

REVISIONS

LTR	DESCRIPTION	DATE (YR-MO-DA)	APPROVED
A	Added device type 05 with vendor CAGE code U4388. Made changes to table I, figure 2, and figure 5. Redrew entire document.	95-03-17	K. A. Cottongim
B	Update drawing to the current requirements of MIL-PRF-38534.	05-10-17	Raymond Monnin
C	Updated drawing paragraphs. -sld	12-02-21	Charles F. Saffle

THE ORIGINAL FIRST SHEET OF THIS DRAWING HAS BEEN REPLACED.

REV																				
SHEET																				
REV	C	C																		
SHEET	15	16																		

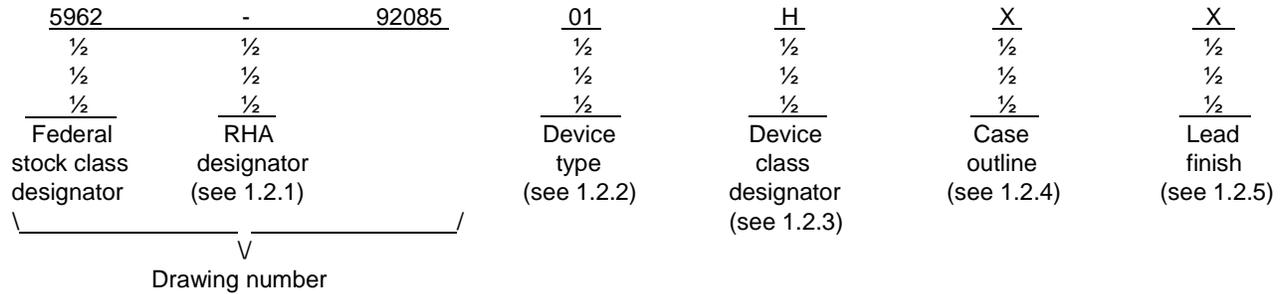
REV STATUS	REV	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
OF SHEETS	SHEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14		

PMIC N/A	PREPARED BY Steve L. Duncan	<p align="center"><b>DLA LAND AND MARITIME</b>  <b>COLUMBUS, OHIO 43218-3990</b>  <a href="http://www.landandmaritime.dla.mil/">http://www.landandmaritime.dla.mil/</a></p>		
<p align="center"><b>STANDARD MICROCIRCUIT DRAWING</b></p> <p align="center">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 Mike Jones			
	APPROVED BY D. M. Cool	<p align="center">MICROCIRCUIT, HYBRID, DIGITAL, LOW POWER, SINGLE CHANNEL, DRIVER- RECEIVER</p>		
	DRAWING APPROVAL DATE 92-08-11			
	REVISION LEVEL <b>C</b>	SIZE A	CAGE CODE <b>67268</b>	<p align="center"><b>5962-92085</b></p>
	SHEET 1 OF 16			

1. SCOPE

1.1 Scope. This drawing documents five product assurance classes as defined in paragraph 1.2.3 and MIL-PRF-38534. A choice of case outlines and lead finishes which are available and are reflected in the Part or Identifying Number (PIN). When available, a choice of radiation hardness assurance levels are reflected in the PIN.

1.2 PIN. The PIN shall be as shown in the following example:



1.2.1 Radiation hardness assurance (RHA) designator. RHA marked devices shall meet the MIL-PRF-38534 specified RHA levels and shall be 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	NHI-1551	Single channel, driver-receiver (universal transceiver), low power, receiver standby low
02	ARX-4451	Single channel, driver-receiver (universal transceiver), low power, receiver standby low
03	ARX-4418	Single channel, driver-receiver (universal transceiver), low power, receiver standby low
04	NHI-1515	Single channel, driver-receiver (universal transceiver), low power, receiver standby low
05	FC-155377	Single channel, driver-receiver (universal transceiver), low power, receiver standby low

1.2.3 Device class designator. This device class designator shall be a single letter identifying the product assurance level. All levels are defined by the requirements of MIL-PRF-38534 and require QML Certification as well as qualification (Class H, K, and E) or QML Listing (Class G and D). The product assurance levels are as follows:

<u>Device class</u>	<u>Device performance documentation</u>
K	Highest reliability class available. This level is intended for use in space applications.
H	Standard military quality class level. This level is intended for use in applications where non-space high reliability devices are required.
G	Reduced testing version of the standard military quality class. This level uses the Class H screening and In-Process Inspections with a possible limited temperature range, manufacturer specified incoming flow, and the manufacturer guarantees (but may not test) periodic and conformance inspections (Group A, B, C, and D).

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E Designates devices which are based upon one of the other classes (K, H, or G) with exception(s) taken to the requirements of that class. These exception(s) must be specified in the device acquisition document; therefore the acquisition document should be reviewed to ensure that the exception(s) taken will not adversely affect system performance.

D Manufacturer specified quality class. Quality level is defined by the manufacturers internal, QML certified flow. This product may have a limited temperature range.

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>
X	See figure 1	24	Hybrid package
Y	See figure 1	24	Flat package

1.2.5 Lead finish. The lead finish shall be as specified in MIL-PRF-38534.

1.3 Absolute maximum ratings. 1/

Supply voltage range:	
V <sub>CC</sub> .....	-0.3 V dc to +18 V dc
V <sub>EE</sub> .....	+0.3 V dc to -18 V dc
V <sub>CCL</sub> .....	-0.3 V dc to +7 V dc
Logic input voltage range .....	-0.3 V dc to +5.5 V dc
Receiver differential input voltage .....	40 Vp-p
Receiver common mode input voltage range .....	-10 V dc to +10 V dc
Driver peak output current.....	±300 mA
Storage temperature range .....	-65°C to +150°C
Lead temperature (soldering, 10 seconds).....	+300°C
Junction temperature (T <sub>J</sub> ) .....	+160°C
Power dissipation (P <sub>D</sub> ) total hybrid:	
100 percent duty cycle (T <sub>C</sub> = +125°C).....	3.24 W
Power dissipation (P <sub>D</sub> ) hottest die:	
100 percent duty cycle .....	545 mW
Standby mode.....	Derates to zero
Thermal resistance:	
Junction-to-case (q <sub>JC</sub> ) hottest die .....	38°C/W
Case to ambient.....	21°C/W
Maximum junction-to-case temperature rise for the hottest die at 100 percent duty cycle.....	21°C/W

1.3 Recommended operating conditions.

Supply voltage range:	
V <sub>CC</sub> .....	+11.4 V dc to +15.75 V dc
V <sub>EE</sub> .....	-11.4 V dc to -15.75 V dc
V <sub>CCL</sub> .....	+4.5 V dc to +5.5 V dc
Logic input voltage range .....	0 V dc to +5.0 V dc
Receiver differential voltage .....	40 Vp-p
Receiver common mode voltage range.....	-10 V dc to +10 V dc
Driver peak output current.....	±180 mA
Maximum serial data rate.....	1.0 MHz
Case operating temperature range (T <sub>C</sub> ) .....	-55°C to +125°C

1/ Stresses above the absolute maximum ratings may cause permanent damage to the device. Extended operation at the maximum levels may degrade performance and affect reliability.

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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 SPECIFICATIONS

MIL-PRF-38534 - Hybrid Microcircuits, General Specification for.

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-883 - Test Method Standard Microcircuits.  
 MIL-STD-1835 - Interface Standard for 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://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 performance requirements for device classes D, E, G, H, and K shall be in accordance with MIL-PRF-38534. Compliance with MIL-PRF-38534 shall include the performance of all tests herein or as designated in the device manufacturer's Quality Management (QM) plan or as designated for the applicable device class. The manufacturer may eliminate, modify or optimize the tests and inspections herein, however the performance requirements as defined in MIL-PRF-38534 shall be met for the applicable device class. In addition, the modification in the QM plan shall not affect the form, fit, or function of the device for the applicable device class.

3.2 Design, construction, and physical dimensions. The design, construction, and physical dimensions shall be as specified in MIL-PRF-38534 and herein.

3.2.1 Case outline(s). The case outline(s) shall be in accordance with 1.2.2 herein and figure 1.

3.2.2 Terminal connections. The terminal connections shall be as specified on figure 2.

3.2.3 Test circuit. The test circuit shall be as specified on figure 3.

3.2.4 Timing waveforms. The timing waveforms shall be as specified on figure 4.

3.2.5 Coupling diagram. The coupling diagram shall be as specified on figure 5.

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

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

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3.5 Marking of device(s). Marking of device(s) shall be in accordance with MIL-PRF-38534. The device shall be marked with the PIN listed in 1.2 herein. In addition, the manufacturer's vendor similar PIN may also be marked.

3.6 Data. In addition to the general performance requirements of MIL-PRF-38534, the manufacturer of the device described herein shall maintain the electrical test data (variables format) from the initial quality conformance inspection group A lot sample, for each device type listed herein. Also, the data should include a summary of all parameters manually tested, and for those which, if any, are guaranteed. This data shall be maintained under document revision level control by the manufacturer and be made available to the preparing activity (DLA Land and Maritime -VA) upon request.

3.7 Certificate of compliance. A certificate of compliance shall be required from a manufacturer in order to supply to this drawing. The certificate of compliance (original copy) submitted to DLA Land and Maritime -VA shall affirm that the manufacturer's product meets the performance requirements of MIL-PRF-38534 and herein.

3.8 Certificate of conformance. A certificate of conformance as required in MIL-PRF-38534 shall be provided with each lot of microcircuits delivered to this drawing.

4. VERIFICATION

4.1 Sampling and inspection. Sampling and inspection procedures shall be in accordance with MIL-PRF-38534 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. Screening shall be in accordance with MIL-PRF-38534. The following additional criteria shall apply:

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

(1) Test condition A, B, C, or D. The test circuit shall be maintained by the manufacturer under document revision level control and shall be made available to either DLA Land and Maritime -VA or the acquiring activity upon request. Also, 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<sub>A</sub> as specified in accordance with table I of method 1015 of MIL-STD-883.

b. Interim and final electrical test parameters shall be as specified in table II herein, except interim electrical parameter tests prior to burn-in are optional at the discretion of the manufacturer.

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TABLE I. Electrical performance characteristics.

Test	Symbol	Conditions <u>1/</u> -55°C £ T <sub>C</sub> £ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
<b>RECEIVER</b>							
Output low voltage	V <sub>OL</sub>	I <sub>OL</sub> = 10 mA	1,2,3	01,02,03, 04		0.5	V
		I <sub>OL</sub> = 4 mA			05	0.5	
Output high voltage	V <sub>OH</sub>	I <sub>OH</sub> = -0.4 mA	1,2,3	All	2.5		V
Differential input voltage level	V <sub>I</sub>		4,5,6	01,02,03, 04		40	Vp-p
		<u>2/</u>			05	40	
Differential input impedance	Z <sub>IN</sub>	1 MHz sine wave <u>2/</u>	4,5,6	All	10		kW
Common mode input voltage range	V <sub>ICR</sub>	1 MHz sine wave, see figure 3.	4,5,6	01,02,03, 04	10		Vp-p
		<u>2/</u>			05	10	
Input capacitance	C <sub>IN</sub>	1 MHz sine wave <u>2/</u>	4	All		5	pF
Threshold voltage	V <sub>TH</sub>	<u>3/</u> <u>4/</u> <u>6/</u>	4,5,6	01,02,03, 04	0.6	1.05	Vp-p
		<u>3/</u> <u>4/</u> <u>10/</u>	4	05	1.10	1.20	
		<u>3/</u> <u>4/</u> <u>6/</u>	5,6	05	0.56	1.20	
Receiver delay	t <sub>DR</sub>	Input zero crossing to DATA or DATA, see figure 3 <u>2/</u>	4,5,6	All		450	ns
<b>RECEIVER STROBE</b>							
Input low voltage	V <sub>SIL</sub>	<u>8/</u>	1,2,3	All		0.7	V
Input high voltage	V <sub>SIH</sub>	<u>8/</u>	1,2,3	All	2.0		V
Input low current	I <sub>SIL</sub>	V <sub>SIL</sub> = 0.4 V	1,2,3	01,02,03, 04	-0.4		mA
				05	-1.6		
See footnotes at end of table.							
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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions <u>1/</u> -55°C £ T <sub>C</sub> £ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
RECEIVER STROBE - Continued.							
Input high current	I <sub>SIH</sub>	V <sub>SIH</sub> = 2.7 V	1,2,3	01,02,03, 04		80	mA
				05		40	
Strobe delay	t <sub>DS</sub>	Turn-on or turn-off, see figure 4 <u>2/</u>	9,10,11	All		200	ns
TRANSMITTER							
Input low voltage	V <sub>IL</sub>	<u>8/</u>	1,2,3	All		0.7	V
Input high voltage	V <sub>IH</sub>	<u>8/</u>	1,2,3	All	2.0		V
Input low current	I <sub>IL</sub>	V <sub>IL</sub> = 0.4 V	1,2,3	01,02,03, 04	-0.4		mA
				05	-1.6		
Input high current	I <sub>IH</sub>	V <sub>IH</sub> = 2.7 V	1,2,3	All		40	mA
Differential output	V <sub>O</sub>	35Wload <u>4/</u>	1,2,3	01,04,05	6.5	9.0	Vp-p
				02,03	7.0	9.0	
		140Wload <u>2/ 5/</u>	1,2,3	01,04,05	26	36	
				02,03	28	36	
Differential output noise	V <sub>ON</sub>	Inhibited, 35Wload <u>4/</u>	4,5,6	All		10	mV rms
		140Wload <u>2/ 5/</u>				40	
Differential output impedance	Z <sub>OUT</sub>	1 MHz sine wave, (transmitter off) <u>2/</u>	4,5,6	All	10		kW
Output capacitance	C <sub>OUT</sub>	1 MHz sine wave <u>2/</u>	4	All		5	pF
Differential output offset voltage	V <sub>OS</sub>	35Wload	4,5,6	01,02,03, 04	-90	+90	mV pk
		35Wload <u>10/</u>		05	-90	+90	
		140Wload <u>2/ 5/ 7/</u>		All	-360	+360	

See footnotes at end of table.

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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions <u>1/</u> -55°C £ T <sub>C</sub> £ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
TRANSMITTER - Continued.							
Receiver filter response	FILTER	f = 2 MHz <u>2/</u>	4,5,6	All	-4.0		dB
		f = 4 MHz <u>2/</u>			-13.0		
Rise time	t <sub>r</sub>	35Wload, see figure 4	9,10,11	All	220	300	ns
Fall time	t <sub>f</sub>	35Wload, see figure 4	9,10,11	All	220	300	ns
Transmitter delay	t <sub>dt</sub>	Transmitter-in to transmitter- out, see figure 4 <u>2/</u>	9,10,11	01,04		550	ns
				02,03,05		300	
Variable amplitude level <u>2/ 5/</u>	V <sub>AL</sub>	V <sub>IN</sub> = 10 V dc, 140Wload	1	03,04	30		V
		V <sub>IN</sub> = 0 V dc, 140Wload		03,04		2	
TRANSMITTER INHIBIT							
Input low voltage	V <sub>IIL</sub>	<u>8/</u>	1,2,3	All		0.7	V
Input high voltage	V <sub>IIH</sub>	<u>8/</u>	1,2,3	All	2.0		V
Input low current	I <sub>ILL</sub>	V <sub>SIL</sub> = 0.4 V	1,2,3	01,02,03, 04	-0.4		mA
				05	-1.6		
Input high current	I <sub>IHH</sub>	V <sub>SIH</sub> = 2.7 V	1,2,3	All		40	mA
Transmitter inhibit delay (high)	t <sub>DI-H</sub>	0-1 inhibited output, see figure 4 <u>2/</u>	9,10,11	All		450	ns
Transmitter inhibit delay (low)	t <sub>DI-L</sub>	1-0 active output, see figure 4 <u>2/</u>	9,10,11	All		450	ns

See footnotes at end of table.

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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions <sup>1/</sup> -55°C £ T <sub>C</sub> £ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
<b>POWER SUPPLY</b>							
+Supply (V <sub>CC</sub> )	I <sub>CC-SB</sub>	(Standby mode)	1,2,3	All		50	mA
-Supply (V <sub>EE</sub> )	I <sub>EE-SB</sub>	(Standby mode)	1,2,3	01,04,05		40	mA
				02,03		65	
+5 V supply (V <sub>CCL</sub> )	I <sub>CC1-SB</sub>	(Standby mode)	1,2,3	01,04,05		20	mA
				02,03		45	
+Supply (V <sub>CC</sub> )	I <sub>CC-50</sub>	50 percent duty cycle	4,5,6	All		110	mA
-Supply (V <sub>EE</sub> )	I <sub>EE-50</sub>	50 percent duty cycle	4,5,6	All		110	mA
+Supply (V <sub>CC</sub> )	I <sub>CC-100</sub>	100 percent duty cycle	4,5,6	All		165	mA
-Supply (V <sub>EE</sub> )	I <sub>EE-100</sub>	100 percent duty cycle	4,5,6	All		165	mA

- 1/ Unless otherwise specified, supply voltage ranges are as follows:  
(+14.9 V dc £ V<sub>CC</sub> £ +15.1 V dc), (-14.9 V dc £ V<sub>EE</sub> £ -15.1 V dc), (+4.9 V dc £ V<sub>CCL</sub> £ +5.1 V dc).
- 2/ Parameter shall be tested as part of initial characterization and after design and process changes. Parameter shall be guaranteed to the limits specified in table I.
- 3/ Threshold determined by the first missing word of a 33 word transmission to a Harris HD-15530 CMOS Manchester encoder-decoder.
- 4/ Measured at point A A' of figure 5.
- 5/ Measured at point B B' of figure 5.
- 6/ Assumed the internal threshold option is used.
- 7/ Offset is measured 2.5 ns after the mid-bit zero crossing of the last parity bit of a 600 ns transmission cycle of contiguous words (no dead time in between words).
- 8/ These parameters are tested on a go-no-go basis in conjunction with other measured parameters and are not directly testable.
- 9/ This parameter is adjusted and measured with pins 6 and 11 each grounded through a 3830 W resistor.
- 10/ Measured 2.5 ns after parity bit mid zero crossing of a 660 ns message with worst case data word. This parameter is adjusted and tested at 25°C only, -55°C and +125°C limits are guaranteed by design.

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Case X

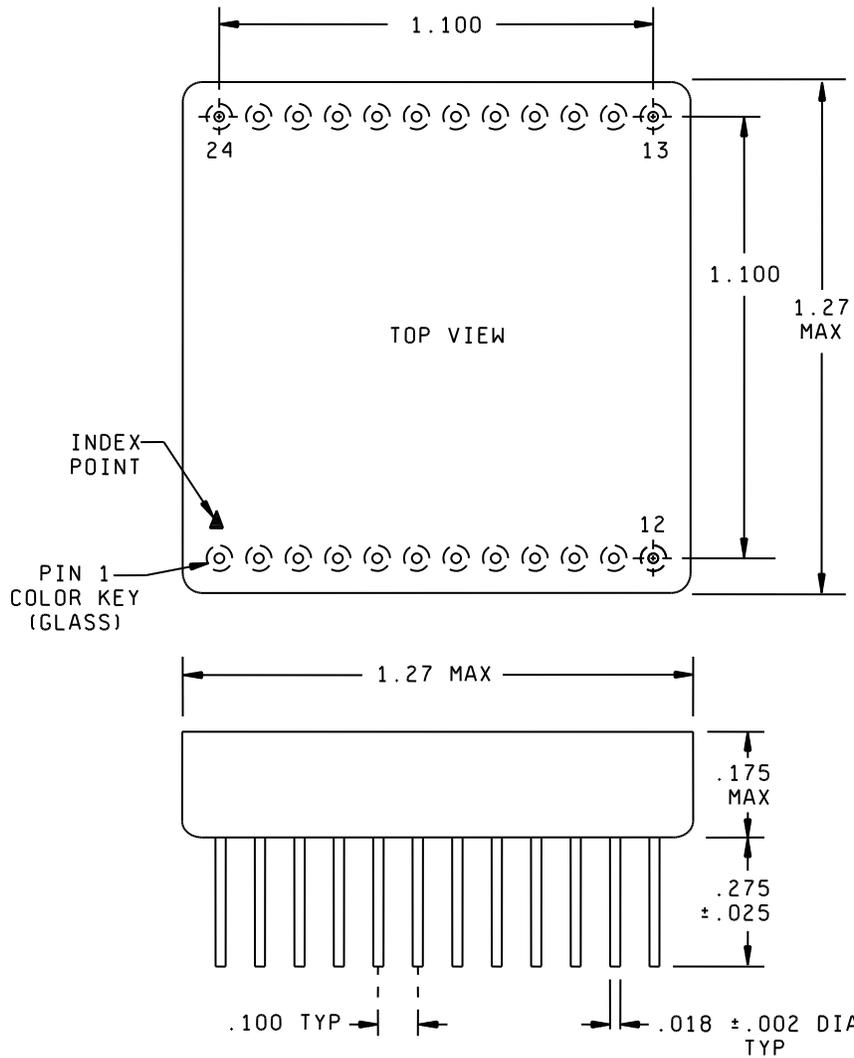
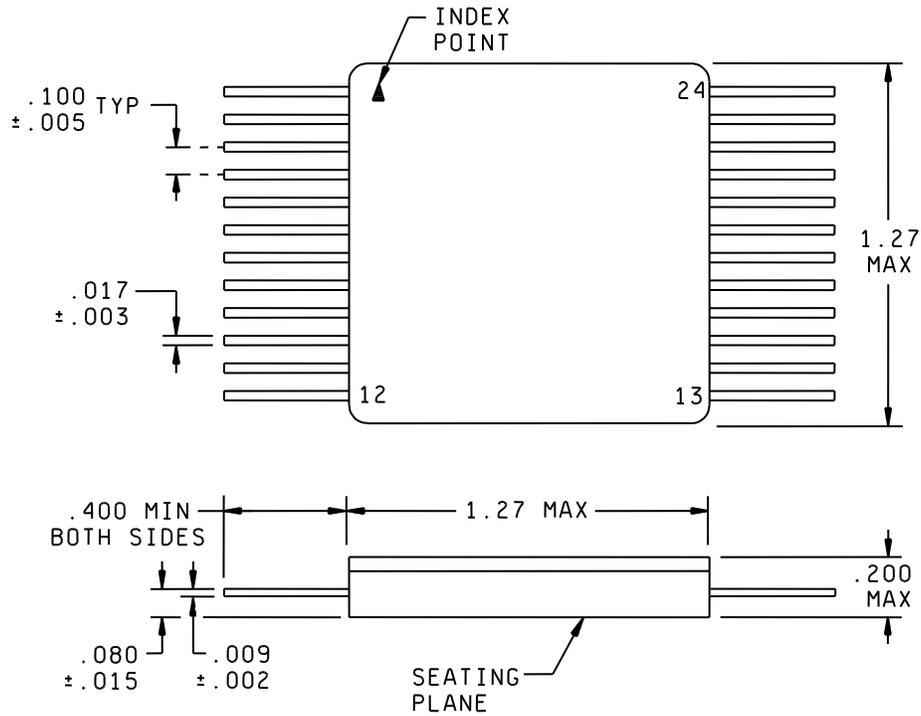


FIGURE 1. Case outline(s).

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Case Y



Inches	mm	Inches	mm
.002	0.05	.080	2.03
.003	0.08	.100	2.54
.005	0.13	.175	4.46
.009	0.23	.200	5.08
.015	0.38	.275	6.98
.017	0.43	.400	10.16
.018	0.46	1.100	27.94
.025	0.64	1.27	32.3

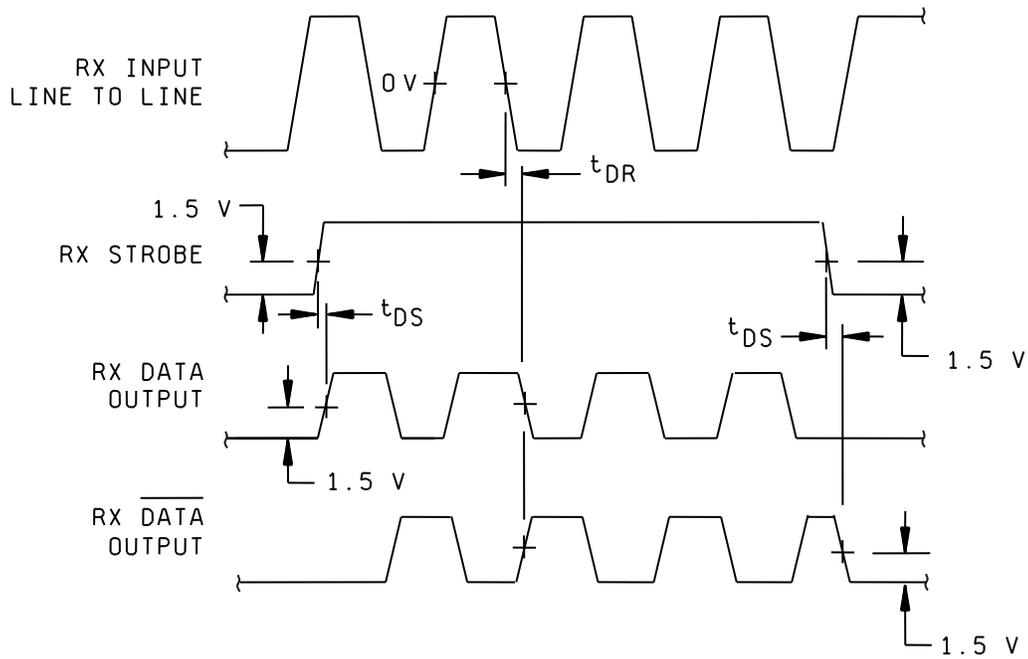
NOTES: (for case X and case Y):

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance for three place decimal shall be .005 (0.13 mm).

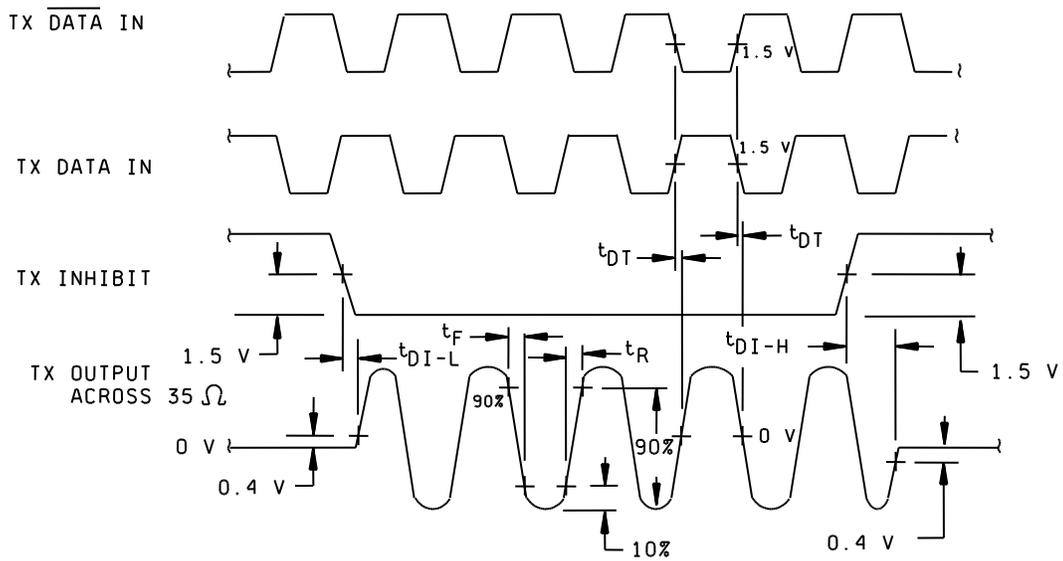
FIGURE 1. Case outline(s) - Continued.

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RECEIVER TIMING



TRANSMITTER TIMING

FIGURE 4. Timing waveforms.

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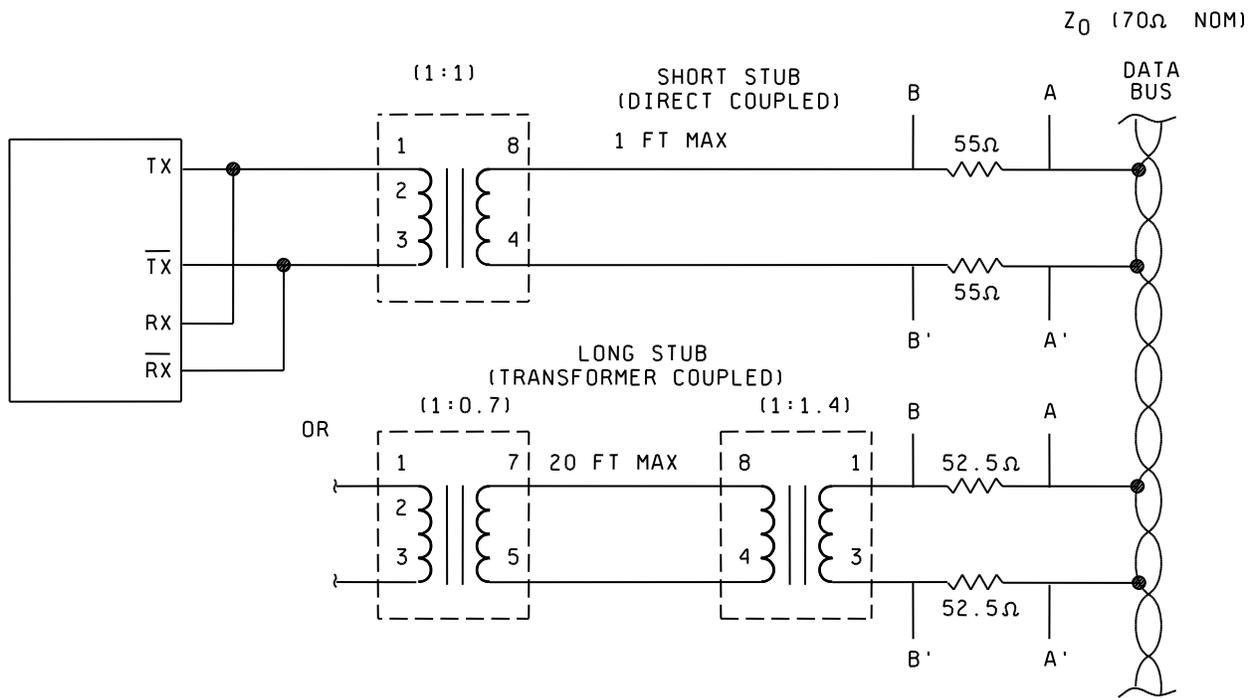


FIGURE 5. Coupling diagram.

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TABLE II. Electrical test requirements.

MIL-PRF-38534 test requirements	Subgroups (in accordance with MIL-PRF-38534, group A test table)
Interim electrical parameters	1
Final electrical parameters	1*,2,3,4,5,6,9,10,11
Group A test requirements	1,2,3,4,5,6,9,10,11
Group C end-point electrical parameters	1,2,3
End-point electrical parameters for radiation hardness assurance (RHA) devices	Not applicable

\* PDA applies to subgroup 1.

4.3 Conformance and periodic inspections. Conformance inspection (CI) and periodic inspection (PI) shall be in accordance with MIL-PRF-38534 and as specified herein.

4.3.1 Group A inspection (CI). Group A inspection shall be in accordance with MIL-PRF-38534 and as follows:

- a. Tests shall be as specified in table II herein.
- b. Subgroups 7 and 8 shall be omitted.

4.3.2 Group B inspection (PI). Group B inspection shall be in accordance with MIL-PRF-38534.

4.3.3 Group C inspection (PI). Group C inspection shall be in accordance with MIL-PRF-38534 and as follows:

- a. End-point electrical parameters shall be as specified in table II herein.
- b. Steady-state life test, method 1005 of MIL-STD-883.
  - (1) Test condition A, B, C, or D. The test circuit shall be maintained by the manufacturer under document revision level control and shall be made available to either DLA Land and Maritime -VA or the acquiring activity upon request. Also, 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.
  - (2)  $T_A$  as specified in accordance with table I of method 1015 of MIL-STD-883.
  - (3) Test duration: 1,000 hours, except as permitted by method 1005 of MIL-STD-883.

4.3.4 Group D inspection (PI). Group D inspection shall be in accordance with MIL-PRF-38534.

4.3.5 Radiation Hardness Assurance (RHA) inspection. RHA inspection is not currently applicable to this drawing.

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		REVISION LEVEL <b>C</b>	SHEET <b>15</b>

5. PACKAGING

5.1 Packaging requirements. The requirements for packaging shall be in accordance with MIL-PRF-38534.

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.

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

6.3 Configuration control of SMD's. All proposed changes to existing SMD's will be coordinated as specified in MIL-PRF-38534.

6.4 Record of users. Military and industrial users shall inform DLA Land and Maritime when a system application requires configuration control and the applicable SMD 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) 692-0547.

6.5 Comments. Comments on this drawing should be directed to DLA Land and Maritime-VA, Columbus, Ohio 43218-3990, or telephone (614) 692-1081.

6.6 Sources of supply. Sources of supply are listed in MIL-HDBK-103 and QML-38534. The vendors listed in MIL-HDBK-103 and QML-38534 have submitted a certificate of compliance (see 3.7 herein) to DLA Land and Maritime-VA and have agreed to this drawing.

<b>STANDARD MICROCIRCUIT DRAWING DLA LAND AND MARITIME COLUMBUS, OHIO 43218-3990</b>	<b>SIZE A</b>		<b>5962-92085</b>
		<b>REVISION LEVEL C</b>	<b>SHEET 16</b>

STANDARD MICROCIRCUIT DRAWING BULLETIN

DATE: 12-02-21

Approved sources of supply for SMD 5962-92085 are listed below for immediate acquisition information only and shall be added to MIL-HDBK-103 and QML-38534 during the next revisions. MIL-HDBK-103 and QML-38534 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 revisions of MIL-HDBK-103 and QML-38534. 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 <u>1/</u>	Vendor CAGE number	Vendor similar PIN <u>2/</u>
5962-9208501HXA 5962-9208501HXC 5962-9208501HYA 5962-9208501HYC	<u>3/</u> <u>3/</u> <u>3/</u> <u>3/</u>	NHI-1551 NHI-1551 NHI-1551FP NHI-1551FP
5962-9208502HXA 5962-9208502HXC 5962-9208502HYA 5962-9208502HYC	88379 88379 88379 88379	ARX4451 ARX4451 ARX4451FP ARX4451FP
5962-9208503HXA 5962-9208503HXC 5962-9208503HYA 5962-9208503HYC	88379 88379 88379 88379	ARX4418 ARX4418 ARX4418FP ARX4418FP
5962-9208504HXA 5962-9208504HXC 5962-9208504HYA 5962-9208504HYC	<u>3/</u> <u>3/</u> <u>3/</u> <u>3/</u>	NHI-1515 NHI-1515 NHI-1515FP NHI-1515FP
5962-9208505HXA 5962-9208505HXC 5962-9208505HYA 5962-9208505HYC	U4388 U4388 U4388 U4388	FC155377 FC155377 FC155377FP FC155377FP

- 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.

<u>Vendor CAGE number</u>	<u>Vendor name and address</u>
U4388	C-MAC Microelectronics Limited South Denes Great Yarmouth Norfolk NR30 3PX England
88379	Aeroflex Plainview Incorporated (Aeroflex Microelectronics Solutions) 35 South Service Road Plainview, NY 11803-4193

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