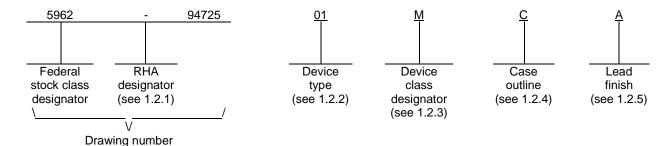
								ı	REVISI	ONS										
LTR						DESCF	RIPTIO	N					DA	ATE (YI	R-MO-	DA)		APPF	ROVED	ı
А	subst	itute 0.	9 dB as	s speci	fied ur	high te nder Ta R 5962	ble I.	_	6, delet	e 0.5 d	b and	95-06-23			M. A. FRYE					
В	Make change to third harmonic distortion test in table I. U Redrawnrrp				I. Upo	date bo	ilerplate	€.		98-0	01-16			R. MONNIN						
С	Replaced reference to MIL-STD-973 with reference to MIL-PRF-38535. Drawing updated to reflect current requirements gt R. MONN					NINNC														
D	Upda	te boile	erplate	paragr	aphs.	- ro							09-08-04 C. SAFFLE							
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REV SHEET REV STATUS OF SHEETS PMIC N/A STAI		CUIT		SHE PRE RIC	ET PAREI K OFF	FICER	1				5	6 EFEN	7 SE SI	8 UPPL IBUS	9 .Y CE	10	11 R COI 218-3	12 LUMB 990	US	
REV SHEET REV STATUS OF SHEETS PMIC N/A STAI MICRO DRA THIS DRAWIN FOR U	OCIRO AWINO NG IS AV SE BY A RTMEN' NCIES O	CUIT G VAILAE ALL TS DF THE		PRE RIC CHE RA. APPI MIC	PAREI K OFF CKED JESH I ROVE	BY PITHAL D BY FRYE APPRO	1 DIA	2		MIC FEI	DI DI CROCEDBA	6 EFEN CO	SE SI DLUM http	BUPPLIBUS	9 Y CE, OHIO	inter O 433 scc.dl	R COL 218-3 a.mil	12 LUMB 990	JRRE	

1. SCOPE

- 1.1 <u>Scope</u>. 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 type(s). The device type(s) identify the circuit function as follows:

<u>Device type</u>	Generic number	<u>Circuit function</u>
01	CLC431	Wideband, current feedback, dual, operational amplifier with disable
02	CLC432	Wideband, current feedback, dual, operational amplifier

1.2.3 <u>Device class designator</u>. 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 <u>Case outline(s)</u>. The case outline(s) are as designated in MIL-STD-1835 and as follows:

Outline letter	<u>Descriptive designator</u>	<u>Terminals</u>	Package style
С	GDIP1-T14 or CDIP2-T14	14	Dual-in-line
Р	GDIP1-T8 or CDIP2-T8	8	Dual-in-line
2	CQCC1-N20	20	Square leadless chip carrier

1.2.5 <u>Lead finish</u>. 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.

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1.3 Absolute maximum ratings. 1/

Supply voltage (V _S)	±16.5 V dc
Output current (I _{OUT})	100 mA
Common mode input voltage (V _{CM})	±Vs
Differential input voltage (V _{ID})	±10 V
Power dissipation (PD)	1.15 W
Lead temperature (soldering, 10 seconds)	+300°C
Junction temperature (T _J)	+200°C
Storage temperature range	-65°C to +150°C
Thermal resistance, junction-to-case (θ _{JC}):	
Cases C and P	
Case 2	25°C/W
Thermal resistance, junction-to-ambient (θ_{JA}):	
Case C	80°C/W
Case P	115°C/W
Case 2	40°C/W

1.4 Recommended operating conditions.

Supply voltage (V _S)	±15 V dc
Gain range (A _V)	± 1 V/V to ± 10 V/V
Ambient operating temperature range (T _A)	-55°C to +125°C

2. APPLICABLE DOCUMENTS

2.1 <u>Government specification, standards, and handbooks</u>. 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 http://assist.daps.dla.mil/quicksearch/ or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2 <u>Order of precedence</u>. 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.

^{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.

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3. REQUIREMENTS

- 3.1 <u>Item requirements</u>. The individual item requirements for device classes Q and V shall be in accordance with MIL-PRF-38535 and 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 <u>Design, construction, and physical dimensions</u>. 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.
- 3.3 <u>Electrical performance characteristics and postirradiation parameter limits</u>. 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 <u>Electrical test requirements</u>. The electrical test requirements shall be the subgroups specified in table II. The electrical tests for each subgroup are defined in table I.
- 3.5 <u>Marking</u>. 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 <u>Certification/compliance mark</u>. 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 <u>Certificate of compliance</u>. 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 DSCC-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 <u>Certificate of conformance</u>. 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.
- 3.8 <u>Notification of change for device class M</u>. For device class M, notification to DSCC-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 <u>Verification and review for device class M.</u> For device class M, DSCC, DSCC'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 <u>Microcircuit group assignment for device class M.</u> Device class M devices covered by this drawing shall be in microcircuit group number 49(see MIL-PRF-38535, appendix A).

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TABLE I. Electrical performance characteristics.

Test	Symbol	Conditions $\underline{1}/$ -55°C \leq T _A \leq +125°C unless otherwise specified	Group A subgroups	Device type	Limits <u>2</u> /		Unit	
					Min	Max		
Static and dc tests.								
Input bias current, noninverting	I _{BN}		1, 2	All	-8	8	μА	
-			3		-18	18		
Input bias current, inverting	I _{BI}		1, 2	All	-6	6	μА	
			3		-9	9		
Input offset voltage	VIO	1, 3	All	-6	6	mV		
			2		-9	9		
Average input bias current drift, noninverting	D _{IBN}	T _A = +125°C, -55°C <u>3</u> /	2, 3	All	-150	150	nA/°C	
Average input bias current drift, inverting	D _{IBI}	T _A = +125°C, -55°C <u>3</u> /	2, 3	All	-40	40	nA/°C	
Average input offset voltage drift	D _{VIO}	T _A = +125°C, -55°C <u>3</u> /	2, 3	All	-50	50	μV/°C	
Supply current	Icc	No load	1, 2	All		15.8	mA	
			3	-		19.6		
	ICCD	Disabled	1, 2	01		2.4		
			3	-		3.0		
Power supply rejection ratio	PSRR	+V _S = +4.0 V to +5.0 V,	4, 6	All	59		dB	
		-V _S = -4.0 V to -5.0 V	5		57			
Common mode rejection	CMRR	V _{CM} = ±1 V <u>3</u> /	4	All	58		dB	
ratio			5, 6		56			

See footnotes at end of table.

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TABLE I.	<u>Electrical performance characteristics</u> - Continued.

Test		Group A subgroups	Device type	Limits 2/		Unit	
					Min	Max	
Frequency domain tests.	ı			I		I	ı
Small signal bandwidth	SSBW	-3 dB bandwidth,	4, 6	All	42		MHz
		V _{OUT} < 4.0 V _{PP}	5		34		
Large signal bandwidth	LSBW	-3 dB bandwidth, 3/	4, 6	All	21		MHz
		V _{OUT} < 10 V _{PP}	5		17		
Gain flatness peaking high	GFPH	0.1 MHz to 100 MHz,	4	All		0.5	dB
		V _{OUT} ≤ 4.0 V _{PP}	5, 6			0.9	
Gain flatness rolloff	GFR	0.1 MHz to 20 MHz, $V_{OUT} \leq 4.0 \text{ VPP}$	4, 5, 6	All		0.8	dB
Differential gain	DG	4.43 MHz <u>3</u> /	4, 6	All	0.18		%
			5		0.22		1
Differential phase	DP	4.43 MHz <u>3</u> /	4, 6	All	0.18		Degree
			5		0.32		1
Linear phase deviation	LPD	DC to 20 MHz, 3/	4, 6	All	1.8		Degrees
		V _{OUT} ≤ 4.0 V _{PP}	5		2.3		1
Distortion and noise tests.	ı						1
Second harmonic distortion	HD2	2 V _{PP} at 10 MHz	4, 6	All		38	dBc
			5			33	
Third harmonic distortion	HD3	2 V _{PP} at 10 MHz	4, 6	01		50	dBc
			5			48	1
			4, 5, 6	02		48	
Input noise voltage	VN	> 1 MHz <u>3</u> /	4, 6	All		4.2	nV/√Hz
			5			4.7	
Inverting input noise current	-ICN	> 1 MHz <u>3</u> /	4, 5	All		16	pA/√Hz
			6	1		18	1
Noninverting input noise	+ICN	> 1 MHz <u>3</u> /	4	All		2.5	pA/√ Hz
current			5, 6	1		2.8	1

See footnotes at end of table.

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TARLET	Flactrical	nerformance	characteristics -	Continued
I ADLE I.	Electrical	benomiance	characteristics -	Continued.

Test	$\begin{tabular}{ll} Conditions & $\underline{1}/$ \\ Symbol & $-55^{\circ}C \le T_{A} \le +125^{\circ}C$ \\ unless otherwise specified \\ \end{tabular}$	Group A subgroups	Device type	Limits <u>2</u> /		Unit	
					Min	Max	
Timing tests.							
Slew rate	SR	V _{OUT} = ±10 V step <u>3</u> /	4	All	1500		V/μs
			5, 6		1400		
Rise and fall time	t _{R,F}	10 V step <u>3</u> /	9, 11	All		12	ns
			10			14	
Settling time	ts	2 V step at 0.05% of the	9, 11	All		100	ns
		fixed value 3/	10			120	
Overshoot	os	2 V step, 1 ns rise/fall 3/	9, 11	All		10	%
			10			14	
Performance tests.	- 1	,	1				•
Positive input resistance	R _{+IN}	<u>3</u> /	4, 5	All	16		МΩ
			6		5		
Positive input capacitance	C _{+IN}	3/	4, 5, 6	All	1		pF
Output voltage range	Vout	No load 3/	1, 2	All	-13.6	+13.6	V
			3		-13.2	+13.2	
	Voutl	R _L = 100 Ω <u>3</u> /	1, 2		-3.7	+3.7	
			3		-2.7	+2.7	
Common mode input	C _{MIR}	<u>3</u> /	1, 2	All	12		V
voltage range			3		11.5		
Output current	lout	<u>3</u> /	1, 2	All	38		mA
			3		28		1

See footnotes at end of table.

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TABLE I. <u>Electrical performance characteristics</u> - Continued.

Test		_	Group A subgroups	Device type	Limits <u>2</u> /		Unit
					Min	Max	
Switching tests.							
Switching turn on time	toN	V _{IN} = 4 V _{PP} at 10 MHz <u>3</u> /	9, 10	01		150	μS
			11			170	
Switching turn off time	tOFF	V _{IN} = 4 V _{PP} at 10 MHz <u>3</u> /	9, 11	01		1000	μS
			10			1400	
Disable logic high input voltage	VIH	Single ended mode 3/	1, 2, 3	01		2	V
Disable logic low input voltage	VIL	Single ended mode 3/	1, 2, 3	01	0.8		V
Disable logic maximum	I _{DIN}	DIS = V _{IL} to V _{IH} <u>3</u> /	1, 2	01		180	μΑ
input current			3			210	
Minimum differential voltage	V _{MIN}	DIS = V_{IL} to V_{IH} $3/$	1, 2	01		0.4	V
			3			0.5	
Isolation tests.		1	ı			1	1
Crosstalk, input referred isolation	XTLK	10 MHz <u>3</u> /	4, 5, 6	All	64		dB
Off isolation	ISO	10 MHz <u>3</u> /	4, 5, 6	All	53		dB

- 1/ Unless otherwise specified, $V_S = \pm 15$ V dc, $A_V = +2$, and load resistance (R_L) = 100 Ω . Gain resistance (R_G) and feedback resistance (R_F) equals 866 Ω for device type 01 and 750 Ω for device type 02.
- The algebraic convention, whereby the most negative value is a minimum and the most positive is a maximum, is used in this table. Negative current shall be defined as conventional current flow out of a device terminal.
- 3/ If not tested, shall be guaranteed to the limits specified in table I herein.

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Device types	01		0	02	
Case outlines	С	2	Р	2	
Terminal number		Terminal symbol			
1	-INPUT 1	NC	OUTPUT 1	NC	
2	+INPUT 1	-INPUT 1	-INPUT 1	OUTPUT 1	
3	DISABLE 1	NC	+INPUT 1	NC	
4	-Vcc	+INPUT 1	-V _{CC}	NC	
5	DISABLE 2	DISABLE 1	+INPUT 2	-INPUT 1	
6	+INPUT 2	-Vcc	-INPUT 2	NC	
7	-INPUT 2	DISABLE 2	OUTPUT 2	+INPUT 1	
8	OUTPUT 2	+INPUT 2	+V _{CC}	NC	
9	V _{RTTL2}	NC		NC	
10	DISABLE 2	-INPUT 2		-V _{CC}	
11	+V _{CC}	NC		NC	
12	DISABLE 1	OUTPUT 2		+INPUT 2	
13	V _{RTTL1}	VRTTL2		NC	
14	OUTPUT 1	DISABLE 2		NC	
15		NC		-INPUT 2	
16		+V _{CC}		NC	
17		NC		OUTPUT 2	
18		DISABLE 1		NC	
19		VRTTL1		NC	
20		OUTPUT 1		+V _{CC}	

NC = No connection

FIGURE 1. Terminal connections.

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4. VERIFICATION

- 4.1 <u>Sampling and inspection</u>. 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 <u>Screening</u>. 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 B. 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) $T_A = +125^{\circ}C$, minimum.
 - b. Interim and final electrical test parameters shall be as specified in table II 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 II 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 <u>Qualification inspection for device classes Q and V.</u> 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 <u>Conformance inspection</u>. 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).

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TABLE II. Electrical test requirements.

Test requirements	Subgroups	Subgroups	
	(in accordance with	(in accordance with	
	MIL-STD-883,	MIL-PRF-385	535, table III)
	method 5005, table I)		
	Device	Device	Device
	class M	class Q	class V
Interim electrical	1	1	1
parameters (see 4.2)			
Final electrical	1,2,3,4,9 <u>1</u> /	1,2,3,4,9 <u>1</u> /	1,2,3,4,9 <u>1</u> /
parameters (see 4.2)			
Group A test	1,2,3,4,5,6, <u>2</u> /	1,2,3,4,5, <u>2</u> /	1,2,3,4,5, <u>2</u> /
requirements (see 4.4)	9,10,11	6,9,10,11	6,9,10,11
Group C end-point electrical	1	1	1
parameters (see 4.4)			
Group D end-point electrical	1	1	1
parameters (see 4.4)			
Group E end-point electrical			
parameters (see 4.4)			

^{1/} PDA applies to subgroup 1.

4.4.1 Group A inspection.

- a. Tests shall be as specified in table II herein.
- b. Subgroups 7 and 8 in table I, method 5005 of MIL-STD-883 shall be omitted.
- 4.4.2 Group C inspection. The group C inspection end-point electrical parameters shall be as specified in table II 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 B. 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. $T_A = +125^{\circ}C$, 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.

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^{2/} Subgroups 9, 10, and 11, if not tested, shall be guaranteed to the limits specified in table I.

- 4.4.3 Group D inspection. The group D inspection end-point electrical parameters shall be as specified in table II herein.
- 4.4.4 <u>Group E inspection</u>. 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 II 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 $T_A = +25^{\circ}\text{C} \pm 5^{\circ}\text{C}$, after exposure, to the subgroups specified in table II herein.

5. PACKAGING

5.1 <u>Packaging requirements</u>. 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 <u>Intended use</u>. 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 <u>Configuration control of SMD's</u>. 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 <u>Record of users</u>. Military and industrial users should inform Defense Supply Center Columbus (DSCC) when a system application requires configuration control and which SMD's are applicable to that system. DSCC 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 DSCC-VA, telephone (614) 692-0544.
- 6.4 <u>Comments</u>. Comments on this drawing should be directed to DSCC-VA, Columbus, Ohio 43218-3990, or telephone (614) 692-0547.
- 6.5 <u>Abbreviations, symbols, and definitions</u>. 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 <u>Sources of supply for device classes Q and V</u>. 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 DSCC-VA and have agreed to this drawing.
- 6.6.2 <u>Approved sources of supply for device class M.</u> 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 DSCC-VA.

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43218-3990	SIZE A		5962-94725
		REVISION LEVEL D	SHEET 12

STANDARD MICROCIRCUIT DRAWING BULLETIN

DATE: 09-08-04

Approved sources of supply for SMD 5962-94725 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 DSCC-VA. This information bulletin is superseded by the next dated revision of MIL-HDBK-103 and QML-38535. DSCC maintains an online database of all current sources of supply at http://www.dscc.dla.mil/Programs/Smcr/.

Standard microcircuit drawing PIN <u>1</u> /	Vendor CAGE number	Vendor similar PIN <u>2</u> /
5962-9472501MCA	3V146	CLC431A/BCA
	<u>3</u> /	CLC431AJ-QML
5962-9472501M2A	3V146	CLC431A/B2A
	<u>3</u> /	CLC431AE-QML
5962-9472502MPA	3V146	CLC432A/BPA
	<u>3</u> /	CLC432AJ-QML
5962-9572502M2A	3V146	CLC432A/B2A
	<u>3</u> /	CLC432A8L-2A

- 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/ <u>Caution</u>. 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 CAGEVendor namenumberand address

3V146 Rochester Electronics Inc. 16 Malcolm Hoyt Drive Newburyport, MA 01950

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