. Bellows are flexible, leak tight, and can be used as springs and flexible seals in long-life applications.

SHF Communication Technologies AG

Wilhelm-von-Siemens Str 23D, Berlin 12277, Germany, 49-30-7720510, sales@shf.de,
www.shf.de

Specializes in 100G bit error test (BERT) systems, optical transmitters and receivers, ultra broadband RF amplifier design as well as passive components.

Shields Co

PO Box 1572, Ventura, CA 93002, 805-642-4408,
marketing@shieldscompany.com,
www.shieldscompany.com

Manufactures high quality magnetic sweepers and lifting equipment in the US. Products are ideal for use on flightlines, runways, aircraft carrier decks and airfields. These magnets have been proven to reduce foreign object debris incidents by as much as 75%.

SIE Computing Solutions Inc

10 Mupac Dr, Brockton, MA 02301, 508-588-6110, pr@sie-cs.com, www.sie-cs.com

Engineers, designs and manufactures custom products which support open architectures such as VME, VXS, VPX, CompactPCI, AdvancedTCA, MicroTCA, and small form factors. Products include enclosures, high-speed backplanes and embedded computer systems. System integration expertise provides customers with complete, fully tested and certified systems.

Sierra Olympic Technologies Inc (SOTI)

(sub of Hood Tech Corp) (div of Vision Inc), 3100 Cascade Ave, Hood River, OR 97031, 425-445-8884, chris@sierraolympic.com, www.sierraolympic.com

Offers advanced infrared imaging components and technologies for commercial, military, government, and OEM customers. Supports products from the industry's leading manufacturers and technology developers, with a consistent dedication to quality and expert service in advanced focal plane array technologies.

Signal Technology

(div of Crane Aerospace & Electronics) (sub of Crane Co), 340 N Roosevelt Ave, Chandler, AZ 85226, 480-961-6269, mw@crane-eg.com, www.craneae.com/mw

Develops state-of-the-art electronic components, subsystems and system solutions for critical defense and space applications. Manufactures RF, microwave and millimeter wave products for military communications networks/systems related to EW, precision guidance, radar and ISR. When failure is not an option, partner with a trusted market leader in critical applications.

Signet FPD Inc

75 Columbia, Irvine, CA 92656, 949-380-3031, sales@signetfpd.com, www.signetfpd.com

Offers value-added design and integration services for custom LCD systems, open frames, LCD controller boards, touch panel assembly, LCD performance enhancements (optical bonding, optical filters, high brightness), and digital signage solutions. Has manufacturing facilities in the US, Korea, and China.

Simlat Ltd

103 Medinat HaYehudim St, Herzliya 46131, Israel, 972-9-951-7675, info@simlat.com, www.simlat.com

Provides next generation training solutions for unmanned vehicle systems and for intelligence, surveillance and reconnaissance (ISR). Systems are available as stand-alone or embedded/integrated to legacy control stations, as well as generic or customized solutions, and are in service in over 20 countries.

Six Sigma

(sub of Winslow Automation), 905 Montague Expwy, Milpitas, CA 95035, 408-956-0100, sales@solderquik.com, www.sixsigmaservices.com

Offers backend semiconductor subcontract services including solder column attach, hot solder dipping, lead finish conversion (eutectic to lead-free and vice versa), solderability testing, solderability failure analysis, solderability restoration, seal testing, BGA ball attach/reballing, and failure analysis, using SEM/EDS and XRF technologies.

Smiths Connectors

16 Brent Dr, Hudson, MA 01749, 978-568-0451, info@smithsconnectors.com, www.smithsconnectors.com

Supplies interconnect solutions for the most demanding applications requiring superior quality, performance, and reliability. The technology delivers unfailing performance in high-reliability applications. Offers a variety of connector solutions, including cable assemblies, custom design and engineering services, and application support.

Smitties Lights and Sirens

16 Lardner Burke St, Casandra, Kimberley 8301, South Africa, 27-8327-25886, smitties911@gmail.com, www.smitties911.co.za

Supplies of state-of-the-art LED light bars, sirens, strobe lights, strobe light bars and various other emergency scene equipment.

Soliton Devices Inc

3301 Electronics Way, Suit C, West Palm Beach, FL 33407, 561-848-4311, sales@solitondevices.com, www.solitondevices.com

Manufactures power semiconductors, Darlington transistors, power rectifiers, power MOSFETs, IGBTs, UJTs, power hybrids, voltage regulators, SMD voltage regulators, DC/DC converters, Schottky rectifiers, fast recovery diodes, motor controllers and drivers, small signal J-fets, semiconductor dies, and multichip power assemblies.

SOURIAU

(sub of Esterline), 25 Grumbacher Rd, York, PA 17406, 717-767-6705, tech@souriau.com, www.souriau.com

Designs and manufactures high-performance, high-reliability interconnect solutions for severe environments dedicated to the aerospace, defense/space, and industrial equipment markets. Committed to environmental protection with manufacturing sites following ISO 14001 and RoHS guidelines. Is now the Connection Technology platform of the Esterline Group.

SpaceAge Control Inc

38850 20th St E, Palmdale, CA 93550, 661-273-3000, email@spaceagecontrol.com, www.spaceagecontrol.com

Provides 3-D displacement transducers.

Space Micro Inc

10237 Flanders Ct, San Diego, CA 92121, 858-332-0700, mgt@spacemicro.com, www.spacemicro.com

Provides radiation hardened by design solutions for advanced electronic systems and microelectronics. Is completing research in design solutions for single event effects (SEE) in microelectronics, plus methods for improving single event effects performance of high-performance space computers for several companies and government agencies.

Space Photonics Inc

700 W Research Center Blvd, Fayetteville, AR 72701, 479-856-6353, cchalfant@spacephotonics.com, www.spacephotonics.com

Specializes in optical communications and networking systems and anti-tamper technologies for military, aerospace, commercial communications, and space applications. As an industry leader in space-qualified fiber optics, optoelectronics, and free space optics, the company has successfully transitioned these technologies to terrestrial deployments suitable for radiation-tolerant and congested communications environments.

Sparton Complex Systems

(div of Sparton Corp), 30167 Power Line Rd, Brooksville, FL 34602, 352-650-2695, chanson@sparton.com, www.sparton.com

Provides electronics manufacturing services for aerospace and defense. Multiple facilities in the US and overseas provide both secure domestic manufacturing and test as well as lower cost country options for non-ITAR regulated products. Services include hardware design, prototyping, printed circuit board and box build assembly, functional and environmental testing.

Specialised Imaging Inc

41690 Enterprise Cir N, Suite 104, Temecula, CA 92590, 951-693-2148, frank@specialised-imaging.com, www.specialised-imaging.com

Manufactures ultra high-speed framing cameras, ultra high-speed video cameras, streak cameras, intensifiers and trajectory tracker flight follower systems.

Spectracom

1565 Jefferson Rd, Suite 460, Rochester, NY 14623, 585-321-5800, sales@spectracomcorp.com, www.spectracomcorp.com

Supports mission-critical communications systems with precise and reliable time and frequency synchronization and test solutions. Offers a comprehensive portfolio of solutions including precision time transfer over networks, clock synchronization, frequency analysis, testing GPS-enabled systems, and more, including full turnkey synchronization systems to meet specific requirements.

Speel Praha Ltd

Beranovych 130, Prague 19905, Czech Republic,
420-286-923-619, larbi.ouchelouche@speel.cz,
www.speel.cz

Offers avionics systems, including aircraft monitoring systems, crash-protected solid-state flight data/cockpit voice recorders, airborne video recorders, airborne mission computers, and air data computers, ground support equipment (HW/SW), and HUMS modernization programs for Mi-17 and Mi-24 helicopters.

SPI Lasers UK Ltd

6 Wellington Pk, Hedge End, Southampton
SO30 2QU, UK, 44-1489-779-696,
sales@spilasers.com, www.spilasers.com

Allows welding, cutting, marking and micro-machining operations to be carried out faster and more accurately with better reliability, less waste and improved productivity.

S-Products Inc

141 Kings Hwy E, Fairfield, CT 06825,
203-331-9546, s-products@usa.net,
www.s-products.com

Develops, manufactures, and ships quality electronic products including transmitters, panel-process indicators, mineral insulated thermocouple and heating cable and printed circuit boards.

SRI International Sarnoff

Products & Services Div, 201 Washington Rd,
Princeton, NJ 08540, 609-734-2553, info@sri.com,
www.sri.com/products

Delivers advanced situational awareness and persistent surveillance capabilities, including real-time video processing, multi-spectral image fusion, and low-light imaging. Products enable next generation day/night vision systems such as goggles, unmanned air/ground vehicles, and surveillance platforms. CCD and CMOS sensors incorporate high-resolution and sensitivity in the visible/NIR, low noise, and low SWaP.

StacoSystems

7 Morgan, Irvine, CA 92618, 949-297-8700,
sales@stacosystems.com, www.stacosystems.com

Provides LED push button display switches and control solutions, subsystems, and rugged keyboards and keypads for commercial, military, and avionics applications worldwide.

Stanford Photonics Inc

1032 Elwell Ct, Suite 104, Palo Alto, CA 94303,
650-969-5991, info@stanfordphotonics.com,
www.stanfordphotonics.com

Provides leading-edge electronic imaging equipment including low-light ICCD, ICMOS, sCMOS, CMOS and CCD cameras, light tight chambers, and photonics technology for critical applications requiring expertly designed systems since 1989.

Statek Corp

512 N Main St, Orange, CA 92868, 714-639-7810,
sales@statek.com, www.statek.com

Manufactures ultra-miniature quartz crystals, oscillators, and sensors for numerous military and aerospace applications. Standardized and custom products are available in frequencies from 1 Hz to 250+ MHz and can be used in low-current, high-shock, and high-vibration applications. High-temperature oscillators are also available.

Steritool Inc

2376 Lake Shore Blvd, Jacksonville, FL 32210,
904-388-3672, steritool@steritool.com,
www.steritool.com

Manufactures over 3000 magnetic and non-magnetic stainless steel hand tools. Custom tools in any material are available. Email or fax drawings or specifications. Offers inch and metric in sizes from 0.028" to 6" sockets. Expedited delivery available. Made in the US with full material certifications available for all tools.

STG Aerospace

Ecotech Innovation Business Pk, Swaffham, Norfolk
PE37 7XD, UK, 44-1760-723-232,
info@stgaerospace.com, www.stgaerospace.com

Offers SaftGlo photoluminescent floorpath marking systems that are fitted to over 8000 aircraft worldwide and supplied as OEM to Boeing, Embraer, Goodrich Lighting, Fokker and BAE Systems.

Stock-Point Electronics Inc

9576 Topanga Canyon Blvd, Chatsworth, CA
91311-4011, 818-718-4100, www.stock-point.com

Distributes all board level components. Specializes in obsolete material. Leaded product in stock as well as RoHS compliant. MIL-SPEC, industrial and commercial specification products available.

Strataplex Inc

20 E Main St, Suite 18, Los Gatos, CA 95030,
925-206-0433, info@strataplexinc.com,
www.strataplexinc.com

Provides consulting with a specific emphasis in telecommunications, data communications, optical networking systems and the semiconductor markets.

StratoPak Inc

4094 Majestic 365, Fairfax, VA 22033,
703-599-5421, info@stratopak.com,
www.stratopak.com

Manufactures ruggedized aluminum electronic packages targeted for hi-rel defense, space, and marine communications applications. The precision CNC machined products are available 'off-the-shelf' with or without connectors and hardware or can be custom ordered to address customer's specific packaging requirements.

Sundance Multiprocessor Technology Ltd

Chiltren House Waterside, Chesham, Bucks
HP5 1PS, UK, 44-1494-793-167,
sales@sundance.com, www.sundance.com

Designs, manufactures, and tests complete DSP subsystems for use in any signal-processing application. Offers TI DSP, Xilinx FPGA, and Analog Devices DAQ products. Is ISO 9001:2000 registered.

Sunkye

Unit 4/7F Bright Way Tower, 33 Mong Kok Rd KL,
Hong Kong, 852-6948-6797, sales@sunkye.com,
www.sunkye.com

Manufactures and supplies connectors, such as military, aerospace, medical, RF coaxial, sealed, nano D, backplane connectors and other military standard connectors. Provides leading edge solutions.

SuperCircuits

11000 N Mopac Exwy, Bldg 300, Austin, TX 78759,
512-778-6950, info@supercircuits.com,
www.supercircuits.com

Superior Essex International LP

6120 Powers Ferry Rd, Suite 150, Atlanta, GA
30339, 770-657-6000, www.superioressex.com

Designs, manufactures and supplies cable and wire products, as well as cable hardware products. Sold into more than 50 countries, the products are integral to the operation of large and small communications networks around the world.

SuperPower Inc

450 Duane Ave, Schenectady, NY 12304,
518-346-1414, info@superpower-inc.com,
www.superpower-inc.com

Manufactures second-generation (2G) high-temperature superconductor (HTS) wire that operates at LN2 temperatures. 2G HTS-based devices provide important advantages (energy efficiency, high engineering current density, reduced size and weight, and environmental friendliness) over copper-based systems for applications in energy technologies, industry, transportation, military, space, science and research.

Surface Mount Technology Corp

5660 Technology Cir, Appleton, WI 54914,
920-954-8324, sales@teamsmt.com,
www.teamsmt.com

Provides electronic product development and contract manufacturing. Serves industrial controls, military (high reliability), medical and automotive markets, by providing integrated electronic product development and manufacturing services and solutions to improve product time to market. Offers a complete menu of services, including product design, assembly, prototyping, assembly and test solutions.

Surface Optics Corp

11555 Rancho Bernardo Rd, San Diego, CA 92127,
858-675-7404, soc@surfaceoptics.com,
www.surfaceoptics.com/products/
hyperspectral-imaging

Offers a single engineering and manufacturing source for the characterization, control, and exploitation of the optical properties of surfaces. For over 35 years, the company has provided hemispherical and bidirectional reflectance measurement services, custom instrument engineering services, analytical software, hyperspectral and multispectral imagers, and reflectometers.

SurplusEQ.com Inc

329 W Melinda Ln, Phoenix, AZ 85027,
623-581-9777, info@surplusseq.com,
www.surplusseq.com

Buys, sells and trades high-technology equipment including fiber optics and optical test, electronic test equipment, communications, datacom, semiconductor manufacturing equipment and instruments, laboratory, biotech, medical, motions control and automation, robotics, and a wide range of other technology equipment and excess inventory from high-tech industries. Provides asset liquidation, and asset recovery.

SwissOptic AG

Defense Div, (sub of Berliner Glas Group),
Heinrich-Wild-Str, Heerbrugg, Kanton St Gallen
CH 9435, Switzerland, 41-71-727-3074,
swissoptic@swissoptic.com, www.swissoptic.com

Develops and produces demanding opto-mechanical and optronic systems to customer specifications from concept via prototypes through to volume production. The production, qualification and development standards are governed by the corresponding relevant military standards. The modern optical concepts are based on many years of pertinent experience.

Switching Power Inc

3601 Veterans Hwy, Ronkonkoma, NY 11779,
631-981-7231, sales@switchpwr.com,
www.switchpwr.com

Manufactures custom and standard power supplies from 150–15,000W including a line of 1U, hot swap products. Vertical manufacturing includes SMT, automatic lead insertion, transformer winding, sheet metal fabrication and stress testing facilities. The facility is ISO 9001 and AS9100 registered.

SynaptiCAD the Timing Diagram Co

Verilog and VHDL Design Div, 605 Alleghany St,
Blacksburg, VA 24062-0608, 540-953-3390,
sales@syncad.com, www.syncad.com

Offers a line of VHDL and verilog model generation, simulation, and timing diagram visualization tools including VeriLogger Extreme verilog simulator, WaveFormer Pro waveform translator, TestBench Pro test generation, and Timing Diagrammer, a protiming diagram editor.

Synopsys Inc

Optical Solutions Group Div, 400 Executive Blvd,
Suite 100, Ossining, NY 10562,
914-488-6260, rsoft_support@synopsys.com,
http://optics.synopsys.com/rsoft

Offers photonics design software for the optical communication, optoelectronics and semiconductor manufacturing industries. Provides design, optimization and planning tools within optical communications. Also provides design tools for optoelectronics components and subsystems, as well as electromagnetic modeling software for optical metrology and lithography. RSoft Design Group is now part of Synopsys.

SynQor Inc

155 Swanson Rd, Boxborough, MA 01719-1316,
978-849-0600, power@synqor.com,
www.synqor.com

Offers DC/DC power converters, EMI filters and AC/DC power supply conversion solution products designed to exceed the rigorous quality and performance requirements of today's leading-edge communications, computing, medical, industrial, and military applications. Designs and manufactures in US factories since 1997. Offers lowest total cost of ownership by providing unmatched reliability.

Sypris Electronics LLC

(sub of Sypris Solutions), 10901 N McKinley Dr,
Tampa, FL 33612, 813-972-6000,
info@sypriselectronics.com,
www.sypriselectronics.com

Is a global security company that leverages its unique Government Type 1 development heritage to provide high assurance encryption systems and products, engineering services and electronic manufacturing capabilities. Products and services include RASKL (KIK-30), cyber training range, silicon-based identity management, and secure Android hand-held devices.

SYSGO

Am Pfaffenstein 14, Klein-Winternheim 55270,
Germany, 49-6136-99480, info@sysgo.com,
www.sysgo.com

Provides OS technology, middleware, and software services for the real-time and embedded market. The SSV (safe and secure virtualization) platform PikeOS (a paravirtualization OS, built upon a small, fast, and safe microkernel) supports the coexistence of independent OS personalities on a single platform, including the embedded Linux distribution ELinOS.

Systel Inc

1655 Industrial Blvd, Sugar Land, TX 77478,
888-645-8400, sales@systelusa.com,
www.systelusa.com

Designs and provides system integration of both COTS and custom rugged industrial computers, embedded systems, rack-mount servers, wall-mount servers, rugged industrial LCD displays and advanced TCA/CompactPCI platforms. The industrial systems are deployed worldwide in defense, mining, oil and gas, automation, telecommunications and OEM industries.

Taconic

Advanced Dielectric Div, 136 Coonbrook Rd,
Petersburgh, NY 12138, 518-658-3202,
addinfo@4taconic.com, www.taconic-add.com

Offers high-frequency laminates and prepregs for antennas, power amplifiers, multi-layer RF and high-speed digital boards. Unique materials include fastRise fiberglass-free prepreg, RF-35TC high-thermal conductivity laminate and TSM-DS/DS3 low-loss laminate.

Tapeswitch Corp

100 Schmitt Blvd, Farmingdale, NY 11735,
800-234-8273, sales@tapeswitch.com,
www.tapeswith.com

Manufactures and offers pressure sensitive switches, emergency stop safety edges, safety mats for presence detection, sensing bumpers for collision avoidance, safety light curtains, laser scanners for optical guarding, access control and machine guarding noncontact interlocks (monitoring) and power isolation and access trapped key interlocks (lock out).

TASC Technical & Assembly Services Corp

2222 N Pacific St, Seattle, WA 98103,
206-682-2967, mhirst@tasc-wa.com,
www.tasc-wa.com

Offers subcontract electronics manufacturing specializing in circuit board assembly, cables, wire harnesses, box builds-through hole and surface mount capabilities. Provides prototypes, troubleshooting and repair, design and development. The services are geared towards the aerospace industry (electronics assembly), entrepreneurs, inventors and original equipment manufacturers. Offers consignment or turnkey.

Tata Technologies Ltd

41050 W 11 Mile Rd, Novi, MI 48375,
248-426-1482, www.tatatechnologies.com

Combines a global network of innovation experts, program managers and highly skilled engineers for aircraft engineering, design and consulting solutions.

TDK-Lambda Americas

Low Power Div, (sub of TDK Corp), 3055 Del Sol
Bld, San Diego, CA 92154, 619-575-4400,
marcom@us.tdk-lambda.com,
www.us.tdk-lambda.com/lp

Designs and manufactures AC/DC power supplies and DC/DC converters. Provides standard, modified and custom power products ranging from 1–22,500W for applications in COTS/MIL/industrial and medical equipment.

TDL Inc

300 Commerce Blvd, Quakertown, PA 18951,
303-941-3873, info@tuliplabs.com,
www.tuliplabs.com

Manufactures rugged military and commercial LCD displays, keyboards and bezels used on numerous platforms including ground mobile vehicles, rotary and fixed wing aircraft, shipboard, and commercial transit systems. A new 50,000 square foot facility is located in Quakertown, PA.

TEAC Aerospace Technologies Inc

1 Cupania Cir, Monterey Park, CA 91755,
323-837-2708, chunt@teacaerospace.com,
www.teac-aerospace.com

Manufactures computer products, digital recorders, and more.

TEAL Electronics

SL Industries Div, 10350 Sorrento Valley Rd,
San Diego, CA 92121, 858-558-9000,
info@teal.com, www.teal.com

Specializes in the design/manufacture of custom power subsystems for military and aerospace equipment. Customers rely on the company to isolate state-of-the-art electronics from damaging voltage/current transients, to convert world input voltages, to distribute AC/DC power, and to remotely monitor power with the TEALwatch power monitor.

TeamEDA Inc

50 Bridge St, Suite 304, Manchester, NH 03101,
603-656-5200, info@teameda.com,
www.teameda.com

Provides a point solution, a scalable compute farm with integrated job scheduler, or a complete license management system with license inventory and vendor database, methodology training and implementation services.

Technobox Inc

154 Cooper Rd, Suite 901, West Berlin, NJ
08091-9112, 856-809-2306, info@technobox.com,
www.technobox.com

Specializes in mezzanine I/O solutions and related carriers and adapters for engineering development and deployment. Offers a comprehensive assortment of modules including Async serial and digital I/O, SATA, SAS, Compact Flash, SSDs, and memory. Features a line of FPGA-based micro mezzanine system (MMS) solutions for rapid-development and future-proofing embedded system I/Os.

Tech Products Inc

105 Willow Ave, Staten Island, NY 10305,
718-442-4900, team@techproducts.com,
www.techproducts.com

Provides identification products for the Armed Services, NASA and DEP since 1948. These products include electric cable markers, warning signs and storm drain markers. Manufactures all products in the US and provides an extensive, innovative and quality product line.

TE Circuit Protection Products

(div of TE Connectivity), 308 Constitution Dr,
MS R21/2A, Menlo Park, CA 94025-1164,
650-361-2175, www.circuitprotection.com

Develops and manufactures circuit protection devices for a myriad of applications. The devices help provide overcurrent, overvoltage, ESD, thermal and hybrid protection.

TECOM Industries Inc

(div of Smiths Interconnect), 375 Conejo Ridge Ave,
Thousand Oaks, CA 91361, 805-267-0100,
sales@tecom-ind.com, www.tecom-ind.com

Designs and manufactures antennas and antenna systems for the aerospace, military, SATCOM, and commercial wireless markets. The company's expanse of field-proven antenna solutions includes embedded, phased array, data link, wrap-around, and broadband designs. Is ISO 9001, AS9100, 14001 and OHSAS 1800 certified.

TE Connectivity

MS 258-23, PO Box 3608, Harrisburg, PA
17105-3608, 800-522-6752, www.te.com

Designs and manufactures a range of connectors, rugged electro-optic components, and assemblies, RF products, wire, cable and components, custom harness assemblies, relays, contactors and power distribution units along with value-added assemblies for the aerospace, defense and marine industries.

Tektronix Component Solutions

2905 SW Hocken Ave, Beaverton, OR 97005,
503-627-4133, components@tektronix.com,
www.component-solutions.tektronix.com

Provides high-performance microelectronics for military applications. Offers services and products including ASIC design, IC packaging, RF/microwave module development, high-speed data converters and component test, and has the expertise to deliver high-reliability microelectronics. Is a US-based, ITAR-registered and accredited trusted supplier.

Teledyne Microelectronic Technologies

12870 Panama St, Los Angeles, CA 90066,
310-574-2082, microelectronics@teledyne.com,
www.teledynemicro.com

Specializes in complex microelectronic modules (MCMs) for the defense, space, aviation, and industrial markets. Offers a range of analysis, design, manufacturing and test capabilities for analog/digital, RF/microwave, optoelectronics, power, and secure modules. Certified MIL-PRF-38534 Class H and K DoD microelectronics trusted source for packaging, assembly and test.

Teledyne Nova Sensors

Teledyne Scientific & Imaging Div, 760 McMurray Rd,
Buellton, CA 93427, 805-693-9600,
louis.kilmer@teledyne.com,
www.camerasbyteledyne.com

Develops and produces infrared cameras from NIR/SWIR to MWIR and in the long-wave infrared. Also designs and manufactures commercial and custom read-out circuits for low noise and high functionality.

Teledyne Relays Europe

(sub of Teledyne Technologies Inc), 9-13 Napier Rd,
Wardpark N, Cumbernauld, Scotland G68 0EF, UK,
44-1236-733-700, sales_europe@teledyne.com,
www.teledyne-europe.com

Provides switching solutions with design, development, manufacturing, and test facilities. The lines of ultra miniature, hermetically sealed TO5 and CentiGrid relays and coax switches support RF and microwave applications in the test, instrumentation, wireless, and communication markets, in addition to the traditional military, aviation, and space applications.

Teledyne Relays US

(sub of Teledyne Technologies Inc), 12525 Daphne
Ave, Hawthorne, CA 90250-3384, 323-777-0077,
relays@teledyne.com, www.teledynereleys.com

Provides switching solutions with design, development, manufacturing, and test facilities. The lines of ultra miniature, hermetically sealed TO5 and CentiGrid relays and Coax switches support RF and microwave applications in the test, instrumentation, wireless, and communication markets, in addition to the traditional military, aviation, and space applications.

Teledyne Storm Microwave

10221 Werch Dr, Woodridge, IL 60517,
630-754-3300, storm_microwave@teledyne.com,
www.teledynestorm.com

Manufactures flexible and semi-rigid microwave cable assemblies for domestic and international defense, radar, aerospace, test and measurement, and wireless markets. Catalog and customized 50 ohm coax products—including multi-channel harness assemblies—feature low-density PTFE dielectrics and time-tested, durable constructions addressing low/ultra low loss, phase stability, miniaturization, extra flex, and test requirements.

Telesis Technologies Inc

(sub of Tyden Group), 28181 River Dr, Circleville, OH
43113, 740-477-5000, inquiries@telesistech.com,
www.telesis.com

Specializes in product identification and processing technologies. Provides a range of permanent and programmable DPSS, CO₂, and fiber laser marking systems that are fast, reliable and durable.

Telkonet Inc

10200 W Innovation Dr, Suite 300, Milwaukee, WI
53226, 414-223-0473, sales@telkonet.com,
www.telkonet.com

Delivers secure IP-over-powerline networking and intelligent energy management solutions. Provides government and military clients with FIPS 140-2 validated broadband networking solutions to seamlessly deploy, support, and maintain energy management systems for intermittently occupied spaces, high-speed data, voice, and video communications via wireless, wired, and in-building and shipboard electrical wiring.

Telonic Instruments Ltd

Toutley Industrial Estate, Wokingham RG41 1QN, UK,
44-118-978-6911, info@telonic.co.uk,
www.telonic.co.uk

Is a specialist UK supplier of AC and DC power supplies for avionics power testing. This includes 400 Hz, 360–800 Hz frequency converters that test to military-standard and civil-standard RTCA/DO-160 and JIS W0812. The corresponding standard is MIL-STD-704F.

Telops Inc

100-2600 Ave St Jean Baptiste, Quebec, QC G2E 6J5, Canada, 418-864-7808, contact@telops.com, www.telops.com
Supplies high-performance infrared cameras and hyperspectral imaging systems. Has developed the HD-IR 1280 high-definition scientific infrared camera, the FAST-IR 1500, the first 1500 FPS infrared camera, and the Hyper-Cam. These high-performance instruments help detect, identify and quantify remote substances previously invisible.

Ten Tech LLC Engineering Services

100 Corporate Pointe, Suite 375, Culver City, CA 90230-7601, 424-704-3235, info@tentechllc.com, www.tentechllc.com
Offers engineering consulting specializing in structural and thermal analysis services. The highly experienced engineering staff uses state-of-the-art computer aided engineering software to provide advanced analysis services, allowing accurate prediction and prevention of thermal and structural problems.

Teradyne

600 Riverpark Dr, North Reading, MA 01864, 978-370-2700, www.teradyne.com
Supplies commercial test equipment to defense and aerospace manufacturers, government depots, and support facilities worldwide. Products include high-performance functional test systems, PXI/VXI subsystems and instruments, and TPS development and rehost software. Products address new requirements not supported by conventional equipment, and replace legacy systems, while preserving original investments.

TESSCO Technologies

11126 McCormick Rd, Hunt Valley, MD 21031-1494, 800-472-7373, www.tessco.com
Provides integrated products plus supply chain solutions to professionals that design, build, run, maintain, or use wireless systems. Offers GSA and open-market products, both on-line and directly with dedicated GSA knowledgeable resources.

Texas Instruments

Semiconductor Div, 12500 TI Blvd, Dallas, TX 75243, 214-480-1920, www.ti.com/led
Produces DSPs, analog and mixed signal products, programmable and digital logic parts, and ASICs for the defense and aerospace industries. Also offers portfolios for enhanced plastic devices and QML Class V space products.

■ Themis Computer

47200 Bayside Pkwy, Fremont, CA 94538, 510-252-0870, info@themis.com, www.themis.com
Provides hardware solutions including blade and rugged servers, embedded computing, and software solutions for mission-critical applications in the aerospace, military, and commercial markets. Open standard-based computing platforms support Linux, Microsoft Windows, and Sun Solaris operating environments. Products are designed to ensure high reliability and availability. (See ad page BG8)

Thermacore Inc

780 Eden Rd, Lancaster, PA 17601, 717-569-6551, info@thermacore.com, www.thermacore.com
Specializes in the custom design, development, and manufacturing of highly engineered thermal management solutions for a variety of OEM applications across a diversified set of global markets that includes military/aerospace, computer, communication, energy conversion, medical and test equipment.

Thermax

(sub of Carlisle Interconnect Technologies), 100 Tensolite Dr, St Augustine, FL 32092, 661-295-3100, sales.thermax@thermaxcdt.com, www.thermaxconnects.com
Supplies high-performance hook-up, data and coaxial wire and cable for mission-critical applications for commercial aerospace, defense and industrial customers.

Thermo Bond Buildings LLC

109 E Pleasant St, PO Box 445, Elk Point, SD 57025, 605-356-2090, jon@thermobond.com, www.thermobond.com
Manufactures prefabricated communication and substation shelters, shipped complete with lights, cable racking, air conditioners, grounding and more. Enclosures are custom designed to specifications.

Thermocarbon Inc

391 Melody Ln, Casselberry, FL 32707, 407-834-7800, info@dicing.com, www.dicing.com
Manufactures resin bonded diamond blades, flanges, adapters and spacers for all makes of dicing saws. Also manufactures the TCAR684-1 high-precision dicing saw with SmartGrafix. Offers dicing solutions with free consultation, custom design services, research and development, and product samples. Product line also includes dresser plates, lapping systems and adhesives.

Thermo Scientific - CIDTEC

(div of Thermo Fisher Scientific), 101 Commerce Blvd, Liverpool, NY 13088-4507, 315-451-9410, tony.chapman@thermofisher.com, www.thermoscientific.com/cidtec
Manufactures high-performance charge injection device (CID) cameras for demanding imaging applications in radiation environments and scientific imaging. Features include radiation hardened, wide dynamic range, random access and UV-NIR response. Formats include RS-170, CCIR, intensified and slow scan. UV and X-ray deposition services also available.

Thermoteknix Systems Ltd

Teknix House, 2 Pembroke Ave Waterbeach, Cambridge, Cambridgeshire CB25 9QR, UK, 44-1223-204-000, sales@thermoteknix.com, www.thermoteknix.com
Manufactures and supplies MicroCAM 2 OEM thermal imaging cores and engines. Includes miniature, ultra-lightweight, low-power shutterless (XTi) models with 384 x 288 or 640 x 480 resolution options and range of optics. Also manufactures TiCAM thermal imaging binoculars, ClipIR small clip-on thermal imagers for image intensifiers and more.

Third Millennium Engineering

PO Box 867178, Plano, TX 75086-7178, 972-491-1132, contact@tmeplano.com, www.tmeplano.com
Supplies fiber-optic, microwave, RF, and other functional test equipment for performance testing of wafer, die, component, module, equipment, and system level products. Also provides product engineering, prototyping, short-run manufacturing, and consulting services to help get products working and to market on time.

Timbercon

20245 SW 95th Ave, Tualatin, OR 97062, 503-827-8141, www.timbercon.com
Manufactures an array of ruggedized connectivity solutions to the military and defense harsh environment industries. Pioneered multiple new proprietary products, many of which are now considered to be an industry benchmark.

Times Microwave Systems

358 Hall Ave, Wallingford, CT 06492, 203-949-8400, www.timesmicrowave.com
Develops high-reliability coaxial cable assemblies for demanding interconnect applications. Products cover military-aerospace, shipboard, and commercial wireless applications and include high-performance flexible, semi-flexible and rigid coaxial cable assemblies and flexible 50 ohm LMR cables, connectors, and assemblies.

TLC International

9849 N 21 Ave, Phoenix, AZ 85021-1825, 602-866-8208, mlinden@tlcinternational.com, www.tlcinternational.com
Manufactures Gen-3 TLC Phoenix-600 and TLC Summit Gen-5 high-accuracy glass cutting machines that utilize carbide/diamond wheels to singulate rectilinear, circular, and curvilinear parts from thin, flat single sheet/laminated substrates. Offers stationary stage, Windows/AutoCAD seamless interface and rotating cutting head with CCD camera for onstage measurement/inspection and quick, repeatable targeting.

Toshiba Imaging Systems Div

(div of Toshiba America), 9740 Irvine Blvd, Irvine, CA 92618, 810-357-5022, gary.pitre@tais.toshiba.com, www.toshibacameras.com
Specializes in high-definition (HD) and high-resolution video cameras for scientific, R&D, broadcast, and machine-vision applications. High-performance HDTV, 3-chip color and monochrome CCD and CMOS video cameras are available with small, remote heads, ultra-compact CCUs, and monitors for military, aerospace, industrial, broadcast, and scientific markets.

Trenton Systems Inc

2350 Centennial Dr, Gainesville, GA 30504,
770-287-3100, sales@trentonsystems.com,
www.trentonsystems.com

Designs and manufactures rugged rackmount computers and MIL-STD-810 systems using both standard COTS as well as custom-designed single-board computers, long-life motherboards and backplanes. The US-built SBCs and motherboards are available in single- and dual-processor board versions that feature long-life multi-core Intel processors. Architectures supported include MicroATX, EATX and PICMG 1.3.

Tri-M Systems and Engineering Inc

101-1530 Kingsway Ave, Port Coquitlam, BC
V3C 6N6, Canada, 604-945-9565,
sales@tri-m.com, www.tri-m.com

Develops power solutions and single-board computers for embedded applications. Products can be found in a variety of industries including industrial controls and robotics, military and aerospace equipment, medical devices and advanced security products.

Trion Technology

2131 Sunnysdale Blvd, Clearwater, FL 33765,
727-461-1888, info@triontech.com,
www.triontech.com

Manufactures a wide variety of plasma etch, strip and deposition systems for the compound semiconductor, MEMS, optoelectronic and other markets. Offers small footprints, reliable systems, and affordable pricing. Products range from full-blown production cluster tools to a simple laboratory system.

TTI Inc

2441 Northeast Pkwy, Ft Worth, TX 76106-1816,
817-740-9000, information@ttiinc.com,
www.ttiinc.com

Distributes passive, interconnect, electromechanical, circuit protection, magnetics, and discrete components. Products include resistors, capacitors, connectors, inductors, filters and frequency control, circuit breakers, sensors, switches, relays, terminal blocks, diodes, and wiring and cable accessories. Has more than 60 locations throughout North America, Europe, and Asia. Is AS9100B and ISO 9001:2000 registered.

Twisted Pair Solutions Inc

3131 Elliott Ave, Suite 200, Seattle, WA 98121,
206-442-2101, info@twistpair.com,
www.twistpair.com

Provides mobile workforce communication solutions for secure, real-time collaboration on any device over any network in any location. The software is the standard communications platform used in critical situations by military, government and commercial organizations worldwide where serious, secure communications truly matter.

u2t photonics AG

Reuchlinstr 10/11, Berlin 10553, Germany,
49-30-72611-3530, sales@u2t.com, www.u2t.com
Supplies ultra high-speed optical detectors and receivers of up to 100 GHz. Provides mature technology to both test and measurement vendors as well as to the optical communications market for use in 40 Gbit/s applications.

UAVDirect

14365 A State Hwy, Liberty Hill, TX 78642,
855-778-6363, ops@uavdirect.com,
www.uavdirect.com
Provides unmanned aerial vehicles specifically designed for aerial photography, aerial cinematography and aerial surveillance. Products include UAV drone platforms, wireless transmitters, gimbals, and DJI phantom related products.

Ultra Electronics EMS

95 Horseblock Rd, Unit 2, Yaphank, NY 11980,
631-345-6200, www.ultra-ems.com
Manufactures defense electronic systems and products. Provides services and expertise in the field of magnetic and electric field countermeasures for naval mine warfare, sensor design and power conversion. The company has provided hundreds of magnetic silencing systems for the US government, as well as for many allies.

Ultraview Corp

808 Gilman St, Berkeley, CA 94710, 925-253-2960,
sales@ultraviewcorp.com, www.ultraviewcorp.com
Offers high-speed PCI and PCIe bus data acquisition boards that can acquire to 16 GBytes of analog data to 6 Giga samples/sec, while streaming to the host system at up to 1 GB/sec. A/D and D/A boards will run in any system under Linux, and Windows Vista/XP/7.

United Electronic Industries Inc

27 Renmar Ave, Walpole, MA 02081,
508-921-4600, info@ueidaq.com, www.ueidaq.com
Provides DAQ and real-time control, with an extensive array of analog inputs, including temperature, strain and vibration, digital I/O plus CAN/Serial/ARINC-429/MIL-1553. The chassis offer high channel-density, 50g shock, 5g vibe and -40 to +85°C operation. Supports Windows, Linux and RTOSs programmed in LabVIEW, MATLAB, Simulink or any programming language.

United Lens Co Inc

259 Worcester St, Southbridge, MA 01550,
508-765-5421, info@unitedlens.com,
www.unitedlens.com
Manufactures hand-molded and precision machined optical blanks, polished flat and curve optics, and thin-film vacuum coatings. Extensive inventories of optical glass, fused silica, quartz, low expansion materials and filter glass for flexible production capabilities ensure both availability and timely delivery of customers' prototype to large annual production requirements.

Vadatech Inc

11540 S Eastern Ave, Henderson, NV 89052,
702-896-3337, info@vadatech.com,
www.vadatech.com
Provides innovative embedded computing solutions from board-level products, chassis-level platforms, to configurable application-ready systems. With a focus on MicroTCA and AdvancedTCA solutions, offers unmatched product selection and expertise in the full xTCA ecosystem.

Validated Software Corp

6848 Embarcadero Ln, Carlsbad, CA 92011,
760-230-5293, info@validatedsoftware.com,
www.validatedsoftware.com
Offers µC/OS-II Avionics Validation Suites that are a hybrid mix of commercial off-the-shelf and processor-specific µC/OS certification artifacts. Flying in DO-178 Level A-C systems, µC/OS Avionics Validation Suites are cost-effective way to enjoy the complexity slashing benefits of µC/OS in certified avionics systems.

VDesign Technologies

8 2nd Fl, 2nd Cross St, Perumalraja Garden,
Reddiarpalayam, Pondicherry, 605010, India,
91-41-32291305, moultou@vdesign.in,
www.vdesign.in
Offers tactical data link modules for UAV/satellites.

Vector Informatik GmbH

Ingersheimer Str 24, Stuttgart 70499, Germany,
49-711-80670-0, sales@vector.com,
www.avionics-networking.com
Provides solutions to benefit developers and test engineers for aerospace electronic networking. Focuses on tools for E/E architecture, monitoring and analyzing the bus communications and on test tools in the form of a "HIL for the developer's office desk."

VectorNav Technologies LLC

903 N Bowser Rd, Suite 200, Richardson, TX 75081,
512-772-3615, sales@vectornav.com,
www.vectornav.com
Specializes in manufacturing high-performance navigation and inertial sensors using the latest miniature MEMS inertial sensor technology. Since its founding by five graduates of Texas A&M University in 2008, the company has provided customers worldwide access to high-quality, fully calibrated inertial sensors with state-of-the-art digital filtering technology.

VersaLogic Corp

3888 Stewart Rd, Eugene, OR 97402,
541-485-8575, info@versalogic.com,
www.versalogic.com
Supplies embedded computers and high-quality board-level products for OEM applications since 1976. Product lines include EBX, PC/104, EPIC, SPX and SUMIT single-board computers and accessories. Demonstrates a commitment to service demonstrated through its 5-year availability guarantee and platinum level support.

ViaSat Inc

6155 El Camino Real, Carlsbad, CA 92009-1602,
760-476-2200, ipcres@viasat.com,
www.viasat.com

Provides satellite and other digital communication systems and services for fast, secure and efficient communications to any location. Networking products include UHF, Ku, L, C and Ka-band, communications on-the-move, blue force tracking, information assurance, cyber security, antenna systems, Link 16 (MIDS and MIDS JTRS) data links and digital ISR video.

Vicor Corp

25 Frontage Rd, Andover, MA 01810,
978-470-2900, apps@vicorpower.com,
www.vicorpower.com

Designs, manufactures and markets modular, high-density power components as well as configurable power systems, and custom power supplies with an installed base of millions of units and a worldwide reputation for product reliability in a broad range of military applications.

Vidcie

(div of Looxcie), 1196 Borregas Ave, Suite 200,
Sunnyvale, CA 94089, 408-935-2670,
sales@vidcie.com, www.vidcie.com

Empowers organizations to leverage the value and benefit of real time business-to-field video communication. Field service personnel can now collaborate live, in real time with experts, engineers or any required support resource anywhere in the world.

Video Scope International Ltd

105 Executive Dr, Suite 110, Dulles, VA
20166-9558, 703-437-5534,
info@videoscopeintl.com, www.videoscopeintl.com

Manufactures image intensifier assemblies, intensified cameras, high-speed intensified cameras, grates to <3 ns for use in scientific, military, and special industrial applications. Spectral response includes the UV to the near-IR.

Vigil Antislip

12 Jessie Lee St, Australian Marine Complex,
Henderson, WA 6166, Australia, 61-8-9437-4811,
vigil@vigilantislip.com, www.vigilantislip.com

Manufacturer of Vigil Antislip non-slip stair nosings, ladder rung covers, walkway and ramp covers as well as photo-luminescent products. Operations in Australia and US with worldwide distribution network.

Viking Equipment Finance

5650 W 36th St, Minneapolis, MN 55416,
612-642-1888, info@vikingequipmentfinance.com,
www.vikingequipmentfinance.com

Provides established small business owners, middle market companies in the aerospace and defense sector equipment financing, leasing and loans. Transactions range from \$500,000 to \$50 million.

Vishay Intertechnology Inc

63 Lincoln Hwy, Malvern, PA 19355-2120,
610-251-5287, andrew.post@vishay.com,
www.vishay.com

Manufactures several kinds of discrete semiconductors. These typically perform a single function, such as switching, amplifying, rectifying, or transmitting electrical signals. Also manufactures selected ICs, which combine the functions of multiple components on a single chip, as well as modules, which include multiple components in a single package.

Vision Components

10 Hedgerow Dr, Hudson, NH 03051,
603-598-2588, etoth@vision-components.com,
www.vision-components.com

Develops machine-vision technology focusing on manufacturing and distribution of intelligent cameras for industrial use. Product line includes standard, miniature, board, smart cameras and vision sensors, including stereo vision, 3-D laser triangulation, 360 degree cameras, and embedded SDK with vision libraries. Applications include machine vision, security, traffic, ANPR and robotics.

Visotek Inc

11700 Belden Ct, Livonia, MI 48150,
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Offers a line of patented diode lasers from 10s of watts to 1000s of watts for direct use or coupled into fibers as single modules or turnkey systems with integrated controls and cooling. Develops customized laser machines for materials processing based on a variety of laser sources. Offers Job shop services.

VITEC

931 Benecia Ave, Sunnyvale, CA 94085,
650-230-2400, geol.yeadon@vitecmm.com,
www.vitecmm.com

Specializes in military specific H.264 encoding, decoding and IPTV solutions and provides powerful digital video products that support end-to-end media solutions for military, government, broadcast, corporate, education, industrial, medical, and telco customers. By integrating brands including Optibase, Focus, Como, and Stradis, the company now controls the complete video chain.

VLOC

(sub of Il-VI Inc), 7826 Photonics Dr, New Port
Richey, FL 34655, 727-375-8562, info@vloc.com,
www.vloc.com

Manufactures fluoride and oxide crystals including YAG, YLF, ruby, LiSAF, LiSGaF, and YVO₄. Provides nonlinear materials including KTP and KNbO₃. Components include laser cavity flow tubes, mirrors, prisms, waveplates and more.

VPT Inc

(sub of HEICO Corp), 19909 120th Ave NE,
Suite 102, Bothell, WA 98011, 425-353-3010,
vp.sales@vptpower.com, www.vptpower.com

Provides power conversion solutions for use in military, aerospace, and space applications globally. Offers high-reliability DC/DC converters, EMI filters, accessory power products, and custom engineering services for the rapid development of critical power systems. The products offer a proven 20-year program heritage.
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VT Systems

99 Canal Center Plaza, Suite 220, Alexandria, VA
22314, 703-739-2610, www.vt-systems.com

Provides high-quality and cost-effective integrated aerospace, engineering and maintenance services for military and commercial aircraft. Designs, develops, and manufactures innovative computers, computer peripheral, and networking products for the global aviation industry.

VXI Technology Inc

2031 Main St, Irvine, CA 92614, 949-955-1894,
sales@vxitech.com, www.vxitech.com

Offers precision data acquisition, signal conditioning, signal distribution, and signal control hardware and software that source, measure, and route electrical signals used for testing the electrical, electronic and mechanical functionality of systems, such as those common to aircraft, motor vehicles, rockets, engines, satellites, and medical devices.

Wavelength Electronics Inc

51 Evergreen Dr, Bozeman, MT 59715,
406-587-4910, sales@teamwavelength.com,
www.teamwavelength.com

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Weschler Instruments

16900 Foltz Pkwy, Cleveland, OH 44149,
440-238-2550, info@weschler.com,
www.weschler.com

West Coast Tech Ltd

133 Tianquan Rd, Fuzhou, Fujian 350003, China,
86-591-87303536, sales@westcoast-tech.cn,
www.westcoast-tech.cn

Performs R&D, manufacturing and distribution of photonics products. Established in HK and with facilities located in Fuzhou and other cities in China, the company has three business units: precision optics, night vision, lasers and systems.



Westech Optical Corp

1387 Fairport Rd, Bldg 900H, Fairport, NY
14450, 585-377-2490,
jcarlino@westechoptical.com,
www.westechoptical.com

Designs, manufactures and distributes precision optics for visible, NIR and NUV. Products include singlets, achromatic, CMOS/CCD lenses, mega-pixel lenses, windows, mirrors and beam splitters. Applications include, but are not limited to, medical instrumentation, machine vision, military optics, surveillance, scanning, OCR and non-contact measurement.

Wide Band Systems Inc

389 Franklin Ave, Rockaway, NJ 07866,
973-586-6500, marketing@widebandsystems.com,
www.widebandsystems.com

Designs and manufactures components for real-time tactical signal identification and analysis. Provides innovative design, development, and production of RF and microwave products for defense applications. Products include precision, fast switching, broad band synthesizers, with scalable frequency ranges of 2–18 GHz, instantaneous frequency measurement receivers, and more. Is ISO 9001:2000 certified.

Wiener Plein & Baus Corp

(a Phoenix Mecano Co), 300 E Auburn Ave,
Springfield, OH 45505, 937-324-2420,
sales@wiener-us.com, www.wiener-d.com

Designs and produces state-of-the-art electronic chassis/mainframes and power supplies for the scientific research community as well as for demanding industry applications.

Wilbrecht Ledco Inc

1400 Energy Pk Dr, Suite 20, St Paul, MN 55108,
651-659-0919, info@wilbrechtledco.com,
www.wilbrechtledco.com

Manufactures industry standard and custom LED assemblies for panel and PCB mounting. Custom features include internal resistors for DC and AC applications, sealing IP66, daylight readable LEDs and custom lead wires. Offers free samples built to specifications.

Winchester Electronics

400 Park Rd, Watertown, CT 06795-0500,
860-945-5078, r.bucanned@litton-wed.com,
www.winchesterelectronics.com

Designs and develops interconnect technology globally. Facilities in Wallingford, CT, Franklin, MA, Rock Hill, SC, Nogales, Mexico, Suzhou, China, and Penang, Malaysia. Manufactures a wide variety of connectors for the broadcast, telecommunications, wireless, high-end military, commercial/military aviation, aerospace, industrial, and medical equipment industry markets.

Winchester Systems Inc

101 Billerica Ave, Bldg 5, North Billerica, MA
01862-1271, 781-265-0200,
marketing@winsys.com, www.winsys.com

Combines rugged durability, high performance, and quick, easy data transportability to deliver tailored servers, storage, and integrated subsystems for over 30 years. The firm's mechanical and I/O-performance engineers join a prime contractor's integration team to tailor COTS-rugged and MIL-STD-810G, MIL-STD-901D, and more equipment to fit each project's needs.

Wind River

500 Wind River Way, Alameda, CA 94501,
510-748-4100, www.windriver.com

Provides device software optimization (DSO). Enables companies to develop, run, and manage device software.

Winslow Automation

905 Montague Expwy, Milpitas, CA 95035,
408-956-0100, sales@solderquik.com,
www.winslowautomation.com

Provides backend semiconductor products, including BGA ball attach, and reballing preforms, and kits. CCMD preforms for solder column attach to LCC components. Offers fully robotic and table-top hot solder dipping equipment.

WUHAN GSTAR Laser Technology Co Ltd

H Bldg, Tuochuang Industrial Pk, Yangqiaohu Rd 15,
Wuhan, Hubei 430000, China, 86-27-597-16658,
mars@gstarlaser.com

Supplies equipment and solutions in the field of laser applications. Products and solutions have been used in a whole spectrum of well-known touch screen manufacturers within a wide range so as to assist our clients in demanding requirements for the high-quality touch screens.

Xenics

Ambachtenlaan 44, Leuven BE-3001, Belgium,
32-16-38-99-00, sales@xenics.com,
www.xenics.com

Develops innovative infrared detection solutions for a wide range of applications. Designs, manufactures and sells infrared detectors and cameras, both linescan and 2-D, covering the infrared wavelength ranges from 0.4–14 micrometers. In addition, delivers custom products according to the agreed specification and planning.

Xiamen SET Electronics Co Ltd

8067 W Xiangnan Rd, Torch Hi-Tech Industrial,
Xiang'an Dist, Xiamen, Fujian 361101, China,
86-592-5715838, sales@setfuse.com,
www.setfuse.com

Manufactures products for surge and circuit protection mainly used in electronic, SPD, communications, and new energy car industries.

Xilinx

2100 Logic Dr, San Jose, CA 95124,
408-559-7778, www.xilinx.com

Invented the field programmable gate array (FPGA) and was the first semiconductor company to establish the fabless manufacturing model, outsourcing everything but the design, marketing, and support of products.

XIMEA

Hansestr 81, Münster 48165, Germany,
49-251-590686-59, info@ximea.com,
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ZDA Communications US LLC

100-3 Forum Dr, Suite 192, Columbia, SC 29229,
803-419-4702, robertlee@zdacomm.com,
www.zdacomm.com

Designs and manufactures wireless antennas from 100 MHz–6 GHz.

Zephyr Photonics Inc

215 Elks Point Rd, PO Box 10779, Zephyr Cove, NV
89448, 775-588-4176, sales@zephyrphotonics.com,
www.zephyrphotonics.com

Delivers advanced fiber-optic technology to optical communications and control solutions capable of operation in high temperatures and other adverse conditions typical for mission-critical defense and intelligence applications. Their solutions include integrated optoelectronic components and modules for wide variety of data networking and optical interconnect applications.

Zilog

1590 Buckeye Dr, Milpitas, CA 95035,
408-513-1500, www.zilog.com

Offers SoCs, single-board computers, subsystems and development tools that allow embedded designers quick time to market in power management, monitoring and metering, motor control, lighting control and motion detection.

ZNYX Networks

48421 Milmont Dr, Fremont, CA 94538,
510-249-0800, sales@znyx.com, www.znyx.com
Specializes in the design and manufacture of telco grade networking, compute and packet processing blade-based switching platforms for proprietary and open-standards based systems including PICMG 2.16 (CompactPCI) and AdvancedTCA (ATCA) environment.

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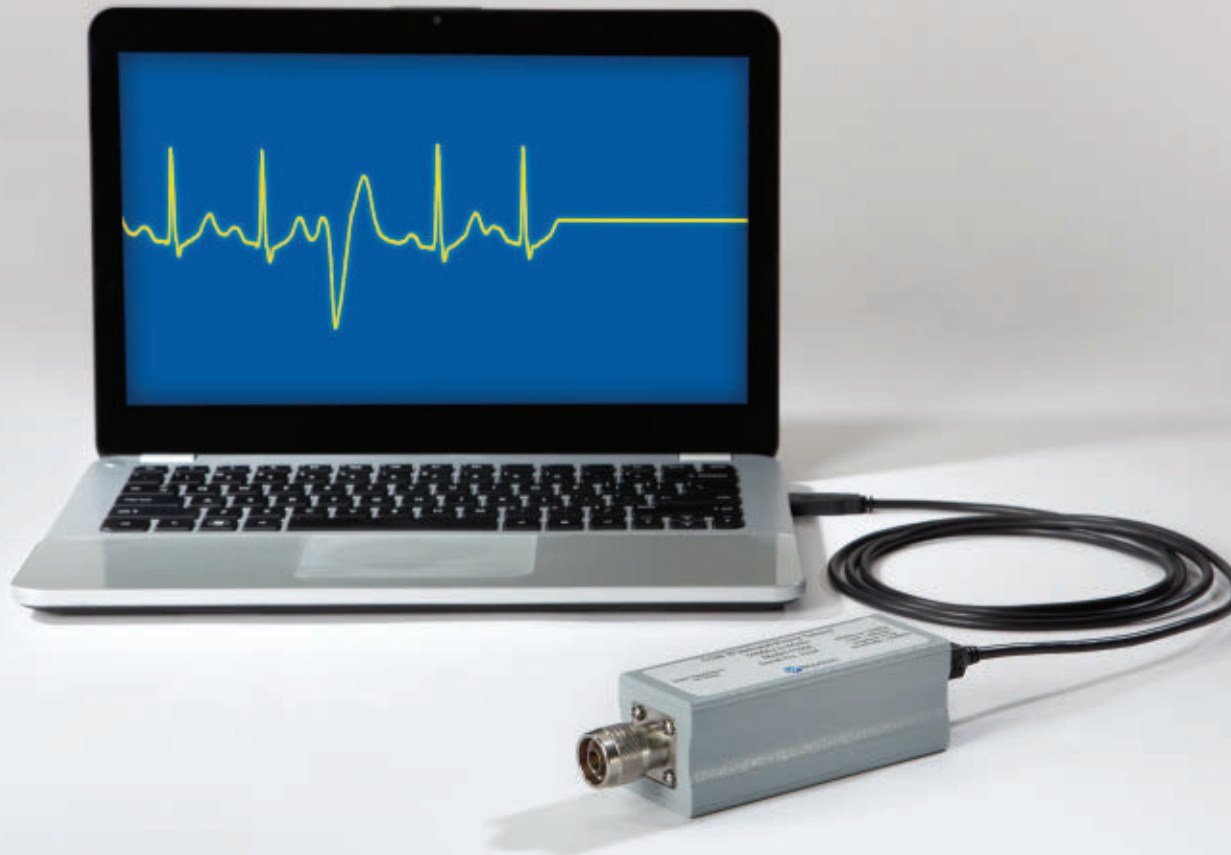
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