

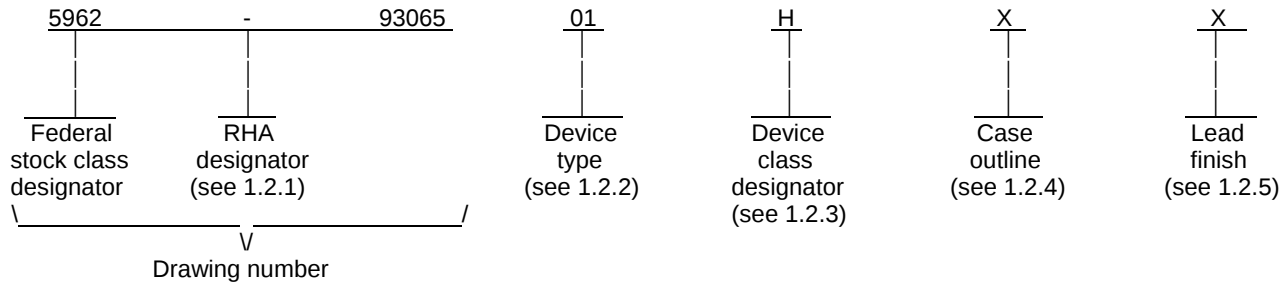
REVISIONS																				
LTR	DESCRIPTION										DATE (YR-MO-DA)					APPROVED				
A	Changes in accordance with NOR 5962-R051-94.										93-11-30					K. A. Cottongim				
B	Add device types 09 through 24.										95-01-19					K. A. Cottongim				
C	Changes in accordance with NOR 5962-R121-95.										95-04-27					K. A. Cottongim				
D	Changes in accordance with NOR 5962-R014-96.										95-12-15					K. A. Cottongim				
E	Add device types 25 and 26. Add case outlines T and U.										98-06-11					K. A. Cottongim				
F	Correct figure 1, case outline Z, pin 1 index.										98-09-11					K. A. Cottongim				
G	Add device types 27 through 46 and case outlines M and N.										01-05-23					Raymond Monnin				
H	Paragraph 1.2.2, device types 38, 39, 40, and 41, circuit function for device types 38 and 40, remove -15 V and for device types 39 and 41, remove -15 V. Remove remaining supply references to aforementioned device types throughout document.										02-07-15					Raymond Monnin				

REV																				
SHEET																				
REV	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H					
SHEET	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29					
REV STATUS				REV		H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
OF SHEETS				SHEET		1	2	3	4	5	6	7	8	9	10	11	12	13	14	
PMIC N/A				PREPARED BY Steve Duncan					DEFENSE SUPPLY CENTER COLUMBUS POST OFFICE BOX 3990 COLUMBUS, OHIO 43216-5000 http://www.dscc.dla.mil											
STANDARD MICROCIRCUIT DRAWING THIS DRAWING IS AVAILABLE FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE AMSC N/A				CHECKED BY Michael C. Jones																
				APPROVED BY Kendall A. Cottongim																
				DRAWING APPROVAL DATE 93-09-17																
				REVISION LEVEL H					SIZE A	CAGE CODE 67268	5962-93065									
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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:

Device type	Generic number	Circuit function
01	BU-65170X1	MIL-STD-1553, RT, 4K RAM, +5/-15 V transceiver
	BU-65170BX1	MIL-STD-1553, RT, 4K RAM, +5/-15 V transceiver
02	BU-65170X2	MIL-STD-1553, RT, 4K RAM, +5/-12 V transceiver
	BU-65170BX2	MIL-STD-1553, RT, 4K RAM, +5/-12 V transceiver
03	BU-61580X1	MIL-STD-1553, BC/RT/MT, 4K RAM, +5/-15 V transceiver
	BU-61580BX1	MIL-STD-1553, BC/RT/MT, 4K RAM, +5/-15 V transceiver
04	BU-61580X2	MIL-STD-1553, BC/RT/MT, 4K RAM, +5/-12 V transceiver
	BU-61580BX2	MIL-STD-1553, BC/RT/MT, 4K RAM, +5/-12 V transceiver
05	BU-65171X1	MIL-STD-1553, RT, 4K RAM, +5/-15 V transceiver, RT address latch
	BU-65171BX1	MIL-STD-1553, RT, 4K RAM, +5/-15 V transceiver, RT address latch
06	BU-65171X2	MIL-STD-1553, RT, 4K RAM, +5/-12 V transceiver, RT address latch
	BU-65171BX2	MIL-STD-1553, RT, 4K RAM, +5/-12 V transceiver, RT address latch
07	BU-61581X1	MIL-STD-1553, BC/RT/MT, 4K RAM, +5/-15 V transceiver, RT address latch
	BU-61581BX1	MIL-STD-1553, BC/RT/MT, 4K RAM, +5/-15 V transceiver, RT address latch
08	BU-61581X2	MIL-STD-1553, BC/RT/MT, 4K RAM, +5/-12 V transceiver, RT address latch
	BU-61581BX2	MIL-STD-1553, BC/RT/MT, 4K RAM, +5/-12 V transceiver, RT address latch
09	BU-65170CX3	MIL-STD-1553, RT, 4K RAM, +5 V transceiver
10	BU-65170CX6	MIL-STD-1553, RT, 4K RAM, +5 V transceiver
11	BU-61580CX3	MIL-STD-1553, BC/RT/MT, 4K RAM, +5 V transceiver
12	BU-61580CX6	MIL-STD-1553, BC/RT/MT, 4K RAM, +5 V transceiver
13	BU-65171CX3	MIL-STD-1553, RT, 4K RAM, +5 V transceiver, RT address latch
14	BU-65171CX6	MIL-STD-1553, RT, 4K RAM, +5 V transceiver, RT address latch
15	BU-61581CX3	MIL-STD-1553, BC/RT/MT, 4K RAM, +5 V transceiver, RT address latch
16	BU-61581CX6	MIL-STD-1553, BC/RT/MT, 4K RAM, +5 V transceiver, RT address latch
17	BU-61585X1	MIL-STD-1553, BC/RT/MT, 12K RAM, +5/-15 V transceiver
18	BU-61585X2	MIL-STD-1553, BC/RT/MT, 12K RAM, +5/-12 V transceiver
19	BU-61586X1	MIL-STD-1553, BC/RT/MT, 12K RAM, +5/-15 V transceiver, RT address latch
20	BU-61586X2	MIL-STD-1553, BC/RT/MT, 12K RAM, +5/-12 V transceiver, RT address latch
21	BU-61585BX3	MIL-STD-1553, BC/RT/MT, 12K RAM, +5 V transceiver
22	BU-61585BX6	MIL-STD-1553, BC/RT/MT, 12K RAM, +5 V transceiver
23	BU-61586BX3	MIL-STD-1553, BC/RT/MT, 12K RAM, +5 V transceiver, RT address latch
24	BU-61586BX6	MIL-STD-1553, BC/RT/MT, 12K RAM, +5 V transceiver, RT address latch

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

<u>Device type</u>	<u>Generic number</u>	<u>Circuit function</u>
25	BU-61588BX3	MIL-STD-1553, BC/RT/MT, 4K RAM, +5 V transceiver
26	BU-65178BX3	MIL-STD-1553, RT, 4K RAM, +5 V transceiver
27	BU-65179BX3	MIL-STD-1553, RT/RT_BOOT, 10, 12, 16, 20 MHz, 4K RAM, +5 V transceiver
28	BU-61688AX3	MIL-STD-1553, BC/RT/MT, 12/16 MHz, 64K RAM, +5 V transceiver
29	BU-61689AX3	MIL-STD-1553, BC/RT/MT, 10/20 MHz, 64K RAM, +5 V transceiver
30	BU-65170DX3	MIL-STD-1553, RT, 4K RAM, +5 V transceiver
31	BU-65170DX6	MIL-STD-1553, RT, 4K RAM, +5 V transceiver, with TX inhibits external
32	BU-61580DX3	MIL-STD-1553, BC/RT/MT, 4K RAM, +5 V transceiver
33	BU-61580DX6	MIL-STD-1553, BC/RT/MT, 4K RAM, +5 V transceiver, with TX inhibits external
34	BU-65171DX3	MIL-STD-1553, RT, 4K RAM, +5 V transceiver, RT address latch
35	BU-65171DX6	MIL-STD-1553, RT, 4K RAM, +5 V transceiver, RT address latch, with TX inhibits external
36	BU-61581DX3	MIL-STD-1553, BC/RT/MT, 4K RAM, +5 V transceiver, RT address latch
37	BU-61581DX6	MIL-STD-1553, BC/RT/MT, 4K RAM, +5 V transceiver, RT address latch, with TX inhibits external
38	BU-61585DX3	MIL-STD-1553, BC/RT/MT, 12K RAM, +5 V transceiver
39	BU-61585DX6	MIL-STD-1553, BC/RT/MT, 12K RAM, +5 V transceiver
40	BU-61586DX3	MIL-STD-1553, BC/RT/MT, 12K RAM, +5 V transceiver, RT address latch
41	BU-61586DX6	MIL-STD-1553, BC/RT/MT, 12K RAM, +5 V transceiver, RT address latch
42	BU-61588CX3	MIL-STD-1553, BC/RT/MT, 12/16 MHz, 4K RAM, +5 V transceiver
43	BU-65178CX3	MIL-STD-1553, RT, 4K RAM, +5 V transceiver
44	BU-65179CX3	MIL-STD-1553, RT/RT_BOOT, 10, 12, 16, 20 MHz, 4K RAM, +5 V transceiver
45	BU-61688BX3	MIL-STD-1553, BC/RT/MT, 12/16 MHz, 64K RAM, +5 V transceiver
46	BU-61689BX3	MIL-STD-1553, BC/RT/MT, 10/20 MHz, 64K RAM, +5 V transceiver

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).
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>
M	See figure 1	72	Quad flat package with lead forming
N	See figure 1	70	Flat package with lead forming
T	See figure 1	72	Quad flat package with tie bars
U	See figure 1	81	Pin grid array
X	See figure 1	70	Dual-in-line
Y	See figure 1	70	Flat package
Z	See figure 1	70	Dual-in-line, J-lead

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

1.3 Absolute maximum ratings. 1/

Positive supply voltage range (+5VA, +5VB).....	-0.3 V dc to +7.0 V dc
Negative supply voltage range (-VA, -VB).....	+0.3 V dc to -18 V dc
Logic supply voltage range (+5 V logic)	-0.3 V dc to +6.0 V dc
Power dissipation (P _D): <u>2/ 3/ 4/</u>	
Device types 01, 03, 05, 07, 17, 19, 38, and 40	2.23 W
Device types 27, 28, 29, 44, 45, 46	2.08 W
Device types 02, 04, 06, 08, 18, 20, 39, and 41	2.16 W
Device types 09 through 16, 21 through 24, 30 through 37	2.85 W
Device types 25, 26, 42, and 43	1.97 W
Storage temperature range	-65°C to +150°C
Lead temperature (soldering, 10 seconds).....	+300°C
Thermal resistance, junction to case (θ _{JC})	6.99°C/W <u>3/</u>

1.4 Recommended operating conditions.

Positive supply voltage range (+5VA, +5VB):	
Device types 01 through 08, 17 through 20, 38 through 41	+4.5 V dc to +5.5 V dc
Device types 09 through 16, 21 through 29, 30 through 37, 42 through 46.....	+4.75 V dc to +5.25 V dc
Negative supply voltage range (-VA, -VB):	
Device types 01, 03, 05, 07, 17, and 19	-14.25 V dc to -15.75 V dc
Device types 02, 04, 06, 08, 18, and 20	-11.40 V dc to -12.60 V dc
Logic supply voltage range (+5V logic)	+4.5 V dc to +5.5 V dc
Minimum logic high input voltage (V _{IH})	2.0 V dc
Maximum logic low input voltage (V _{IL})	0.8 V dc
Operating frequency (F _{OP})	10, 12, 16, or 20 MHz
Case operating temperature range (T _C)	-55°C to +125°C

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 listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation.

SPECIFICATION

DEPARTMENT OF DEFENSE

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

STANDARDS

DEPARTMENT OF DEFENSE

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.
- 2/ Applies up to T_C = +125°C.
- 3/ Hottest die.
- 4/ Assumes 100 percent transmitter duty cycle on one channel and 0 percent duty cycle on the other channel.

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HANDBOOKS

DEPARTMENT OF DEFENSE

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

MIL-HDBK-780 - Standard Microcircuit Drawings.

(Unless otherwise indicated, copies of the specification, standards, and handbooks are available 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 may 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. Therefore, the tests and inspections herein may not be performed for the applicable device class (see MIL-PRF-38534). Furthermore, the manufacturer may take exceptions or use alternate methods to the tests and inspections herein and not perform them. However, the performance requirements as defined in MIL-PRF-38534 shall be met 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 1.2.4 herein and figure 1.

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

3.2.3 Pin functions. The pin functions shall be as specified in table III.

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.

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 (DSCC-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 DSCC-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.

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TABLE I. Electrical performance characteristics.

Test	Symbol	Conditions -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
+5 volt supply current, Idle <u>1</u> /	I _{CC1}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	1,2,3	01-08	5	190	mA
				09-16, 25-37, 42-46	5	200	
				17-20	5	250	
				21-24 38-41	5	260	
+5 volt supply current, channel A = 25% duty cycle channel B = idle <u>1</u> /	I _{CC2}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	1,2,3	01-08	5	190	mA
				09-16, 25-37, 42-46	5	350	
				17-20	5	250	
				21-24, 38-41	5	398	
+5 volt supply current, channel A = idle channel B = 25% duty cycle <u>1</u> /	I _{CC3}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	1,2,3	01-08	5	190	mA
				09-16, 25-37, 42-46	5	350	
				17-20	5	250	
				21-24, 38-41	5	398	
Negative supply current <u>2</u> /	I _{EE1}	-VA = -12 V for device types 02, 04, 06, 08, 18, and 20. -VA = -15 V for device types 01, 03, 05, 07, 17, and 19.	1,2,3	01-08, 17-20	5	60	mA
Negative supply current, channel A = 25% duty cycle channel B = idle <u>2</u> /	I _{EE2}	-VA = -12 V for device types 02, 04, 06, 08, 18, and 20. -VA = -15 V for device types 01, 03, 05, 07, 17, and 19.	1,2,3	01,03, 05,07, 17,19	25	108	mA
				02,04, 06,08, 18,20	25	120	

See footnotes at end of table.

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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
Negative supply current, channel A = idle channel B = 25% duty cycle <u>2/</u>	I _{EE3}	-VA = -12 V for device types 02, 04, 06, 08, 18, and 20. -VA = -15 V for device types 01, 03, 05, 07, 17, and 19.	1,2,3	01,03, 05,07, 17,19	25	108	mA
				02,04, 06,08, 18,20	25	120	
Low level input current <u>3/</u>	I _{IL1}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, V _{IN} = 0 V	1,2,3	All	-397	-50	μA
Low level input current <u>4/</u>	I _{IL2}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, V _{IN} = 0 V	1,2,3	All	-794	-100	μA
High level input current <u>3/</u>	I _{IH1}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, V _{IN} = 2.4 V	1,2,3	All	-346	-42	μA
High level input current <u>4/</u>	I _{IH2}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, V _{IN} = 2.4 V	1,2,3	All	-692	-84	μA
Output voltage low <u>5/</u>	V _{OL1}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, I _{OL} = -6.4 mA	1,2,3	All		0.4	V
Output voltage low <u>6/</u>	V _{OL2}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, I _{OL} = -3.2 mA	1,2,3	All		0.4	V
Output voltage high <u>5/</u>	V _{OH1}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, I _{OH} = 6.4 mA	1,2,3	All	2.4		V
Output voltage high <u>6/</u>	V _{OH2}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, I _{OH} = 3.2 mA	1,2,3	All	2.4		V

See footnotes at end of table.

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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
$\overline{\text{IOEN}}$ low pulse width (memory read)	t _{PW1}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	9,10,11	All	475	625	ns
$\overline{\text{READYD}}$ low pulse width (memory read)	t _{PW2}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	9,10,11	All	225	375	ns
$\overline{\text{MEMOE}}$ low pulse width (memory read)	t _{PW3}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	9,10,11	All	350	500	ns
$\overline{\text{MEMWR}}$ low pulse width (memory write)	t _{PW4}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	9,10,11	All	37	87	ns
$\overline{\text{MEMENA-OUT}}$ low pulse width (memory read)	t _{PW5}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	9,10,11	All	412	562	ns
$\overline{\text{MEMENA-OUT}}$ low pulse width (memory write)	t _{PW6}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	9,10,11	All	435	695	ns
$\overline{\text{INCMD}}$ low pulse width (receive command)	t _{PW7}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	9,10,11	All	45.4	47.5	μs
$\overline{\text{INCMD}}$ low pulse width (transmit command)	t _{PW8}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	9,10,11	All	45.4	47.5	μs
$\overline{\text{INT}}$ low pulse width	t _{PW9}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	9,10,11	All	450	550	ns
$\overline{\text{DTREQ}}$ low pulse width	t _{PW10}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	9,10,11	All	2.07	2.19	μs
$\overline{\text{DTACK}}$ low pulse width	t _{PW11}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V	9,10,11	All	2.0	2.23	μs
Functional tests		+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, see 4.3.1b.	7,8	All			Pass/ fail

See footnotes at end of table.

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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
Receiver threshold	V _{TH}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, transformer coupled into a 70 Ω resistive load	4,5,6	All	500	700	mVp-p
Transmitter differential output voltage <u>7/</u>	V _O	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, transformer coupled into a 70 Ω resistive load	4,5,6	All	18	27	Vp-p
Transmitter output rise time	t _R	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, transformer coupled into a 70 Ω resistive load	4,5,6	All	100	300	ns
Transmitter output fall time	t _F	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, transformer coupled into a 70 Ω resistive load	4,5,6	All	100	300	ns
Transmitter output offset voltage <u>8/</u>	V _{OS}	+5 V logic = +5.5 V, +5VA = +5VB = +5.5 V, transformer coupled into a 70 Ω resistive load	4,5,6	All	-250	+250	mVp-p

1/ Measured at the following pins: Case outlines M and T: pins 20, 37, and 72. Case outline U: pins A9, D3, and J3. Case outlines N, X, Y, and Z: pins 38, 54, and 68.

2/ Measured at the following pins: Case outlines N, X, Y, and Z: pins 36 and 70.

3/ Measured at the following pins: Device types 01-08, 10, 12, 14, 16-20, 22, 24, 31, 33, 35, 37, 39, and 41: pins 3-17, 19-26, 29-33, 39-44, 46-53, and 55-64. Device types 09, 11, 13, 15, 21, 23, 27-30, 32, 34, 36, 38, 40, 44, 45, and 46: pins 3-17, 19-26, 29-33, 36, 39-44, 46-53, 55-64, and 70. Device types 25, 26, 42 and 43, case outlines M and T: pins 1-4, 6, 8-12, 14, 15, 21-24, 27-31, 33-36, 38-55, 59-64, 66, and 68-71. Device types 25, 26, 42, and 43, case outline U: pins A1, A2, A5, A6, B1-B5, B7, B9, C2-C7, C9, D2, D7-D9, E1-E3, E7-E9, F1-F3, F7-F9, G2-G9, H5-H9, J1, J2, J4-J7, and J9.

4/ Measured at the following pin. Case outlines M and T: pin 32. Case outline U: pin H2. Case outlines N, X, Y, and Z: pin 7.

5/ Measured at the following pins: Case outlines M and T: pins 3, 4, 6, 8-12, 14, 15, 22-24, 27, 29, 36, 38, 39, 42-54, 66, and 68-71. Case outline U: pins A1, A2, B1-B3, B9, C2-C5, D2, D7-D9, E1-E3, E7-E9, F1-F3, F7-F9, G2-G6, H5, H9, J1, J2, J4, and J6. Case outlines N, X, Y, and Z: pins 8-17, 20-25, 29-32, 46-53, and 55-62.

6/ Measured at the following pins: Case outlines M and T: pins 56, 57, and 58. Case outline U: pins A3, B8, and C8. Case outlines N, X, Y, and Z: pins 28, 45, and 65-67.

7/ For device types 01, 03, 05, 17, 19:

In case outline X, the limits are 20 Vp-p minimum and 27 Vp-p maximum.

In case outlines N, Y and Z, the limits are 18 Vp-p minimum and 27 Vp-p maximum.

8/ Parameter shall be tested as part of the initial characterization of these devices and after design and process changes. Parameter shall be guaranteed to the limits specified in table I for all lots not specifically tested.

**STANDARD
MICROCIRCUIT DRAWING**

DEFENSE SUPPLY CENTER COLUMBUS
COLUMBUS, OHIO 43216-5000

SIZE
A

REVISION LEVEL
H

5962-93065

SHEET
9

Case outline M.

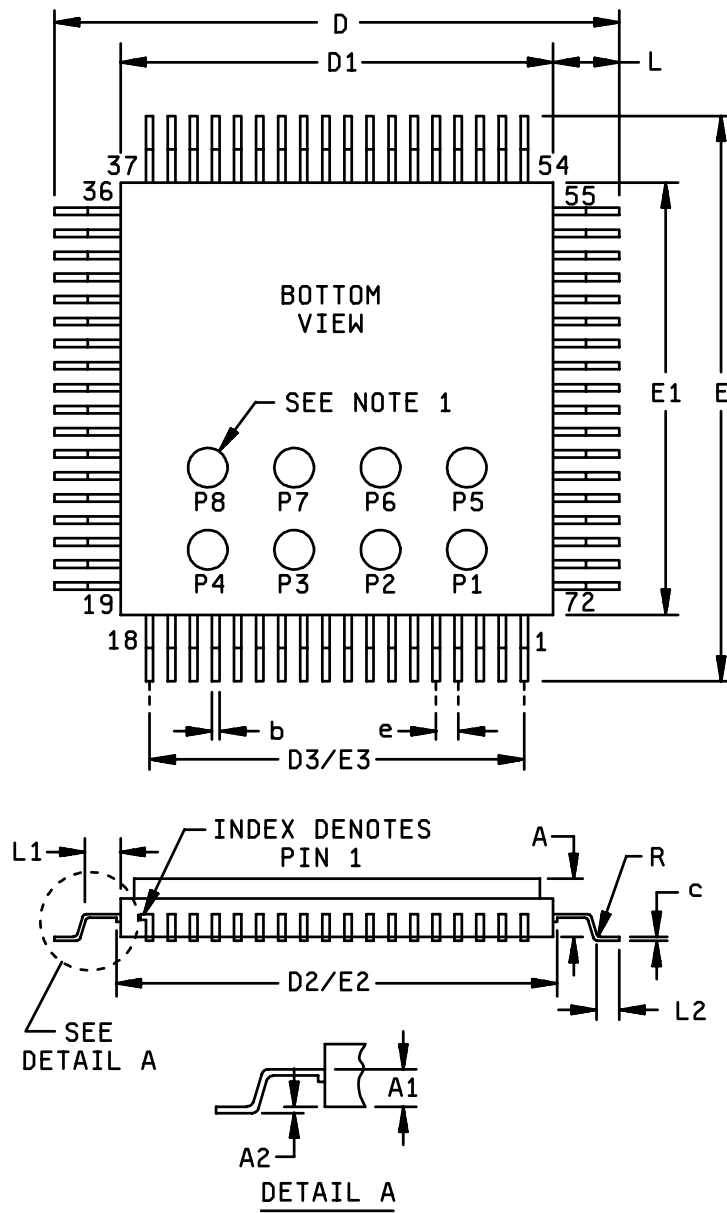


FIGURE 1. Case outline(s).

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 10

Case outline M.

Symbol	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	---	3.94	---	0.155
A1	1.14	1.40	0.045	0.055
A2	0.05	0.41	0.002	0.016
b	0.41	0.51	0.016	0.020
c	0.20	0.30	0.008	0.012
e	1.14	1.40	0.045	0.055
D/E	34.54	35.56	1.360	1.400
D1/E1	25.15	25.65	0.990	1.010
D2/E2	25.65	26.37	1.010	1.038
D3/E3	18.35	25.40	0.842	0.858
L	4.57	5.08	0.180	0.200
L1	2.03	---	0.080	---
L2	1.27	---	0.050	---
R	---	0.30	---	0.012

NOTES:

1. There are eight test pads located on the bottom of the package. Each pad measures 0.100 inch (2.54 mm) in diameter. These pads are recessed so as to not interfere when mounting the package.
2. The U.S. government preferred system of measurement is the metric SI. This case outline was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.
3. Package material is Alumina (AL₂O₃).
4. Test pads P5 and P8 are not applicable to device types 28 through 31 and 42 through 46.

FIGURE 1. Case outline(s) - Continued.

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 11

Case outline N.

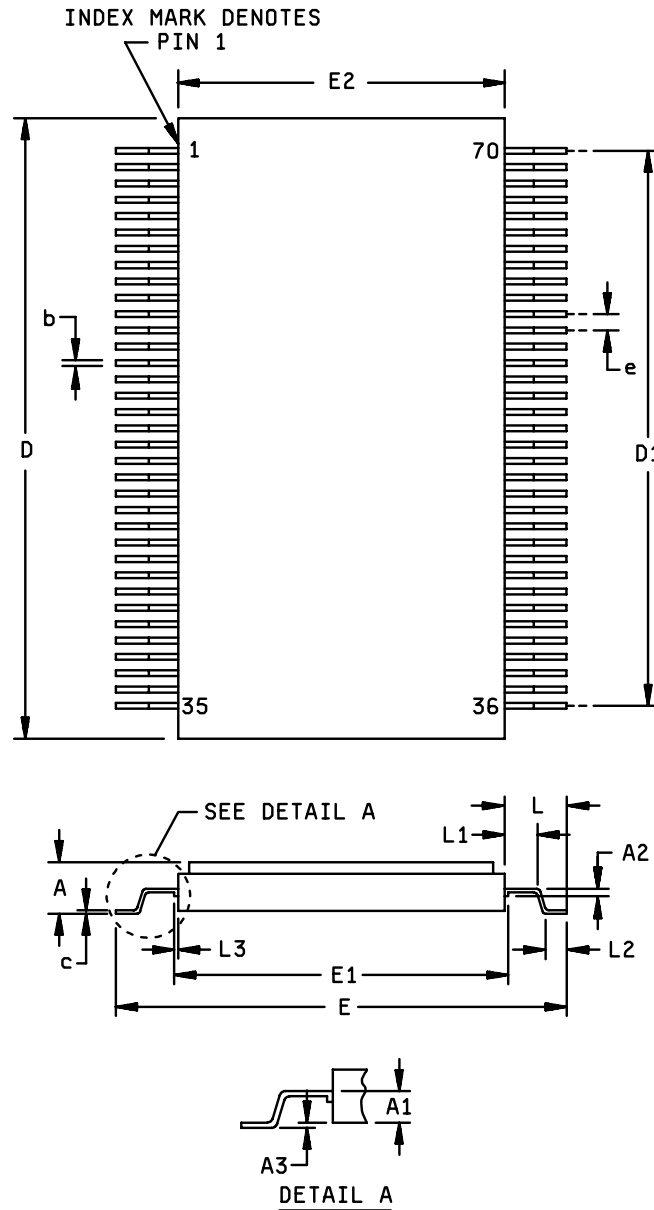


FIGURE 1. Case outline(s) - Continued.

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 12

Case outline N - Continued.

Symbol	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	---	3.81	---	0.150
A1	1.68 REF		0.066 REF	
A2	1.02 TYP		0.040 TYP	
A3	0.05	0.41	0.002	0.016
b	0.41	0.51	0.016	0.020
c	0.20	0.30	0.008	0.012
D	---	48.26	---	1.900
D1	43.05	43.31	1.695	1.705
E	34.54	35.56	1.360	1.400
E1	---	26.01	---	1.024
E2	---	25.40	---	1.000
e	1.27 TYP		0.050 TYP	
L	4.47	5.08	0.180	0.200
L1	2.03	---	0.080	---
L2	1.27	---	0.050	---
L3	---	0.31	---	0.012

NOTES:

1. The U.S. government preferred system of measurement is the metric SI. This case outline was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.
2. Pin numbers are for reference only.

FIGURE 1. Case outline(s) - Continued.

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 13

Case outline T.

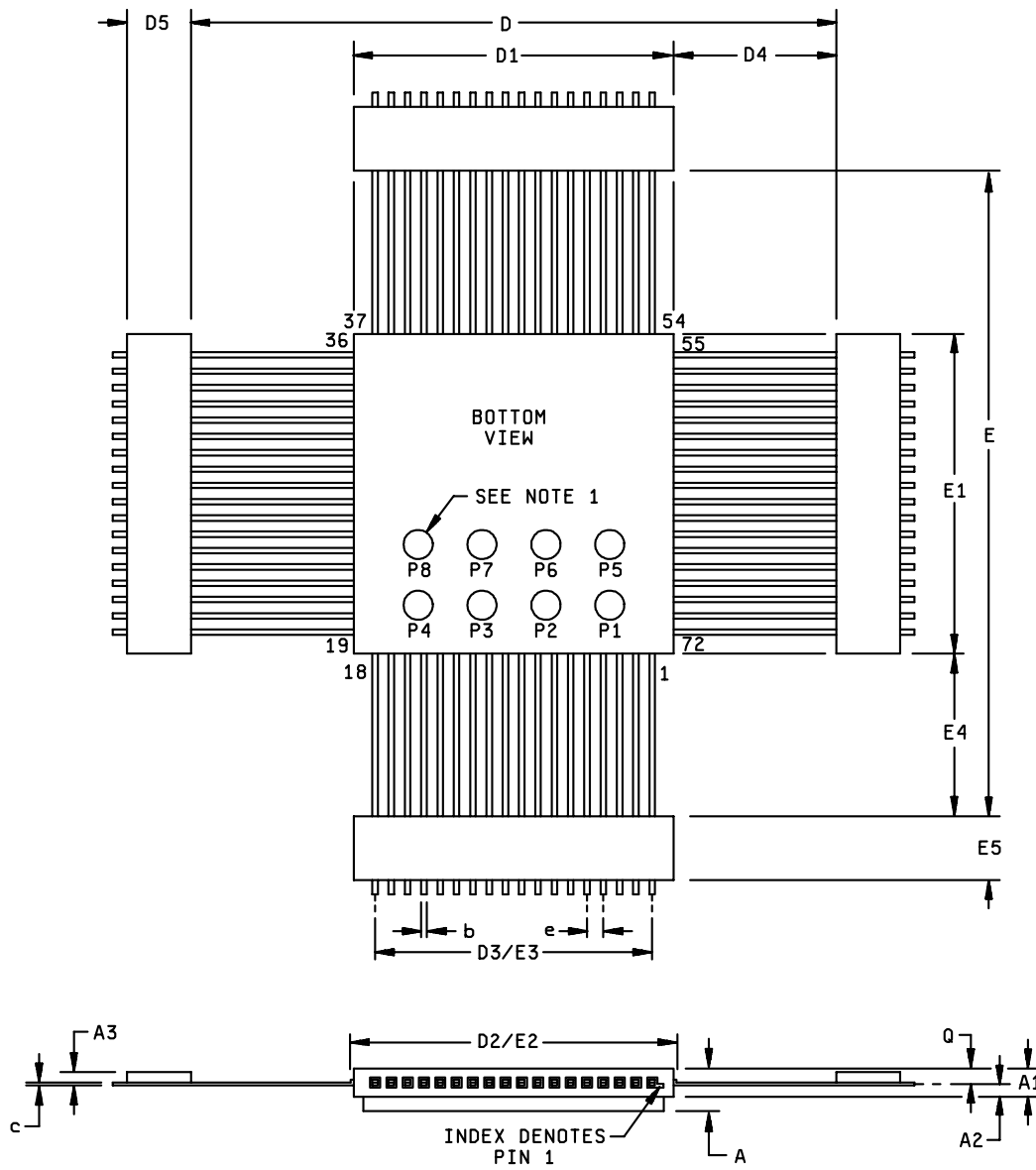


FIGURE 1. Case outline(s) - Continued.

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 14

Case outline T - Continued.

Symbol	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	---	3.94	---	0.155
A1	2.03	2.54	0.080	0.100
A2	1.14	1.40	0.045	0.055
A3	0.76	1.02	0.030	0.040
b	0.41	0.51	0.016	0.020
c	0.20	0.30	0.008	0.012
e	1.14	1.40	0.045	0.055
D/E	50.42	51.18	1.985	2.015
D1/E1	25.15	25.65	0.990	1.010
D2/E2	25.65	26.37	1.010	1.038
D3/E3	18.35	25.40	0.842	0.858
D4/E4	12.19	13.21	0.480	0.520
D5/E5	4.95	5.21	0.195	0.205

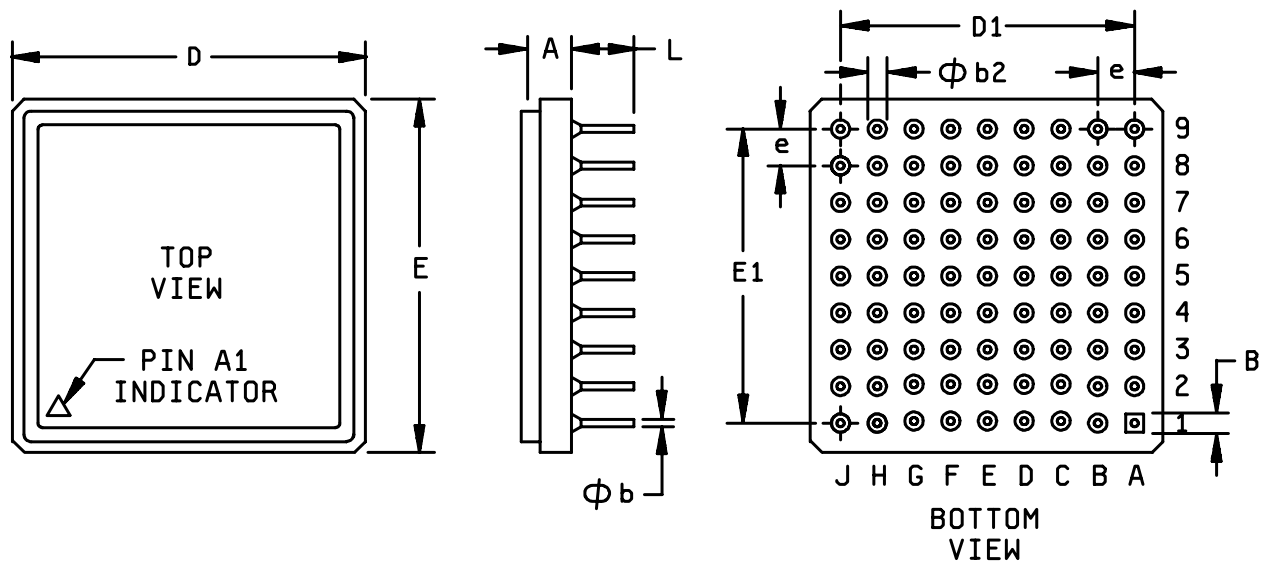
NOTES:

1. There are eight test pads located on the bottom of the package. Each pad measures 0.100 inch (2.54 mm) in diameter. These pads are recessed so as to not interfere when mounting the package.
2. The U.S. government preferred system of measurement is the metric SI. This case outline was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.
3. Package material is Alumina (AL₂O₃).
4. Test pads P5 and P8 are not applicable to device types 28 through 31 and 42 through 46.

FIGURE 1. Case outline(s) - Continued.

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 15

Case outline U.



Symbol	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	---	3.94	---	0.155
B	1.61	1.91	0.065	0.075
ϕb	0.41	0.51	0.016	0.020
$\phi b2$	1.61	1.91	0.065	0.075
D/E	25.15	25.65	0.990	1.010
D1/E1	20.19	20.45	0.795	0.805
e	2.41	2.67	0.095	0.105
L	4.37	4.78	0.172	0.188

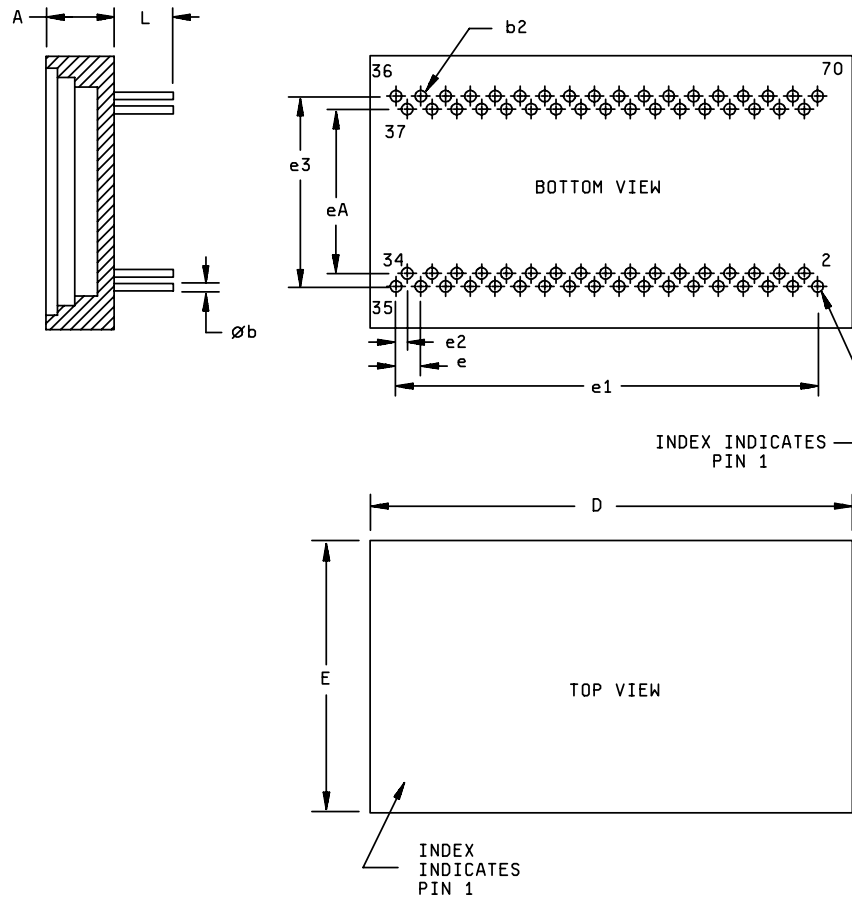
NOTES:

1. The U.S. government preferred system of measurement is the metric SI. This case outline was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.
2. Package material is Alumina (Al_2O_3).

FIGURE 1. Case outline(s) - Continued.

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 16

Case outline X.



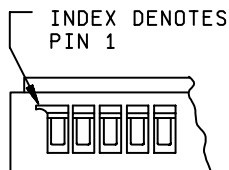
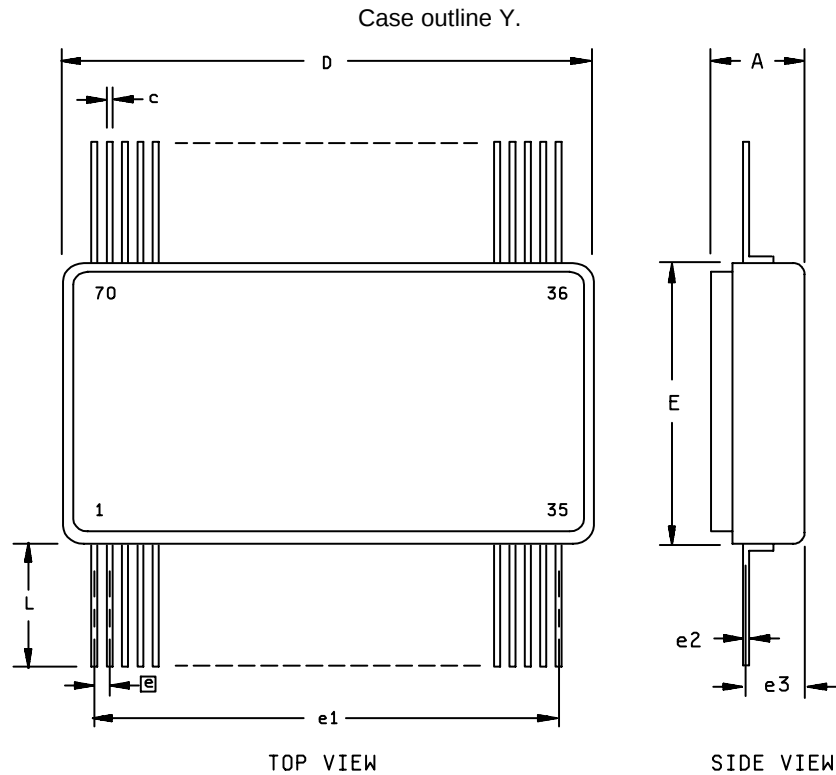
Symbol	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	---	5.46	---	0.215
$\varnothing b$	0.406	0.508	0.016	0.020
b2	1.65	1.91	0.065	0.075
D	---	48.26	---	1.900
e	2.41	2.67	0.095	0.105
eA	10.03	10.29	0.395	0.405
e1	43.05	43.31	1.695	1.705
e2	1.14	1.40	0.045	0.055
e3	15.11	15.37	0.595	0.605
E	---	25.40	---	1.000
L	4.32	4.83	0.170	0.190

NOTES:

1. The U.S. government preferred system of measurement is the metric SI. This case outline was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.
2. Pin numbers are for reference only.

FIGURE 1. Case outline(s) - Continued.

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 17



Symbol	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	---	5.46	---	0.215
c	0.330	0.432	0.013	0.017
D	---	48.26	---	1.900
e	1.14	1.40	0.045	0.055
e1	43.05	43.31	1.695	1.705
e2	0.20	0.30	0.008	0.012
e3	1.52	2.03	0.060	0.080
E	---	25.40	---	1.000
L	10.16	---	0.400	---

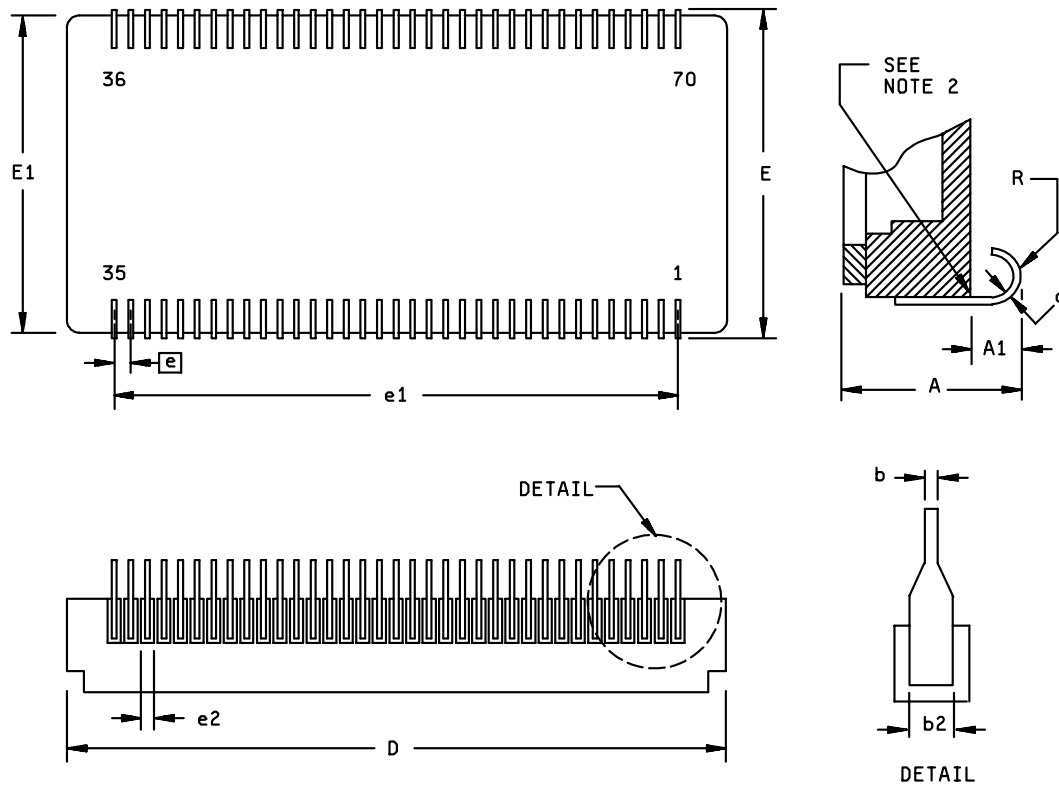
NOTES:

1. The U.S. government preferred system of measurement is the metric SI. This case outline was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.
2. Pin numbers are for reference only.

FIGURE 1. Case outline(s) - Continued.

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 18

Case outline Z.



Symbol	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	6.05	7.06	0.238	0.278
A1	1.52	1.93	0.060	0.076
b	0.38	0.48	0.015	0.019
b2	0.58	0.69	0.023	0.027
c	0.15	0.25	0.006	0.010
D	---	48.26	---	1.900
e	1.27 BSC		0.050 BSC	
e1	43.05	43.31	1.695	1.705
e2	0.84	1.09	0.033	0.043
E	---	25.98	---	1.023
E1	---	25.40	---	1.000
R	0.635	0.889	0.025	0.035

NOTES:

1. The U.S. government preferred system of measurement is the metric SI. This case outline was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.
2. Braze fillet shall be concave and is $.020 \pm .005$ inches, $(.508 \pm .127 \text{ mm})$ at an angle of 45 degrees.
3. Pin numbers are for reference only.

FIGURE 1. Case outline(s) - Continued.

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 19

Device types	25 through 29 and 42 through 46		
Case outlines	M and T		
Terminal number	Terminal symbol	Terminal number	Terminal symbol
1	<u>MEM/REG</u>	37	+5 V LOGIC
2	MSTCLR	38	D01
3	A11	39	D04
4	A10	40	RTADP
5	TX/RX-A	41	RTADI
6	<u>A08</u>	42	D00
7	TX/RX-A	43	D02
8	A14	44	D03
9	A04	45	D05
10	A03	46	D08
11	A07	47	D07
12	A02	48	D13
13	<u>TX/RX-B</u>	49	D12
14	MEMOE/ADDR_LAT	50	D14
15	<u>A00</u>	51	D09
16	TX/RX-B	52	D11
17	LOGIC GND	53	D15
18	LOGIC GND	54	D10
19	LOGIC GND	55	<u>TRANSPARENT/BUFFERED</u>
20	+5 V LOGIC	56	<u>READYD</u>
21	RTAD2	57	<u>INT</u>
22	<u>A06</u>	58	IOEN
23	MEMWR/ZERO_WAIT	59	TX_INH_A
		60	TX_INH_B
24	<u>DTREQ/16/8</u>	61	<u>SELECT</u>
25	Test output (RX_B)	62	<u>STRBD</u>
26	Test output (RX_B)	63	<u>RD/WR</u>
27	<u>A01</u>	64	<u>DTGRT/MSB/LSB</u>
28	<u>MENENA_IN/TRIGGER_SEL</u>	65	Test output (RX-A)
29	DTACK/POLARITY_SEL	66	A15
30	CLOCK_IN	67	Test output (RX-A)
31	RT_AD_LAT	68	A05
		69	A09
32	<u>SSFLAG/EXT_TRIG</u>	70	A12
33	RTAD0	71	A13
34	TRAD3	72	+5 V LOGIC
35	RTAD4		
36	D06		

FIGURE 2. Terminal connections.

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 20

Device types	25 through 29 and 42 through 46		
Case outline	U		
Terminal number	Terminal symbol	Terminal number	Terminal symbol
A1	D10	E6	Test output (AB_Tstck)
A2	<u>D11</u>	E7	D08
A3	IOEN _____	E8	D06
A4	Test output (RX-A)	E9	D07
A5	<u>RD/WR</u>	F1	A06
A6	<u>STRBD</u>	F2	A03
A7	LOGIC GND	F3	A02
A8	LOGIC GND	F4	Test output(AB_Test2)
A9	+5 V LOGIC	F5	Test output(AB_Test3)
B1	A13	F6	Test output(B_Test1)
B2	D12	F7	D03
B3	A 12 _____	F8	D01
B4	<u>MEM/REG</u>	F9	D02
B5	MSTCLR	G1	TX/RX-B
B6	Test output (RX-A)	G2	A01
B7	TX_INH_A	G3	_____A00
B8	<u>READYD</u>	G4	MEMOE/ADDR_LAT
B9	D09	G5	D05
C1	TX/RX-A	G6	D04
C2	A11	G7	RT_AD_LAT
C3	A10	G8	RTAD3
C4	A14	G9	<u>RTADP</u>
C5	A15	H1	_____TX/RX-B
C6	<u>SELECT</u>	H2	SSFLAG/EXT_TRIG
C7	TX_INH_B	H3	Test output (<u>RX-B</u>)
C8	_____INT _____	H4	Test output (<u>RX-B</u>)
C9	TRANSPARENT/BUFFERED	H5	DTREQ/16//8
D1	TX/RX-A	H6	CLOCK_IN
D2	A08	H7	RTAD0
D3	+5 V LOGIC	H8	RTAD4
D4	Test output (A_RExt)	H9	_____D00
D5	Test output (A_Test1)	J1	_____DTGRT/MSB/LSB
D6	Test output (AB_Test4)	J2	MEMWR/ZERO_WAIT
D7	D13	J3	+5 V LOGIC
D8	D15	J4	_____A09
D9	D14	J5	<u>MEMNA_IN/TRIGGER_SEL</u>
E1	A07	J6	DTACK/POLARITY_SEL
E2	A05	J7	RTAD2
E3	A04	J8	LOGIC GND
E4	Test output(B_RExt)	J9	RTAD1
E5	No connect		

FIGURE 2. Terminal connections- Continued.

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 21

Device types	01 through 24 and 30 through 41		
Case outlines	N, X, Y, and Z		
Terminal number	Terminal symbol	Terminal number	Terminal symbol
1	<u>TX/RX-A</u>	36	-VB (see note 1)
2	<u>TX/RX-A</u>	37	GNDB
3	<u>SELECT</u>	38	+5VB
4	<u>STRBD</u>	39	RTAD0
5	<u>MEM/REG</u>	40	RTAD1
6	<u>RD/WR</u>	41	RTAD2
7	<u>MSTCLR</u>	42	RTAD3
8	A15	43	RTAD4
9	A14	44	<u>RTADP</u>
10	A13	45	<u>INCMD</u>
11	A12	46	D00
12	A11	47	D01
13	A10	48	D02
14	A09	49	D03
15	A08	50	D04
16	A07	51	D05
17	A06	52	D06
18	LOGIC GND	53	D07
19	<u>CLOCK_IN</u>	54	+5 V LOGIC
20	A05	55	D08
21	A04	56	D09
22	A03	57	D10
23	A02	58	D11
24	A01	59	D12
25	<u>A00</u>	60	D13
26	<u>DTGRT/MSB/LSB</u>	61	D14
27	<u>SSFLAG/EXT_TRIG</u>	62	D15
28	<u>MEMENA_OUT</u>	63	<u>TAG_CLK</u>
29	<u>MEMOE/ADDR_LAT</u>	64	<u>TRANSPARENT/BUFFERED</u>
30	<u>MEMWR/ZERO_WAIT</u>	65	<u>INT</u>
31	<u>DTREQ/16/8</u>	66	<u>READYD</u>
32	<u>DTACK/POLARITY_SEL</u>	67	IOEN
33	<u>MEMENA_IN/TRIGGER_SEL</u>	68	+5VA
34	<u>TX/RX-B</u>	69	GNDA
35	TX/RX-B	70	-VA (see note 1)

NOTE:

- For device types 01, 03, 05, 07, 17, and 19; pin 36 and pin 70 are -15 V.
For device types 02, 04, 06, 08, 18, and 20; pin 36 and pin 70 are -12 V.
For device types 09, 11, 13, 15, 21, 23, 30, 32, 34, 36, 38, and 40; pin 36 and pin 70 are no connects.
For device types 10, 12, 14, 16, 22, 24, 31, 33, 35, 37, 39, and 41; pin 36 and pin 70 are TX_INH_B and TX_INH_A, respectively.

FIGURE 2. Terminal connections - Continued.

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 22

TABLE II. Electrical test requirements.

MIL-PRF-38534 test requirements	Subgroups (in accordance with MIL-PRF-38534, group A test table)
Interim electrical parameters	1,2,3,4,5,6,7,8,9,10,11
Final electrical parameters	1*,2,3,4,5,6,7,8,9,10,11
Group A test requirements	1,2,3,4,5,6,7,8,9,10,11
Group C end-point electrical parameters	1,2,3,4,5,6,7,8,9,10,11
End-point electrical parameters for radiation hardness assurance (RHA) devices	Not applicable

* PDA applies to subgroup 1.

4. QUALITY ASSURANCE PROVISIONS

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 DSCC-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 test method 1015 of MIL-STD-883.

(2) T_A 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.

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 consist of verifying the functionality of the device. It forms a part of the vendors test tape and shall be maintained and available from the approved source of supply.

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

STANDARD MICROCIRCUIT DRAWING DEFENSE SUPPLY CENTER COLUMBUS COLUMBUS, OHIO 43216-5000	SIZE A		5962-93065
		REVISION LEVEL H	SHEET 23

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 DSCC-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 test method 1005 of MIL-STD-883.
 - (2) T_A as specified in accordance with table I of method 1005 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.

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 with the users of record for the individual documents. This coordination will be accomplished in accordance with MIL-PRF-38534.

6.4 Record of users. Military and industrial users shall inform Defense Supply Center Columbus when a system application requires configuration control and the applicable SMD. 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.

6.5 Comments. Comments on this drawing should be directed to DSCC-VA, Post Office Box 3990, Columbus, Ohio 43216-5000, or telephone (614) 692-0512.

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 DSCC-VA and have agreed to this drawing.

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TABLE III. Pin functions.

Terminal symbol	I/O	Description
D00	I/O	Data bus bit 0 (LSB).
D02	I/O	Data bus bit 2.
D04	I/O	Data bus bit 4.
D06	I/O	Data bus bit 6.
D08	I/O	Data bus bit 8.
D10	I/O	Data bus bit 10.
D12	I/O	Data bus bit 12.
D14	I/O	Data bus bit 14.
RTAD1	I	Remote terminal address bit 1.
RTAD0	I	Remote terminal address bit 0 (LSB).
RTAD4	I	Remote terminal address bit 4 (MSB).
+5 V LOGIC	I	+5 volt supply input for digital logic section.
TAG CLK	I	External Time Tag Clock Input for BC/RT modes.
-VB	I	Input power supply connection for the B channel transceiver. -15 V for device types 01, 03, 05, 07, 17, and 19, -12 V for device types 02, 04, 06, 08, 18, and 20.
GNDB	-	Ground B. Power supply return connection for the B channel transceiver.
TX/RX-B	I/O	Transmit/receive transceiver-B. Input/output to the coupling transformer that connects to the B channel of the 1553 bus.
LOGIC GND	-	Logic ground. Power supply return for the digital logic section.
A01	I/O	Address bit 1.
A03	I/O	Address bit 3.
A05	I/O	Address bit 5.
A07	I/O	Address bit 7.
A09	I/O	Address bit 9.
A11	I/O	Address bit 11.
A13	I/O	Address bit 13.
A15	I/O	Address bit 15 (MSB).

See footnotes at end of table.

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TABLE III. Pin functions - Continued.

Terminal symbol	I/O	Description
$\overline{\text{MEMOE/ADDR_LAT}}$	I/O	Memory Output Enable/Address Latch. In transparent mode, used to enable data outputs for external RAM. In buffered mode, input used to configure the internal address buffers.
$\overline{\text{MEMENA-OUT}}$ 1/	O	Memory enable out. <u>Logic 0</u> output enables external RAM. Used with $\overline{\text{MEMOE}}$ to read data or with $\overline{\text{MEMWR}}$ to write data into external RAM.
CLOCK IN	I	Clock input. 16 MHz TTL clock.
$\overline{\text{MEM/REG}}$	I	Memory/register. Input from CPU to select memory or register data transfer.
$\overline{\text{STRBD}}$	I	Strobe data. Used in conjunction with $\overline{\text{SELECT}}$ to initiate a data transfer cycle to/from CPU.
TRANSPARENT/ BUFFERED	I	Used to select between the transparent and buffered modes for the host processor interface.
D11	I/O	Data bus bit 11.
D13	I/O	Data bus bit 13.
D15	I/O	Data bus bit 15 (MSB).
RTAD3	I	Remote terminal address bit 3.
RTAD2	I	Remote terminal address bit 2.
RTADP	I	Remote terminal address parity input.
$\overline{\text{RD/WR}}$	I	Read/write. Input from the CPU which defines the data bus transfer as a read or write operation.
GNDA	-	Ground A. Power supply return connection for the A channel transceiver.
-VA	I	Input power supply connection for the A channel transceiver. -15 V for device types 01, 03, 05, 07, 17, and 19 -12 V for device types 02, 04, 06, 08, 18, and 20.
TX/RX-A	I/O	Transmit/receive transceiver-A. Input/output to the coupling transformer that connects to the A channel of the 1553 bus.
D01	I/O	Data bus bit 1.
D03	I/O	Data bus bit 3.
D05	I/O	Data bus bit 5.
D07	I/O	Data bus bit 7.
D09	I/O	Data bus bit 9.

See footnotes at end of table.

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TABLE III. Pin functions - Continued.

Terminal symbol	I/O	Description
+5 VB	I	+5 V power supply connection for the B channel transceiver.
$\overline{\text{TX/RX-B}}$	I/O	Transmit/receive transceiver-B. Inverted input/output to coupling transformer that connects to channel B of the 1553 bus.
A00	I/O	Address bit 0 (LSB).
A02	I/O	Address bit 2.
A04	I/O	Address bit 4.
A06	I/O	Address bit 6.
A08	I/O	Address bit 8.
A10	I/O	Address bit 10.
A12	I/O	Address bit 12.
A14	I/O	Address bit 14.
$\overline{\text{MEMWR/ZERO WAIT}}$	O/I	Memory write. Output pulse to write data into memory.
$\overline{\text{MEMENA-IN/ TRIGGER SEL}}$	I	Memory enable input. Enables internal RAM only; connect directly to MEMENA-OUT
$\overline{\text{INCMD 1/}}$	O	Input command. Indicates BC to RTU currently in message transfer sequence.
$\overline{\text{MSTRCLR}}$	I	Master clear. Power-on reset from CPU.
$\overline{\text{INT}}$	O	Interrupt. Interrupt pulse line to CPU.
$\overline{\text{IOEN}}$	O	Input/out enable. Output to enable external buffers/latches connecting the hybrid to the address/data bus.
$\overline{\text{SELECT}}$	I	Select. Input from the CPU. When active selects device for operation.
$\overline{\text{READYD}}$	O	Ready data. When active indicates data has been received from, or is available to, the CPU.
+5 VA	I	+5 V power supply connection for the channel A transceiver.
$\overline{\text{TX/RX-A}}$	I/O	Transmit/receive transceiver-A. Inverted input/output to the coupling transformer that connects to the A channel of the 1553 bus.
$\overline{\text{DTREQ/16/8}}$	O/I	Data Transfer Request or 16 Bit/8 Bit Transfer Mode Select. In transparent mode, active low output signal used to request access to the RAM interface bus (address, data, and control buses). In buffered mode, input signal used to select between the 16 bit data transfer mode (16/8 = Logic 1) and the 8 bit data transfer mode (16/8 = Logic 0).

See footnotes at end of table.

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TABLE III. Pin functions - Continued.

Terminal symbol	I/O	Description
<u>SSFLAG/EXT_TRIG</u>	I	Sub System Flag/External Trigger Input. In the Remote Terminal mode, if this input is asserted low, the subsystem flag bit will be set in the device's RT Status Word. In the Bus Controller mode if the external BC Start option is enabled (bit 7 of Configuration Register #1), a low to high transition on this input will issue a BC Start command, starting execution of the current BC frame. In the Monitor mode if the external trigger is enabled (bit 7 of Configuration Register #1), a low to high transition on this input will issue a monitor trigger. This input has no effect in RT mode.
<u>DTGRT/MSB/LSB</u>	I	Data Transfer Grant or Most Significant Byte/Least Significant Byte. In <u>transparent</u> mode, active low input signal asserted, in response to the DTREQ output, to indicate that control of the RAM interface bus has been granted to the BU-65170/61580. In buffered mode, input signal used to indicate which byte is currently begin transferred (MSB or LSB). The logic sense of MSB/LSB is controlled by the POLARITY_SEL input. MSB/LSB is only used in the 8-bit buffered mode.
<u>DTACK/POLARITY_SEL</u>	O/I	Data Transfer Acknowledge or Polarity Select. In transparent mode, active low output signal used to <u>indicate</u> acceptance of the RAM interface bus in response to a data transfer <u>grant</u> (DTGRT). In 16-bit buffered mode (TRANSPARENT/BUFFERED = LOGIC 0 AND 16/8 = LOGIC 1), input signal used to control the logic <u>sense</u> of the RD/WR signal. If POLARITY_SEL is connected to logic 1, RD/WR should be asserted high (logic 1) for a read operation and low (logic 0) <u>for</u> a write operation. If POLARITY_SEL is connected to logic 0, RD/WR should be asserted low (logic 0) for a read operation and high (logic 1) <u>for</u> a write operation. In 8-bit buffered mode (TRANSPARENT/BUFFERED = LOGIC 0 AND 16/8 = LOGIC 0), input signal used to control the logic <u>sense</u> of the MSB/LSB signal. If POLARITY_SEL is is connected to logic 0, MSB/LSB should be asserted low (logic 0) to indicate the transfer of the least significant byte and high (logic 1) to indicate the <u>transfer</u> of the most significant byte. If POLARITY_SEL is connected to logic 1, MSB/LSB should be asserted high (logic 1) to <u>indicate</u> the transfer of the least significant byte and low (logic 0) to indicate the transfer of the most significant byte.
<u>MEMENA-IN/ TRIGGER_SEL</u>	I	Memory <u>Enable</u> Input or Trigger Select. In transparent mode, active low Chip Select (CS) input to the 4K X 16 of internal shared RAM. If only internal RAM is used connect directly to MEMENA-OUT. In buffered mode, input signal used to indicate the order in which byte pairs are transferred to or from the BU-65170/61580 by the host processor. This signal has no operation in the 16-bit buffered mode. In the 8-bit buffered mode, TRIGGER_SEL should be asserted high (logic 1) if the byte order for both read operations and write operations is MSB followed LSB. TRIGGER_SEL should be asserted low (logic 0) if the byte order for both read operations and write operations is LSB followed MSB.

See footnotes at end of table.

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TABLE III. Pin functions - Continued.

Terminal symbol	I/O	Description
$\overline{\text{MEMWR/ZERO_WAIT}}$	O/I	Memory Write or Zero Wait State. In transparent mode, active low output signal asserted low during memory write transfers to strobe data into internal or external RAM (normally connected to the WR signal on external RAM chips). In buffered mode, input signal used to select between the zero wait state mode (ZEROWAIT = logic 0) and the non-zero wait state mode (ZEROWAIT = logic 1).
RT_AD_LATCH <u>2/</u>	I	RT Address Latch. Input signal used to control the ACE internal RT Address Latch. A logic 0 configures the ACE to have a hardwired (transparent) RT address. A logic 1 configures the ACE to for the latched RT address mode. The value presented on the RTAD4, RTAD0, RTADP inputs is latched on the rising edge of RT_AD_LATCH.
TX_INH_A, TX_INH_B <u>3/</u>	I	The 1553 Channel A and /or Channel B transmitters may be inhibited by asserting the respective TX_INH input(s) high. Note that the ACE will fail its BC off self-test if the respective TX_INH input is logic 1.

1/ Not applicable to device types 25, 26, 42, and 43.

2/ Applicable to device types 25, 26, 42, and 43.

3/ Applicable to device types 10, 12, 14, 16, 22, 24, 31, 33, 35, 37, 39, and 41.

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Approved sources of supply for SMD 5962-93095 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 DSCC-VA. This bulletin is superseded by the next dated revisions of MIL-HDBK-103 and QML-38534.

Standard microcircuit drawing PIN <u>1</u> /	Vendor CAGE number	Vendor similar PIN <u>2</u> /
5962-9306501HXA	S7631	BU-65170S1-150
5962-9306501HXA	S7631	BU-65170BS1-150
5962-9306501HXA	S7631	BU-65170S1-140
5962-9306501HXA	S7631	BU-65170BS1-140
5962-9306501HXA	19645	BU-65170S1-150
5962-9306501HXA	19645	BU-65170BS1-150
5962-9306501HXA	19645	BU-65170S1-140
5962-9306501HXA	19645	BU-65170BS1-140
5962-9306501HXC	S7631	BU-65170S1-130
5962-9306501HXC	S7631	BU-65170BS1-130
5962-9306501HXC	S7631	BU-65170S1-110
5962-9306501HXC	S7631	BU-65170BS1-110
5962-9306501HXC	19645	BU-65170S1-130
5962-9306501HXC	19645	BU-65170BS1-130
5962-9306501HXC	19645	BU-65170S1-110
5962-9306501HXC	19645	BU-65170BS1-110
5962-9306501HYA	S7631	BU-65170V1-150
5962-9306501HYA	S7631	BU-65170BV1-150
5962-9306501HYA	S7631	BU-65170V1-140
5962-9306501HYA	S7631	BU-65170BV1-140
5962-9306501HYA	19645	BU-65170V1-150
5962-9306501HYA	19645	BU-65170BV1-150
5962-9306501HYA	19645	BU-65170V1-140
5962-9306501HYA	19645	BU-65170BV1-140
5962-9306501HYC	S7631	BU-65170V1-130
5962-9306501HYC	S7631	BU-65170BV1-130
5962-9306501HYC	S7631	BU-65170V1-110
5962-9306501HYC	S7631	BU-65170BV1-110
5962-9306501HYC	19645	BU-65170V1-130
5962-9306501HYC	19645	BU-65170BV1-130
5962-9306501HYC	19645	BU-65170V1-110
5962-9306501HYC	19645	BU-65170BV1-110
5962-9306501HZC	19645	BU-65170J1-130
5962-9306501HZC	19645	BU-65170J1-110

See footnotes at end of table.

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Standard microcircuit drawing PIN <u>1</u> /	Vendor CAGE number	Vendor similar PIN <u>2</u> /
5962-9306502HXA	S7631	BU-65170S2-150
5962-9306502HXA	S7631	BU-65170BS2-150
5962-9306502HXA	S7631	BU-65170S2-140
5962-9306502HXA	S7631	BU-65170BS2-140
5962-9306502HXA	19645	BU-65170S2-150
5962-9306502HXA	19645	BU-65170BS2-150
5962-9306502HXA	19645	BU-65170S2-140
5962-9306502HXA	19645	BU-65170BS2-140
5962-9306502HXC	S7631	BU-65170S2-130
5962-9306502HXC	S7631	BU-65170BS2-130
5962-9306502HXC	S7631	BU-65170S2-110
5962-9306502HXC	S7631	BU-65170BS2-110
5962-9306502HXC	19645	BU-65170S2-130
5962-9306502HXC	19645	BU-65170BS2-130
5962-9306502HXC	19645	BU-65170S2-110
5962-9306502HXC	19645	BU-65170BS2-110
5962-9306502HYA	S7631	BU-65170V2-150
5962-9306502HYA	S7631	BU-65170BV2-150
5962-9306502HYA	S7631	BU-65170V2-140
5962-9306502HYA	S7631	BU-65170BV2-140
5962-9306502HYA	19645	BU-65170V2-150
5962-9306502HYA	19645	BU-65170BV2-150
5962-9306502HYA	19645	BU-65170V2-140
5962-9306502HYA	19645	BU-65170BV2-140
5962-9306502HYC	S7631	BU-65170V2-130
5962-9306502HYC	S7631	BU-65170BV2-130
5962-9306502HYC	S7631	BU-65170V2-110
5962-9306502HYC	S7631	BU-65170BV2-110
5962-9306502HYC	19645	BU-65170V2-130
5962-9306502HYC	19645	BU-65170BV2-130
5962-9306502HYC	19645	BU-65170V2-110
5962-9306502HYC	19645	BU-65170BV2-110
5962-9306502HZC	19645	BU-65170J2-130
5962-9306502HZC	19645	BU-65170J2-110

See footnotes at end of table.

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Standard microcircuit drawing PIN <u>1</u> /	Vendor CAGE number	Vendor similar PIN <u>2</u> /
5962-9306503HXA 5962-9306503HXA 5962-9306503HXA 5962-9306503HXA 5962-9306503HXA 5962-9306503HXA 5962-9306503HXA 5962-9306503HXA	S7631 S7631 S7631 S7631 19645 19645 19645 19645	BU-61580S1-150 BU-61580BS1-150 BU-61580S1-140 BU-61580BS1-140 BU-61580S1-150 BU-61580BS1-150 BU-61580S1-140 BU-61580BS1-140
5962-9306503HXC 5962-9306503HXC 5962-9306503HXC 5962-9306503HXC 5962-9306503HXC 5962-9306503HXC 5962-9306503HXC 5962-9306503HXC	S7631 S7631 S7631 S7631 19645 19645 19645 19645	BU-61580S1-130 BU-61580BS1-130 BU-61580S1-110 BU-61580BS1-110 BU-61580S1-130 BU-61580BS1-130 BU-61580S1-110 BU-61580BS1-110
5962-9306503HYA 5962-9306503HYA 5962-9306503HYA 5962-9306503HYA 5962-9306503HYA 5962-9306503HYA 5962-9306503HYA 5962-9306503HYA	S7631 S7631 S7631 S7631 19645 19645 19645 19645	BU-61580V1-150 BU-61580BV1-150 BU-61580V1-140 BU-61580BV1-140 BU-61580V1-150 BU-61580BV1-150 BU-61580V1-140 BU-61580BV1-140
5962-9306503HYC 5962-9306503HYC 5962-9306503HYC 5962-9306503HYC 5962-9306503HYC 5962-9306503HYC 5962-9306503HYC 5962-9306503HYC	S7631 S7631 S7631 S7631 19645 19645 19645 19645	BU-61580V1-130 BU-61580BV1-130 BU-61580V1-110 BU-61580BV1-110 BU-61580V1-130 BU-61580BV1-130 BU-61580V1-110 BU-61580BV1-110
5962-9306503HZC 5962-9306503HZC	19645 19645	BU-61580J1-130 BU-61580J1-110

See footnotes at end of table.

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5962-9306504HXA	S7631	BU-61580BS2-150
5962-9306504HXA	S7631	BU-61580S2-140
5962-9306504HXA	S7631	BU-61580BS2-140
5962-9306504HXA	19645	BU-61580S2-150
5962-9306504HXA	19645	BU-61580BS2-150
5962-9306504HXA	19645	BU-61580S2-140
5962-9306504HXA	19645	BU-61580BS2-140
5962-9306504HXC	S7631	BU-61580S2-130
5962-9306504HXC	S7631	BU-61580BS2-130
5962-9306504HXC	S7631	BU-61580S2-110
5962-9306504HXC	S7631	BU-61580BS2-110
5962-9306504HXC	19645	BU-61580S2-130
5962-9306504HXC	19645	BU-61580BS2-130
5962-9306504HXC	19645	BU-61580S2-110
5962-9306504HXC	19645	BU-61580BS2-110
5962-9306504HYA	S7631	BU-61580V2-150
5962-9306504HYA	S7631	BU-61580BV2-150
5962-9306504HYA	S7631	BU-61580V2-140
5962-9306504HYA	S7631	BU-61580BV2-140
5962-9306504HYA	19645	BU-61580V2-150
5962-9306504HYA	19645	BU-61580BV2-150
5962-9306504HYA	19645	BU-61580V2-140
5962-9306504HYA	19645	BU-61580BV2-140
5962-9306504HYC	S7631	BU-61580V2-130
5962-9306504HYC	S7631	BU-61580BV2-130
5962-9306504HYC	S7631	BU-61580V2-110
5962-9306504HYC	S7631	BU-61580BV2-110
5962-9306504HYC	19645	BU-61580V2-130
5962-9306504HYC	19645	BU-61580BV2-130
5962-9306504HYC	19645	BU-61580V2-110
5962-9306504HYC	19645	BU-61580BV2-110
5962-9306504HZC	19645	BU-61580J2-130
5962-9306504HZC	19645	BU-61580J2-110

See footnotes at end of table.

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5962-9306505HXA	S7631	BU-65171S1-150
5962-9306505HXA	S7631	BU-65171BS1-150
5962-9306505HXA	S7631	BU-65171S1-140
5962-9306505HXA	S7631	BU-65171BS1-140
5962-9306505HXA	19645	BU-65171S1-150
5962-9306505HXA	19645	BU-65171BS1-150
5962-9306505HXA	19645	BU-65171S1-140
5962-9306505HXA	19645	BU-65171BS1-140
5962-9306505HXC	S7631	BU-65171S1-130
5962-9306505HXC	S7631	BU-65171BS1-130
5962-9306505HXC	S7631	BU-65171S1-110
5962-9306505HXC	S7631	BU-65171BS1-110
5962-9306505HXC	19645	BU-65171S1-130
5962-9306505HXC	19645	BU-65171BS1-130
5962-9306505HXC	19645	BU-65171S1-110
5962-9306505HXC	19645	BU-65171BS1-110
5962-9306505HYA	S7631	BU-65171V1-150
5962-9306505HYA	S7631	BU-65171BV1-150
5962-9306505HYA	S7631	BU-65171V1-140
5962-9306505HYA	S7631	BU-65171BV1-140
5962-9306505HYA	19645	BU-65171V1-150
5962-9306505HYA	19645	BU-65171BV1-150
5962-9306505HYA	19645	BU-65171V1-140
5962-9306505HYA	19645	BU-65171BV1-140
5962-9306505HYC	S7631	BU-65171V1-130
5962-9306505HYC	S7631	BU-65171BV1-130
5962-9306505HYC	S7631	BU-65171V1-110
5962-9306505HYC	S7631	BU-65171BV1-110
5962-9306505HYC	19645	BU-65171V1-130
5962-9306505HYC	19645	BU-65171BV1-130
5962-9306505HYC	19645	BU-65171V1-110
5962-9306505HYC	19645	BU-65171BV1-110
5962-9306505HZC	19645	BU-65171J1-130
5962-9306505HZC	19645	BU-65171J1-110

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STANDARD MICROCIRCUIT DRAWING BULLETIN - Continued.

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Standard microcircuit drawing PIN <u>1</u> /	Vendor CAGE number	Vendor similar PIN <u>2</u> /
5962-9306506HXA	S7631	BU-65171S2-150
5962-9306506HXA	S7631	BU-65171BS2-150
5962-9306506HXA	S7631	BU-65171S2-140
5962-9306506HXA	S7631	BU-65171BS2-140
5962-9306506HXA	19645	BU-65171S2-150
5962-9306506HXA	19645	BU-65171BS2-150
5962-9306506HXA	19645	BU-65171S2-140
5962-9306506HXA	19645	BU-65171BS2-140
5962-9306506HXC	S7631	BU-65171S2-130
5962-9306506HXC	S7631	BU-65171BS2-130
5962-9306506HXC	S7631	BU-65171S2-110
5962-9306506HXC	S7631	BU-65171BS2-110
5962-9306506HXC	19645	BU-65171S2-130
5962-9306506HXC	19645	BU-65171BS2-130
5962-9306506HXC	19645	BU-65171S2-110
5962-9306506HXC	19645	BU-65171BS2-110
5962-9306506HYA	S7631	BU-65171V2-150
5962-9306506HYA	S7631	BU-65171BV2-150
5962-9306506HYA	S7631	BU-65171V2-140
5962-9306506HYA	S7631	BU-65171BV2-140
5962-9306506HYA	19645	BU-65171V2-150
5962-9306506HYA	19645	BU-65171BV2-150
5962-9306506HYA	19645	BU-65171V2-140
5962-9306506HYA	19645	BU-65171BV2-140
5962-9306506HYC	S7631	BU-65171V2-130
5962-9306506HYC	S7631	BU-65171BV2-130
5962-9306506HYC	S7631	BU-65171V2-110
5962-9306506HYC	S7631	BU-65171BV2-110
5962-9306506HYC	19645	BU-65171V2-130
5962-9306506HYC	19645	BU-65171BV2-130
5962-9306506HYC	19645	BU-65171V2-110
5962-9306506HYC	19645	BU-65171BV2-110
5962-9306506HZC	19645	BU-65171J2-130
5962-9306506HZC	19645	BU-65171J2-110

See footnotes at end of table.

STANDARD MICROCIRCUIT DRAWING BULLETIN - Continued.

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Standard microcircuit drawing PIN <u>1</u> /	Vendor CAGE number	Vendor similar PIN <u>2</u> /
5962-9306507HXA	S7631	BU-61581S1-150
5962-9306507HXA	S7631	BU-61581BS1-150
5962-9306507HXA	S7631	BU-61581S1-140
5962-9306507HXA	S7631	BU-61581BS1-140
5962-9306507HXA	19645	BU-61581S1-150
5962-9306507HXA	19645	BU-61581BS1-150
5962-9306507HXA	19645	BU-61581S1-140
5962-9306507HXA	19645	BU-61581BS1-140
5962-9306507HXC	S7631	BU-61581S1-130
5962-9306507HXC	S7631	BU-61581BS1-130
5962-9306507HXC	S7631	BU-61581S1-110
5962-9306507HXC	S7631	BU-61581BS1-110
5962-9306507HXC	19645	BU-61581S1-130
5962-9306507HXC	19645	BU-61581BS1-130
5962-9306507HXC	19645	BU-61581S1-110
5962-9306507HXC	19645	BU-61581BS1-110
5962-9306507HYA	S7631	BU-61581V1-150
5962-9306507HYA	S7631	BU-61581BV1-150
5962-9306507HYA	S7631	BU-61581V1-140
5962-9306507HYA	S7631	BU-61581BV1-140
5962-9306507HYA	19645	BU-61581V1-150
5962-9306507HYA	19645	BU-61581BV1-150
5962-9306507HYA	19645	BU-61581V1-140
5962-9306507HYA	19645	BU-61581BV1-140
5962-9306507HYC	S7631	BU-61581V1-130
5962-9306507HYC	S7631	BU-61581BV1-130
5962-9306507HYC	S7631	BU-61581V1-110
5962-9306507HYC	S7631	BU-61581BV1-110
5962-9306507HYC	19645	BU-61581V1-130
5962-9306507HYC	19645	BU-61581BV1-130
5962-9306507HYC	19645	BU-61581V1-110
5962-9306507HYC	19645	BU-61581BV1-110
5962-9306507HZC	19645	BU-61581J1-130
5962-9306507HZC	19645	BU-61581J1-110

See footnotes at end of table.

STANDARD MICROCIRCUIT DRAWING BULLETIN - Continued.

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Standard microcircuit drawing PIN <u>1</u> /	Vendor CAGE number	Vendor similar PIN <u>2</u> /
5962-9306508HXA	S7631	BU-61581S2-150
5962-9306508HXA	S7631	BU-61581BS2-150
5962-9306508HXA	S7631	BU-61581S2-140
5962-9306508HXA	S7631	BU-61581BS2-140
5962-9306508HXA	19645	BU-61581S2-150
5962-9306508HXA	19645	BU-61581BS2-150
5962-9306508HXA	19645	BU-61581S2-140
5962-9306508HXA	19645	BU-61581BS2-140
5962-9306508HXC	S7631	BU-61581S2-130
5962-9306508HXC	S7631	BU-61581BS2-130
5962-9306508HXC	S7631	BU-61581S2-110
5962-9306508HXC	S7631	BU-61581BS2-110
5962-9306508HXC	19645	BU-61581S2-130
5962-9306508HXC	19645	BU-61581BS2-130
5962-9306508HXC	19645	BU-61581S2-110
5962-9306508HXC	19645	BU-61581BS2-110
5962-9306508HYA	S7631	BU-61581V2-150
5962-9306508HYA	S7631	BU-61581BV2-150
5962-9306508HYA	S7631	BU-61581V2-140
5962-9306508HYA	S7631	BU-61581BV2-140
5962-9306508HYA	19645	BU-61581V2-150
5962-9306508HYA	19645	BU-61581BV2-150
5962-9306508HYA	19645	BU-61581V2-140
5962-9306508HYA	19645	BU-61581BV2-140
5962-9306508HYC	S7631	BU-61581V2-130
5962-9306508HYC	S7631	BU-61581BV2-130
5962-9306508HYC	S7631	BU-61581V2-110
5962-9306508HYC	S7631	BU-61581BV2-110
5962-9306508HYC	19645	BU-61581V2-130
5962-9306508HYC	19645	BU-61581BV2-130
5962-9306508HYC	19645	BU-61581V2-110
5962-9306508HYC	19645	BU-61581BV2-110
5962-9306508HZC	19645	BU-61581J2-130
5962-9306508HZC	19645	BU-61581J2-110

See footnotes at end of table.

STANDARD MICROCIRCUIT DRAWING BULLETIN - Continued.

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Standard microcircuit drawing PIN <u>1</u> /	Vendor CAGE number	Vendor similar PIN <u>2</u> /
5962-9306509HXA 5962-9306509HXC 5962-9306509HYA 5962-9306509HYC	<u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> /	BU-65170CS3-140 BU-65170CS3-110 BU-65170CV3-140 BU-65170CV3-110
5962-9306510HXA 5962-9306510HXC 5962-9306510HYA 5962-9306510HYC	<u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> /	BU-65170CS6-140 BU-65170CS6-110 BU-65170CV6-140 BU-65170CV6-110
5962-9306511HXA 5962-9306511HXC 5962-9306511HYA 5962-9306511HYC	<u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> /	BU-61580CS3-140 BU-61580CS3-110 BU-61580CV3-140 BU-61580CV3-110
5962-9306512HXA 5962-9306512HXC 5962-9306512HYA 5962-9306512HYC	<u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> /	BU-61580CS6-140 BU-61580CS6-110 BU-61580CV6-140 BU-61580CV6-110
5962-9306513HXA 5962-9306513HXC 5962-9306513HYA 5962-9306513HYC	<u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> /	BU-65171CS3-140 BU-65171CS3-110 BU-65171CV3-140 BU-65171CV3-110
5962-9306514HXA 5962-9306514HXC 5962-9306514HYA 5962-9306514HYC	<u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> /	BU-65171CS6-140 BU-65171CS6-110 BU-65171CV6-140 BU-65171CV6-110
5962-9306515HXA 5962-9306515HXC 5962-9306515HYA 5962-9306515HYC	<u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> /	BU-61581CS3-140 BU-61581CS3-110 BU-61581CV3-140 BU-61581CV3-110
5962-9306516HXA 5962-9306516HXC 5962-9306516HYA 5962-9306516HYC	<u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> /	BU-61581CS6-140 BU-61581CS6-110 BU-61581CV6-140 BU-61581CV6-110

See footnotes at end of table.

STANDARD MICROCIRCUIT DRAWING BULLETIN - Continued.

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Standard microcircuit drawing PIN <u>1</u> /	Vendor CAGE number	Vendor similar PIN <u>2</u> /
5962-9306517HXA 5962-9306517HXA 5962-9306517HXA 5962-9306517HXA	S7631 S7631 19645 19645	BU-61585S1-150 BU-61585S1-140 BU-61585S1-150 BU-61585S1-140
5962-9306517HXC 5962-9306517HXC 5962-9306517HXC 5962-9306517HXC	S7631 S7631 19645 19645	BU-61585S1-130 BU-61585S1-110 BU-61585S1-130 BU-61585S1-110
5962-9306517HYA 5962-9306517HYA 5962-9306517HYA 5962-9306517HYA	S7631 S7631 19645 19645	BU-61585V1-150 BU-61585V1-140 BU-61585V1-150 BU-61585V1-140
5962-9306517HYC 5962-9306517HYC 5962-9306517HYC 5962-9306517HYC	S7631 S7631 19645 19645	BU-61585V1-130 BU-61585V1-110 BU-61585V1-130 BU-61585V1-110
5962-9306517HZA 5962-9306517HZA	<u>3</u> / <u>3</u> /	BU-61585J1-140 BU-61585J1-110
5962-9306518HXA 5962-9306518HXA 5962-9306518HXA 5962-9306518HXA	S7631 S7631 19645 19645	BU-61585S2-150 BU-61585S2-140 BU-61585S2-150 BU-61585S2-140
5962-9306518HXC 5962-9306518HXC 5962-9306518HXC 5962-9306518HXC	S7631 S7631 19645 19645	BU-61585S2-130 BU-61585S2-110 BU-61585S2-130 BU-61585S2-110
5962-9306518HYA 5962-9306518HYA 5962-9306518HYA 5962-9306518HYA	S7631 S7631 19645 19645	BU-61585V2-150 BU-61585V2-140 BU-61585V2-150 BU-61585V2-140
5962-9306518HYC 5962-9306518HYC 5962-9306518HYC 5962-9306518HYC	S7631 S7631 19645 19645	BU-61585V2-130 BU-61585V2-110 BU-61585V2-130 BU-61585V2-110
5962-9306518HZA 5962-9306518HZA	<u>3</u> / <u>3</u> /	BU-61585J2-140 BU-61585J2-110

See footnotes at end of table.

STANDARD MICROCIRCUIT DRAWING BULLETIN - Continued.

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Standard microcircuit drawing PIN <u>1</u> /	Vendor CAGE number	Vendor similar PIN <u>2</u> /
5962-9306519HXA 5962-9306519HXA 5962-9306519HXA 5962-9306519HXA	S7631 S7631 19645 19645	BU-61586S1-150 BU-61586S1-140 BU-61586S1-150 BU-61586S1-140
5962-9306519HXC 5962-9306519HXC 5962-9306519HXC 5962-9306519HXC	S7631 S7631 19645 19645	BU-61586S1-130 BU-61586S1-110 BU-61586S1-130 BU-61586S1-110
5962-9306519HYA 5962-9306519HYA 5962-9306519HYA 5962-9306519HYA	S7631 S7631 19645 19645	BU-61586V1-150 BU-61586V1-140 BU-61586V1-150 BU-61586V1-140
5962-9306519HYC 5962-9306519HYC 5962-9306519HYC 5962-9306519HYC	S7631 S7631 19645 19645	BU-61586V1-130 BU-61586V1-110 BU-61586V1-130 BU-61586V1-110
5962-9306519HZA 5962-9306519HZC	<u>3</u> / <u>3</u> /	BU-61586J1-140 BU-61586J1-110
5962-9306520HXA 5962-9306520HXA 5962-9306520HXA 5962-9306520HXA	S7631 S7631 19645 19645	BU-61586S2-150 BU-61586S2-140 BU-61586S2-150 BU-61586S2-140
5962-9306520HXC 5962-9306520HXC 5962-9306520HXC 5962-9306520HXC	S7631 S7631 19645 19645	BU-61586S2-130 BU-61586S2-110 BU-61586S2-130 BU-61586S2-110
5962-9306520HYA 5962-9306520HYA 5962-9306520HYA 5962-9306520HYA	S7631 S7631 19645 19645	BU-61586V2-150 BU-61586V2-140 BU-61586V2-150 BU-61586V2-140
5962-9306520HYC 5962-9306520HYC 5962-9306520HYC 5962-9306520HYC	S7631 S7631 19645 19645	BU-61586V2-130 BU-61586V2-110 BU-61586V2-130 BU-61586V2-110
5962-9306520HZA 5962-9306520HZC	<u>3</u> / <u>3</u> /	BU-61586J2-140 BU-61586J2-110

See footnotes at end of table.

STANDARD MICROCIRCUIT DRAWING BULLETIN - Continued.

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Standard microcircuit drawing PIN <u>1</u> /	Vendor CAGE number	Vendor similar PIN <u>2</u> /
5962-9306521HNA	<u>3</u> /	BU-61585BG3-150
5962-9306521HNA	<u>3</u> /	BU-61585BG3-140
5962-9306521HNC	<u>3</u> /	BU-61585BG3-130
5962-9306521HNC	<u>3</u> /	BU-61585BG3-110
5962-9306521HXA	<u>3</u> /	BU-61585BS3-150
5962-9306521HXA	<u>3</u> /	BU-61585BS3-140
5962-9306521HXC	<u>3</u> /	BU-61585BS3-130
5962-9306521HXC	<u>3</u> /	BU-61585BS3-110
5962-9306521HYA	<u>3</u> /	BU-61585BV3-150
5962-9306521HYA	<u>3</u> /	BU-61585BV3-140
5962-9306521HYC	<u>3</u> /	BU-61585BV3-130
5962-9306521HYC	<u>3</u> /	BU-61585BV3-110
5962-9306522HNA	<u>3</u> /	BU-61585BG6-150
5962-9306522HNA	<u>3</u> /	BU-61585BG6-140
5962-9306522HNC	<u>3</u> /	BU-61585BG6-130
5962-9306522HNC	<u>3</u> /	BU-61585BG6-110
5962-9306522HXA	<u>3</u> /	BU-61585BS6-150
5962-9306522HXA	<u>3</u> /	BU-61585BS6-140
5962-9306522HXC	<u>3</u> /	BU-61585BS6-130
5962-9306522HXC	<u>3</u> /	BU-61585BS6-110
5962-9306522HYA	<u>3</u> /	BU-61585BV6-150
5962-9306522HYA	<u>3</u> /	BU-61585BV6-140
5962-9306522HYC	<u>3</u> /	BU-61585BV6-130
5962-9306522HYC	<u>3</u> /	BU-61585BV6-110
5962-9306523HNA	<u>3</u> /	BU-61586BG3-150
5962-9306523HNA	<u>3</u> /	BU-61586BG3-140
5962-9306523HNC	<u>3</u> /	BU-61586BG3-130
5962-9306523HNC	<u>3</u> /	BU-61586BG3-110
5962-9306523HXA	<u>3</u> /	BU-61586BS3-150
5962-9306523HXA	<u>3</u> /	BU-61586BS3-140
5962-9306523HXC	<u>3</u> /	BU-61586BS3-130
5962-9306523HXC	<u>3</u> /	BU-61586BS3-110
5962-9306523HYA	<u>3</u> /	BU-61586BV3-150
5962-9306523HYA	<u>3</u> /	BU-61586BV3-140
5962-9306523HYC	<u>3</u> /	BU-61586BV3-130
5962-9396523HYC	<u>3</u> /	BU-61586BV3-110
5962-9306524HNA	<u>3</u> /	BU-61586BG6-150
5962-9306524HNA	<u>3</u> /	BU-61586BG6-140
5962-9306524HNC	<u>3</u> /	BU-61586BG6-130
5962-9306524HNC	<u>3</u> /	BU-61586BG6-110
5962-9306524HXA	<u>3</u> /	BU-61586BS6-150
5962-9306524HXA	<u>3</u> /	BU-61586BS6-140
5962-9306524HXC	<u>3</u> /	BU-61586BS6-130
5962-9306524HXC	<u>3</u> /	BU-61586BS6-110
5962-9306524HYA	<u>3</u> /	BU-61586BV6-150
5962-9306524HYA	<u>3</u> /	BU-61586BV6-140
5962-9306524HYC	<u>3</u> /	BU-61586BV6-130
5962-9306524HYC	<u>3</u> /	BU-61586BV6-110

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STANDARD MICROCIRCUIT DRAWING BULLETIN - Continued.

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Standard microcircuit drawing PIN <u>1</u> /	Vendor CAGE number	Vendor similar PIN <u>2</u> /
5962-9306525HMA 5962-9306525HMA 5962-9306525HMC 5962-9306525HMC 5962-9306525HTA 5962-9306525HTA 5962-9306525HTC 5962-9306525HTC 5962-9306525HUA 5962-9306525HUA 5962-9306525HUC 5962-9306525HUC	<u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> /	BU-61588BG3-150 BU-61588BG3-140 BU-61588BG3-130 BU-61588BG3-110 BU-61588BF3-150 BU-61588BF3-140 BU-61588BF3-130 BU-61588BF3-110 BU-61588BP3-150 BU-61588BP3-140 BU-61588BP3-130 BU-61588BP3-110
5962-9306526HMA 5962-9306526HMA 5962-9306526HMC 5962-9306526HMC 5962-9306526HTA 5962-9306526HTA 5962-9306526HTC 5962-9306526HTC 5962-9306526HUA 5962-9306526HUA 5962-9306526HUC 5962-9306526HUC	<u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> /	BU-65178BG3-150 BU-65178BG3-140 BU-65178BG3-130 BU-65178BG3-110 BU-65178BF3-150 BU-65178BF3-140 BU-65178BF3-130 BU-65178BF3-110 BU-65178BP3-150 BU-65178BP3-140 BU-65178BP3-130 BU-65178BP3-110
5962-9306527HMA 5962-9306527HMC 5962-9306527HTA 5962-9306527HTC 5962-9306527HUA 5962-9306527HUC	<u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> /	BU-65179BG3-140 BU-65179BG3-110 BU-65179BF3-140 BU-65179BF3-110 BU-65179BP3-140 BU-65179BP3-110
5962-9306528HMA 5962-9306528HMC 5962-9306528HTA 5962-9306528HTC 5962-9306528HUA 5962-9306528HUC	<u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> /	BU-61688AG3-140 BU-61688AG3-110 BU-61688AF3-140 BU-61688AF3-110 BU-61688AP3-140 BU-61688AP3-110
5962-9306529HMA 5962-9306529HMC 5962-9306529HTA 5962-9306529HTC 5962-9306529HUA 5962-9306529HUC	<u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> / <u>3</u> /	BU-61689AG3-140 BU-61689AG3-110 BU-61689AF3-140 BU-61689AF3-110 BU-61689AP3-140 BU-61689AP3-110

See footnotes at end of table.

STANDARD MICROCIRCUIT DRAWING BULLETIN - Continued.

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Standard microcircuit drawing PIN <u>1</u> /	Vendor CAGE number	Vendor similar PIN <u>2</u> /
5962-9306530HNA 5962-9306530HNA 5962-9306530HNA 5962-9306530HNA	S7631 S7631 19645 19645	BU-65170DG3-150 BU-65170DG3-140 BU-65170DG3-150 BU-65170DG3-140
5962-9306530HNC 5962-9306530HNC 5962-9306530HNC 5962-9306530HNC	S7631 S7631 19645 19645	BU-65170DG3-130 BU-65170DG3-110 BU-65170DG3-130 BU-65170DG3-110
5962-9306530HXA 5962-9306530HXA 5962-9306530HXA 5962-9306530HXA	S7631 S7631 19645 19645	BU-65170DS3-150 BU-65170DS3-140 BU-65170DS3-150 BU-65170DS3-140
5962-9306530HXC 5962-9306530HXC 5962-9306530HXC 5962-9306530HXC	S7631 S7631 19645 19645	BU-65170DS3-130 BU-65170DS3-110 BU-65170DS3-130 BU-65170DS3-110
5962-9306530HYA 5962-9306530HYA 5962-9306530HYA 5962-9306530HYA	S7631 S7631 19645 19645	BU-65170DV3-150 BU-65170DV3-140 BU-65170DV3-150 BU-65170DV3-140
5962-9306530HYC 5962-9306530HYC 5962-9306530HYC 5962-9306530HYC	S7631 S7631 19645 19645	BU-65170DV3-130 BU-65170DV3-110 BU-65170DV3-130 BU-65170DV3-110
5962-9306531HNA 5962-9306531HNA 5962-9306531HNA 5962-9306531HNA	S7631 S7631 19645 19645	BU-65170DG6-150 BU-65170DG6-140 BU-65170DG6-150 BU-65170DG6-140
5962-9306531HNC 5962-9306531HNC 5962-9306531HNC 5962-9306531HNC	S7631 S7631 19645 19645	BU-65170DG6-130 BU-65170DG6-110 BU-65170DG6-130 BU-65170DG6-110
5962-9306531HXA 5962-9306531HXA 5962-9306531HXA 5962-9306531HXA	S7631 S7631 19645 19645	BU-65170DS6-150 BU-65170DS6-140 BU-65170DS6-150 BU-65170DS6-140
5962-9306531HXC 5962-9306531HXC 5962-9306531HXC 5962-9306531HXC	S7631 S7631 19645 19645	BU-65170DS6-130 BU-65170DS6-110 BU-65170DS6-130 BU-65170DS6-110
5962-9306531HYA 5962-9306531HYA 5962-9306531HYA 5962-9306531HYA	S7631 S7631 19645 19645	BU-65170DV6-150 BU-65170DV6-140 BU-65170DV6-150 BU-65170DV6-140
5962-9306531HYC 5962-9306531HYC 5962-9306531HYC 5962-9306531HYC	S7631 S7631 19645 19645	BU-65170DV6-130 BU-65170DV6-110 BU-65170DV6-130 BU-65170DV6-110

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5962-9306532HNA 5962-9306532HNA 5962-9306532HNA 5962-9306532HNA	S7631 S7631 19645 19645	BU-61580DG3-150 BU-61580DG3-140 BU-61580DG3-150 BU-61580DG3-140
5962-9306532HNC 5962-9306532HNC 5962-9306532HNC 5962-9306532HNC	S7631 S7631 19645 19645	BU-61580DG3-130 BU-61580DG3-110 BU-61580DG3-130 BU-61580DG3-110
5962-9306532HXA 5962-9306532HXA 5962-9306532HXA 5962-9306532HXA	S7631 S7631 19645 19645	BU-61580DS3-150 BU-61580DS3-140 BU-61580DS3-150 BU-61580DS3-140
5962-9306532HXC 5962-9306532HXC 5962-9306532HXC 5962-9306532HXC	S7631 S7631 19645 19645	BU-61580DS3-130 BU-61580DS3-110 BU-61580DS3-130 BU-61580DS3-110
5962-9306532HYA 5962-9306532HYA 5962-9306532HYA 5962-9306532HYA	S7631 S7631 19645 19645	BU-61580DV3-150 BU-61580DV3-140 BU-61580DV3-150 BU-61580DV3-140
5962-9306532HYC 5962-9306532HYC 5962-9306532HYC 5962-9306532HYC	S7631 S7631 19645 19645	BU-61580DV3-130 BU-61580DV3-110 BU-61580DV3-130 BU-61580DV3-110
5962-9306533HNA 5962-9306533HNA 5962-9306533HNA 5962-9306533HNA	S7631 S7631 19645 19645	BU-61580DG6-150 BU-61580DG6-140 BU-61580DG6-150 BU-61580DG6-140
5962-9306533HNC 5962-9306533HNC 5962-9306533HNC 5962-9306533HNC	S7631 S7631 19645 19645	BU-61580DG6-130 BU-61580DG6-110 BU-61580DG6-130 BU-61580DG6-110
5962-9306533HXA 5962-9306533HXA 5962-9306533HXA 5962-9306533HXA	S7631 S7631 19645 19645	BU-61580DS6-150 BU-61580DS6-140 BU-61580DS6-150 BU-61580DS6-140
5962-9306533HXC 5962-9306533HXC 5962-9306533HXC 5962-9306533HXC	S7631 S7631 19645 19645	BU-61580DS6-130 BU-61580DS6-110 BU-61580DS6-130 BU-61580DS6-110
5962-9306533HYA 5962-9306533HYA 5962-9306533HYA 5962-9306533HYA	S7631 S7631 19645 19645	BU-61580DV6-150 BU-61580DV6-140 BU-61580DV6-150 BU-61580DV6-140
5962-9306533HYC 5962-9306533HYC 5962-9306533HYC 5962-9306533HYC	S7631 S7631 19645 19645	BU-61580DV6-130 BU-61580DV6-110 BU-61580DV6-130 BU-61580DV6-110

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5962-9306534HNA 5962-9306534HNA 5962-9306534HNA 5962-9306534HNA	S7631 S7631 19645 19645	BU-65171DG3-150 BU-65171DG3-140 BU-65171DG3-150 BU-65171DG3-140
5962-9306534HNC 5962-9306534HNC 5962-9306534HNC 5962-9306534HNC	S7631 S7631 19645 19645	BU-65171DG3-130 BU-65171DG3-110 BU-65171DG3-130 BU-65171DG3-110
5962-9306534HXA 5962-9306534HXA 5962-9306534HXA 5962-9306534HXA	S7631 S7631 19645 19645	BU-65171DS3-150 BU-65171DS3-140 BU-65171DS3-150 BU-65171DS3-140
5962-9306534HXC 5962-9306534HXC 5962-9306534HXC 5962-9306534HXC	S7631 S7631 19645 19645	BU-65171DS3-130 BU-65171DS3-110 BU-65171DS3-130 BU-65171DS3-110
5962-9306534HYA 5962-9306534HYA 5962-9306534HYA 5962-9306534HYA	S7631 S7631 19645 19645	BU-65171DV3-150 BU-65171DV3-140 BU-65171DV3-150 BU-65171DV3-140
5962-9306534HYC 5962-9306534HYC 5962-9306534HYC 5962-9306534HYC	S7631 S7631 19645 19645	BU-65171DV3-130 BU-65171DV3-110 BU-65171DV3-130 BU-65171DV3-110
5962-9306535HNA 5962-9306535HNA 5962-9306535HNA 5962-9306535HNA	S7631 S7631 19645 19645	BU-65171DG6-150 BU-65171DG6-140 BU-65171DG6-150 BU-65171DG6-140
5962-9306535HNC 5962-9306535HNC 5962-9306535HNC 5962-9306535HNC	S7631 S7631 19645 19645	BU-65171DG6-130 BU-65171DG6-110 BU-65171DG6-130 BU-65171DG6-110
5962-9306535HXA 5962-9306535HXA 5962-9306535HXA 5962-9306535HXA	S7631 S7631 19645 19645	BU-65171DS6-150 BU-65171DS6-140 BU-65171DS6-150 BU-65171DS6-140
5962-9306535HXC 5962-9306535HXC 5962-9306535HXC 5962-9306535HXC	S7631 S7631 19645 19645	BU-65171DS6-130 BU-65171DS6-110 BU-65171DS6-130 BU-65171DS6-110
5962-9306535HYA 5962-9306535HYA 5962-9306535HYA 5962-9306535HYA	S7631 S7631 19645 19645	BU-65171DV6-150 BU-65171DV6-140 BU-65171DV6-150 BU-65171DV6-140
5962-9306535HYC 5962-9306535HYC 5962-9306535HYC 5962-9306535HYC	S7631 S7631 19645 19645	BU-65171DV6-130 BU-65171DV6-110 BU-65171DV6-130 BU-65171DV6-110

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5962-9306536HNA 5962-9306536HNA 5962-9306536HNA 5962-9306536HNA	S7631 S7631 19645 19645	BU-61581DG3-150 BU-61581DG3-140 BU-61581DG3-150 BU-61581DG3-140
5962-9306536HNC 5962-9306536HNC 5962-9306536HNC 5962-9306536HNC	S7631 S7631 19645 19645	BU-61581DG3-130 BU-61581DG3-110 BU-61581DG3-130 BU-61581DG3-110
5962-9306536HXA 5962-9306536HXA 5962-9306536HXA 5962-9306536HXA	S7631 S7631 19645 19645	BU-61581DS3-150 BU-61581DS3-140 BU-61581DS3-150 BU-61581DS3-140
5962-9306536HXC 5962-9306536HXC 5962-9306536HXC 5962-9306536HXC	S7631 S7631 19645 19645	BU-61581DS3-130 BU-61581DS3-110 BU-61581DS3-130 BU-61581DS3-110
5962-9306536HYA 5962-9306536HYA 5962-9306536HYA 5962-9306536HYA	S7631 S7631 19645 19645	BU-61581DV3-150 BU-61581DV3-140 BU-61581DV3-150 BU-61581DV3-140
5962-9306536HYC 5962-9306536HYC 5962-9306536HYC 5962-9306536HYC	S7631 S7631 19645 19645	BU-61581DV3-130 BU-61581DV3-110 BU-61581DV3-130 BU-61581DV3-110
5962-9306537HNA 5962-9306537HNA 5962-9306537HNA 5962-9306537HNA	S7631 S7631 19645 19645	BU-61581DG6-150 BU-61581DG6-140 BU-61581DG6-150 BU-61581DG6-140
5962-9306537HNC 5962-9306537HNC 5962-9306537HNC 5962-9306537HNC	S7631 S7631 19645 19645	BU-61581DG6-130 BU-61581DG6-110 BU-61581DG6-130 BU-61581DG6-110
5962-9306537HXA 5962-9306537HXA 5962-9306537HXA 5962-9306537HXA	S7631 S7631 19645 19645	BU-61581DS6-150 BU-61581DS6-140 BU-61581DS6-150 BU-61581DS6-140
5962-9306537HXC 5962-9306537HXC 5962-9306537HXC 5962-9306537HXC	S7631 S7631 19645 19645	BU-61581DS6-130 BU-61581DS6-110 BU-61581DS6-130 BU-61581DS6-110
5962-9306537HYA 5962-9306537HYA 5962-9306537HYA 5962-9306537HYA	S7631 S7631 19645 19645	BU-61581DV6-150 BU-61581DV6-140 BU-61581DV6-150 BU-61581DV6-140
5962-9306537HYC 5962-9306537HYC 5962-9306537HYC 5962-9306537HYC	S7631 S7631 19645 19645	BU-61581DV6-130 BU-61581DV6-110 BU-61581DV6-130 BU-61581DV6-110

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5962-9306538HNA 5962-9306538HNA 5962-9306538HNA 5962-9306538HNA	S7631 S7631 19645 19645	BU-61585DG3-150 BU-61585DG3-140 BU-61585DG3-150 BU-61585DG3-140
5962-9306538HNC 5962-9306538HNC 5962-9306538HNC 5962-9306538HNC	S7631 S7631 19645 19645	BU-61585DG3-130 BU-61585DG3-110 BU-61585DG3-130 BU-61585DG3-110
5962-9306538HXA 5962-9306538HXA 5962-9306538HXA 5962-9306538HXA	S7631 S7631 19645 19645	BU-61585DS3-150 BU-61585DS3-140 BU-61585DS3-150 BU-61585DS3-140
5962-9306538HXC 5962-9306538HXC 5962-9306538HXC 5962-9306538HXC	S7631 S7631 19645 19645	BU-61585DS3-130 BU-61585DS3-110 BU-61585DS3-130 BU-61585DS3-110
5962-9306538HYA 5962-9306538HYA 5962-9306538HYA 5962-9306538HYA	S7631 S7631 19645 19645	BU-61585DV3-150 BU-61585DV3-140 BU-61585DV3-150 BU-61585DV3-140
5962-9306538HYC 5962-9306538HYC 5962-9306538HYC 5962-9306538HYC	S7631 S7631 19645 19645	BU-61585DV3-130 BU-61585DV3-110 BU-61585DV3-130 BU-61585DV3-110
5962-9306539HNA 5962-9306539HNA 5962-9306539HNA 5962-9306539HNA	S7631 S7631 19645 19645	BU-61585DG6-150 BU-61585DG6-140 BU-61585DG6-150 BU-61585DG6-140
5962-9306539HNC 5962-9306539HNC 5962-9306539HNC 5962-9306539HNC	S7631 S7631 19645 19645	BU-61585DG6-130 BU-61585DG6-110 BU-61585DG6-130 BU-61585DG6-110
5962-9306539HXA 5962-9306539HXA 5962-9306539HXA 5962-9306539HXA	S7631 S7631 19645 19645	BU-61585DS6-150 BU-61585DS6-140 BU-61585DS6-150 BU-61585DS6-140
5962-9306539HXC 5962-9306539HXC 5962-9306539HXC 5962-9306539HXC	S7631 S7631 19645 19645	BU-61585DS6-130 BU-61585DS6-110 BU-61585DS6-130 BU-61585DS6-110
5962-9306539HYA 5962-9306539HYA 5962-9306539HYA 5962-9306539HYA	S7631 S7631 19645 19645	BU-61585DV6-150 BU-61585DV6-140 BU-61585DV6-150 BU-61585DV6-140
5962-9306539HYC 5962-9306539HYC 5962-9306539HYC 5962-9306539HYC	S7631 S7631 19645 19645	BU-61581DV6-130 BU-61581DV6-110 BU-61581DV6-130 BU-61581DV6-110

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5962-9306540HNA 5962-9306540HNA 5962-9306540HNA 5962-9306540HNA	S7631 S7631 19645 19645	BU-61586DG3-150 BU-61586DG3-140 BU-61586DG3-150 BU-61586DG3-140
5962-9306540HNC 5962-9306540HNC 5962-9306540HNC 5962-9306540HNC	S7631 S7631 19645 19645	BU-61586DG3-130 BU-61586DG3-110 BU-61586DG3-130 BU-61586DG3-110
5962-9306540HXA 5962-9306540HXA 5962-9306540HXA 5962-9306540HXA	S7631 S7631 19645 19645	BU-61586DS3-150 BU-61586DS3-140 BU-61586DS3-150 BU-61586DS3-140
5962-9306540HXC 5962-9306540HXC 5962-9306540HXC 5962-9306540HXC	S7631 S7631 19645 19645	BU-61586DS3-130 BU-61586DS3-110 BU-61586DS3-130 BU-61586DS3-110
5962-9306540HYA 5962-9306540HYA 5962-9306540HYA 5962-9306540HYA	S7631 S7631 19645 19645	BU-61586DV3-150 BU-61586DV3-140 BU-61586DV3-150 BU-61586DV3-140
5962-9306540HYC 5962-9306540HYC 5962-9306540HYC 5962-9306540HYC	S7631 S7631 19645 19645	BU-61586DV3-130 BU-61586DV3-110 BU-61586DV3-130 BU-61586DV3-110
5962-9306541HNA 5962-9306541HNA 5962-9306541HNA 5962-9306541HNA	S7631 S7631 19645 19645	BU-61586DG6-150 BU-61586DG6-140 BU-61586DG6-150 BU-61586DG6-140
5962-9306541HNC 5962-9306541HNC 5962-9306541HNC 5962-9306541HNC	S7631 S7631 19645 19645	BU-61586DG6-130 BU-61586DG6-110 BU-61586DG6-130 BU-61586DG6-110
5962-9306541HXA 5962-9306541HXA 5962-9306541HXA 5962-9306541HXA	S7631 S7631 19645 19645	BU-61586DS6-150 BU-61586DS6-140 BU-61586DS6-150 BU-61586DS6-140
5962-9306541HXC 5962-9306541HXC 5962-9306541HXC 5962-9306541HXC	S7631 S7631 19645 19645	BU-61586DS6-130 BU-61586DS6-110 BU-61586DS6-130 BU-61586DS6-110
5962-9306541HYA 5962-9306541HYA 5962-9306541HYA 5962-9306541HYA	S7631 S7631 19645 19645	BU-61586DV6-150 BU-61586DV6-140 BU-61586DV6-150 BU-61586DV6-140
5962-9306541HYC 5962-9306541HYC 5962-9306541HYC 5962-9306541HYC	S7631 S7631 19645 19645	BU-61586DV6-130 BU-61586DV6-110 BU-61586DV6-130 BU-61586DV6-110

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5962-9306542HMA 5962-9306542HMA 5962-9306542HMA 5962-9306542HMA	S7631 S7631 19645 19645	BU-61588CG3-150 BU-61588CG3-140 BU-61588CG3-150 BU-61588CG3-140
5962-9306542HMC 5962-9306542HMC 5962-9306542HMC 5962-9306542HMC	S7631 S7631 19645 19645	BU-61588CG3-130 BU-61588CG3-110 BU-61588CG3-130 BU-61588CG3-110
5962-9306542HTA 5962-9306542HTA 5962-9306542HTA 5962-9306542HTA	S7631 S7631 19645 19645	BU-61588CF3-150 BU-61588CF3-140 BU-61588CF3-150 BU-61588CF3-140
5962-9306542HTC 5962-9306542HTC 5962-9306542HTC 5962-9306542HTC	S7631 S7631 19645 19645	BU-61588CF3-130 BU-61588CF3-110 BU-61588CF3-130 BU-61588CF3-110
5962-9306542HUA 5962-9306542HUA 5962-9306542HUA 5962-9306542HUA	S7631 S7631 19645 19645	BU-61588CP3-150 BU-61588CP3-140 BU-61588CP3-150 BU-61588CP3-140
5962-9306542HUC 5962-9306542HUC 5962-9306542HUC 5962-9306542HUC	S7631 S7631 19645 19645	BU-61588CP3-130 BU-61588CP3-110 BU-61588CP3-130 BU-61588CP3-110
5962-9306543HMA 5962-9306543HMA 5962-9306543HMA 5962-9306543HMA	S7631 S7631 19645 19645	BU-65178CG3-150 BU-65178CG3-140 BU-65178CG3-150 BU-65178CG3-140
5962-9306543HMC 5962-9306543HMC 5962-9306543HMC 5962-9306543HMC	S7631 S7631 19645 19645	BU-65178CG3-130 BU-65178CG3-110 BU-65178CG3-130 BU-65178CG3-110
5962-9306543HTA 5962-9306543HTA 5962-9306543HTA 5962-9306543HTA	S7631 S7631 19645 19645	BU-65178CF3-150 BU-65178CF3-140 BU-65178CF3-150 BU-65178CF3-140
5962-9306543HTC 5962-9306543HTC 5962-9306543HTC 5962-9306543HTC	S7631 S7631 19645 19645	BU-65178CF3-130 BU-65178CF3-110 BU-65178CF3-130 BU-65178CF3-110
5962-9306543HUA 5962-9306543HUA 5962-9306543HUA 5962-9306543HUA	S7631 S7631 19645 19645	BU-65178CP3-150 BU-65178CP3-140 BU-65178CP3-150 BU-65178CP3-140
5962-9306543HUC 5962-9306543HUC 5962-9306543HUC 5962-9306543HUC	S7631 S7631 19645 19645	BU-65178CP3-130 BU-65178CP3-110 BU-65178CP3-130 BU-65178CP3-110

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5962-9306544HMA 5962-9306544HMA 5962-9306544HMA 5962-9306544HMA	S7631 S7631 19645 19645	BU-65179CG3-150 BU-65179CG3-140 BU-65179CG3-150 BU-65179CG3-140
5962-9306544HMC 5962-9306544HMC 5962-9306544HMC 5962-9306544HMC	S7631 S7631 19645 19645	BU-65179CG3-130 BU-65179CG3-110 BU-65179CG3-130 BU-65179CG3-110
5962-9306544HTA 5962-9306544HTA 5962-9306544HTA 5962-9306544HTA	S7631 S7631 19645 19645	BU-65179CF3-150 BU-65179CF3-140 BU-65179CF3-150 BU-65179CF3-140
5962-9306544HTC 5962-9306544HTC 5962-9306544HTC 5962-9306544HTC	S7631 S7631 19645 19645	BU-65179CF3-130 BU-65179CF3-110 BU-65179CF3-130 BU-65179CF3-110
5962-9306544HUA 5962-9306544HUA 5962-9306544HUA 5962-9306544HUA	S7631 S7631 19645 19645	BU-65179CP3-150 BU-65179CP3-140 BU-65179CP3-150 BU-65179CP3-140
5962-9306544HUC 5962-9306544HUC 5962-9306544HUC 5962-9306544HUC	S7631 S7631 19645 19645	BU-65179CP3-130 BU-65179CP3-110 BU-65179CP3-130 BU-65179CP3-110
5962-9306545HMA 5962-9306545HMA 5962-9306545HMA 5962-9306545HMA	S7631 S7631 19645 19645	BU-61688BG3-150 BU-61688BG3-140 BU-61688BG3-150 BU-61688BG3-140
5962-9306545HMC 5962-9306545HMC 5962-9306545HMC 5962-9306545HMC	S7631 S7631 19645 19645	BU-61688BG3-130 BU-61688BG3-110 BU-61688BG3-130 BU-61688BG3-110
5962-9306545HTA 5962-9306545HTA 5962-9306545HTA 5962-9306545HTA	S7631 S7631 19645 19645	BU-61688BF3-150 BU-61688BF3-140 BU-61688BF3-150 BU-61688BF3-140
5962-9306545HTC 5962-9306545HTC 5962-9306545HTC 5962-9306545HTC	S7631 S7631 19645 19645	BU-61688BF3-130 BU-61688BF3-110 BU-61688BF3-130 BU-61688BF3-110
5962-9306545HUA 5962-9306545HUA 5962-9306545HUA 5962-9306545HUA	S7631 S7631 19645 19645	BU-61688BP3-150 BU-61688BP3-140 BU-61688BP3-150 BU-61688BP3-140
5962-9306545HUC 5962-9306545HUC 5962-9306545HUC 5962-9306545HUC	S7631 S7631 19645 19645	BU-61688BP3-130 BU-61688BP3-110 BU-61688BP3-130 BU-61688BP3-110

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5962-9306546HMA 5962-9306546HMA 5962-9306546HMA 5962-9306546HMA	S7631 S7631 19645 19645	BU-61689BG3-150 BU-61689BG3-140 BU-61689BG3-150 BU-61689BG3-140
5962-9306546HMC 5962-9306546HMC 5962-9306546HMC 5962-9306546HMC	S7631 S7631 19645 19645	BU-61689BG3-130 BU-61689BG3-110 BU-61689BG3-130 BU-61689BG3-110
5962-9306546HTA 5962-9306546HTA 5962-9306546HTA 5962-9306546HTA	S7631 S7631 19645 19645	BU-61689BF3-150 BU-61689BF3-140 BU-61689BF3-150 BU-61689BF3-140
5962-9306546HTC 5962-9306546HTC 5962-9306546HTC 5962-9306546HTC	S7631 S7631 19645 19645	BU-61689BF3-130 BU-61689BF3-110 BU-61689BF3-130 BU-61689BF3-110
5962-9306546HUA 5962-9306546HUA 5962-9306546HUA 5962-9306546HUA	S7631 S7631 19645 19645	BU-61689BP3-150 BU-61689BP3-140 BU-61689BP3-150 BU-61689BP3-140
5962-9306546HUC 5962-9306546HUC 5962-9306546HUC 5962-9306546HUC	S7631 S7631 19645 19645	BU-61689BP3-130 BU-61689BP3-110 BU-61689BP3-130 BU-61689BP3-110

- 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 a QML source.

Vendor CAGE
number

S7631

19645

Vendor name
and addressDDC Ireland, LTD.
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