REVISIONS			
LTR	DESCRIPTION	DATE (YR-MO-DA)	APPROVED
A	Delete the Integral nonlinearity (INL) test as specified under table I. - ro	03-05-28	R. Monnin
B	Add paragraph 3.11 and make changes to figure 2 block diagram. - ro	07-09-13	R. Heber
C	Made change to paragraph 2.1 and 3.11. - rrp	08-06-09	R. Heber
D	Add device type 02. - drw	12-01-24	Charles F. Saffle

REV																				
SHEET																				
REV	D																			
SHEET	15																			

REV STATUS	REV	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
OF SHEETS	SHEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14	

PMIC N/A

PREPARED BY
Rick Officer

DLA LAND AND MARITIME
COLUMBUS, OHIO 43218-3990
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STANDARD MICROCIRCUIT DRAWING

THIS DRAWING IS AVAILABLE FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE

AMSC N/A

CHECKED BY
Rajesh Pithadia

APPROVED BY
Raymond Monnin

DRAWING APPROVAL DATE
02-08-01

REVISION LEVEL
D

MICROCIRCUIT, DIGITAL-LINEAR, 12-BIT, 41 MSPS ANALOG TO DIGITAL CONVERTER, MONOLITHIC SILICON

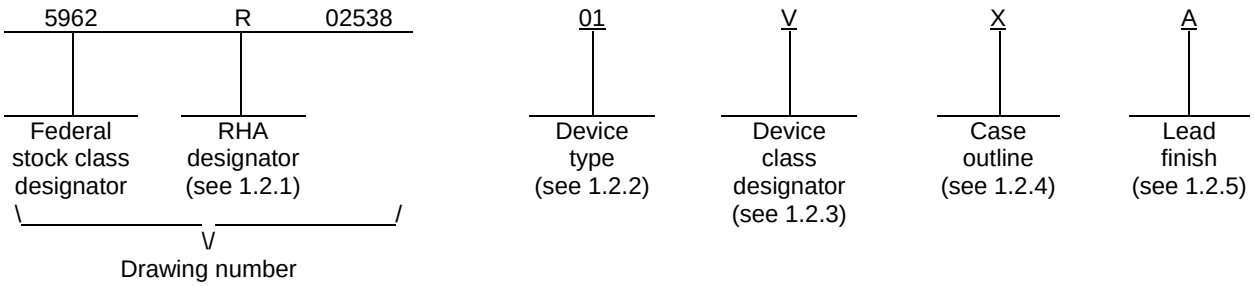
SIZE	CAGE CODE	
A	**67268**	**5962-02538**

SHEET 1 OF 15

1. SCOPE

1.1 Scope. This drawing documents two product assurance class levels consisting of high reliability (device classes Q and M) and space application (device class V). A choice of case outlines and lead finishes are available and are reflected in the Part or Identifying Number (PIN). When available, a choice of Radiation Hardness Assurance (RHA) levels is reflected in the PIN.

1.2 PIN. The PIN is as shown in the following example:



1.2.1 RHA designator. Device classes Q and V RHA marked devices meet the MIL-PRF-38535 specified RHA levels and are marked with the appropriate RHA designator. Device class M RHA marked devices meet the MIL-PRF-38535, appendix A specified RHA levels and are marked with the appropriate RHA designator. A dash (-) indicates a non-RHA device.

1.2.2 Device types. The device types identify the circuit function as follows:

Device type	Generic number	Circuit function
01	AD9042S	12-bit, 41 MSPS analog to digital converter
02	AD9042S	12-bit, 41 MSPS analog to digital converter

1.2.3 Device class designator. The device class designator is a single letter identifying the product assurance level as follows:

Device class	Device requirements documentation
M	Vendor self-certification to the requirements for MIL-STD-883 compliant, non-JAN class level B microcircuits in accordance with MIL-PRF-38535, appendix A
Q or V	Certification and qualification to MIL-PRF-38535

1.2.4 Case outlines. The case outlines are as designated in MIL-STD-1835 as follows:

Outline letter	Descriptive designator	Terminals	Package style
X	CDIP2-T28	28	Dual in line
Z	CDFP3-F28	28	Flat pack

1.2.5 Lead finish. The lead finish is as specified in MIL-PRF-38535 for device classes Q and V or MIL-PRF-38535, appendix A for device class M.

1.3 Absolute maximum ratings. 1/

AV_{CC} voltage	7 V
DV_{CC} voltage	7 V
Analog input voltage	0.5 V to 4.5 V
Analog input current	20 mA
Digital input voltage (ENCODE)	0 V to AV_{CC}
ENCODE, $\overline{\text{ENCODE}}$ differential voltage	4 V
Digital output current	±40 mA
Maximum junction temperature (T_J)	+175°C
Lead temperature (soldering, 10 seconds)	+300°C
Storage temperature range	-65°C to +150°C
Thermal resistance, junction-to-case (θ_{JC})	
Case X	14°C/W
Case Z	22°C/W
Thermal resistance, junction-to-ambient (θ_{JA}) :	
Case X	34°C/W
Case Z	60°C/W

1.4 Recommended operating conditions.

AV_{CC} voltage	5 V
DV_{CC} voltage	5 V
Ambient operating temperature range (T_A)	-55°C to +125°C

1.5 Radiation features.

Device type 01:	
Maximum total dose available (dose rate = 50 – 300 rads(Si)/s)	100 krads (Si) 2/
Device type 02:	
Maximum total dose available (dose rate ≤ 10 mrads(Si)/s)	50 krads (Si) 3/

2. APPLICABLE DOCUMENTS

2.1 Government specification, standards, and handbooks. The following specification, standards, and handbooks form a part of this drawing to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DEPARTMENT OF DEFENSE SPECIFICATION

MIL-PRF-38535 - Integrated Circuits, Manufacturing, General Specification for.

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-883 - Test Method Standard Microcircuits.
MIL-STD-1835 - Interface Standard Electronic Component Case Outlines.

1/ Stresses above the absolute maximum rating may cause permanent damage to the device. Extended operation at the maximum levels may degrade performance and affect reliability. T_A = +25°C.
2/ Device type 01 may be dose rate sensitive in a space environment and may demonstrate enhanced low dose rate effects. Radiation end point limits for the noted parameters are guaranteed only for the conditions specified in MIL-STD-883, method 1019, condition A.
3/ For device type 02, radiation end point limits for the noted parameters are guaranteed only for the conditions specified in MIL-STD-883, method 1019, condition D.

DEPARTMENT OF DEFENSE HANDBOOKS

MIL-HDBK-103 - List of Standard Microcircuit Drawings.
MIL-HDBK-780 - Standard Microcircuit Drawings.

(Copies of these documents are available online at https://assist.daps.dla.mil/quicksearch/ or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2 Order of precedence. In the event of a conflict between the text of this drawing and the references cited herein, the text of this drawing takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Item requirements. The individual item requirements for device classes Q and V shall be in accordance with MIL-PRF-38535 as specified herein, or as modified in the device manufacturer's Quality Management (QM) plan. The modification in the QM plan shall not affect the form, fit, or function as described herein. The individual item requirements for device class M shall be in accordance with MIL-PRF-38535, appendix A for non-JAN class level B devices and as specified herein.

3.2 Design, construction, and physical dimensions. The design, construction, and physical dimensions shall be as specified in MIL-PRF-38535 and herein for device classes Q and V or MIL-PRF-38535, appendix A and herein for device class M.

3.2.1 Case outlines. The case outlines shall be in accordance with 1.2.4 herein.

3.2.2 Terminal connections. The terminal connections shall be as specified on figure 1.

3.2.3 Block diagram. The block diagram shall be as specified on figure 2.

3.2.4 Radiation exposure circuit. The radiation exposure circuit shall be maintained by the manufacturer under document revision level control and shall be made available to the preparing and acquiring activity upon request.

3.3 Electrical performance characteristics and postirradiation parameter limits. Unless otherwise specified herein, the electrical performance characteristics and postirradiation parameter limits are as specified in table I and shall apply over the full ambient operating temperature range.

3.4 Electrical test requirements. The electrical test requirements shall be the subgroups specified in table IIA. The electrical tests for each subgroup are defined in table I.

3.5 Marking. The part shall be marked with the PIN listed in 1.2 herein. In addition, the manufacturer's PIN may also be marked. For packages where marking of the entire SMD PIN number is not feasible due to space limitations, the manufacturer has the option of not marking the "5962-" on the device. For RHA product using this option, the RHA designator shall still be marked. Marking for device classes Q and V shall be in accordance with MIL-PRF-38535. Marking for device class M shall be in accordance with MIL-PRF-38535, appendix A.

3.5.1 Certification/compliance mark. The certification mark for device classes Q and V shall be a "QML" or "Q" as required in MIL-PRF-38535. The compliance mark for device class M shall be a "C" as required in MIL-PRF-38535, appendix A.

3.6 Certificate of compliance. For device classes Q and V, a certificate of compliance shall be required from a QML-38535 listed manufacturer in order to supply to the requirements of this drawing (see 6.6.1 herein). For device class M, a certificate of compliance shall be required from a manufacturer in order to be listed as an approved source of supply in MIL-HDBK-103 (see 6.6.2 herein). The certificate of compliance submitted to DLA Land and Maritime-VA prior to listing as an approved source of supply for this drawing shall affirm that the manufacturer's product meets, for device classes Q and V, the requirements of MIL-PRF-38535 and herein or for device class M, the requirements of MIL-PRF-38535, appendix A and herein.

3.7 Certificate of conformance. A certificate of conformance as required for device classes Q and V in MIL-PRF-38535 or for device class M in MIL-PRF-38535, appendix A shall be provided with each lot of microcircuits delivered to this drawing.

TABLE I. Electrical performance characteristics.

Test	Symbol	Conditions 1/, 2/, 3/ $-55°C \le T_A \le +125°C$ unless otherwise specified		Group A subgroups	Device type	Limits		Unit
						Min	Max	
Static characteristics								
V_{CC} supply	I_{CC} (total)			1, 2, 3	All		146	mA
			M,D,P,L,R	1	01		146	
			M,D,P,L	1	02		146	
Power dissipation 4/	P_D			1, 2, 3	All		735	mW
Power supply rejection ratio 4/	PSRR	$T_A = 25°C$		1	All	-20	20	mV/V
DC accuracy 4/		No missing codes			All			
Offset error	OE			1, 2, 3	All	-10	10	mV
			M,D,P,L,R	1	01	-10	10	
			M,D,P,L	1	02	-10	10	
Gain error	GE			4, 5, 6	All	-6.5	6.5	%FS
			M,D,P,L,R	4	01	-6.5	6.5	
			M,D,P,L	4	02	-6.5	6.5	
ANALOG INPUT (AIN) section								
Input voltage range 4/	IVR			1, 2, 3	All	V_{REF} -0.5	V_{REF} +0.5	V
Input resistance 4/, 5/	R_{IN}	$T_A = 25°C$		4	All	200	300	Ω

See footnotes at end of table.

TABLE I. Electrical performance characteristics – continued.

Test	Symbol	Conditions 1/, 2/, 3/ $-55°C \le T_A \le +125°C$ unless otherwise specified		Group A subgroups	Device type	Limits		Unit
						Min	Max	
ENCODE INPUT section (Logic compatibility, TTL / CMOS)								
Logic "1" voltage 4/	V_{IH}			1, 2, 3	All	2	5	V
Logic "0" voltage 4/	V_{IL}			1, 2, 3	All	0	0.8	V
Logic "1" current	I_{IH}	V_{INH} = 5 V		1, 2, 3	All	450	800	µA
			M,D,P,L,R	1	01	450	800	
			M,D,P,L	1	02	450	800	
Logic "0" current	I_{IL}	V_{INL} = 5 V		1, 2, 3	All	-400	-200	µA
			M,D,P,L,R	1	01	-400	-200	
			M,D,P,L	1	02	-400	-200	
DIGITAL OUTPUTS section (Logic compatibility, CMOS)								
Logic "1" voltage 4/	V_{OH}	I_{OH} = 10 µA		1, 2, 3	All	3.5		V
Logic "0" voltage 4/	V_{OL}	I_{OL} = 10 µA		1	All		0.8	V
				2, 3			1	
Dynamic characteristics section								
Differential non-linearity	DNL	ENCODE = 20 MSPS		4, 5, 6	All	-2	2	LSB
			M,D,P,L,R	4	01	-2	2	
			M,D,P,L	4	02	-2	2	

See footnotes at end of table.

TABLE I. Electrical performance characteristics – continued.

Test	Symbol	Conditions 1/ 2/ 3/ $-55°C \le T_A \le +125°C$ unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
Switching characteristics section							
Conversion rate 4/ 5/	CR	$T_A = 25°C$	9	All	5	41	MSPS
Output delay 4/ 5/	t_{OD}	See figure 3, $T_A = 25°C$	9	All	5	14	ns
ENCODE pulse width, high 4/ 5/	EPW	$T_A = 25°C$	9	All	10		ns
ENCODE pulse width, low 4/ 5/	EPWL	$T_A = 25°C$	9	All	10		ns
Signal to noise ratio 4/ 6/	SNR	Analog input at –1 dBFS, 1.2, 9.6, and 19.6 MHz	7	All	52		dB
Signal to noise and distortion ratio 4/ 7/	SINAD	Analog input at –1 dBFS, 1.2, 9.6, and 19.6 MHz	7	All	52		dB
Worst spur ratio 4/ 8/	WS	Analog input at –1 dBFS, 1.2, 9.6, and 19.6 MHz	7	All	57		dBc

1/ Unless otherwise specified, $AV_{CC} = DV_{CC} = +5$ V, V_{REF} tied to V_{OFFSET} through 50 Ω.

2/ Device type 01 supplied to this drawing has been characterized through all levels M, D, P, L, R of irradiation. Device type 02 supplied to this drawing has been characterized through all levels P and L of irradiation. However, device type 01 is only tested at the "R" level and device type 02 is only tested at the "L". Pre and Post irradiation values are identical unless otherwise specified in Table I. When performing post irradiation electrical measurements for any RHA level, $T_A = +25°C$.

3/ Device type 01 may be dose rate sensitive in a space environment and may demonstrate enhanced low dose rate effects. Radiation end point limits for the noted parameters are guaranteed only for the conditions specified in MIL-STD-883, method 1019, condition A for device type 01. Device type 02 has been tested at low dose rate. For device type 02, radiation end point limits for the noted parameters are guaranteed only for the conditions specified in MIL-STD-883, method 1019, condition D.

4/ Not tested post irradiation.

5/ Guaranteed by design, not tested.

6/ Analog input signal power at –1 dBFS; signal to noise ratio (SNR) is the ratio of the signal level to total noise (first five harmonics removed).

7/ Analog input signal power at –1 dBFS; signal to noise and distortion (SINAD) is the ratio of signal level to total noise + harmonics.

8/ Analog input signal power at –1 dBFS; worst spur is the ratio of the signal level to worst spur, usually limited by harmonics.

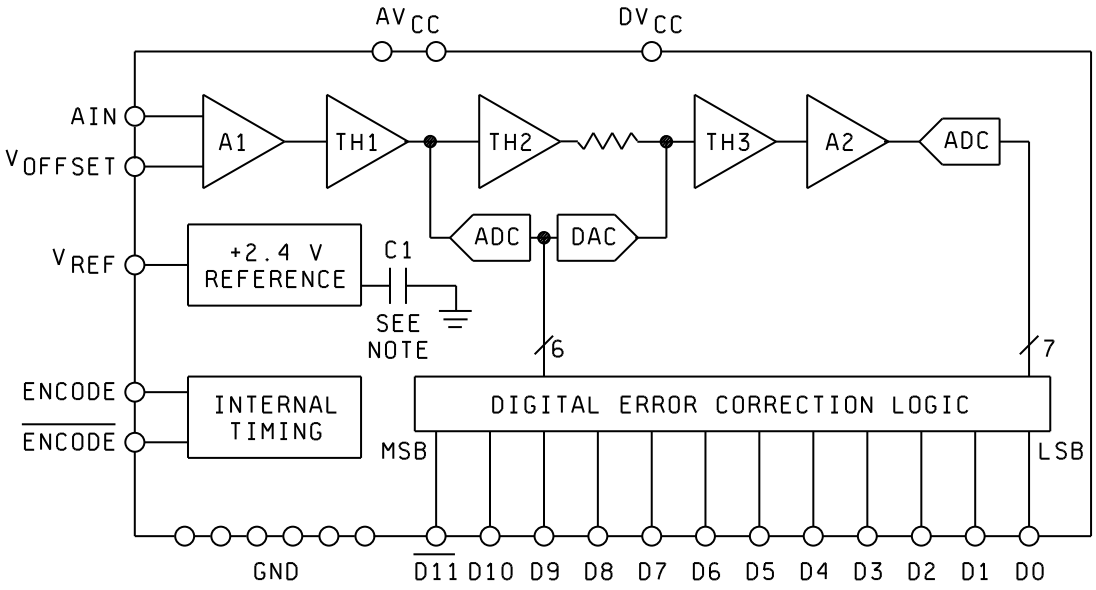
Device type	01 and 02
Case outlines	X and Z
Terminal number	Terminal symbol
1	GND
2	DV_{CC}
3	GND
4	ENCODE
5	$\overline{ENCODE}$
6	GND
7	GND
8	AIN
9	V_{OFFSET}
10	V_{REF}
11	GND
12	AV_{CC}
13	GND
14	AV_{CC}
15	NC
16	NC
17	D0 (LSB)
18	D1
19	D2
20	D3
21	D4
22	D5
23	D6
24	D7
25	D8
26	D9
27	D10
28	$\overline{D11}$ (MSB)

NC = No connection

FIGURE 1. Terminal connections.

Symbol	Description
GND	Ground
DV_{CC}	+5 V Power supply (digital). Powers output stage only.
ENCODE	Encode input. Data conversion initiated on rising edge.
$\overline{\text{ENCODE}}$	Complement of ENCODE. Drive differentially with ENCODE or bypass to ground for single-ended clock mode.
AIN	Analog input.
V_{OFFSET}	Voltage offset input. Sets mid-point of analog input range. Normally tied to V_{REF} through 50Ω resistor.
V_{REF}	Internal voltage reference. Nominally +2.4 V; normally tied to V_{OFFSET} through 50Ω resistor. Bypass to GND with 0.1 μF + 0.01 μF microwave chip capacitor.
AV_{CC}	+5 V power supply (analog).
NC	No connection.
D0 (LSB)	Digital output bit. (Least Significant Bit)
D1 – D10	Digital Output Bits.
$\overline{\text{D11}}$	Digital output bit. (Most Significant Bit)

FIGURE 1. Terminal connections - continued.



NOTE: Internal compensation capacitor C1 = 0.01 μF. See paragraph 3.11.

FIGURE 2. Block diagram.

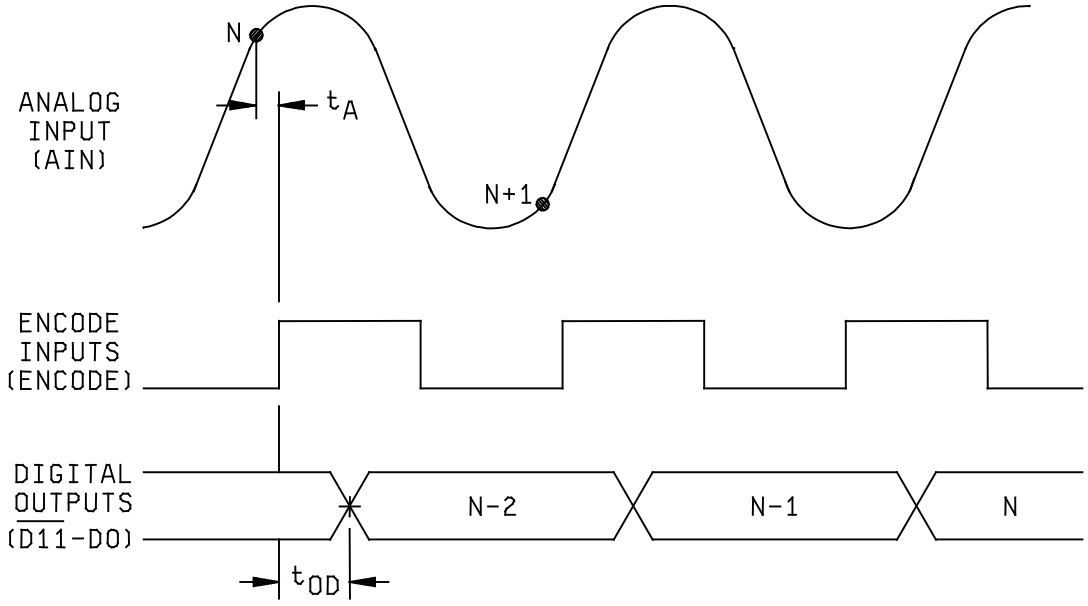


FIGURE 3. Timing waveforms.

3.8 Notification of change for device class M. For device class M, notification to DLA Land and Maritime -VA of change of product (see 6.2 herein) involving devices acquired to this drawing is required for any change that affects this drawing.

3.9 Verification and review for device class M. For device class M, DLA Land and Maritime, DLA Land and Maritime's agent, and the acquiring activity retain the option to review the manufacturer's facility and applicable required documentation. Offshore documentation shall be made available onshore at the option of the reviewer.

3.10 Microcircuit group assignment for device class M. Device class M devices covered by this drawing shall be in microcircuit group number 57 (see MIL-PRF-38535, appendix A).

3.11 Internal compensation capacitor C1. An external to the die discrete 0.01 μF capacitor is included inside the package. Ceramic capacitors shall meet approved criteria (design, screening, and testing) in accordance with MIL-PRF-123 or as approved by the qualifying activity. This bypass compensation capacitor is included to improve performance in the current mirror section of the 2.4 V_{REF} circuitry. This capacitor is an integral part of the package design after date code 0731.

4. VERIFICATION

4.1 Sampling and inspection. For device classes Q and V, sampling and inspection procedures shall be in accordance with MIL-PRF-38535 or as modified in the device manufacturer's Quality Management (QM) plan. The modification in the QM plan shall not affect the form, fit, or function as described herein. For device class M, sampling and inspection procedures shall be in accordance with MIL-PRF-38535, appendix A.

4.2 Screening. For device classes Q and V, screening shall be in accordance with MIL-PRF-38535, and shall be conducted on all devices prior to qualification and technology conformance inspection. For device class M, screening shall be in accordance with method 5004 of MIL-STD-883, and shall be conducted on all devices prior to quality conformance inspection.

4.2.1 Additional criteria for device class M.

a. Burn-in test, method 1015 of MIL-STD-883.

(1) Test condition D. The test circuit shall be maintained by the manufacturer under document revision level control and shall be made available to the preparing or acquiring activity upon request. The test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in method 1015 of MIL-STD-883.

(2) T_A = +125°C, minimum.

b. Interim and final electrical test parameters shall be as specified in table IIA herein.

4.2.2 Additional criteria for device classes Q and V.

a. The burn-in test duration, test condition and test temperature, or approved alternatives shall be as specified in the device manufacturer's QM plan in accordance with MIL-PRF-38535. The burn-in test circuit shall be maintained under document revision level control of the device manufacturer's Technology Review Board (TRB) in accordance with MIL-PRF-38535 and shall be made available to the acquiring or preparing activity upon request. The test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in method 1015 of MIL-STD-883.

b. Interim and final electrical test parameters shall be as specified in table IIA herein.

c. Additional screening for device class V beyond the requirements of device class Q shall be as specified in MIL-PRF-38535, appendix B.

4.3 Qualification inspection for device classes Q and V. Qualification inspection for device classes Q and V shall be in accordance with MIL-PRF-38535. Inspections to be performed shall be those specified in MIL-PRF-38535 and herein for groups A, B, C, D, and E inspections (see 4.4.1 through 4.4.4).

4.4 Conformance inspection. Technology conformance inspection for classes Q and V shall be in accordance with MIL-PRF-38535 including groups A, B, C, D, and E inspections and as specified herein. Quality conformance inspection for device class M shall be in accordance with MIL-PRF-38535, appendix A and as specified herein. Inspections to be performed for device class M shall be those specified in method 5005 of MIL-STD-883 and herein for groups A, B, C, D, and E inspections (see 4.4.1 through 4.4.4).

4.4.1 Group A inspection.

a. Tests shall be as specified in table IIA herein.

b. Subgroups 8, 10, and 11 in table I, method 5005 of MIL-STD-883 shall be omitted.

TABLE II. Electrical test requirements.

Test requirements	Subgroups (in accordance with MIL-STD-883, method 5005, table I)	Subgroups (in accordance with MIL-PRF-38535, table III)	
	Device class M	Device class Q	Device class V
Interim electrical parameters (see 4.2)	1	1	1
Final electrical parameters (see 4.2)	1, 2, 3, 7 1/	1, 2, 3, 7 1/	1, 2, 3, 7 1/, 2/
Group A test requirements (see 4.4)	1, 2, 3, 4, 5, 6, 7, 9	1, 2, 3, 4, 5, 6, 7, 9	1, 2, 3, 4, 5, 6, 7, 9
Group C end-point electrical parameters (see 4.4)	1	1	1
Group D end-point electrical parameters (see 4.4)	1	1	1
Group E end-point electrical parameters (see 4.4)	1	1	1

1/ PDA applies to subgroup 1. Deltas excluded from PDA.
2/ Delta limits as specified in table IIB shall be required where specified, and delta limits shall be computed with reference to the previous endpoint electrical parameters.

TABLE IIB. 240 hour burn-in delta parameters.

Parameter	Device type	Limit		Delta		Units
		Min	Max	Min	Max	
I_{CC}	01, 02		146		±20	mA
V_{OH}		3.5			±0.5	V
V_{OL}			0.8		±0.2	V

4.4.2 Group C inspection. The group C inspection end-point electrical parameters shall be as specified in table IIA herein.

4.4.2.1 Additional criteria for device class M. Steady-state life test conditions, method 1005 of MIL-STD-883:

a. Test condition D. The test circuit shall be maintained by the manufacturer under document revision level control and shall be made available to the preparing or acquiring activity upon request. The test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in method 1005 of MIL-STD-883.

b. T_A = +125°C, minimum.

c. Test duration: 1,000 hours, except as permitted by method 1005 of MIL-STD-883.

4.4.2.2 Additional criteria for device classes Q and V. The steady-state life test duration, test condition and test temperature, or approved alternatives shall be as specified in the device manufacturer's QM plan in accordance with MIL-PRF-38535. The test circuit shall be maintained under document revision level control by the device manufacturer's TRB in accordance with MIL-PRF-38535 and shall be made available to the acquiring or preparing activity upon request. The test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in method 1005 of MIL-STD-883.

4.4.3 Group D inspection. The group D inspection end-point electrical parameters shall be as specified in table IIA herein.

4.4.4 Group E inspection. Group E inspection is required only for parts intended to be marked as radiation hardness assured (see 3.5 herein).

a. End-point electrical parameters shall be as specified in table IIA herein.

b. For device classes Q and V, the devices or test vehicle shall be subjected to radiation hardness assured tests as specified in MIL-PRF-38535 for the RHA level being tested. For device class M, the devices shall be subjected to radiation hardness assured tests as specified in MIL-PRF-38535, appendix A for the RHA level being tested. All device classes must meet the postirradiation end-point electrical parameter limits as defined in table I at T_A = +25°C ±5°C, after exposure, to the subgroups specified in table IIA herein.

4.4.4.1 Total dose irradiation testing. Total dose irradiation testing shall be performed in accordance with MIL-STD-883 method 1019 condition A for device type 01, condition D for device type 02, and as specified herein.

5. PACKAGING

5.1 Packaging requirements. The requirements for packaging shall be in accordance with MIL-PRF-38535 for device classes Q and V or MIL-PRF-38535, appendix A for device class M.

6. NOTES

6.1 Intended use. Microcircuits conforming to this drawing are intended for use for Government microcircuit applications (original equipment), design applications, and logistics purposes.

6.1.1 Replaceability. Microcircuits covered by this drawing will replace the same generic device covered by a contractor prepared specification or drawing.

6.1.2 Substitutability. Device class Q devices will replace device class M devices.

6.2 Configuration control of SMD's. All proposed changes to existing SMD's will be coordinated with the users of record for the individual documents. This coordination will be accomplished using DD Form 1692, Engineering Change Proposal.

6.3 Record of users. Military and industrial users should inform DLA Land and Maritime when a system application requires configuration control and which SMD's are applicable to that system. DLA Land and Maritime will maintain a record of users and this list will be used for coordination and distribution of changes to the drawings. Users of drawings covering microelectronic devices (FSC 5962) should contact DLA Land and Maritime -VA, telephone (614) 692-0544.

6.4 Comments. Comments on this drawing should be directed to DLA Land and Maritime -VA, Columbus, Ohio 43218-3990, or telephone (614) 692-0540.

6.5 Abbreviations, symbols, and definitions. The abbreviations, symbols, and definitions used herein are defined in MIL-PRF-38535 and MIL-HDBK-1331.

6.6 Sources of supply.

6.6.1 Sources of supply for device classes Q and V. Sources of supply for device classes Q and V are listed in QML-38535. The vendors listed in QML-38535 have submitted a certificate of compliance (see 3.6 herein) to DLA Land and Maritime -VA and have agreed to this drawing.

6.6.2 Approved sources of supply for device class M. Approved sources of supply for class M are listed in MIL-HDBK-103. The vendors listed in MIL-HDBK-103 have agreed to this drawing and a certificate of compliance (see 3.6 herein) has been submitted to and accepted by DLA Land and Maritime -VA.

STANDARD MICROCIRCUIT DRAWING BULLETIN

DATE: 12-01-24

Approved sources of supply for SMD 5962-02538 are listed below for immediate acquisition information only and shall be added to MIL-HDBK-103 and QML-38535 during the next revision. MIL-HDBK-103 and QML-38535 will be revised to include the addition or deletion of sources. The vendors listed below have agreed to this drawing and a certificate of compliance has been submitted to and accepted by DLA Land and Maritime -VA. This information bulletin is superseded by the next dated revision of MIL-HDBK-103 and QML-38535. DLA Land and Maritime maintains an online database of all current sources of supply at http://www.landandmaritime.dla.mil/Programs/Smcr/.

Standard microcircuit drawing PIN 1/	Vendor CAGE number	Vendor similar PIN 2/
5962-0253801VXA	3/	AD9042SD/QMLV
5962-0253801VZA	3/	AD9042SF/QMLV
5962R0253801VXA	24355	AD9042SD/QMLR
5962R0253801VZA	24355	AD9042SF/QMLR
5962L0253802VZA	24355	AD9042SF/QMLL

1/ The lead finish shown for each PIN representing a hermetic package is the most readily available from the manufacturer listed for that part. If the desired lead finish is not listed contact the vendor to determine its availability.
2/ Caution. Do not use this number for item acquisition. Items acquired to this number may not satisfy the performance requirements of this drawing.
3/ Not available from an approved source of supply.

Vendor CAGE number	Vendor name and address
24355	Analog Devices Route 1 Industrial Park P.O. Box 9106 Norwood, MA 02062 Point of contact: 7910 Triad Center Drive Greensboro, NC 27409-9605