

## Proven in Military and Aerospace Applications

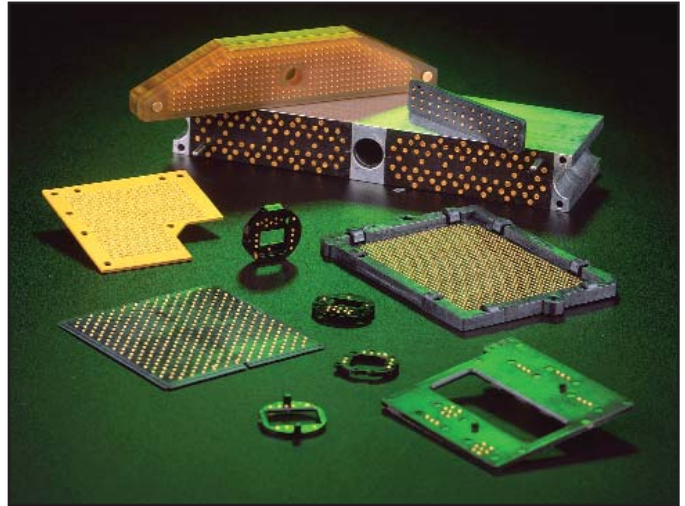
Astounding performance and unsurpassed reliability make CIN::APSE the interconnect of choice for the most demanding Military and Aerospace applications.

### Technology

CIN::APSE is a proven solderless Z-axis connector technology that offers exceptional mechanical and electrical performance. At the heart of the technology is a unique all metal contact formed from a single gold-plated molybdenum wire. This reliable contact delivers unmatched mechanical and electrical benefits in a wide variety of applications.

### Key Benefits for Military & Aerospace Applications:

- Solderless
- High Density/Low Profile
- Low Mass/Light Weight
- Low Resistance and Inductance
- Multi-Point Contact/Mechanical Wipe



*Cross Section of contact in an insulator*



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### CIN::APSE Experience

Over 10 years in a wide variety of Military and Aerospace connector applications on platforms such as:

#### Aircraft

- F-15
- F/A-18
- GRIPEN
- Comanche Helicopter
- Commercial Aircraft

#### Smart Munitions

- Stinger Missile
- 105mm Canon Shell
- THAAD

#### Space Applications

- Iridium Satellite
- ULE Module for Spacecraft

Your Need	CIN::APSE Solution
Solderless	CIN::APSE provides the advantages of a solderless connection: <ul style="list-style-type: none"> <li>• Easy repairs and upgrades in plant or in the field</li> <li>• No risk of damaging expensive boards or components</li> <li>• Allows for large mismatches in CTE between substrates</li> </ul>
Signal Speed and Integrity	CIN::APSE can easily handle signal speeds over 20GHz: <ul style="list-style-type: none"> <li>• Low inductance of &lt;0.5 nH</li> <li>• Low crosstalk and EMI</li> <li>• Low signal loss</li> <li>• Low circuit resistance of 15-20mΩ</li> </ul>
High Density High I/O Low Profile Light Weight Low Mass	CIN::APSE is the leader in high I/O and miniaturization: <ul style="list-style-type: none"> <li>• I/O counts in production exceeding 5,000</li> <li>• Standard pitch as small as 1 mm</li> <li>• Mated height as low as .020" (.5mm) or up to 1.5"</li> <li>• Buttons are 75% - 85% air when fully compressed</li> </ul>
Reliability	<ul style="list-style-type: none"> <li>• 7 to 11 points of contact per button</li> <li>• Mechanical wipe</li> <li>• Extremely stable over time and temperature</li> <li>• High contact normal force</li> </ul>
Extreme Environments	<ul style="list-style-type: none"> <li>• Temperature range -200° C to 200° C</li> <li>• Low mass contact withstands extreme shock and vibration</li> </ul>

## Versatile Configurations

In addition to standard configurations, CIN::APSE can be custom configured to meet your exact footprint and mated heights.

- Quick-Turn Machined Prototypes
- Heights Ranging from .020" - 1.5"
- Multiple Insulator Materials
- Custom Compression System Design

CIN::APSE can be used in almost any application where you need to connect two parallel surfaces. Common uses include:

- Board to Board
- Chip Package/Module to board
- Flex to Board
- Component to Board

## For More Information:

CIN::APSE can best serve your needs when we are contacted in the early stages of your design. Our experienced engineers will work closely with your design team to ensure you get the best system performance. Contact CIN::APSE Marketing department at 1-800-323-9612 or e-mail directly to [cinapse@cinch.com](mailto:cinapse@cinch.com).

## Common Applications Include:

High Speed Antennas and Radar

- Satellite Antennas
- Phased Array Antennas
- Active Electronically Steered Array Radar

Smart Munitions

- Missiles
- Canon Shells

Airborne Computers and Avionics

- MCM's, ASIC's, CPU's
- LRM's
- Gyros