

REVISIONS

LTR	DESCRIPTION	DATE (YR-MO-DA)	APPROVED
A	Redrawn. Update paragraphs to MIL-PRF-38535 requirements. - drw	17-11-01	Charles F. Saffle
B	Delete the last sentence of footnote 2/ under TABLE IIA which states; "Delta parameters are excluded from PDA".	20-01-28	James R. Eschmeyer
C	Add device type 02. - ro	21-07-09	James R. Eschmeyer



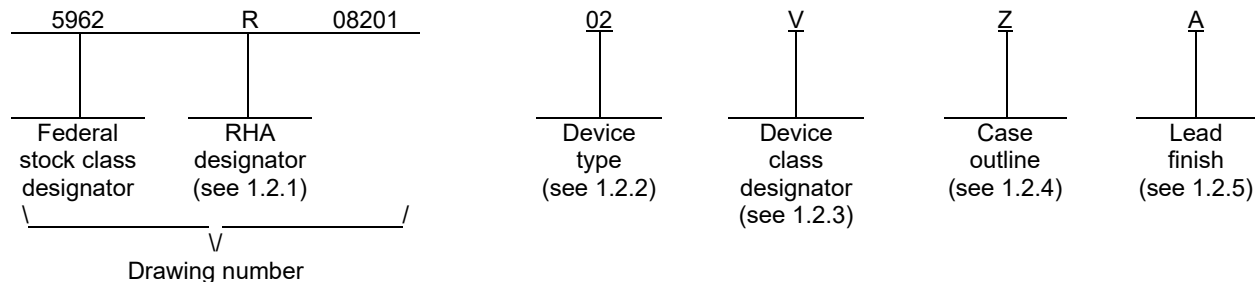
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REV STATUS	REV	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
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PMIC N/A	PREPARED BY Rick Officer	<p align="center">DLA LAND AND MARITIME COLUMBUS, OHIO 43218-3990 https://www.dla.mil/LandandMaritime</p>																	
<p align="center">STANDARD MICROCIRCUIT DRAWING</p> <p>THIS DRAWING IS AVAILABLE FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE</p> <p align="center">AMSC N/A</p>	CHECKED BY Rajesh Pithadia																		
	APPROVED BY Robert H. Heber	<p align="center">MICROCIRCUIT, DIGITAL-LINEAR, 16-BIT, 30 MSPS, DIGITAL-TO-ANALOG CONVERTER, MONOLITHIC SILICON</p>																	
	DRAWING APPROVAL DATE 09-01-30																		
	REVISION LEVEL C		<table border="1"> <tr> <td>SIZE A</td> <td>CAGE CODE 67268</td> <td>5962-08201</td> </tr> </table>	SIZE A	CAGE CODE 67268	5962-08201													
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1. SCOPE

1.1 Scope. This drawing documents two product assurance class levels consisting of high reliability (device class Q) 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. A dash (-) indicates a non-RHA device.

1.2.2 Device type(s). The device type(s) identify the circuit function as follows:

<u>Device type</u>	<u>Generic number</u>	<u>Circuit function</u>
01	AD768	16-bit, 30 MSPS, digital-to-analog converter
02	AD768	16-bit, 30 MSPS, digital-to-analog converter

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

<u>Device class</u>	<u>Device requirements documentation</u>
Q or V	Certification and qualification to MIL-PRF-38535

1.2.4 Case outline(s). The case outline(s) are as designated in MIL-STD-1835 and as follows:

<u>Outline letter</u>	<u>Descriptive designator</u>	<u>Terminals</u>	<u>Package style</u>
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.

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1.3 Absolute maximum ratings. ^{1/}

Positive supply voltage (VDD) with respect to DCOM, REFCOM, LADCOM pins	-0.5 V to +6.0 V
Negative supply voltage (VEE) with respect to DCOM, REFCOM, LADCOM pins	-6.0 V to +0.5 V
Analog to other grounds (REFCOM) with respect to DCOM, LADCOM pins	-0.5 V to +6.0 V
Digital to other grounds (DCOM) with respect to LADCOM, REFCOM pins	-0.5 V to +0.5 V
Reference output (REFOUT) with respect to REFCOM pin	VDD + 0.5 V maximum
Reference input current (IREFIN)	+7.5 mA maximum
Digital inputs (DB0 – DB15, CLOCK) with respect to DCOM pin	-0.5 V to VDD + 0.5 V
Analog outputs (IOUTA, IOUTB) with respect to LADCOM pin	-2.0 V to +5.0 V
Maximum junction temperature (T _J)	+175°C
Storage temperature range	-65°C to +150°C
Lead temperature	+300°C
Thermal resistance, junction to ambient (θ _{JA})	50°C/W
Thermal resistance, junction to case (θ _{JC})	10°C/W

1.4 Recommended operating conditions.

Positive supply voltage (VDD)	+4.75 V dc to +5.25 V dc
Negative supply voltage (VEE)	-5.25 V dc to -4.75 V dc
Ambient operating temperature range (T _A)	-55°C to +125°C

1.4.1 Operating performance characteristics.

Output resistance (R _{OUT})	1 kΩ
Output capacitance (C _{OUT})	12 pF
Output propagation delay (t _{PD})	17 ns
Output rise time (t _r)	5 ns
Output fall time (t _f)	5 ns
Output settling time to 0.025% (t _{ST})	35 ns
Input capacitance (C _{IN})	4 pF
Spurious free dynamic range within a window at 10 MSPS (SFDR _w)	86 dB
Spurious free dynamic range within a window at 30 MSPS (SFDR _w)	78 dB
Spurious free dynamic range to Nyquist at 10 MSPS (SFDR _N)	74 dB
Spurious free dynamic range to Nyquist at 30 MSPS (SFDR _N)	67 dB
Total harmonic distortion at 10 MSPS (THD)	-71 dB
Total harmonic distortion at 30 MSPS (THD)	-61 dB

1.5 Radiation features.

Device type 01:	
Maximum total dose available (dose rate = 50 – 300 rads(Si)/s).....	100 krad(Si) ^{2/}
Device type 02:	
Maximum total dose available (dose rate = 1.15 rads(Si)/s).....	100 krad(Si) ^{3/}

- ^{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.
- ^{2/} This part 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/} Device type 02 is irradiated at dose rate = 50 - 300 rads (Si)/s in accordance with MIL-STD-883, method 1019, condition A, and is guaranteed to a maximum total dose specified. The effective dose rate after extended room temperature anneal = 1.15 rad (Si)/s per MIL-STD-883, method 1019, condition A, section 3.11.2. The total dose specification for this device only applies to the specified effective dose rate, or lower, environment.

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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.

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://quicksearch.dla.mil>.)

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.

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.

3.2.1 Case outline. The case outline 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 Timing diagram. The timing diagram shall be as specified on figure 3.

3.2.5 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.

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TABLE I. Electrical performance characteristics.

Test	Symbol	Conditions <u>1/</u> , <u>2/</u> , <u>3/</u> -55°C ≤ TA ≤ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
Resolution <u>4/</u> , <u>5/</u>			4, 5, 6	01, 02	16		Bits
Clock rate <u>4/</u> , <u>5/</u>			4, 5, 6	01, 02		30	MSPS
DC accuracy section							
Integral non-linearity <u>6/</u>	INL		4	01, 02	-9	9	LSB
			5		-9	10	
			6		-13	12	
			M, D, P, L, R		4	-9	
Differential non-linearity <u>6/</u>	DNL		4	01, 02	-11	7	LSB
			5		-9	8	
			6		-12	8	
			M, D, P, L, R		4	-11	
Analog output section							
Offset error <u>6/</u>	OE		1, 2, 3	01, 02	-0.2	0.2	% of FSR
			M, D, P, L, R		1	-0.2	
Gain error <u>6/</u> , <u>7/</u>	AE		1, 2, 3	01, 02	-1.0	1.0	% of FSR
			M, D, P, L, R		1	-1.0	
Reference output section							
Reference voltage	VREF		1,2,3	01, 02	2.475	2.525	V
			M, D, P, L, R		1	2.475	
Reference output current <u>8/</u>	IOREF		1,2,3	01, 02		9.8	mA
			M, D, P, L, R		1		

See footnotes at end of table.

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TABLE I. Electrical performance characteristics – continued.

Test	Symbol	Conditions 1/, 2/, 3/ -55°C ≤ TA ≤ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
Digital inputs section							
Logic "1" voltage	VIH		1, 2, 3	01, 02	3.5		V
			M, D, P, L, R		1	3.5	
Logic "0" voltage	VIL		1, 2, 3	01, 02		1.5	V
			M, D, P, L, R		1		
Logic "1" current	IIH		1, 2, 3	01, 02	-10	10	μA
			M,D,P,L,R		1	-10	
Logic "0" current	IIL		1,2,3	01, 02	-10	10	μA
			M, D, P, L, R		1	-10	
Input setup time	tS		9, 10, 11	01, 02	10		ns
			M, D, P, L, R		9	10	
Input hold time	tH		9, 10, 11	01, 02	5		ns
			M, D, P, L, R		9	5	
Latch pulse width	tLPW		9, 10, 11	01, 02	10		ns
			M, D, P, L, R		9	10	
Power supply section							
Positive supply current	IDD		1, 2, 3	01, 02		40	mA
			M, D, P, L, R		1		
Negative supply current	IEE		1, 3	01, 02	-73		mA
			2		-75		
			M, D, P, L, R		1	-73	
Nominal power dissipation	PD		1, 2, 3	01, 02		600	mW
			M, D, P, L, R		1		
Power supply rejection ratio	PSRR	4.75 V < VDD < 5.25 V, -5.25 V < VEE < -4.75 V	4, 6	01, 02	-0.2	0.2	% of FSR / V
			5		-0.25	0.2	
			M, D, P, L, R		4	-0.2	

See footnotes at end of table.

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TABLE I. Electrical performance characteristics – continued.

Test	Symbol	Conditions <u>1/</u> <u>2/</u> <u>3/</u> -55°C ≤ TA ≤ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit	
					Min	Max		
AC linearity section.		<u>9/</u>						
Spurious free dynamic range within a window	SFDRW	FOUT = 1.002 MHz, CLOCK = 20 MSPS	4, 5, 6	01, 02	79		dB	
			M, D, P, L, R		4	79		
Spurious free dynamic range to Nyquist	SFDRN	FOUT = 1.002 MHz, CLOCK = 20 MSPS	4, 6	01, 02	65		dB	
					5	61		
			M, D, P, L, R		4	65		
Total harmonic distortion	THD	FOUT = 1.002 MHz, CLOCK = 20 MSPS	4	01, 02		-63	dB	
					5			-60
					6			-62
			M, D, P, L, R		4			-63

- 1/ Unless otherwise specified, VDD = +5.0 V, VEE = -5.0 V, LADCOM, REFCOM, and DCOM pins = 0 V, and IREFIN pin = 5 mA.
- 2/ RHA devices supplied to this drawing have been characterized through all levels M, D, P, L, and R of irradiation. However, this device is tested only at the “R” level. Pre and Post irradiation values are identical unless otherwise specified in Table I. When performing post irradiation electrical measurements for any RHA level, TA = +25°C.
- 3/ These parts 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. However, device type 02 is irradiated at dose rate = 50 - 300 rads (Si)/s in accordance with MIL-STD-883, method 1019, condition A, and is guaranteed to a maximum total dose specified. The effective dose rate after extended room temperature anneal = 1.15 rad (Si)/s per MIL-STD-883, method 1019, condition A, section 3.11.2. The total dose specification for this device only applies to the specified effective dose rate, or lower, environment.
- 4/ Not tested post irradiation.
- 5/ Parameter tested as part of device initial characterization and after design and process changes.
- 6/ Measured at IOUTA and IOUTB, driving a virtual ground.
- 7/ Nominal full scale (FS) output current is 4 times the current at IREFIN. Therefore, nominal full scale current is 20 mA when IREFIN = 5 mA.
- 8/ Output current is defined as total current available IREFIN and any external load.
- 9/ Measured as unbuffered voltage output (1 V range) with full scale current into 50 Ω load on IOUTA and IOUTB.

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Device types	01, 02
Case outline	Z
Terminal number	Terminal symbol
1	IOUTA
2	NR
3	REFOUT
4	NC
5	REFCOM
6	IREFIN
7	(LSB) DB0
8	DB1
9	DB2
10	DB3
11	DB4
12	DB5
13	DB6
14	DB7
15	DCOM
16	CLOCK
17	DB8
18	DB9
19	DB10
20	DB11
21	DB12
22	DB13
23	DB14
24	DB15 (MSB)
25	VDD (+5 V)
26	VEE (-5 V)
27	IOUTB
28	LADCOM

FIGURE 1. Terminal connections.

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Terminal symbol	Type	Pin description
IOUTA	Analog output	Digital to analog converter (DAC) current output. Full scale current when all data bits are 1s.
NR	Analog input	Noise reduction node. Add capacitor for noise reduction.
REFOUT	Analog output	Reference output voltage. Nominal value is 2.5 V.
NC	NC	No connect. Reserved for internal use.
REFCOM	Power	Reference ground.
IREFIN	Analog input	Reference input current. Nominal is 5 mA. DAC full scale is 4 times this current
DB0	Digital input	Data bits 0, least significant bit (LSB).
DB1 – DB7	Digital input	Data bits 1 - 7.
DCOM	Power	Digital ground.
CLOCK	Digital input	Clock input. Data latched on positive edge of clock.
DB8 – DB14	Digital input	Data bits 8 – 14.
DB15	Digital input	Data bit 15, most significant bit (MSB).
VDD	P	Positive supply voltage. Nominal is +5 V.
VEE	P	Negative supply voltage, nominal is -5 V.
IOUTB	Analog output	Complementary DAC current output. Full scale current when all data bits are 0's.
LADCOM	Power	DAC ladder common.

FIGURE 1. Terminal connections – continued.

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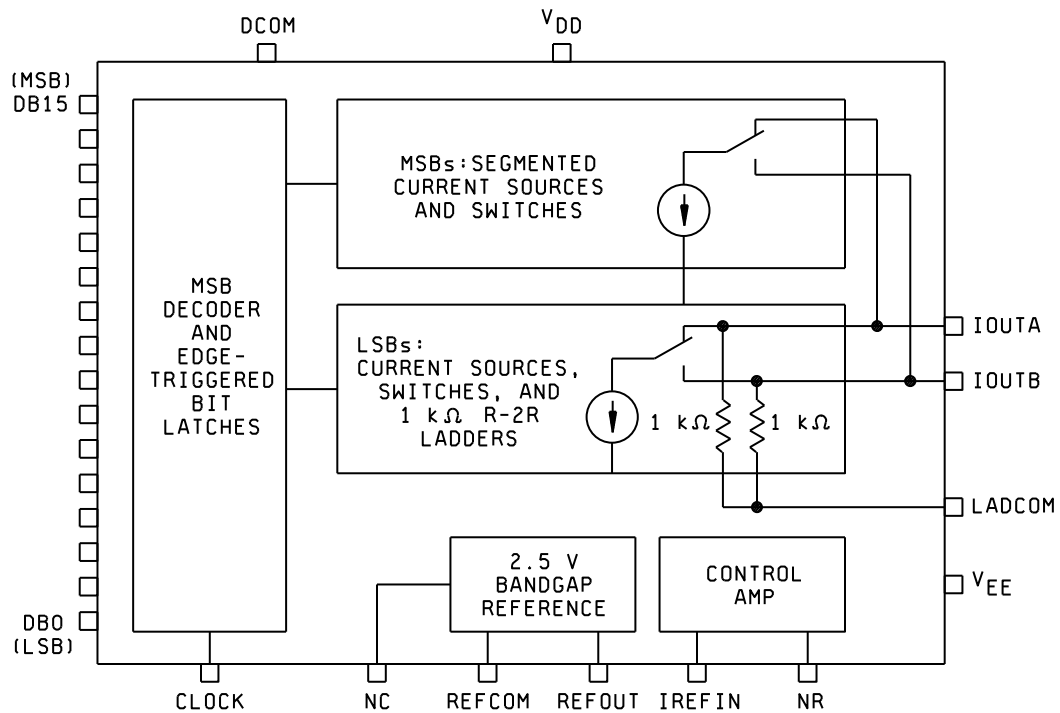


FIGURE 2. Block diagram.

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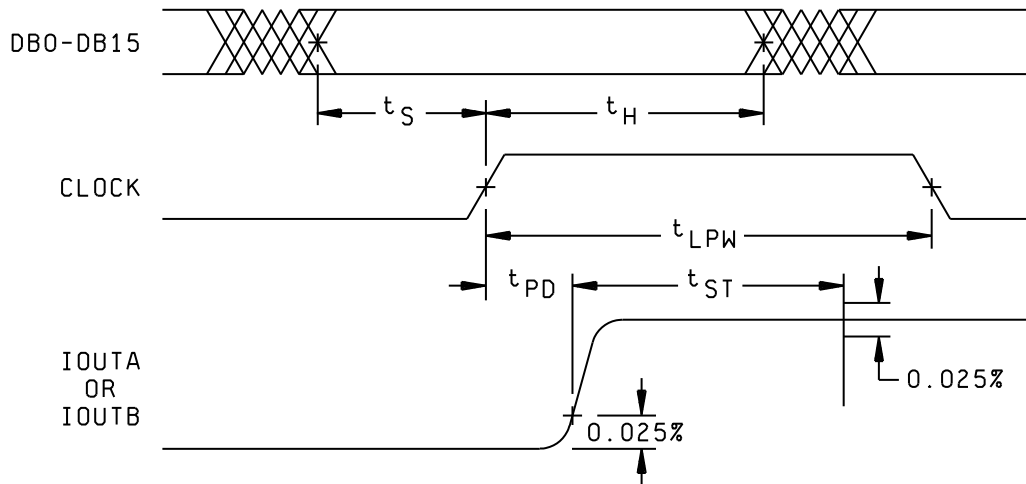


FIGURE 3. Timing waveforms.

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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.

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.

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). 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.

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

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.

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.

4.2.1 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.

4.4.1 Group A inspection.

- a. Tests shall be as specified in table IIA herein.
- b. Subgroups 7 and 8 in table I, method 5005 of MIL-STD-883 shall be omitted.

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TABLE IIA. Electrical test requirements.

Test requirements	Subgroups (in accordance with MIL-PRF-38535, table III)	
	Device class Q	Device class V
Interim electrical parameters (see 4.2)	1	1
Final electrical parameters (see 4.2)	1, 2, 3, 4, 5, 6, <u>1/</u> 9, 10, 11	1, 2, 3, 4, 5, 6 <u>1/</u> , <u>2/</u> 9, 10, 11
Group A test requirements (see 4.4)	1, 2, 3, 4, 5, 6, 9, 10, 11	1, 2, 3, 4, 5, 6, 9, 10, 11
Group C end-point electrical parameters (see 4.4)	1	1 <u>2/</u>
Group D end-point electrical parameters (see 4.4)	1	1
Group E end-point electrical parameters (see 4.4)	1, 4, 9	1, 4, 9

1/ PDA applies to subgroup 1.

2/ Delta limits as specified in table IIB shall be computed with reference to the previous interim electrical parameters.

TABLE IIB. 240 hour burn-in and group C end point electrical parameters.

Parameter	Delta limits	Units
IEE	±3	mA
IDD	±2	mA
VREF	±0.0025	V
OE	±0.075	% of FSR
GE	±0.2	% of FSR

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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 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. All device classes must meet the postirradiation end-point electrical parameter limits as defined in table I at TA = +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 and effective dose rate = 1.15 rads/s for device type 02 as specified in paragraph 1.5 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.

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.

6.2 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) 692-8108.

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 MIL-HDBK-103 and QML-38535. The vendors listed in MIL-HDBK-103 and QML-38535 have submitted a certificate of compliance (see 3.6 herein) to DLA Land and Maritime-VA and have agreed to this drawing.

STANDARD MICROCIRCUIT DRAWING DLA LAND AND MARITIME COLUMBUS, OHIO 43218-3990	SIZE A		5962-08201
		REVISION LEVEL C	SHEET 14

STANDARD MICROCIRCUIT DRAWING BULLETIN

DATE: 21-07-09

Approved sources of supply for SMD 5962-08201 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 <https://landandmaritimeapps.dla.mil/programs/smcr/>.

Standard microcircuit drawing PIN <u>1/</u>	Vendor CAGE number	Vendor similar PIN <u>2/</u>
5962R0820101VZA	<u>3/</u>	AD768AF/QMLR
5962R0820102VZA	24355	AD768AF/QMLR

- 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

24355

Vendor name and address

Analog Devices
 Route 1 Industrial Park
 P.O. Box 9106
 Norwood, MA 02062
 Point of contact: 7910 Triad Center
 Greensboro, NC 27409-9605

The information contained herein is disseminated for convenience only and the Government assumes no liability whatsoever for any inaccuracies in the information bulletin.