

MILITARY SPECIFICATION

MICROCIRCUITS, DIGITAL, LOW POWER SCHOTTKY TTL,
BUS TRANSCEIVER, MONOLITHIC SILICON

INACTIVE FOR NEW DESIGN AFTER DATE OF THIS REVISION

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers the detail requirements for monolithic silicon, Schottky TTL bus transceiver microcircuits. One product assurance class and a choice of case outlines and lead finishes are provided for each type and are reflected in the complete part number.

1.2 Part number. The part number shall be in accordance with MIL-M-38510 with the exception that the "JAN" or "J" certification mark shall not be used.

1.2.1 Device types. The device types shall be as follows:

Device type	Circuit
01	Quad two-input bus transceiver (open collector outputs)
02	Quad two-input bus transceiver (open collector outputs) with parity
03	Quad bus transceiver (open collector outputs) with parity
04	Quad two-input bus transceiver (three-state outputs)
05	Quad two-input bus transceiver (three-state outputs) with parity
06	Quad bus transceiver (three-state outputs) with parity

1.2.2 Device class. The device class shall be the product assurance level as defined in MIL-M-38510.

1.2.3 Case outline. The case outline shall be designated as follows:

Outline letter	Case outline (see MIL-M-38510, appendix C)
J	D-3 (24-pin, 1/2" x 1-1/4"), dual-in-package
Z	F-8 (24-pin, 1/4" x 3/8"), flat package
R	D-8 (20-pin, 1/4" x 1-1/16"), dual-in-line package
S	F-9 (20-pin, 1/4" x 1/2"), flat package

1.3 Absolute maximum ratings.

DC voltage applied to outputs for disabled output state	-0.5 V dc to V_{CC} maximum
Supply voltage range	-0.5 V dc to +7.0 V dc
Input voltage range	-0.5 V dc at +5.5 V dc
Storage temperature range	-65°C to +150°C
Maximum power dissipation, (P_D)1/:	
Device types 01, 02, 03, 04, 05, 06	1.0 W
DC output current, into outputs:	
Receiver and parity	30 mA
DC output current, into outputs:	
Bus (types 01, 02, 03)	200 mA

1/ Must withstand the added P_D due to short circuit test (e.g., I_{OS}).

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Rome Air Development Center (RBE-2), Griffiss AFB, NY 13441, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

DC output current, into outputs:

Bus (types 04, 05, 06) - - - - -	100 mA
DC input current - - - - -	-30 mA to +5 mA
Case operating temperature range (T_C) -	-55°C to +125°C
Lead temperature (soldering, 10 seconds) -	+300°C
Thermal resistance, junction-	
to-case (θ_{JC}) - - - - -	0.09°C/mW for flat package
	0.08°C/mW for dual-in-line package
Junction temperature (T_J) - - - - -	+175°C

1.4 Recommended operating conditions.

Supply voltage range - - - - -	4.5 V dc minimum to 5.5 V dc maximum
Minimum high-level input voltage	
(all except bus receiver type 01) - - -	2.0 V dc
Minimum high-level input voltage	
(bus receiver type 01) - - - - -	2.4 V dc
Maximum low level input voltage	
(all except bus receiver type 01) - - -	0.8 V dc
Maximum low level input voltage	
(bus receiver type 01) - - - - -	1.5 V dc

Device type

	<u>01/02</u>	<u>03</u>	<u>04/05</u>	<u>06</u>
Setup time, $t(\text{setup})$				
Data to driver clock - - - - -	25 ns	25 ns	15 ns	15 ns
Select to driver clock - - - - -	33 ns		28 ns	
Bus receiver to latch enable - - - - -	21 ns	21 ns	15 ns	15 ns
Hold time $t(\text{hold})$				
Data to driver clock - - - - -	8 ns	8 ns	8 ns	8 ns
Select to driver clock - - - - -	8 ns		8 ns	
Bus receiver to latch enable - - - - -	7 ns	7 ns	6 ns	6 ns
Pulse width, $t(\text{pw})$				
Driver clock - - - - -	28 ns	28 ns	20 ns	20 ns

2. APPLICABLE DOCUMENTS

2.1 Government specifications and standards. Unless otherwise specified, the following specifications and standards, of the issue listed in that issue of the Department of Defense Index of Specifications and Standards specified in the solicitation, form a part of this specification to the extent specified herein.

SPECIFICATION

MILITARY

MIL-M-38510 - Microcircuits, General Specification for.

STANDARD

MILITARY

MIL-STD-883 - Test Methods and Procedures for Microelectronics.

(Copies of specifications, standards, handbooks, drawings, and publications required by manufacturers in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer.)

2.2 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence.

3. REQUIREMENTS

3.1 Detail specification. The individual item requirements shall be in accordance with MIL-M-38510, and as specified herein.

3.2 Design, construction, and physical dimensions. The design, construction, and physical dimensions shall be as specified in MIL-M-38510, and herein.

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

3.2.2 Logic diagram. The logic diagram shall be as specified on figure 3.

3.2.3 Truth tables. The truth tables shall be as specified on figure 2.

3.2.4 Case outlines. Case outlines shall be as specified in MIL-M-38510 and in 1.2.3 herein.

3.3 Lead material and finish. The lead material and finish shall be in accordance with MIL-M-38510 (see 6.5).

3.4 Electrical performance characteristics. The electrical performance characteristics are as specified in table I, and apply over the full recommended case operating temperature range, unless otherwise specified.

3.5 Electrical test requirements. The electrical test requirements shall be the subgroups specified in table II. The electrical tests for each subgroup are described in table III.

3.6 Marking. Marking shall be in accordance with MIL-M-38510 and 1.2 herein. At the option of the manufacturer, marking of the country of origin may be omitted from the body of the microcircuit, but shall be retained on the initial container. The "JAN" or "J" certification mark shall not be used.

3.7 Manufacturer eligibility. To be eligible to supply microcircuits to this specification, a manufacturer shall have a manufacturer certification in accordance with MIL-M-38510 for at least one line; not necessarily the line producing the device type described herein.

3.8 Certification. Certification in accordance with MIL-M-38510 is not required for this device.

4. QUALITY ASSURANCE PROVISIONS

4.1 Sampling and inspection. Sampling and inspection procedures shall be in accordance with MIL-M-38510 and methods 5005 and 5007, as applicable, of MIL-STD-883, except as modified herein.

4.2 Qualification inspection. Qualification inspection is not required.

4.3 Screening. Screening shall be in accordance with method 5004 of MIL-STD-883, and shall be conducted on all devices prior to quality conformance inspection. The following additional criteria shall apply:

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

(1) Test condition D or E, using the circuit shown on figure 5, or equivalent.

(2) $T_A = +125^{\circ}\text{C}$ minimum.

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

- c. The percent defective allowable (PDA) for class B devices shall be 10 percent based on failures from group A, subgroup 1 test after cooldown as final electrical test in accordance with method 5004 of MIL-STD-883, and with no intervening electrical measurements. If interim electrical parameter tests are performed prior to burn-in, failures resulting from pre burn-in screening may be excluded from the PDA. If interim electrical parameter tests prior to burn-in are omitted, then all screening failures shall be included in the PDA. The verified failures of group A, subgroup 1, after burn-in divided by the total number of devices submitted for burn-in in that lot shall be used to determine the percent defective for that lot, and the lot shall be accepted or rejected based on the PDA for the applicable device class.

4.4 Quality conformance inspection. Quality conformance inspection shall be in accordance with MIL-M-38510, and as specified herein. Inspections to be performed shall be those specified in method 5005 of MIL-STD-883 and herein for groups A, B, C, and D inspections (see 4.4.1 through 4.4.4). Generic test data (see 6.6) may be used to satisfy the requirements for groups C and D inspections. Quality conformance inspection shall be completed on the specific devices covered by this specification before they are shipped.

4.4.1 Group A inspection. Group A inspection shall be in accordance with table I of method 5005 of MIL-STD-883 and as follows:

- a. Tests shall be as specified in table II herein.
- b. Subgroups 4, 5, and 6 of table I, method 5005 of MIL-STD-883 shall be omitted.

4.4.2 Group B inspection. Group B inspection shall be in accordance with table II of method 5005 of MIL-STD-883. Electrical parameters shall be as specified in table II herein.

4.4.3 Group C inspection. Group C inspection shall be in accordance with table III of method 5005 of MIL-STD-883 and as follows:

- a. End-point electrical test parameters shall be as specified in table II herein.
- b. Subgroups 3 and 4 shall be added to the group C inspection requirements for class B devices and shall consist of the tests, conditions, and limits specified for subgroups 10 and 11 of group A.
- c. Steady-state life test (method 1005 of MIL-STD-883) conditions:
 - (1) Test condition D or E, using the circuit shown on figure 5, or equivalent.
 - (2) $T_A = +125^\circ\text{C}$ minimum.
 - (3) Test duration: 1,000 hours, except as permitted by appendix B of MIL-M-38510.

4.4.4 Group D inspection. Group D inspection shall be in accordance with table IV of method 5005 of MIL-STD-883. End-point electrical parameters shall be as specified in table II herein.

TABLE I. Electrical performance characteristics.

Test	Symbol	Conditions	Device	Limits		Unit
				Min	Max	
High-level output voltage bus outputs	V _{OH1}	V _{CC} = 4.5 V dc; I _{OH} = -15 mA	04, 05, 06	2.4		V
High-level output voltage, receiver outputs	V _{OH2}	V _{CC} = 4.5 V dc; I _{OH} = -1 mA	01, 02, 03, 04, 05, 06	2.4		V
High-level output voltage, parity output	V _{OH3}	V _{CC} = 4.5 V dc; I _{OH} = -660 μ A	02, 03, 05, 06	2.5		V
Low-level output voltage bus outputs	V _{OL1}	I _{OL} = 40 mA			0.5	V
	V _{OL3}	V _{CC} = 4.5 V dc; I _{OL} = 70 mA	01, 02, 03		0.7	V
	V _{OL5}	I _{OL} = 100 mA			0.8	V
Low-level output voltage, bus outputs	V _{OL2}	V _{CC} = 4.5 V dc; I _{CL} = 24 mA	04, 05, 06		0.4	V
	V _{OL4}	I _{OL} = 48 mA			0.5	V
Low-level output voltage, receiver/parity outputs	V _{OL6}	I _{OL} = 4 mA	01, 02, 03, 04, 05, 06		0.4	V
	V _{OL7}	V _{CC} = 4.5 V dc; I _{OL} = 8 mA			0.45	V
	V _{OL8}	I _{OL} = 12 mA			0.5	V
Input clamp voltage	V _{IC}	V _{CC} = 4.5 V; I _{IN} = -18 mA	01, 02, 03, 04, 05, 06		-1.2	V
Low-level input current, BE, RLE	I _{IL1}	V _{CC} = 5.5 V; V _{IN} = 0.4 V	01, 02, 03		-0.36	mA
Low-level input current, BE, RLE	I _{IL2}	V _{CC} = 5.5 V; V _{IN} = 0.4 V	04, 05, 06		-0.72	mA
Low-level input current, all other inputs	I _{IL3}	V _{CC} = 5.5 V; V _{IN} = 0.4 V	01, 02, 03, 04, 05, 06		-0.36	mA
High-level input current	I _{IH1}	V _{CC} = 5.5 V; V _{IN} = 2.7 V	01, 02, 03, 04, 05, 06		20	μ A
High-level input current	I _{IH2}	V _{CC} = 5.5 V; V _{IN} = 5.5 V	01, 02, 03, 04, 05, 06		100	μ A
High impedance state output leakage current low, receiver outputs	I _{ZL1}	V _{CC} = 5.5 V; V _{OUT} = 0.4 V	01, 03		-20	μ A
			04, 06		-50	μ A
High impedance state output leakage current low, bus outputs	I _{ZL2}	V _{CC} = 5.5 V; V _{OUT} = 0.4 V	01, 02 03		-50	μ A

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions		Device	Limits		Unit
					Min	Max	
High impedance state output leakage current low, bus outputs	I _{ZL3}	V _{CC} = 5.5 V; V _{OUT} = 0.4 V		04,05 06		-200	μA
High impedance state output leakage current high, receiver outputs	I _{ZH1}	V _{CC} = 5.5 V; V _{OUT} = 2.4 V		01,03		20	μA
				04,06		50	
High impedance state output leakage current high, bus outputs	I _{ZH2}	V _{CC} = 5.5 V; V _{OUT} = 4.5 V		01,02 03		200	μA
High impedance state output leakage current high, bus outputs	I _{ZH3}	V _{CC} = 5.5 V;	V _{OUT} = 4.5 V	04,05 06		100	μA
	I _{ZH4}		V _{OUT} = 2.4 V			50	μA
High impedance state output leakage current high, bus outputs with power off	I _{ZH5}	V _{CC} = 0 V; V _{OUT} = 4.5 V		01,02, 03,04, 05,06		100	μA
Short-circuit output current, bus outputs	I _{OS1}	V _{CC} = 5.5 V; V _{OUT} = 0 V		04,05 06	-50	-225	mA
Short-circuit output current, receiver outputs	I _{OS2}	V _{CC} = 5.5 V; V _{OUT} = 0 V		01,02, 03,04, 05,06	-30	-130	mA
Short-circuit output current, parity outputs	I _{OS3}	V _{CC} = 5.5 V; V _{OUT} = 0 V		02,03, 05,06	-20	-100	mA
Supply current	I _{CC}	V _{CC} = 5.5 V; All inputs = GND		01,02		105	mA
Supply current	I _{CC}	V _{CC} = 5.5 V; All inputs = GND		03,05		110	mA
Supply current	I _{CC}	V _{CC} = 5.5 V; All inputs = GND		04		95	mA
Supply current	I _{CC}	V _{CC} = 5.5 V; All inputs = GND		06		95	mA
To low level, from driver clock to bus out	t _{PHL1}	BUS outputs, device types 01,02,03: C _L = 50 pF R _L = 50Ω		01,02, 03		40	ns
				04,05, 06		36	ns

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions	Device	Limits		Unit
				Min	Max	
To low level, from bus to receiver out	t _{PHL2}	BUS outputs, device types 04,05,06: $C_L = 50 \text{ pF}$ $R_L = 130 \Omega$	01,02,03		37	ns
			04,05,06		30	ns
To low level, from latch enable to receiver out	t _{PHL3}	Receiver/parity outputs, device types 01,02,03,04,05,06: $C_L = 15 \text{ pF}$ $R_L = 2 \text{ k}\Omega$ $V_{CC} = 5.0 \text{ V}$ all device types	01,02,03		37	ns
			04,05,06		30	ns
To low level, from data to odd parity out	t _{PHL4}	BUS outputs, device types 01,02,03: $C_L = 50 \text{ pF}$ $R_L = 50 \Omega$	02,03		40	ns
			05,06		40	ns
To low level, from bus to odd parity out	t _{PHL5}	BUS outputs, device types 04,05,06: $C_L = 50 \text{ pF}$ $R_L = 130 \Omega$	02,03		40	ns
			05,06		36	ns
To low level, from latch enable to odd parity out	t _{PHL6}	Receiver/parity outputs, device types 01, 02, 03, 04, 05, 06: $C_L = 15 \text{ pF}$ $R_L = 2 \text{ k}\Omega$	01,02,03		40	ns
			04,05,06		36	
To high level, from driver clock to bus out	t _{PLH1}	$V_{CC} = 5.0 \text{ V}$ all device types	01,02,03		40	ns
			04,05,06		36	ns
To high level, from bus to receiver out	t _{PLH2}		01,02,03		37	ns
			04,05,06		33	ns
To high level, from latch enable to receiver out	t _{PLH3}		01,02,03		37	ns
			04,05,06		33	ns
To high level, from data to odd parity out	t _{PLH4}		02,03		40	ns
			05,06		46	ns
To high level, from bus to odd parity out	t _{PLH5}		02,03		40	ns
			05,06		36	ns

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions	Device	Limits		Unit
				Min	Max	
To high level, from latch enable to odd parity out	tpLH6	BUS outputs, device types 01,02,03: $C_L = 50 \text{ pF}$ $R_L = 50\Omega$	02,03		40	ns
			05,06		36	ns
To low level, from bus enable to bus out	tpZL1	BUS outputs, device types 04,05,06: $C_L = 50 \text{ pF}$ $R_L = 130\Omega$	01,02,03,04,05,06		26	ns
To low level, from output enable to receiver out	tpZL2	Receiver/parity outputs, device types 01, 02, 03, 04, 05, 06: $C_L = 15 \text{ pF}$ $R_L = 2 \text{ k}\Omega$	01,03		28	ns
			04,06		26	ns
To high level, from bus enable to bus out	tpZH1	$V_{CC} = 5.0 \text{ V}$ all device types	04,05,06		26	ns
To high level, from output enable to receiver out	tpZH2		01,03		28	ns
			04,06		26	ns
To high impedance, from bus enable to bus out (low)	tpLZ1		01,02,03		26	ns
			04,05,06		21	ns
To high impedance, from output enable to receiver out (low)	tpLZ2		01,03		28	ns
			04,06		26	ns
To high impedance, from bus enable to bus out (high)	tpHZ1		04,05,06		21	ns
To high impedance, from output enable to receiver out (high)	tpHZ2	01,03		28	ns	
		04,06		26	ns	

TABLE II. Electrical test requirements.

MIL-STD-883 test requirements	Subgroups (see table III) Class B devices
Interim electrical parameters (pre burn-in) (method 5004)	1
Final electrical test parameters (method 5004)	1*,2,3,7, 9,10,11
Group A test requirements (method 5005)	1,2,3,7,8, 9,10,11
Groups C end-point electrical parameters (method 5005)	N/A
Additional electrical subgroups for group C periodic inspections	N/A
Group D end point electrical parameters (method 5005)	1,2,3

*PDA applies to subgroup 1 (see 4.3c).

4.5 Methods of inspection. Methods of inspection shall be specified as follows.

4.5.1 Voltage and current. All voltages given are referenced to the microcircuit ground terminal. Currents given are conventional and positive when flowing into the referenced terminal.

5. PACKAGING

5.1 Packaging requirements. The requirements for packaging of microcircuits shall be in accordance with MIL-M-38510.

6. NOTES

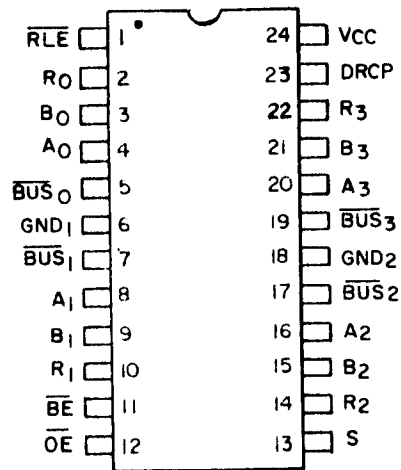
6.1 Notes. The notes specified in MIL-M-38510 are applicable to this specification.

6.2 Intended use. Microcircuits conforming to this specification are intended for logistic support of existing equipment.

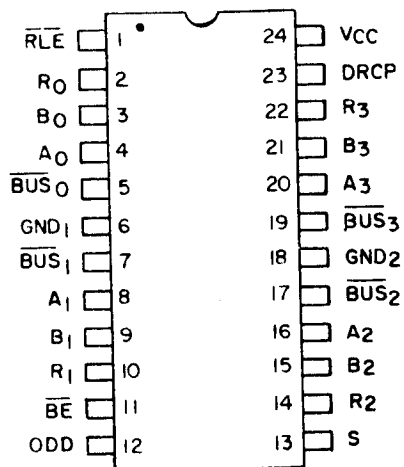
6.3 Ordering data. The contract or purchase order should specify the following:

- a. Complete part number (see 1.2).
- b. Requirements for delivery of one copy of the quality conformance inspection data pertinent to the device inspection lot to be supplied with each shipment by the device manufacturer, if applicable.
- c. Requirements for certificate of compliance, if applicable.
- d. Requirements for notification of change of product or process to the contracting activity, if applicable.
- e. Requirements for packaging and packing.
- f. Requirements for special carriers, lead lengths, or lead forming, if applicable. These requirements shall not affect the part number. Unless otherwise specified, these requirements shall not apply to direct purchase by or direct shipment to the Government.

Device types 01, 04



Device types 02, 05



Device types 03, 06

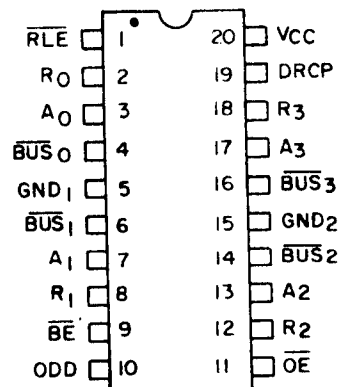


FIGURE 1. Terminal connections.

Device types 01, 04

INPUTS							INTERNAL TO DEVICE		BUS	OUTPUT	FUNCTION
S	A _i	B _i	DRCP	BE	RLE	OE	D _i	Q _i	BUS _i	R _i	
X	X	X	X	H	X	X	X	X	Z	X	Driver output disable
X	X	X	X	X	X	H	X	X	X	Z	Receiver output disable
X	X	X	X	H	L	L	X	L	L	H	Driver output disable and receive data via Bus input
X	X	X	X	H	L	L	X	H	H	L	
X	X	X	X	X	H	X	X	NC	X	X	Latch received data
L	L	X	↑	X	X	X	L	X	X	X	Load driver register
L	H	X	↑	X	X	X	H	X	X	X	
H	X	L	↑	X	X	X	L	X	X	X	
H	X	H	↑	X	X	X	H	X	X	X	
X	X	X	L	X	X	X	NC	X	X	X	No driver clock restrictions
X	X	X	H	X	X	X	NC	X	X	X	
X	X	X	X	L	X	X	L	X	H	X	Drive Bus
X	X	X	X	L	X	X	H	X	L	X	

H = HIGH
 L = LOW
 Z = HIGH Impedance
 NC = No change
 X = Don't care
 ↑ = LOW to HIGH transition
 i = 0, 1, 2, 3

Device type 02, 05

INPUTS							INTERNAL TO DEVICE		BUS	OUTPUT	FUNCTION
S	A _i	B _i	DRCP	BE	RLE	OE	D _i	Q _i	BUS _i	R _i	
X	X	X	X	H	X	X	X	X	Z	X	Driver output disable
X	X	X	X	X	X	H	X	X	X	Z	Receiver output disable
X	X	X	X	H	L	L	X	L	L	H	Driver output disable and receive data via Bus input
X	X	X	X	H	L	L	X	H	H	L	
X	X	X	X	X	H	X	X	NC	X	X	Latch received data
L	L	X	↑	X	X	X	L	X	X	X	Load driver register
L	H	X	↑	X	X	X	H	X	X	X	
H	X	L	↑	X	X	X	L	X	X	X	
H	X	H	↑	X	X	X	H	X	X	X	
X	X	X	L	X	X	X	NC	X	X	X	No driver clock restrictions
X	X	X	H	X	X	X	NC	X	X	X	
X	X	X	X	L	X	X	L	X	H	X	Drive Bus
X	X	X	X	L	X	X	H	X	L	X	

H = HIGH
 L = LOW
 Z = HIGH Impedance
 NC = No change
 X = Don't care
 ↑ = LOW to HIGH transition
 i = 0, 1, 2, 3

BE	ODD PARITY OUTPUT
L	ODD = A ₀ ⊕ A ₁ ⊕ A ₂ ⊕ A ₃
H	ODD = Q ₀ ⊕ Q ₁ ⊕ Q ₂ ⊕ Q ₃

FIGURE 2. Truth table.

Device types 03, 06

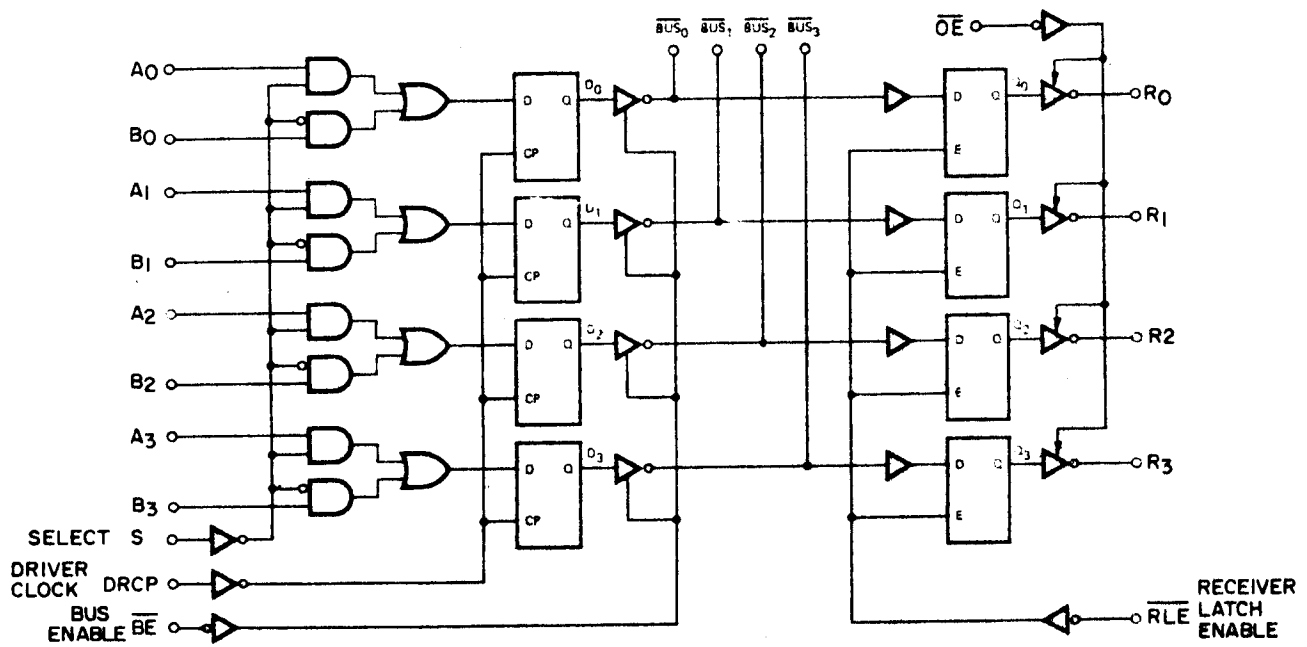
INPUTS					INTERNAL TO DEVICE		BUS	OUTPUT	FUNCTION
A _i	DRCP	$\overline{BE}$	$\overline{ALE}$	$\overline{OE}$	D _i	Q _i	B _i	R _i	
X	X	H	X	X	X	X	H	X	Driver output disable
X	X	X	X	H	X	X	X	Z	Receiver output disable
X	X	H	L	L	X	L	L	H	Driver output disable and receive data via Bus input
X	X	H	L	L	X	H	H	L	
X	X	X	H	X	X	NC	X	X	Latch received data
L	↑	X	X	X	L	X	X	X	Load driver register
H	↑	X	X	X	H	X	X	X	
X	L	X	X	X	NC	X	X	X	No driver clock restrictions
X	H	X	X	X	NC	X	X	X	
X	X	L	X	X	L	X	H	X	Drive Bus
X	X	L	X	X	H	X	L	X	

H = HIGH Z = High Impedance X = Don't Care i = 0, 1, 2, 3
 L = LOW NC = No Change ↑ = LOW-to-HIGH Transition

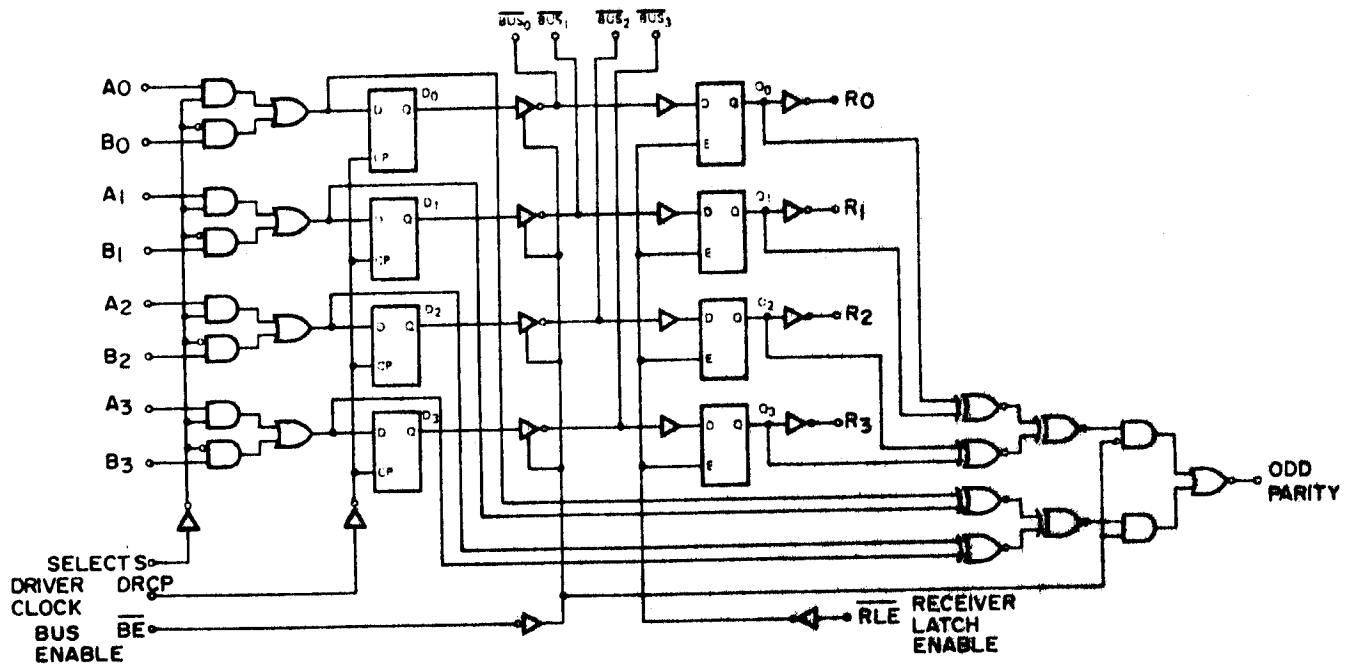
$\overline{BE}$	ODD PARITY OUTPUT
L	ODD = $A_0 \oplus A_1 \oplus A_2 \oplus A_3$
H	ODD = $Q_0 \oplus Q_1 \oplus Q_2 \oplus Q_3$

FIGURE 2. Truth table - Continued.

Device types 01, 04

FIGURE 3. Logic diagram.

Device type 02, 05



Device type 03, 06

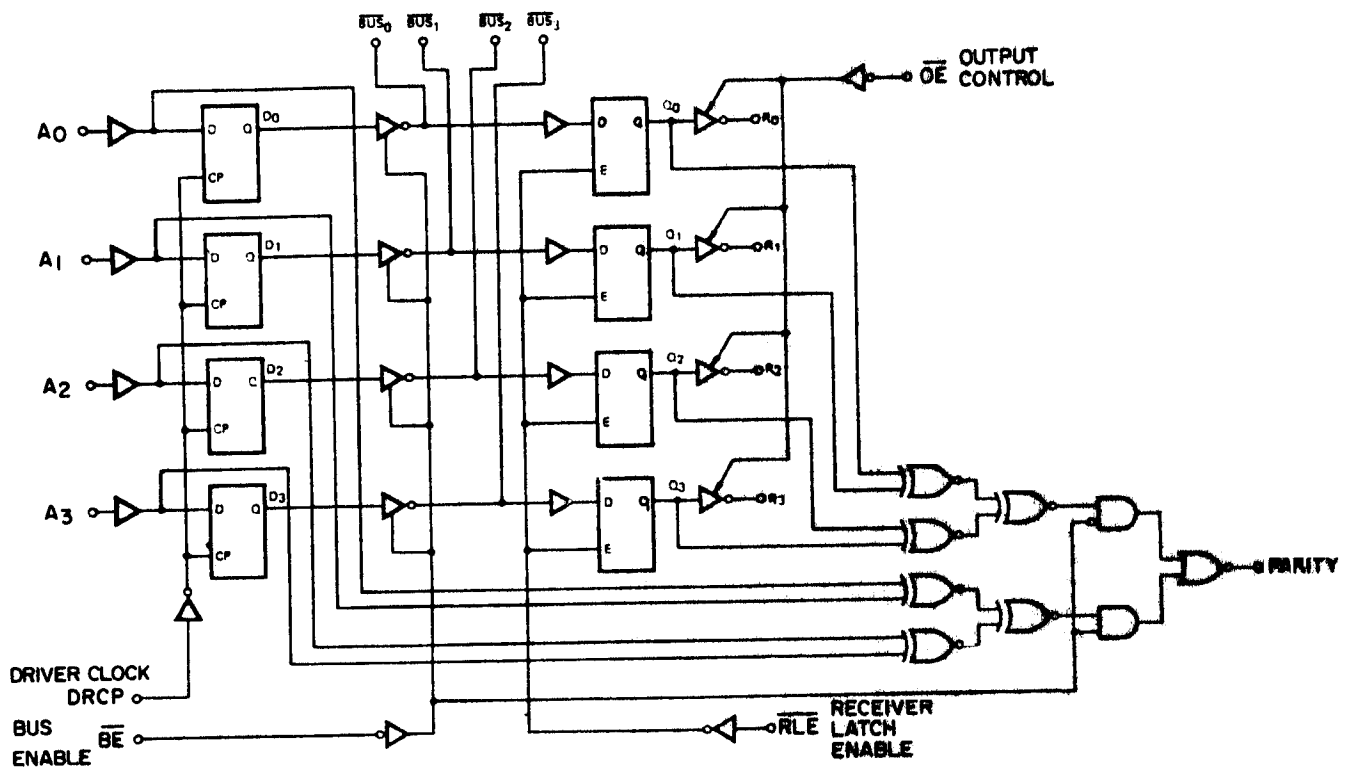
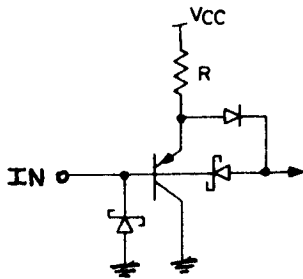


FIGURE 3. Logic diagram - Continued.

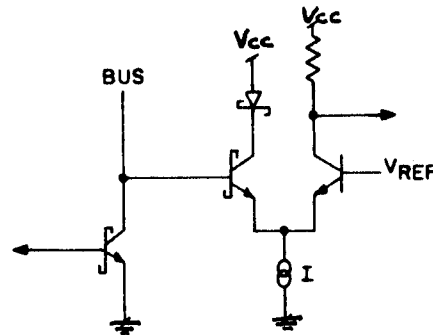
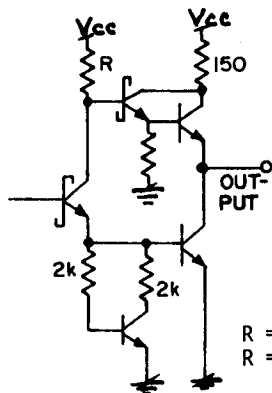
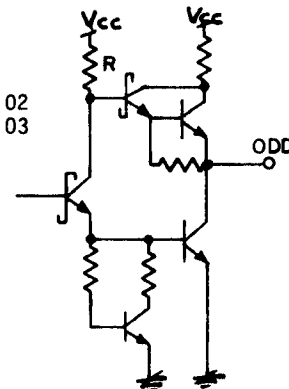
Input/output equivalent circuits

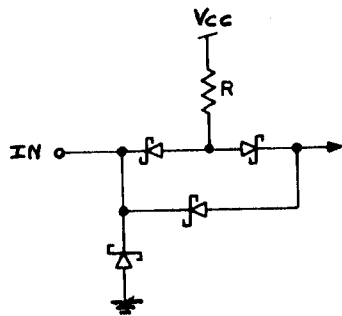
Device type 01, 02, 03

Inputs other than
BUSR value (Ω)Device type

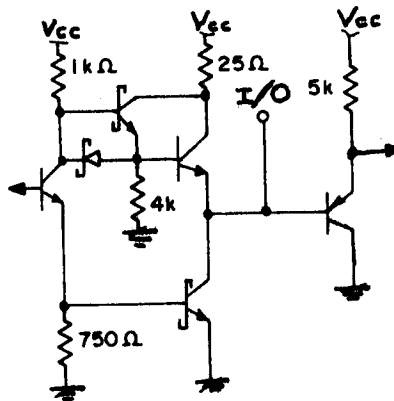
<u>Input</u>	<u>01</u>	<u>02</u>	<u>03</u>
A	10k	10k	5k
B	10k	10k	-
S	10k	10k	-
DRCP	10k	10k	10k
$\overline{RLE}$	5k	5k	5k
$\overline{BE}$	3.3k	3.3k	3.3k
$\overline{OE}$	5k	-	5k

Device type 01, 02 and 03

BUS I/O portR = 4.8k for type 01, 02
R = 5.4k for type 03Receiver outputR = 2.7 k for 02
R = 4.8 k for 03odd parity outputFIGURE 4. Schematic circuits.

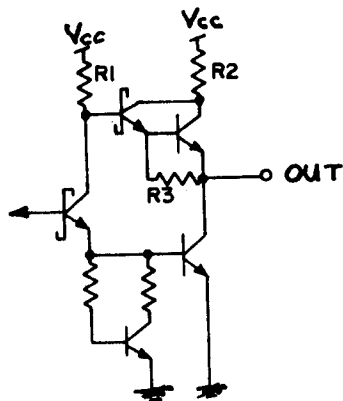


<u>Input</u>	<u>Type</u>
$R = 20\text{ k}\Omega$ for A, DRCP	04, 05, and 06
B, S	04, 05
$\overline{OE}$	04, 06
$R = 10\text{ k}\Omega$ $\overline{BE}$, $\overline{RLE}$	04, 05, 06



BUS I/O port

type 04, 05 and 06

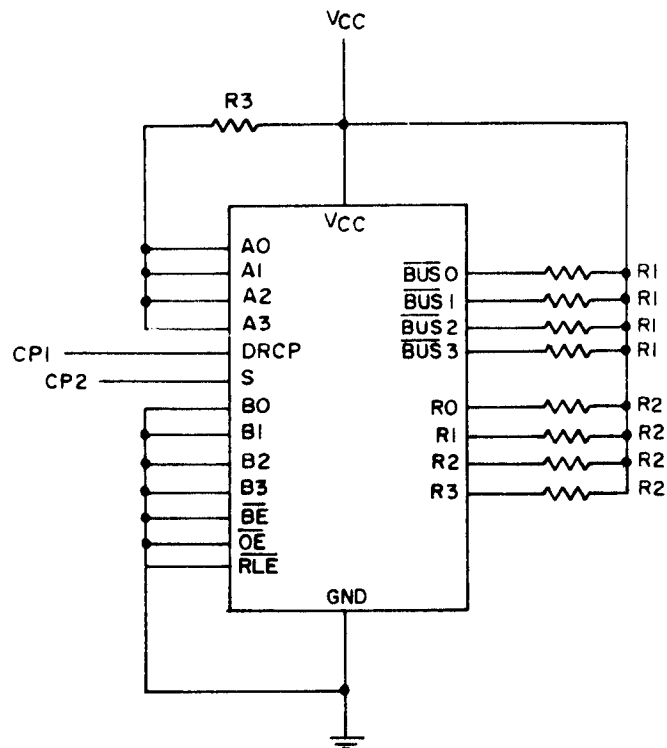


<u>Receiver</u>	<u>Odd parity</u>
<u>type 04, 05 and 06</u>	<u>type 05, 06</u>
R_1	$5.4\text{ k}\Omega$
R_2	60Ω
R_3	$1\text{ k}\Omega$
	$2.7\text{ k}\Omega$
	75Ω
	$4\text{ k}\Omega$

Receiver and odd parity outputs

FIGURE 4. Schematic circuits - Continued.

Device type 01, 04

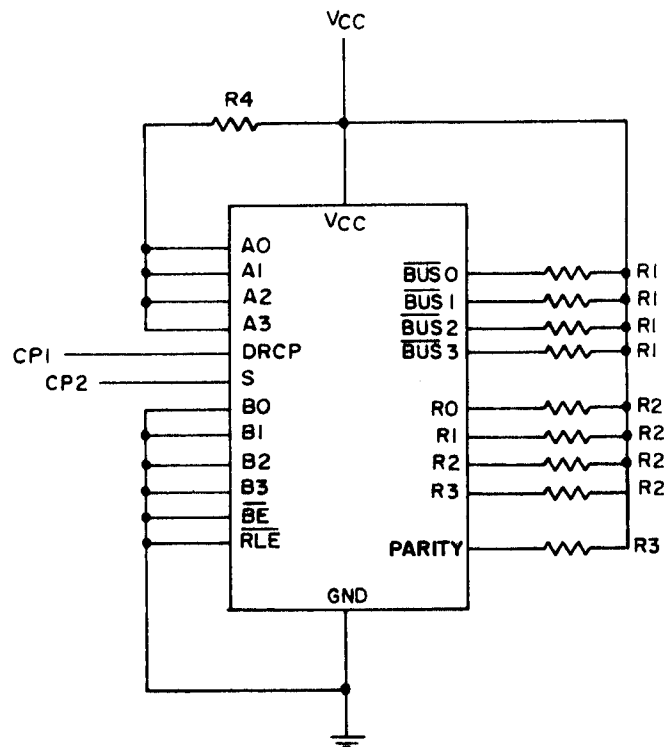


NOTES:

1. $V_{CC} = 5.5 \text{ V}$
2. $R_1 = 140\Omega \pm 5\%$; $R_2 = 1.4 \text{ k}\Omega \pm 5\%$; $R_3 = 1 \text{ k}\Omega \pm 5\%$.
3. $CP1 \leq 1 \text{ MHz} \pm 10\%$; duty cycle = $50 \pm 10\%$; $V_{IH} = 2.0 \text{ V to } 5.5 \text{ V}$;
 $V_{IL} = -0.5 \text{ V to } 0.8 \text{ V}$.
 $CP2 = \frac{CP1}{2}$
 $V_{IH} = 2.0 \text{ V to } 5.5 \text{ V}$;
 $V_{IL} = -0.5 \text{ V to } 0.8 \text{ V}$

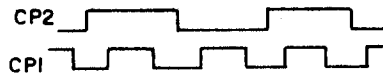
FIGURE 5. Burn-in and life test circuit.

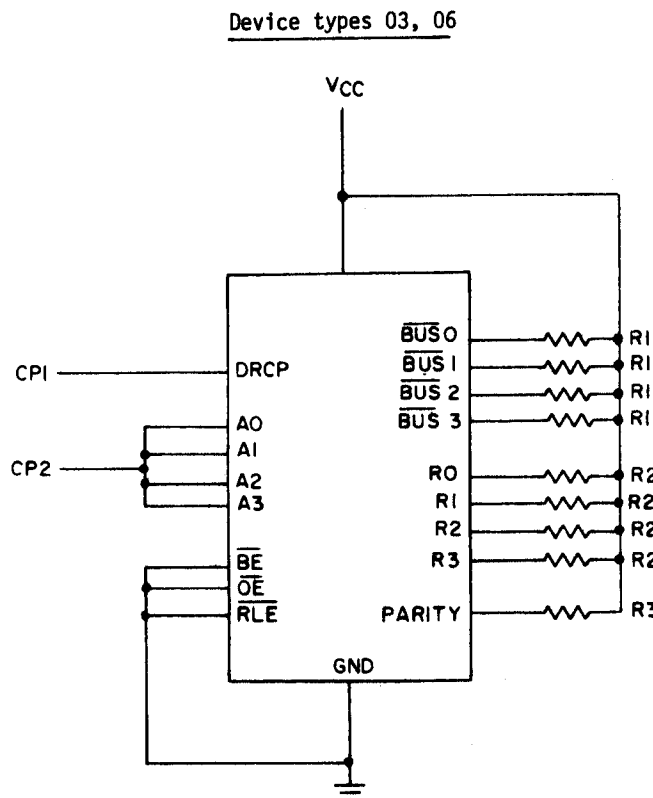
Device types 02, 05



NOTES:

1. $V_{CC} = 5.5 \text{ V}$
2. $R_1 = 230\Omega \pm 5\%$; $R_2 = R_3 = 1.4 \text{ k}\Omega \pm 5\%$; $R_4 = 1 \text{ k}\Omega \pm 5\%$.
3. $CP1 \leq 1 \text{ MHz} \pm 10\%$; duty cycle = $50 \pm 10\%$; $V_{IH} = 2.0 \text{ V to } 5.5 \text{ V}$;
 $V_{IL} = -0.5 \text{ V to } 0.8 \text{ V}$
 $CP2 = \frac{CP1}{2}$
 $V_{IH} = 2.0 \text{ V to } 5.5 \text{ V}$
 $V_{IL} = -0.5 \text{ V to } 0.8 \text{ V}.$

FIGURE 5. Burn-in and life test circuit - Continued.

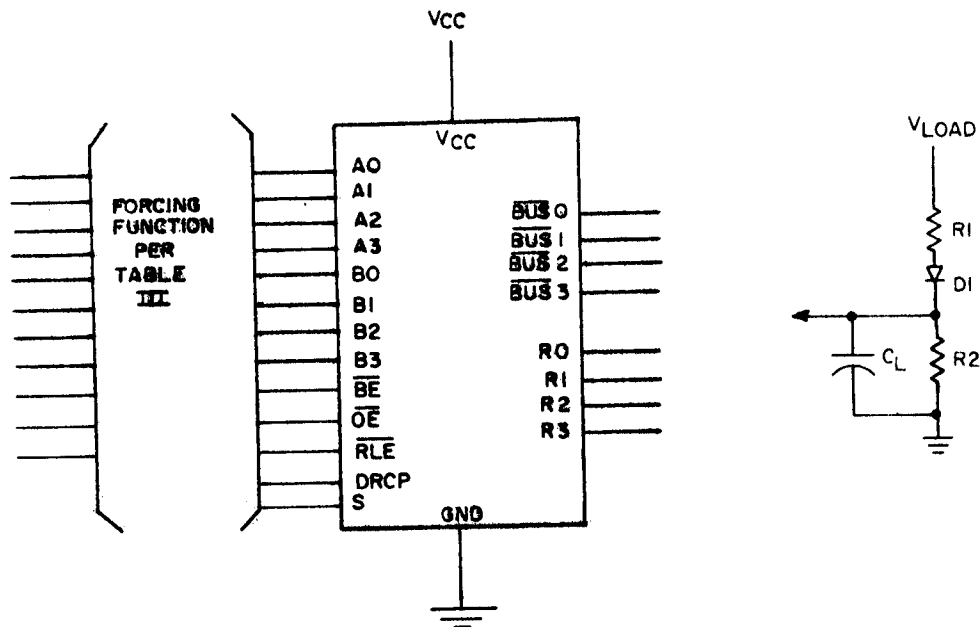


NOTES:

1. $V_{CC} = 5.5 \text{ V}$.
2. $R_1 = 230\Omega \pm 5\%$; $R_2 = R_3 = 1.4 \text{ k}\Omega \pm 5\%$.
3. $CP1 \leq 1 \text{ MHz} \pm 10\%$; duty cycle = $50 \pm 10\%$; $V_{IH} = 2.0 \text{ V to } 5.5 \text{ V}$;
 $V_{IL} = -0.5 \text{ V to } 0.8 \text{ V}$
 $CP2 = \frac{CP1}{2}$
 $V_{IH} = 2.0 \text{ V to } 5.5 \text{ V}$
 $V_{IL} = -0.5 \text{ V to } 0.8 \text{ V}$

FIGURE 5. Burn-in and life test circuit - Continued.

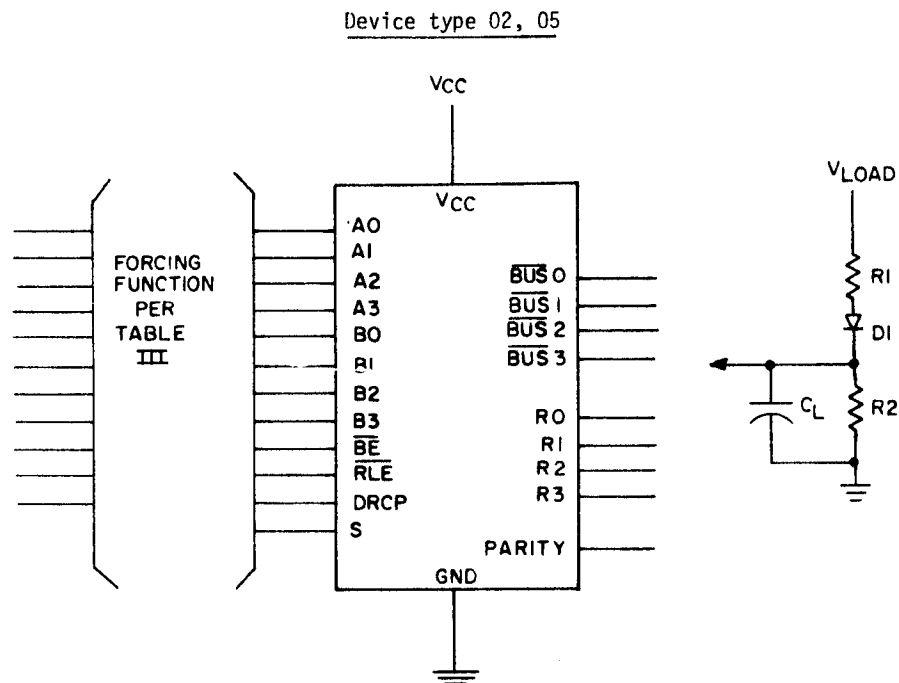
Device types 01, 04



NOTES:

1. D₁ = 1N3064 or equivalent.
2. R₁ = 51Ω ±2%, type 01 "BUS" outputs
R₁ = 51Ω ±2%, type 04 "BUS" outputs
R₁ = 330Ω ±2%, type 01 and 02 "R" outputs
3. R₂ = 120Ω ±2%, type 01 "BUS" outputs
R₂ = 120Ω ±2%, type 04 "BUS" outputs
R₂ = 2.4 kΩ ±2%, types 01 and 04 "R" outputs
4. C_L = 50 pF ±10% and includes probe and jig capacitance.
5. V_{LOAD} = 5.0 V for device type 01 BUS outputs.
V_{LOAD} = 2.5 V for device types 01, 04 R_x outputs and type 04 BUS outputs.

FIGURE 6. Switching waveforms

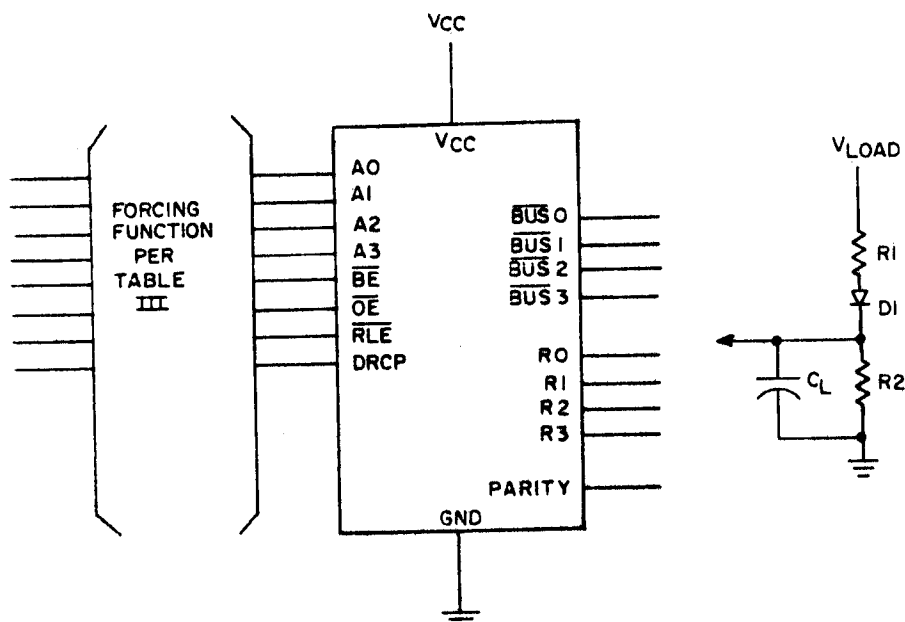


NOTES:

1. D₁ = 1N3064 or equivalent
2. R₁ = 51Ω ±2%, type 02 "BUS" outputs
R₁ = 51Ω ±2%, type 05 "BUS" outputs
R₁ = 330Ω ±2%, "R" outputs
R₁ = 340Ω ±1%, "Parity" output
3. R₂ = 120Ω ±2%, type 02 "BUS" outputs
R₂ = 120Ω ±2%, type 05 "BUS" outputs
R₂ = 2.4 kΩ ±2%, "R" outputs
R₂ = 3.83 kΩ ±1%, "Parity" output
4. C_L = 50 pF and includes probe and jig capacitance.
5. V_{LOAD} = 5.0 V for device type 02 $\overline{\text{BUS}}$ outputs.
V_{LOAD} = 2.5 V for device types 02, 05 R_X and parity outputs and type 05 $\overline{\text{BUS}}$ outputs.

FIGURE 6. Switching waveforms - Continued.

Device type 03, 06



NOTES:

1. D_1 = 1N3064 or equivalent.
2. R_1 = $51\Omega \pm 2\%$, type 03 "BUS" outputs
 R_1 = $51\Omega \pm 2\%$, type 06 "BUS" outputs
 R_1 = $330\Omega \pm 2\%$, "R" outputs
 R_1 = $340\Omega \pm 2\%$, "Parity" output
3. R_2 = $120\Omega \pm 2\%$, type 03 "BUS" outputs
 R_2 = $120\Omega \pm 2\%$, type 06 "BUS" outputs
 R_2 = $2.4\text{ k}\Omega \pm 2\%$, "R" outputs
 R_2 = $3.83\text{ k}\Omega \pm 1\%$, "Parity" output
4. V_{LOAD} = 5.0 V for type 03 BUS outputs
 V_{LOAD} = 2.5 V for types 03, 06 R_x and parity outputs and type 06 BUS outputs.

FIGURE 6. Switching waveforms - Continued.

Waveform A type 01, 02, only

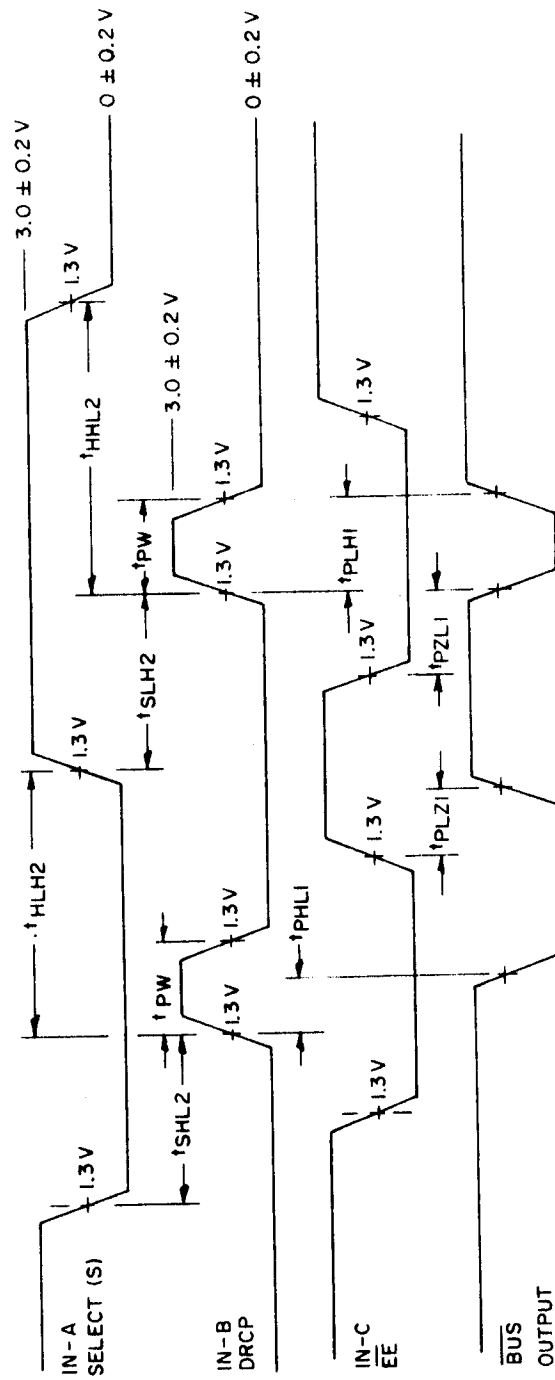


FIGURE 6. Switching waveforms - continued.

Waveform A device type 03 only

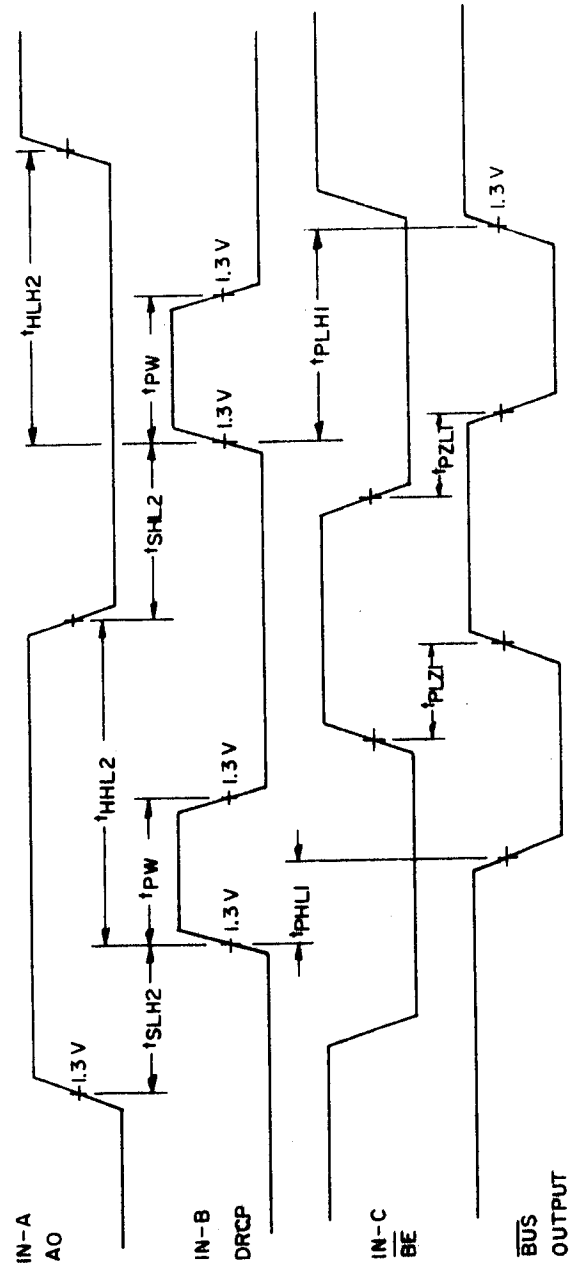
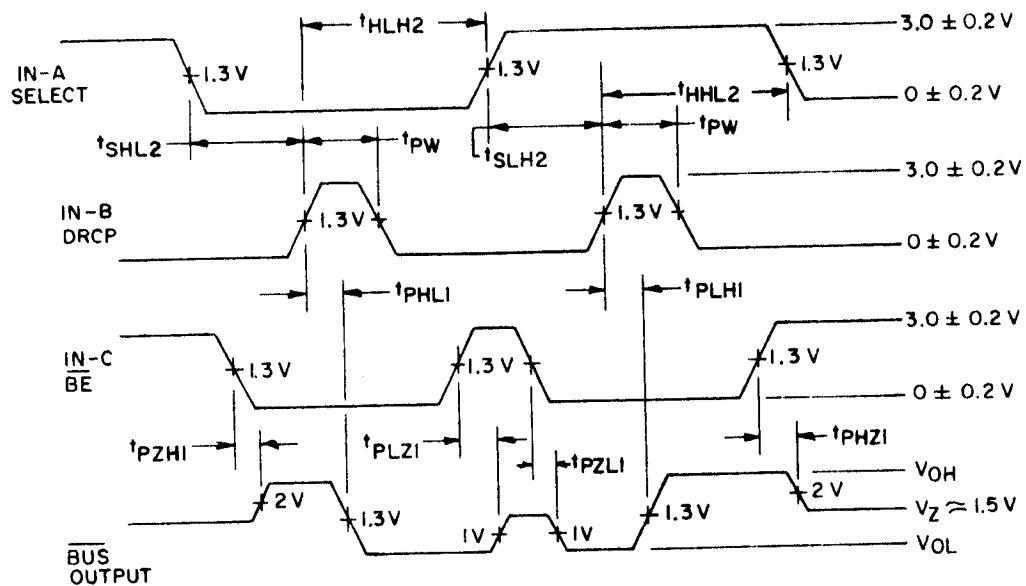
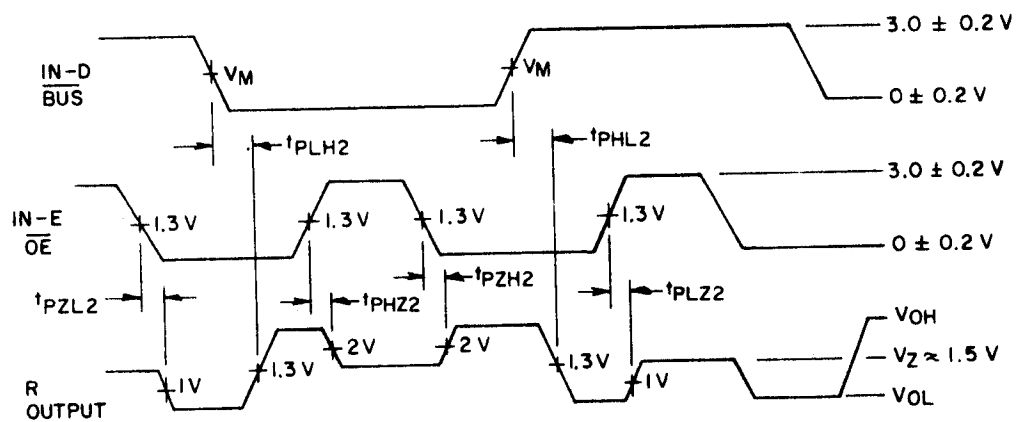


FIGURE 6. Switching waveforms - Continued.



Waveform A Type 04, 05, only



Waveform B

$V_M = 2.0$ V for type 01, 02, 03
 $V_M = 1.3$ V for type 04, 05, 06

FIGURE 6. Switching waveforms - Continued.

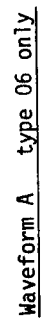


FIGURE 6. Switching waveforms - Continued.

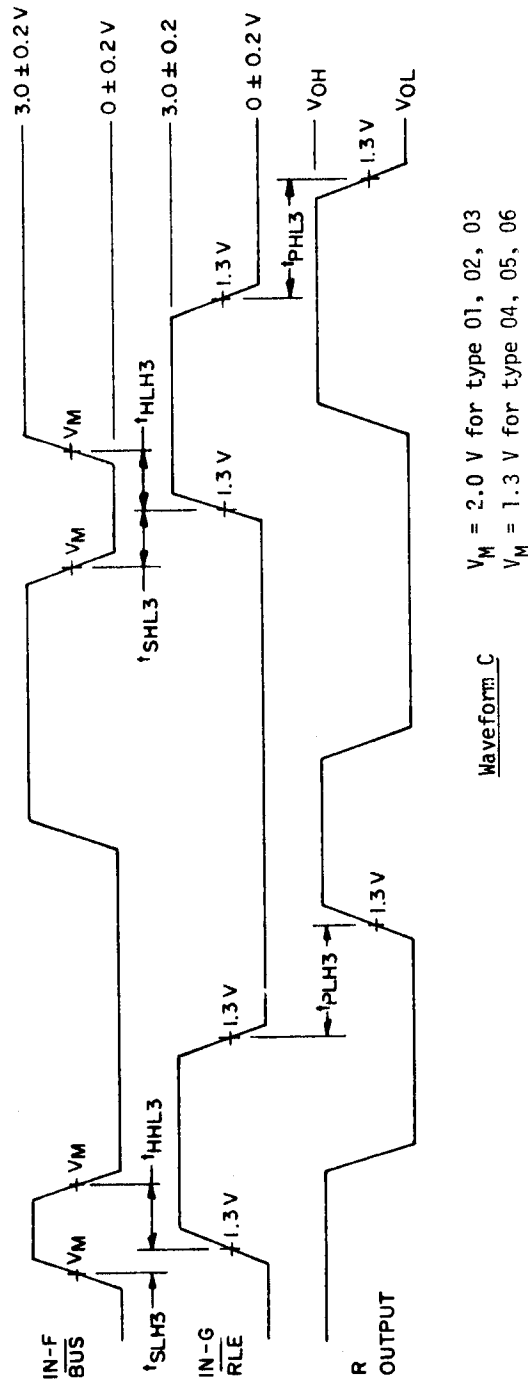
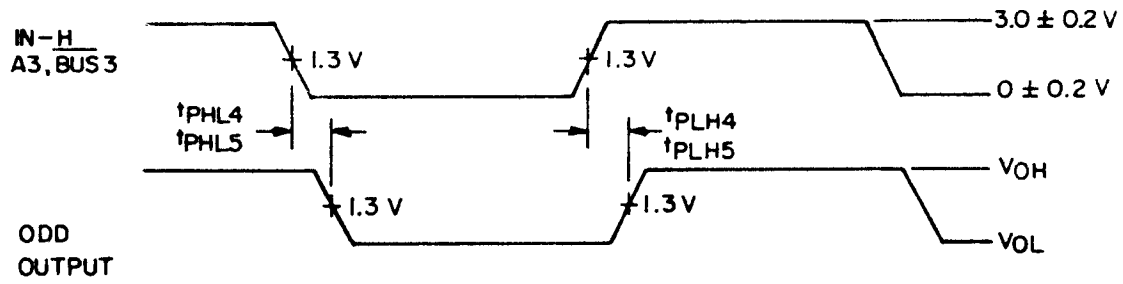
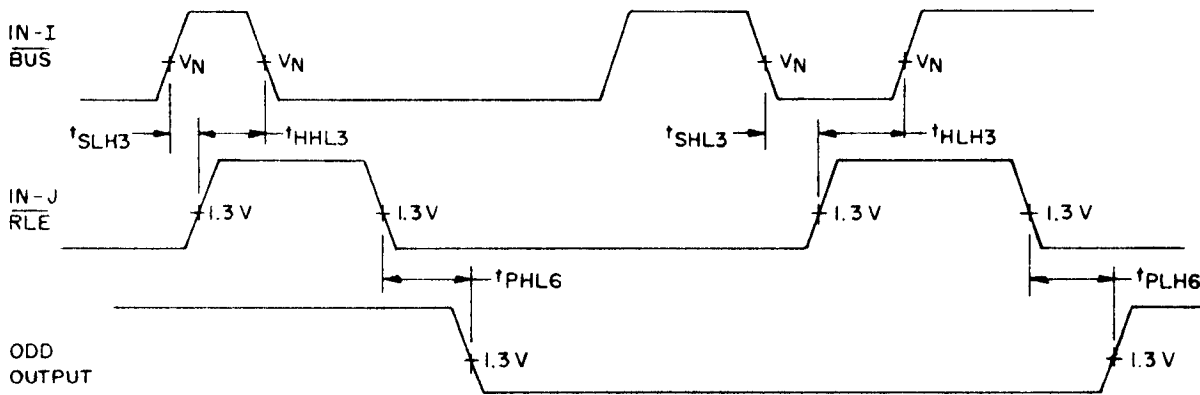


FIGURE 6. Switching waveforms - Continued.



WAVEFORM D



Waveform E

$V_M = 2.0 \text{ V}$ for type 01, 02, 03
 $V_M = 1.3 \text{ V}$ for type 04, 05, 06

FIGURE 6. Switching waveforms - Continued.

TABLE III. Group A inspection for device types 01 and 04.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL(max)}$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits				
																													Min	Max	Unit		
1 $T_C = +25^{\circ}\text{C}$	V_{OH1} (04)	3006	1																														
			2																														
			3																														
			4																														
	V_{OH2} (01,04)		5																														
			6																														
			7																														
			8																														
	V_{OL1} (01)	3007	9																														
			10																														
			11																														
			12																														
	V_{OL2} (04)		13																														
			14																														
			15																														
			16																														
	V_{OL3} (01)		17																														
			18																														
			19																														
			20																														
	V_{OL4} (04)		21																														
			22																														
			23																														
			24																														
	V_{OL5} (01)		25																														
			26																														
			27																														
			28																														
	V_{OL6} (01,04)		29																														
			30																														
			31																														
			32																														

See footnotes at end of device types 01 and 04.

TABLE III. Group A inspection for device types 01 and 04 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}$ (max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits		
																													Min	Max	Unit
1 T _C = +25°C	V _{OL7} (01,04)	3007	33	GND	8 mA			4.5 V	GND	4.5 V			8 mA	4.5 V	GND		8 mA				4.5 V							R ₀	0.45	V	
			34																									R ₁			
			35																									R ₂			
			36																									R ₃			
	V _{OL8} (01,04)		37		12 mA			4.5 V		4.5 V			12 mA				12 mA				4.5 V								R ₀	0.5	V
			38																									R ₁			
			39																									R ₂			
			40																									R ₃			
	I _{IL1} (01)	3009	41	0.4 V										0.4 V															BE	-0.36	mA
			42																									RLE	-0.36		
	I _{IL2} (04)		43	0.4 V										0.4 V															BE	-0.72	
			44																										RLE	-0.72	
	I _{IL3} (01,04)		45				0.4 V								GND														A ₀	-0.36	
			46								0.4 V								0.4 V										A ₁		
			47																										A ₂		
			48																										A ₃		
			49																										B ₀		
			50																										B ₁		
			51																										B ₂		
			52																										B ₃		
			53																										OE		
			54														0.4 V												S		
			55																										DRCP		
	I _{IH1} (01,04)	3010	56				2.7 V								4.5 V														A ₀	20	μA
			57								2.7 V									2.7 V									A ₁		
			58																										A ₂		
			59																										A ₃		
			60																										B ₀		
			61																										B ₁		
			62																										B ₂		
			63																										B ₃		
			64																										RLE		
			65																										BE		
			66																										OE		
			67																										S		
			68																										DRCP		

See footnotes at end of device types 01 and 04.

TABLE III. Group A inspection for device types 01 and 04 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\text{max})$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	Pin																								Meas. terminal	Test limits	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		Min	Max
1 T _C = +25°C	I _{IH2} (01,04)	3010	69	RLE																										
			70																											
			71																											
			72																											
			73																											
			74																											
			75																											
			76																											
77																														
78																														
79																														
80																														
81																														
	I _{ZL1} (low) (01,04)		82	GND	0.4 V																									
			83																											
			84																											
			85																											
			86																											
			87																											
			88																											
			89																											
	I _{ZL3} (low) (04)		90																											
			91																											
			92																											
			93																											
	I _{ZH1} (low) (01,04)		94	GND	2.4 V																									
			95																											
			96																											
			97																											
	I _{ZH2} (low) (01)		98																											
			99																											
			100																											
			101																											

See footnotes at end of device types 01 and 04.

TABLE III. Group A inspection for device types 01 and 04 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\text{max})$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test Limits			
																													Min	Max	Unit	
1	I_{ZH3} (low) (04)		102				GND	4.5 V	GND	4.5 V	GND			4.5 V		GND			GND												100	μ A
			103																													
			104																													
			105																													
	I_{ZH4} (low) (04)		106					2.4 V																							50	
			107																													
			108																													
			109																													
	I_{ZH5} (low) (01, 04)		110					4.5 V																							100	
			111																													
			112																													
			113																													
	I_{ZL1} (high) (01, 04)		114		0.4 V			4.5 V					0.4 V		4.5 V																	
			115																													
			116																													
			117																													
	I_{ZL2} (high) (01)		118					0.4 V																							-50	
			119																													
			120																													
			121																													
	I_{ZL3} (high) (04)		122					0.4 V																							-200	
			123																													
			124																													
			125																													
	I_{ZH1} (high) (01, 04)		126		2.4 V			4.5 V					2.4 V		4.5 V																	
			127																													
			128																													
			129																													
	I_{ZH2} (high) (01)		130					4.5 V																							200	
			131																													
			132																													
			133																													

See footnotes at end of device types 01 and 04.

TABLE III. Group A inspection for device types 01 and 04 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\text{max})$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits			
																													Min	Max	Unit	
1	I_{ZH3} (high) (04)		134				4.5 V	4.5 V	GND	4.5 V	4.5 V								4.5 V	4.5 V										100	μ A	
			135																													
			137																													
	I_{ZH4} (high) (04)		138				2.4 V		2.4 V																					50		
			139																													
			141																													
	I_{ZH5} (high) (01, 04)		142				4.5 V		4.5 V																					100		
			143																													
			145																													
	I_{OS1} (04)	3011	146				GND		GND																					-50	-225	μ A
			147																													
			149																													
	I_{OS2} (01)		150				GND		GND																					-30	-130	
			151																													
			153																													
	I_{OS2} (04)		154				GND		GND																						-85	
			155																													
			157																													
	I_{CC} (01)	3005	158				GND		GND																					105		
			159																													
	I_{CC} (04)		159				GND		GND																					95		
			160																													
	V_{TC} (01)		161																											-1.2	V	
			162																													
			164																													

See footnotes at end of device types 01 and 04.

TABLE III. Group A inspection for device types 01 and 04 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\max)$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits							
																													Min	Max Unit						
1 $T_C = +25^\circ\text{C}$	V_{TC} (01)		166	RLE	R ₀	B ₀	A ₀	BUS ₀	GND	BUS ₁	A ₁	B ₁	R ₁	BE	OE	S	R ₂	B ₂	A ₂	BUS ₂	GND		A ₃	B ₃	R ₃	DRCP	V _{CC}	OE	-1.2	V						
			167													-18 mA	-18 mA		-18 mA	-18 mA																
			168																-18 mA	-18 mA																
			169																																	
			170																																	
			171																																	
			172																																	
			173																																	
			174																																	
			175																																	
	V_{TC} (04)		176																																	
			177																																	
			178																																	
			179																																	
			180																																	
			181																																	
			182																																	
			183																																	
			184																																	
			185																																	
Same tests, terminal conditions and limits for subgroup 1 except $T_C = +125^\circ\text{C}$ and V_{TC} tests are omitted.																																				
Same tests, terminal conditions and limits for subgroup 1 except $T_C = -55^\circ\text{C}$ and V_{TC} tests are omitted.																																				
7 $T_C = +25^\circ\text{C}$	FUNCTIONAL TESTS	3014	186	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	B	B				
			187	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	B	B			
			188	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	B	B	B		
			189	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	B	B	B		
			190	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	B	B	B	B	
			191	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	B	B	B			
			192	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	B	B	B	B		
			193	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	X	A	B	X	GND	X	B	A	X	B	B	B	B	B	B	B	B	B	
			194	A	X	A	A	X	X	X	X	X	A	A	A	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A	A	A	A	A	A
			195	A	X	A	A	X	X	X	X	X	A	A	A	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A	A	A	A	A	A
			196	A	X	A	A	X	X	X	X	X	X	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A	A	A	A	A	A		
			197	A	X	A	A	X	X	X	X	X	A	A	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A	A	A	A	A	A	
			198	A	X	A	A	X	X	X	X	X	A	A	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A	A	A	A	A	A	A
			199	B	X	A	A	X	X	X	X	X	A	A	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A	A	A	A	A	A	A
			200	B	X	A	A	X	X	X	X	X	A	A	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A	A	A	A	A	A	A
			201	B	X	A	A	X	X	X	X	X	X	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A	A	A	A	A	A	A		
			202	B	X	A	A	X	X	X	X	X	A	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A	A	A	A	A	A	A	
			203	B	X	A	A	X	X	X	X	X	A	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A	A	A	A	A	A	A	A
			204	B	X	A	A	X	X	X	X	X	A	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A	A	A	A	A	A	A	A
			205	B	X	A	A	X	X	X	X	X	A	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A	A	A	A	A	A	A	A
See footnotes at end of device types 01 and 04.																																				

TABLE III. Group A Inspection for device types 01 and 04 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low ≤ 0.1 V(max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits				
																													Min	Max	Unit		
7 T _C = +25°C	FUNCTIONAL TESTS	3014	207	A	H	B	A	L	GND	L	A	B	H	B	B	A	H	B	B	A	L	GND	L	A	B	H	B	B	4.5 V	All outputs $\frac{2I_L}{A_L - 5I_L - 6I}$			
			208	A	Z	B	A	L	GND	Z	A	B	H	B	B	A	H	B	B	A	L	GND	Z	A	B	H	B	B					
			209	A	A	H	B	A	L	GND	A	A	B	B	H	B	B	A	H	B	B	A	L	GND	A	A	B	B					
			210	A	A	H	B	A	L	GND	A	A	B	B	H	B	B	A	H	B	B	A	L	GND	A	A	B	B					
			212	A	A	H	B	A	L	GND	A	A	B	B	H	B	B	A	H	B	B	A	L	GND	A	A	B	B					
			213	A	A	H	B	A	L	GND	A	A	B	B	H	B	B	A	H	B	B	A	L	GND	A	A	B	B					
			214	A	A	H	B	A	L	GND	A	A	B	B	H	B	B	A	H	B	B	A	L	GND	A	A	B	B					
			215	A	A	H	B	A	L	GND	A	A	B	B	H	B	B	A	H	B	B	A	L	GND	A	A	B	B					
			216	A	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			217	A	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			218	A	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			219	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			220	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			221	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			222	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			223	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			224	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			225	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			226	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			227	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			228	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			229	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			230	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			231	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			232	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			233	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			234	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			235	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			236	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			237	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			238	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			239	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			240	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			241	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			242	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			243	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			244	B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
			8	Repeat subgroup 7 at T _C = -55°C and T _C = +125°C																													
9 T _C = +25°C	t _{PHL1} (01)	3003	245				4.5 V	OUT	GND	OUT	4.5 V	GND		IN-C		IN-A		GND	OUT	4.5 V	OUT	GND	OUT	4.5 V	GND	IN-B	5.0 V	BUS ₀ BUS ₁ BUS ₂ BUS ₃		3	31	ns	
			246																														
			247																														
			248																														
	t _{PHL1} (04)		249				4.5 V	OUT		OUT	4.5 V	GND									OUT		4.5 V	GND			BUS ₀ BUS ₁ BUS ₂ BUS ₃		29				
250																																	
251																																	
252																																	

See footnotes at end of device types 01 and 04.

TABLE III. Group A inspection for device types 01 and 04 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}$ (max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test Limits		
																													Min	Max	Unit
9 $T_C = +25^{\circ}\text{C}$	t_{PLH1} (01)	3003	253			GND	4.5 V	OUT	GND	1N-C						1N-A		GND	4.5 V	OUT	GND	OUT	4.5 V	GND				BUS ₀ BUS ₁ BUS ₂ BUS ₃	3	33	ns
	t_{PLH1} (04)		257			GND	4.5 V	OUT										GND	4.5 V	OUT			OUT	4.5 V	GND			BUS ₀ BUS ₁ BUS ₂ BUS ₃	30		
	t_{PLZ1} (01,04)		261			GND	4.5 V	OUT										GND	4.5 V	OUT			OUT	4.5 V	GND			BUS ₀ BUS ₁ BUS ₂ BUS ₃	21		
	t_{PLH1} (04)		265			GND	4.5 V	OUT										GND	4.5 V	OUT								BUS ₀ BUS ₁ BUS ₂ BUS ₃			
	t_{PLZ1} (01)		269			GND	4.5 V	OUT										GND	4.5 V	OUT			OUT	4.5 V	GND			BUS ₀ BUS ₁ BUS ₂ BUS ₃			
	t_{PLZ1} (04)		273			GND	4.5 V	OUT										GND	4.5 V	OUT			OUT	4.5 V	GND			BUS ₀ BUS ₁ BUS ₂ BUS ₃	17		
	t_{PLZ1} (04)		277			GND	4.5 V	OUT										GND	4.5 V	OUT			OUT	4.5 V	GND			BUS ₀ BUS ₁ BUS ₂ BUS ₃			
	t_{PLZ2} (01)		281			GND	4.5 V	OUT										GND	4.5 V	OUT			OUT	4.5 V	GND			BUS ₀ BUS ₁ BUS ₂ BUS ₃	R ₀ R ₁ R ₂ R ₃	27	

See footnotes at end of device types 01 and 04.

TABLE III. Group A inspection for device types 01 and 04 - Continued.

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	Pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits		
																														Min	Max	Unit
9 T _C = +25°C	t _{PHL2} (04) →	3003	285	GND	GND	OUT			IN-D	IN-D	BUS ₁	A ₁	B ₁	R ₁	4.5 V	IN-E	S	R ₂	B ₂	A ₂	BUS ₂	GND	BUS ₃	A ₃	B ₃	R ₃	DRCP	V _{CC}	R ₀ R ₁ R ₂ R ₃	3	24	ns
	t _{PLH2} (01) →		289			OUT			IN-D	IN-D	IN-D			OUT				OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	27		
	t _{PLH2} (04) →		293			OUT			IN-D	IN-D	IN-D			OUT				OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃			
	t _{PZL2} (01) →		297			OUT			IN-D	IN-D	IN-D			OUT				OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	22		
	t _{PZL2} (04) →		301			OUT			IN-D	IN-D	IN-D			OUT				OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	21		
	t _{pZH2} (01) →		305			OUT			IN-D	IN-D	IN-D			OUT				OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	22		
	t _{pZH2} (04) →		306															OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	21		
	t _{pLZ2} (01) →		307															OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	22		
	t _{pLZ2} (04) →		308															OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	21		
	t _{pLZ2} (01) →		309															OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	22		
	t _{pLZ2} (04) →		310															OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	21		
	t _{pLZ2} (01) →		311															OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	22		
	t _{pLZ2} (04) →		312															OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	21		
	t _{pLZ2} (01) →		313															OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	22		
	t _{pLZ2} (04) →		314															OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	21		
	t _{pLZ2} (01) →		315															OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	22		
	t _{pLZ2} (04) →		316															OUT						IN-D		OUT			R ₀ R ₁ R ₂ R ₃	21		

See footnotes at end of device types 01 and 04.

TABLE III. Group A inspection for device types 01 and 04 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\max)$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	Pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits			
																														Min	Max	Unit	
9 T _C = +25°C	t _{PHZ2} (04)	3003	317		GND	OUT			IN-D	GND	IN-D			OUT	4.5 V	IN-E		OUT				IN-D	GND						R ₀	3	21	ns	
			318															OUT								OUT			R ₁				
			319																										R ₂				
			320																										R ₃				
	t _{PHZ2} (01)		321			OUT			IN-D					OUT				OUT				IN-D				OUT				R ₀	22		
			322																										R ₁				
			323																										R ₂				
			324																										R ₃				
	t _{PHZ2} (04)		325			OUT			IN-D					OUT				OUT				IN-D				OUT				R ₀	21		
			326																										R ₁				
			327																										R ₂				
			328																										R ₃				
	t _{PHL3} (01)		329		IN-G	OUT			IN-F					OUT		GND		OUT				IN-F				OUT				R ₀	27		
			330																										R ₁				
			331																										R ₂				
			332																										R ₃				
	t _{PHL3} (04)		333			OUT			IN-F					OUT				OUT				IN-F				OUT				R ₀	24		
			334																										R ₁				
			335																										R ₂				
			336																										R ₃				
	t _{PLH3} (01)		337			OUT			IN-F					OUT				OUT				IN-F				OUT				R ₀	31		
			338																										R ₁				
			339																										R ₂				
			340																										R ₃				
	t _{PLH3} (04)		341			OUT			IN-F					OUT				OUT				IN-F				OUT				R ₀	27		
			342																										R ₁				
			343																										R ₂				
			344																										R ₃				
10 T _C = +125°C	t _{PHL1} (01)		345					4.5 V	OUT		OUT	4.5 V			IN-C		IN-A			GND		OUT		OUT	4.5 V				BUS ₀	40			
			346																										BUS ₁				
			347																										BUS ₂				
			348																										BUS ₃				

See footnotes at end of device types 01 and 04.

TABLE III. Group A inspection for device types 01 and 04 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\max)$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	Pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits			
																														Min	Max	Unit	
10 $T_C = +125^{\circ}\text{C}$	t_{PHL1} (04) $\rightarrow$	3003	349 350 351 352												IN-C		IN-A			GND	4.5 V	OUT		4.5 V	GND				BUS ₀ BUS ₁ BUS ₂ BUS ₃	3	36	ns	
	t_{PLH1} (01) $\rightarrow$		353 354 355 356																	GND	4.5 V	OUT		4.5 V	GND				BUS ₀ BUS ₁ BUS ₂ BUS ₃			40	
	t_{PLH1} (04) $\rightarrow$		357 358 359 360																	GND	4.5 V	OUT		4.5 V	GND				BUS ₀ BUS ₁ BUS ₂ BUS ₃			36	
	t_{PZL1} (01,04) $\rightarrow$		361 362 363 364																		GND	4.5 V	OUT		4.5 V	GND				BUS ₀ BUS ₁ BUS ₂ BUS ₃			26
	t_{PZH1} (04) $\rightarrow$		365 366 367 368																											BUS ₀ BUS ₁ BUS ₂ BUS ₃			
	t_{PLZ1} (01) $\rightarrow$		369 370 371 372																											BUS ₀ BUS ₁ BUS ₂ BUS ₃			
	t_{PLZ1} (04) $\rightarrow$		373 374 375 376																											BUS ₀ BUS ₁ BUS ₂ BUS ₃			21
	t_{PHZ1} (04) $\rightarrow$		377 378 379 380																											BUS ₀ BUS ₁ BUS ₂ BUS ₃			

See footnotes at end of device types 01 and 04.

TABLE III. Group A inspection for device types 01 and 04 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\text{max})$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mees. terminal	Test limits			
																													Min	Max	Unit	
10 $T_C = +125^{\circ}\text{C}$	t_{PHL2} (01)	3003	381	GND	OUT			IN-D	GND	IN-D			OUT	4.5 V	IN-E			OUT			IN-D							5.0 V	R ₀ R ₁ R ₂ R ₃	3	37	ns
			382																			IN-D		OUT								
			383																													
			384																													
	t_{PHL2} (04)		385		OUT			IN-D		IN-D			OUT					OUT			IN-D		IN-D		OUT				R ₀ R ₁ R ₂ R ₃	30		
			386																													
			387																													
			388																													
	t_{PHL2} (01)		389		OUT			IN-D		IN-D			OUT					OUT			IN-D		IN-D		OUT				R ₀ R ₁ R ₂ R ₃	37		
			390																													
			391																													
			392																													
	t_{PHL2} (04)		393		OUT			IN-D		IN-D			OUT					OUT			IN-D		IN-D		OUT				R ₀ R ₁ R ₂ R ₃	33		
			394																													
			395																													
			396																													
	t_{PHL2} (01)		397		OUT			IN-D		IN-D			OUT					OUT			IN-D		IN-D		OUT				R ₀ R ₁ R ₂ R ₃	28		
			398																													
			399																													
			400																													
	t_{PHL2} (04)		401		OUT			IN-D		IN-D			OUT					OUT			IN-D		IN-D		OUT				R ₀ R ₁ R ₂ R ₃	26		
			402																													
			403																													
			404																													
	t_{PHL2} (01)		405		OUT			IN-D		IN-D			OUT					OUT			IN-D		IN-D		OUT				R ₀ R ₁ R ₂ R ₃	28		
			406																													
			407																													
			408																													
	t_{PHL2} (04)		409		OUT			IN-D		IN-D			OUT					OUT			IN-D		IN-D		OUT				R ₀ R ₁ R ₂ R ₃	26		
			410																													
			411																													
			412																													

See footnotes at end of device types 01 and 04.

TABLE III. Group A inspection for device types 01 and 04 - Continued.
Terminal conditions (pins not designated may be high $\geq 2.0V$, or low $\leq V_{IL}$ (max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Test Units				
																												Meas. terminal	Min	Max	Unit	
10	t_{PLZ2} (01)	3003	413	GND	OUT			IN-D	GND	IN-D			OUT	4.5 V	IN-E			OUT			IN-D			IN-D						ns		
			414																													
			415																													
			416																													
	t_{PLZ2} (04)		417		OUT			IN-D		IN-D			OUT				OUT			IN-D			IN-D							26		
			418																													
			419																													
			420																													
	t_{PHZ2} (01)		421					IN-D		IN-D			OUT				OUT			IN-D			IN-D								28	
			422																													
			423																													
			424																													
	t_{PHZ2} (04)		425					IN-D		IN-D			OUT				OUT			IN-D			IN-D									26
			426																													
			427																													
			428																													
	t_{PHL3} (01)		429		IN-G			IN-F		IN-F			OUT				OUT			IN-F			IN-F									37
			430																													
			431																													
			432																													
	t_{PHL3} (04)		433					IN-F		IN-F			OUT				OUT			IN-F			IN-F									30
			434																													
			435																													
			436																													
	t_{PLH3} (01)		437					IN-F		IN-F			OUT				OUT			IN-F			IN-F									37
			438																													
			439																													
			440																													
	t_{PLH3} (04)		441					IN-F		IN-F			OUT				OUT			IN-F			IN-F									33
			442																													
			443																													
			444																													
11	Same tests, terminal conditions and units as for subgroup 9, except $T_C = -55^\circ C$.																															

See footnotes at end of device types 01 and 04.

NOTES:



2. Input voltages are: A = 2.4 V; B = 0.4 V except * where A = 2.8 V; B = 1.1 V for device type 01 only.
3. The measurement terminal is all outputs. Output voltages shall be either:
H = 2.4 V minimum and L = 0.4 V maximum when using a high speed checker double comparator; or
H $\geq$ 1.5 V and L $\leq$ 1.5 V when using a high speed checker single comparator.
4. X = Don't care
5. Z = High impedance - The maximum current into or out of the disabled outputs shall be as shown:

Device type	01		04	
V _{out}	0.4 V	2.4 V	0.4 V	2.4 V
R3 - R0	±20 μ A	±20 μ A	±20 μ A	±20 μ A
B3 - B0	-50 μ A	200 μ A	-200 μ A	50 μ A

6. Test numbers 186 through 244 shall be run in sequence.
7. Maximum limits for device types are 01 = -20, 04 = -50.
8. Maximum limits for device types are 01 = 20, 04 = 50.

TABLE III. Group A inspection for device types 02 and 05.

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	Pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Test limits			
					RLE	R ₀	B ₀	A ₀	BUS ₀	GND	BUS ₁	A ₁	B ₁	R ₁	BE	ODD	S	R ₂	B ₂	A ₂	BUS ₂	GND	BUS ₃	A ₃	B ₃	R ₃	DRCP	V _{CC}	Meas. terminal	Min	Max	Unit
T _C = +25°C	V _{OH1} (05)	3006	1 2 3 4					GND	-15 mA	GND	-15 mA	GND			GND		GND			GND	-15 mA	BUS ₃	A ₃	B ₃	R ₃	C	4.5 V	BUS ₀ BUS ₁ BUS ₂ BUS ₃	2.4		V	
	V _{OH2} (02,06)		5 6 7 8		GND	-1 mA			GND				-1 mA	4.5 V				-1 mA		GND								R ₀ R ₁ R ₂ R ₃				
	V _{OH3} (02,05)		9				GND				GND			GND	-660 μA	GND				GND			4.5 V					000	2.5			
	V _{OL1} (02)	3007	10 11 12 13					4.5 V	40 mA			40 mA	4.5 V							4.5 V	40 mA					C		BUS ₀ BUS ₁ BUS ₂ BUS ₃	0.5			
	V _{OL2} (05)		14 15 16 17					4.5 V	24 mA			24 mA	4.5 V							4.5 V	24 mA							BUS ₀ BUS ₁ BUS ₂ BUS ₃	0.4			
	V _{OL3} (02)		18 19 20 21					4.5 V	70 mA			70 mA	4.5 V							4.5 V	70 mA							BUS ₀ BUS ₁ BUS ₂ BUS ₃	0.7			
	V _{OL4} (06)		22 23 24 25					4.5 V	48 mA			48 mA	4.5 V							4.5 V	48 mA							BUS ₀ BUS ₁ BUS ₂ BUS ₃	0.5			
	V _{OL5} (02)		26 27 28 29					4.5 V	100 mA			100 mA	4.5 V							4.5 V	100 mA							BUS ₀ BUS ₁ BUS ₂ BUS ₃	0.8			
	V _{OL6} (02,06)		30 31 32 33 34		GND	4 mA			4.5 V					4 mA	4.5 V														R ₀ R ₁ R ₂ R ₃	0.4		

See footnotes at end of device types 02 and 05.

TABLE III. Group A inspection for device types 02 and 05 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\max)$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits			
																													Min	Max	Unit	
1 T _C = +25°C	V _{OL7} (02,05)	3007	35	GND	8 mA			4.5 V	GND	4.5 V			8 mA	4.5 V			8 mA				4.5 V							R ₀		0.45	V	
			36																									R ₁				
			37																									R ₂				
			38																									R ₃				
			39																									OOD				
	V _{OL8} (02,05)		40		12 mA			4.5 V		4.5 V			12 mA	GND	4 mA			12 mA				4.5 V							R ₀		0.5	
			41																									R ₁				
			42																									R ₂				
			43																									R ₃				
			44																													
	I _{IL1} (02)	3009	45	0.4 V										0.4 V														BE		-0.36	mA	
			46																									RLE		-0.36		
	I _{IL2} (05)		47	0.4 V										0.4 V														BE		-0.72		
			48																									RLE		-0.72		
	I _{IL3} (02,05)		49				0.4 V				0.4 V					GND				0.4 V								A ₀		-0.36		
			50																									A ₁				
			51																									A ₂				
			52																									A ₃				
			53				0.4 V																					B ₀				
			54																									B ₁				
			55																									B ₂				
			56																									B ₃				
			57																									S				
			58																									DRCP				
			59																									A ₀				
	I _{IH1} (02,05)	3010	60				2.7 V				2.7 V					4.5 V			2.7 V									A ₁		20	μA	
			61																									A ₂				
			62																									A ₃				
			63																									B ₀				
			64																									B ₁				
			65																									B ₂				
			66																									B ₃				
			67																									RLE				
			68																									S				
			69																									DRCP				
			70																													

See footnotes at end of device types 02 and 05.

TABLE III. Group A Inspection for device types 02 and 05 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}$ (max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test Limits			
																													Min	Max Unit		
1 $T_C = +25^{\circ}\text{C}$	I_{H2} (02,05)	3010	71				5.5 V		GND		5.5 V					4.5 V			5.5 V		GND	GND	BUS ₃	A ₃	B ₃	R ₃	DRCP	V _{CC}	A ₀	101	μA	
			72																													
			73																													
			74																													
			75																													
			76																													
			77																													
			78																													
			79																													
			80																													
	I_{ZL2} (104) (02)		81																													
			82																													
			83																													
			84																													
			85																													
			86																													
			87																													
			88																													
			89																													
			90																													
	I_{ZL3} (104) (05)		91																													
			92																													
			93																													
			94																													
			95																													
			96																													
			97																													
			98																													
			99																													
			100																													
	I_{ZH4} (104) (05)		101																													
			102																													

See footnotes at end of device types 02 and 05.

TABLE III. Group A inspection for device types 02 and 05 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}$ (max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits				
																													Min	Max	Unit		
1	I_{ZHS} (low) (05)		103	RLE	R_0	B_0	A_0	BUS_0	GND	BUS_1	A_1	B_1	R_1	BE	ODD	S	R_2	B_2	A_2	BUS_2	GND	BUS_3	A_3	B_3	R_3	DRCP	VCC	BUS_0 BUS_1 BUS_2 BUS_3			100	μA	
			104																														
			105																														
			106																														
	I_{ZL2} (high) (02)		107																														
			108																														
			109																														
			110																														
	I_{ZL3} (high) (05)		111																														
			112																														
			113																														
			114																														
	I_{ZL2} (high) (02)		115																														
			116																														
			117																														
			118																														
	I_{ZL3} (high) (05)		119																														
			120																														
			121																														
			122																														
	I_{ZL4} (high) (05)		123																														
			124																														
			125																														
			126																														
	I_{ZL5} (high) (02, 05)		127																														
			128																														
			129																														
			130																														
	I_{OS1} (05)	3011	131																														
			132																														
			133																														
			134																														

See footnotes at end of device types 02 and 05.

[illegible]

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TABLE III. Group A inspection for device types 02 and 05 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V, or low $\leq V_{IL}$ (max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	Pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits	
																														Min	Max
7 T _C = +25°C	FUNCTIONAL TESTS	3014	167	R _{LE}	A	H	A	A	Z	GND	Z	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			168	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			169	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			170	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			171	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			172	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			173	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			174	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			175	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			176	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			177	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			178	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			179	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			180	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			181	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			182	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			183	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			184	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			185	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			186	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			187	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			188	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			189	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			190	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			191	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			192	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			193	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			194	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			195	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			196	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			197	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			198	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			199	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			200	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			201	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			202	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			203	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			204	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			205	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			206	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			207	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			208	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			209	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			210	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			211	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			212	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			213	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			214	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			215	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			216	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			217	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			218	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			219	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			220	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
			221	R ₀	B	H	A	A	L	GND	L	A	A	H	A	L	B	L	A	B	B	Z	GND	Z	B	B	A	L	A	A11	
8	Repeat subgroup 7 at T _C = -55°C and T _C = +125°C																														

See footnotes at end of device types 02 and 05.

TABLE III. Group A inspection for device types 02 and 05 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL(max)}$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Test Limits				
																												Meas. terminal	Unit			
9 T _C = +25°C	t _{PHL1} (02) →	3003	222			GND	4.5 V	OUT	GND	OUT	4.5 V	GND		IN-C		IN-A		GND	4.5 V	OUT		GND	OUT	4.5 V	GND		IN-B	5.0 V	3	3'	ns	
	t _{PHL1} (05) →		226			GND	4.5 V	OUT		OUT	4.5 V	GND						GND	4.5 V	OUT		OUT	4.5 V	GND					29			
	t _{PHL1} (02) →		230			GND	4.5 V	OUT		OUT	4.5 V	GND						GND	4.5 V	OUT		OUT	4.5 V	GND					33			
	t _{PHL1} (05) →		234			GND	4.5 V	OUT		OUT	4.5 V	GND						GND	4.5 V	OUT		OUT	4.5 V	GND					30			
	t _{PZL1} (02,05) →		238			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND					21		
	t _{PZH1} (05) →		242			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (02) →		246			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (05) →		250			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (02) →		254			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (05) →		258			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (02) →		262			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (05) →		266			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (02) →		270			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (05) →		274			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (02) →		278			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (05) →		282			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (02) →		286			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (05) →		290			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (02) →		294			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (05) →		298			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (02) →		302			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (05) →		306			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (02) →		310			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (05) →		314			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							
	t _{PLZ1} (02) →		318			GND	4.5 V	OUT		OUT	4.5 V	GND							GND	4.5 V	OUT		OUT	4.5 V	GND							

See footnotes at end of device types 02 and 05.

TABLE III. Group A inspection for device types 02 and 05 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL(max)}$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits				
																													Min	Max	Unit		
9 T _C = +25°C	t _{PH1} (05)	3003	254 255 256 257				A ₀ 4.5 V	BUS ₀ OUT	GND	BUS ₁ OUT	A ₁ 4.5 V	B ₁ GND	R ₁	IN-C	000	S	R ₂		B ₂ GND	A ₂ 4.5 V	BUS ₂ OUT	GND	BUS ₃ OUT	A ₃ 4.5 V	B ₃ GND	R ₃	IN-B	V _{CC} 5.0 V	BUS ₀ BUS ₁ BUS ₂ BUS ₃	3	17	ns	
	t _{PH2} (02)		258 259 260 261		GND	OUT		IN-D		IN-D			OUT	4.5 V			OUT			IN-D						OUT				R ₀ R ₁ R ₂ R ₃	27		
	t _{PH2} (05)		262 263 264 265			OUT		IN-D		IN-D			OUT				OUT			IN-D					OUT					R ₀ R ₁ R ₂ R ₃	24		
	t _{PL12} (02)		266 267 268 269			OUT		IN-D		IN-D			OUT				OUT			IN-D					OUT					R ₀ R ₁ R ₂ R ₃	27		
	t _{PL12} (05)		270 271 272 273			OUT		IN-D		IN-D			OUT				OUT			IN-D					OUT					R ₀ R ₁ R ₂ R ₃			
	t _{PH3} (02)		274 275 276 277	IN-6	OUT			IN-F		IN-F			OUT				OUT			IN-F					OUT					R ₀ R ₁ R ₂ R ₃			
	t _{PH3} (05)		278 279 280 281		OUT			IN-F		IN-F			OUT				OUT			IN-F					OUT					R ₀ R ₁ R ₂ R ₃	24		
	t _{PH3} (02)		282 283 284 285		OUT			IN-F		IN-F			OUT				OUT			IN-F					OUT					R ₀ R ₁ R ₂ R ₃	31		
	t _{PH3} (05)																																
	t _{PH3} (02)																																

See footnotes at end of device types 02 and 05.

TABLE III. Group A inspection for device types 02 and 05 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL(max)}$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits			
																													Min	Max	Unit	
9 T _C = +25°C	t _{PH3} (05)	3003	286	IN-G	OUT			IN-F	GND	IN-F			OUT	4.5 V			OUT												R ₀	3	27	ns
			287																										R ₁			
			288																										R ₂			
			289																						OUT				R ₃			
	t _{PH4} (02) (05)		290													OUT	GND			GND			IN-H						000	32	32	
			291																													
	t _{PH4} (02) (05)		292																													
			293																													
	t _{PH5} (02) (05)		294																													
			295																													
	t _{PH5} (02) (05)		296																													
			297																													
	t _{PH6} (02) (05)		298																													
			299																													
	t _{PH6} (02) (05)		300																													
			301																													
10 T _C = +125°C	t _{PH1} (02)		302																													
			303																													
			304																													
			305																													
	t _{PH1} (05)		306																													
			307																													
			308																													
			309																													
	t _{PH1} (02)		310																													
			311																													
			312																													
			313																													

See footnotes at end of device types 02 and 05.

TABLE III. Group A Inspection for device types 02 and 05 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}$ (max), or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Test limits					
																												Meas. terminal	Min	Max	Unit		
10 $T_C = +125^{\circ}\text{C}$	t_{PH1} (05)	3003	314				A_0	OUT	GND	OUT	4.5 V	GND	R_1	IN-C		IN-A	R_2	GND	B_2	A_2	BUS_2	GND	OUT	4.5 V	GND	B_3	R_3	V_{CC}	BUS ₀ BUS ₁ BUS ₂ BUS ₃	36	ns		
			315																														
			316																														
			317																														
	t_{pZL1} (02,05)		318				A_0	OUT		OUT	4.5 V	GND							GND	A_2	OUT		OUT	4.5 V	GND							26	
			319																														
			320																														
			321																														
	t_{pZH1} (05)		322				A_0	OUT		OUT	4.5 V	GND							GND	A_2	OUT		OUT	4.5 V	GND								
			323																														
			324																														
			325																														
	t_{pLZ1} (02)		326				A_0	OUT		OUT	4.5 V	GND							GND	A_2	OUT		OUT	4.5 V	GND								
			327																														
			328																														
			329																														
	t_{pLZ1} (05)		330				A_0	OUT		OUT	4.5 V	GND							GND	A_2	OUT		OUT	4.5 V	GND							21	
			331																														
			332																														
			333																														
	t_{pHZ1} (05)		334				A_0	OUT		OUT	4.5 V	GND							GND	A_2	OUT		OUT	4.5 V	GND								
			335																														
			336																														
			337																														
	t_{pHL2} (02)		338				A_0	IN-D		IN-D			OUT	4.5 V							IN-D												37
			339																														
			340																														
			341																														
	t_{pHL2} (05)		342				A_0	IN-D		IN-D			OUT								IN-D												30
			343																														
			344																														
			345																														

See footnotes at end of device types 02 and 05.

TABLE III. Group A inspection for device types 02 and 05 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}$ (max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limit			
																													Min	Max	Unit	
10 T _C = +125°C	t _{PLH2} (02)	3003	346	GND	OUT				GND	IN-D			OUT	4.5 V			OUT				IN-D	GND							R ₀	37	ns	
			347																									R ₁				
			348																									R ₂				
			349																									R ₃				
	t _{PLH2} (05)		350		OUT				IN-D	IN-D			OUT				OUT				IN-D				OUT				R ₀	33		
			351																									R ₁				
			352																									R ₂				
			353																									R ₃				
	t _{PHL3} (02)		354	IN-G	OUT				IN-F	IN-F			OUT				OUT				IN-F				OUT				R ₀	37		
			355																									R ₁				
			356																									R ₂				
			357																									R ₃				
	t _{PHL3} (05)		358		OUT				IN-F	IN-F			OUT				OUT				IN-F								R ₀	30		
			359																									R ₁				
			360																									R ₂				
			361																									R ₃				
	t _{PLH3} (02)		362		OUT				IN-F	IN-F			OUT				OUT				IN-F								R ₀	37		
			363																									R ₁				
			364																									R ₂				
			365																									R ₃				
	t _{PLH3} (05)		366		OUT				IN-F	IN-F			OUT				OUT				IN-F								R ₀	33		
			367																									R ₁				
			368																									R ₂				
			369																									R ₃				
	t _{PHL4} (02)		370																										600	40		
	t _{PHL4} (05)		371																										40	40		
	t _{PLH4} (02)		372																											40	40	
	t _{PLH4} (05)		373																											40	46	
	t _{PHL5} (02)		374																											40	56	
	t _{PHL5} (05)		375																											56	56	

See footnotes at end of device types 02 and 05.

TABLE III. Group A inspection for device types 02 and 05 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\text{max})$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Meas. terminal	Test limits						
				RLE	B ₀	A ₀	BUS ₀	GND	BUS ₁	A ₁	B ₁	R ₁	BE	ODD	S	P ₂	B ₂	A ₂	BUS ₂	GND	BUS ₃	A ₃	B ₃	R ₃	DRCP	V _{CC}	Min		Max	Unit					
10	t _{PLH5} (02) (05)	3003	376 377											4.5 V	OUT					GND	GND	IN-H IN-H					5.0 V	ODD		40 36	ns				
	t _{PHL6} (02) (05)		378 379	IN-J																		IN-I								40 36					
	t _{PLH6} (02) (05)		380 381																											40 36					
11	Same tests, terminal conditions and units as for subgroup 6, except T _C = -55°C.																																		

NOTES:

1. C =  3.0 V ± 0.2 V
0 V ± 0.2 V
2. Input voltages are: A = 2.4 V; B = 0.4 V except where A = 2.8 V; B = 1.1 V for device type 02 only.
3. The measurement terminal is all outputs. Output voltages shall be either:
H = 2.4 V minimum and L = 0.4 V maximum when using a high speed checker double comparator; or
H $\geq$ 1.5 V and L $\leq$ 1.5 V when using a high speed checker single comparator.
4. X = Don't care.
5. Z = High impedance - The maximum current into or out of the disabled outputs shall be as shown:

Device type	02	05
V _{out}	0.4 V	2.4 V
B ₃ - B ₀	-50 μ A	-200 μ A
	200 μ A	100 μ A

6. Test numbers 159 through 221 shall be run in sequence.

TABLE III. Group A inspection for device types 03 and 06
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\text{max})$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1 RLE	2 R ₀	3 A ₀	4 BUS ₀	5 GND	6 BUS ₁	7 A ₁	8 R ₁	9 BE	10 ODD	11 OE	12 R ₂	13 A ₂	14 BUS ₂	15 GND	16 BUS ₃	17 A ₃	18 R ₃	19 DRCP	20 V _{CC}	Test limits					
																								Meas. terminal	Min	Max Unit			
1 T _C = +25°C	V _{OH1} (06)	3006	1			GND	-15 mA	GND	-15 mA	GND		GND				GND	-15 mA	GND				C	4.5 V	BUS ₀ BUS ₁ BUS ₂ BUS ₃	0.4		V		
	V _{OH2} (03,06)		2				GND																						
			3																										
			4																										
	V _{OH3} (03,06)		5	GND	-1 mA		GND		GND		-1 mA	4.5 V		GND			GND							R ₀ R ₁ R ₂ R ₃					
			6												-1 mA														
			7																										
			8																										
	V _{OH3} (03,06)		9			GND				GND		GND	-660 mA			GND				4.5 V				ODD	2.5				
	V _{OL1} (03)	3007	10			4.5 V	40 mA			4.5 V						4.5 V	40 mA					C		BUS ₀ BUS ₁ BUS ₂ BUS ₃	0.5				
			11																										
			12																										
			13																										
	V _{OL2} (06)		14			4.5 V	24 mA			4.5 V														BUS ₀ BUS ₁ BUS ₂ BUS ₃	0.4				
			15																										
			16																										
			17																										
	V _{OL3} (03)		18			4.5 V	70 mA			4.5 V														BUS ₀ BUS ₁ BUS ₂ BUS ₃	0.7				
			19																										
			20																										
			21																										
	V _{OL4} (06)		22			4.5 V	48 mA			4.5 V														BUS ₀ BUS ₁ BUS ₂ BUS ₃	0.5				
			23																										
			24																										
			25																										
	V _{OL5} (03)		26			4.5 V	100 mA			4.5 V														BUS ₀ BUS ₁ BUS ₂ BUS ₃	0.8				
			27																										
			28																										
			29																										

See footnotes at end of device types 03 and 06.

TABLE III. Group A inspection for device types 03 and 06 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}$ (max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.																					Meas. terminal	Test limits			
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		Min	Max	Unit	
1	V_{OL6} (03,06)	3007	30	GND	4 mA																							
			31								4.5 V																	
			32							4 mA			4 mA			4.5 V												
			33																									
			34			GND												4.5 V	GND									
			35		8 mA				4.5 V																			
			36																									
			37															4.5 V										
			38						GND																			
			39			GND				8 mA																		
			40		12 mA				4.5 V																			
			41																									
			42																									
			43																									
			44			GND																						
			45						0.4 V																			
			46	0.4 V																								
			47																									
			48	0.4 V					0.4 V																			
			49																									
			50			0.4 V																						
			51																									
			52																									
			53																									
			54																									
			55																									
			56																									
			57																									
			58			2.7 V																						
			59																									
			60																									
			61																									
			62																									
			63																									
			64																									

See footnotes at end of device types 03 and 06.

TABLE III. Group A inspection for device types 03 and 06 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL(max)}$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Test limits		
																								Meas. terminal	Min	Max
1 $T_C = +25^{\circ}\text{C}$	I_{IH2} (03,06)	3010	65		5.5 V			GND		5.5 V						5.5 V			GND				5.5 V		A ₀	100 mA
			66													5.5 V								A ₁		
			67																					A ₂		
			68																					A ₃		
			69	5.5 V													5.5 V							RLE		
			70																					BE		
			71									5.5 V												OE		
			72																			5.5 V		DRCP		
	I_{ZL1} (low) (03,06)		73	GND	0.4 V		GND		GND		0.4 V			4.5 V	0.4 V		GND			GND					R ₀	-20 μA
			74												0.4 V									R ₁		
			75																					R ₂		
			76																		0.4 V			R ₃		
	I_{ZH1} (low) (03,06)		77		2.4 V										2.4 V									R ₀	20	
			78																					R ₁		
			79								2.4 V											2.4 V		R ₂		
			80																					R ₃		
	I_{ZL2} (low) (03)		81			GND	0.4 V		0.4 V	GND							GND								BUS ₀	-50
			82															0.4 V		0.4 V					BUS ₁	
			83																						BUS ₂	
			84																	0.4 V					BUS ₃	
	I_{ZL3} (low) (06)		85				0.4 V											0.4 V							BUS ₀	-200
			86						0.4 V											0.4 V					BUS ₁	
			87																						BUS ₂	
			88																						BUS ₃	
	I_{ZH2} (low) (03)		89				4.5 V																		BUS ₀	200 mA
			90						4.5 V									4.5 V							BUS ₁	
			91																	4.5 V					BUS ₂	
			92																						BUS ₃	
	I_{ZH3} (low) (06)		93																						BUS ₀	100
			94																						BUS ₁	
			95																						BUS ₂	
			96																						BUS ₃	

See footnotes at end of device types 03 and 06.

TABLE III. Group A inspection for device types 03 and 06 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\max)$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Meas. terminal	Test limits																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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1	I_{ZH4} (low) (06)		97																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

See footnotes at end of device types 03 and 06.

TABLE III. Group A inspection for device types 03 and 06 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\max)$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Meas. terminal	Test limit ^{1,4}		
																									Min	Max	Unit
1	I _{ZH4} (high) (06)		129									4.5 V				4.5 V		GND			4.5 V	C		BUS ₀ BUS ₁ BUS ₂ BUS ₃	50	μA	
			130																								
			131																								
			132																								
	I _{ZH5} (high) (03,06)		133																					BUS ₀ BUS ₁ BUS ₂ BUS ₃	100		
			134																								
			135																								
			136																								
	I _{OS1} (06)	3011	137																					BUS ₀ BUS ₁ BUS ₂ BUS ₃	-50	-225	mA
			138																								
			139																								
			140																								
	I _{OS2} (03)		141																					R ₀ R ₁ R ₂ R ₃	-30	-130	
			142																								
			143																								
			144																								
	I _{OS3} (03)		145																					000	-20	-100	
			146																								
			147																								
			148																								
	I _{OS2} (06)		149																					R ₀ R ₁ R ₂ R ₃	-30	-130	
			150																								
			151																								
			152																								
	I _{OS3} (06)		150																					000	-20	-100	
			151																								
			152																								
			153																								
	I _{CC} (03)	3005	151																					V _{CC}	110		
			152																								
			153																								
			154																								
	I _{CC} (06)	3005	152																					V _{CC}	95		
			153																								
			154																								
			155																								
	V _{IC} (03,06)		153																					R _{LE} A ₀ A ₁ BE OE	-1.2		
			154																								
			155																								
			156																								
			157																								
			158																								
			159																								
			160																								

See footnotes at end of device types 03 and 06.

TABLE III. Group A inspection for device types 03 and 06 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $< V_{IL}$ (max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Meas. terminal	Test limits		
																									Min	Max	Unit
1	V_{IC} (03,06)		158																					A_2	-1.2	V	
			159																					A_3	-1.2	V	
			160																					DRCP	-1.2	V	
2	Same tests, terminal conditions and limits for subgroup 1 except $T_C = +125^\circ\text{C}$ and V_{IC} tests are omitted.																										
3	Same tests, terminal conditions and limits for subgroup 1 except $T_C = -55^\circ\text{C}$ and V_{IC} tests are omitted.																										
7	$T_C = +25^\circ\text{C}$	3014	161	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V	A11 outputs	$\frac{2}{4}, \frac{3}{5}, \frac{6}{9}$	
			162	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			163	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			164	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			165	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			166	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			167	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			168	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			169	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			170	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			171	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			172	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			173	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			174	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			175	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			176	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			177	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			178	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			179	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			180	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			181	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			182	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			183	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			184	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			185	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			186	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			187	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			188	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			189	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			190	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			191	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			192	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			193	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			194	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			195	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			196	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			197	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			198	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			199	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			200	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			201	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			202	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			203	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			204	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			205	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			206	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			
			207	B	X	B	X	GND	X	B	X	B	L	B	X	B	X	GND	X	B	B	X	B	4.5 V			

See footnotes at end of device types 03 and 06.

TABLE III. Group A inspection for device types 03 and 06 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $< V_{IL}(\text{max})$; or open)

[illegible]

See footnotes at end of device types 03 and 06.

TABLE III. Group A inspection for device types 03 and 06 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}$ max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Meas. terminal	Test limits				
																									Min	Max	Unit		
9	t_{PLZ1} (06)	3003	241	RLE	R ₀	A ₀	BUS ₀	GND	BUS ₁	A ₁	R ₁	BE	ODD	OE	P ₂	A ₂	BUS ₂	GND	BUS ₃	A ₃	R ₃	DRCP	V _{CC}	BUS ₀	3	17	ns		
			242								IN-A		IN-C				IN-A	OUT		OUT	IN-A		IN-B	5.0 V	BUS ₁				
			243																							BUS ₂			
			244								OUT	IN-A		IN-C				IN-A	OUT		OUT	IN-A		IN-B	5.0 V	BUS ₃			
	t_{PHZ1} (06)		245			IN-A	OUT		OUT	IN-A						IN-A	OUT								BUS ₀				
			246																						BUS ₁				
			247																						BUS ₂				
			248																						BUS ₃				
	t_{PHL2} (03)		249	GND	OUT		IN-D		IN-D		OUT	4.5 V		IN-E	OUT		IN-D			IN-D					R ₀		27		
			250																						R ₁				
			251																			OUT				R ₂			
			252																							R ₃			
	t_{PHL2} (06)		253		OUT		IN-D		IN-D		OUT				OUT		IN-D			IN-D					R ₀		24		
			254																						R ₁				
			255																							R ₂			
			256																								R ₃		
	t_{PLH2} (03)		257		OUT		IN-D		IN-D		OUT				OUT		IN-D			IN-D					R ₀		27		
			258																						R ₁				
			259																							R ₂			
			260																								R ₃		
	t_{PLH2} (06)		261		OUT		IN-D		IN-D		OUT				OUT		IN-D			IN-D					R ₀				
			262																						R ₁				
			263																							R ₂			
			264																								R ₃		
	t_{PZL2} (03)		265		OUT		IN-D		IN-D		OUT				OUT		IN-D			IN-D					R ₀		22		
			266																						R ₁				
			267																							R ₂			
			268																								R ₃		
	t_{PZL2} (06)		269		OUT		IN-D		IN-D		OUT				OUT		IN-D			IN-D					R ₀		21		
			270																						R ₁				
			271																							R ₂			
			272																								R ₃		

See footnotes at end of device types 03 and 06.

TABLE III. Group A inspection for device types 03 and 06 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\max)$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Meas. terminal	Test limits		
				R_0	A_0	BUS_0	GND	BUS_1	A_1	R_1	BE	ODD	OE	R_2	A_2	BUS_2	GND	BUS_3	A_3	R_3	DRCP	V_{CC}	Min		Max	Unit	
9 $T_C = +25^{\circ}C$	t_{pZH2} (03) $\rightarrow$	3003	273	GND	OUT		IN-D	GND	IN-D		OUT	4.5 V		IN-E	OUT		IN-D	GND	IN-D				5.0 V	R_0	3	22	ns
			274																					R_1			
			275																					R_2			
			276																		OUT			R_3			
	t_{pZH2} (06) $\rightarrow$		277		OUT		IN-D		IN-D		OUT				OUT		IN-D							R_0		21	
			278																					R_1			
			279																					R_2			
			280																		OUT			R_3			
	t_{pLZ2} (03) $\rightarrow$		281		OUT		IN-D		IN-D		OUT				OUT		IN-D							R_0		22	
			282																					R_1			
			283																					R_2			
			284																					R_3			
	t_{pLZ2} (06) $\rightarrow$		285		OUT		IN-D		IN-D		OUT				OUT		IN-D							R_0		21	
			286																					R_1			
			287																					R_2			
			288																		OUT			R_3			
	t_{pHZ2} (03) $\rightarrow$		289		OUT		IN-D		IN-D		OUT				OUT		IN-D							R_0		22	
			290																					R_1			
			291																					R_2			
			292																		OUT			R_3			
	t_{pHZ2} (06) $\rightarrow$		293		OUT		IN-D		IN-D		OUT				OUT		IN-D							R_0		21	
			294																					R_1			
			295																					R_2			
			296																		OUT			R_3			
	t_{pHL3} (03) $\rightarrow$		297	IN-G	OUT		IN-F		IN-F		OUT			GND	OUT		IN-F							R_0		27	
			298																					R_1			
			299																					R_2			
			300																		OUT			R_3			
	t_{pHL3} (06) $\rightarrow$		301		OUT		IN-F		IN-F		OUT				OUT		IN-F							R_0		24	
			302																					R_1			
			303																					R_2			
			304																		OUT			R_3			

See footnotes at end of device types 03 and 06.

TABLE III. Group A Inspection for device types 03 and 06 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}$ (max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Meas. terminal	Test limits					
																									Min	Max	Unit			
9	t_{PLH3} (03) $T_C = +25^{\circ}\text{C}$	3003	305	IN-G	OUT		IN-F	GND	IN-F		OUT	4.5 V	000	GND	OUT			GND	IN-F					5.0 V	R ₀	3	31	ns		
			306																						R ₁					
			307																						R ₂					
			308																						R ₃					
	t_{PLH3} (06)		309		OUT		IN-F		IN-F		OUT				OUT					IN-F						R ₀		27		
			310																						R ₁					
			311																						R ₂					
			312																						R ₃					
	t_{PHL4} (03) (06)		313			GND				GND			OUT			GND					IN-H				000		32	32		
			314																											
			315																									32	34	
			316																											
	t_{PLH5} (03) (06)		317									4.5 V															30	30		
			318																											
			319																									28	30	
			320																											
	t_{PHL6} (03) (06)		321																								32	30		
			322	IN-J																	IN-I									
			323																											
			324																											
10	t_{PHL1} (03) $T_C = +125^{\circ}\text{C}$		325			IN-A	OUT		OUT	IN-A		IN-C										IN-B			BUS ₀		40			
			326																						BUS ₁					
			327																							BUS ₂				
			328																								BUS ₃			
	t_{PHL1} (06)		329																						BUS ₀		36			
			330																						BUS ₁					
			331																							BUS ₂				
			332																								BUS ₃			

See footnotes at end of device types 03 and 06.

TABLE III. Group A inspection for device types 03 and 06 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $< V_{IL}(\max)$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Meas. terminal	Test limits		
																									Min	Max	Unit
10 T _C = +125°C	t _{PLH1} (03)	3003	333			IN-A	OUT	GND	OUT	IN-A		IN-C				IN-A	OUT	GND		OUT			5.0 V	BUS ₀	40	ns	
			334																					BUS ₁			
			335																	OUT	IN-A				BUS ₂		
			336																	OUT					BUS ₃		
	t _{PLH1} (06)		337			IN-A	OUT		OUT	IN-A						IN-A	OUT			OUT	IN-A				BUS ₀	36	
			338																						BUS ₁		
			339																	OUT	IN-A				BUS ₂		
			340																	OUT					BUS ₃		
	t _{PZL1} (03,06)		341			IN-A	OUT		OUT	IN-A						IN-A	OUT								BUS ₀	26	
			342																	OUT	IN-A				BUS ₁		
			343																	OUT					BUS ₂		
			344																	OUT	IN-A				BUS ₃		
	t _{PZH1} (06)		345			IN-A	OUT		OUT	IN-A						IN-A	OUT			OUT	IN-A				BUS ₀		
			346																						BUS ₁		
			347																	OUT	IN-A				BUS ₂		
			348																	OUT					BUS ₃		
	t _{PLZ1} (03)		349			IN-A	OUT		OUT	IN-A						IN-A	OUT			OUT	IN-A				BUS ₀		
			350																						BUS ₁		
			351																	OUT	IN-A				BUS ₂		
			352																	OUT					BUS ₃		
	t _{PLZ1} (06)		353			IN-A	OUT		OUT	IN-A						IN-A	OUT			OUT	IN-A				BUS ₀	21	
			354																						BUS ₁		
			355																	OUT	IN-A				BUS ₂		
			356																	OUT					BUS ₃		
	t _{PHZ1} (06)		357			IN-A	OUT		OUT	IN-A						IN-A	OUT								BUS ₀		
			358																						BUS ₁		
			359																	OUT	IN-A				BUS ₂		
			360																	OUT					BUS ₃		
	t _{PHL2} (03)		361		OUT		IN-D		IN-D		OUT	4.5 V		IN-E	OUT		IN-D				IN-D				R ₀	37	
			362																						R ₁		
			363																						R ₂		
			364							IN-D						OUT				IN-D		OUT				R ₃	

See footnotes at end of device types 03 and 06.

TABLE III. Group A inspection for device types 03 and 06 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_L$ (max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Meas. terminal	Test limits		
																									Min	Max	Unit
10 T _C ±125°C	t _{PHL2} (06) ↓	3003	365	GND	OUT		IN-D	GND	IN-D		OUT	4.5 V		IN-E	OUT		IN-D	GND	IN-D				5.0 V	R ₀ R ₁ R ₂ R ₃		30	ns
	t _{PLH2} (03) ↓		369		OUT		IN-D		IN-D		OUT				OUT		IN-D			IN-D	OUT					37	
	t _{PLH2} (06) ↓		373		OUT		IN-D		IN-D		OUT				OUT		IN-D			IN-D	OUT					33	
	t _{PZL2} (03) ↓		377		OUT		IN-D		IN-D		OUT				OUT		IN-D			IN-D	OUT					28	
	t _{PZL2} (06) ↓		381		OUT		IN-D		IN-D		OUT				OUT		IN-D			IN-D	OUT					26	
	t _{PZH2} (03) ↓		385		OUT		IN-D		IN-D		OUT				OUT		IN-D			IN-D	OUT					28	
	t _{PZH2} (06) ↓		389		OUT		IN-D		IN-D		OUT				OUT		IN-D			IN-D	OUT					26	
	t _{PLZ2} (03) ↓		393		OUT		IN-D		IN-D		OUT				OUT		IN-D			IN-D	OUT					28	

See footnotes at end of device types 03 and 06.

TABLE III. Group A inspection for device types 03 and 06 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}(\max)$; or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	Pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Meas. terminal	Test limits			
																										Min	Max	Unit	
10 T _C = +125°C	t _{PLZ2} (06)	3003	397	GND	→	OUT		IN-D	GND	IN-D		OUT	4.5 V		IN-E	OUT		IN-D	GND		IN-D					R ₀ R ₁ R ₂ R ₃	26	→	ns
			398																			OUT							
			399																										
			400																										
	t _{PHZ2} (03)		401			OUT		IN-D				OUT				OUT		IN-D								R ₀ R ₁ R ₂ R ₃	28	→	
			402																			OUT							
			403																										
			404																										
	t _{PHZ2} (06)		405			OUT		IN-D				OUT			→	OUT		IN-D								R ₀ R ₁ R ₂ R ₃	26	→	
			406																										
			407																										
			408			→										→	OUT		IN-D				OUT						
	t _{PHL3} (03)		409		IN-G	OUT		IN-F				OUT			GND	OUT		IN-F								R ₀ R ₁ R ₂ R ₃	37	→	
			410		→										→														
			411																										
			412																										
	t _{PHL3} (06)		413			OUT		IN-F				OUT			→	OUT		IN-F								R ₀ R ₁ R ₂ R ₃	30	→	
			414												→														
			415																										
			416																										
	t _{PLH3} (03)		417			OUT		IN-F				OUT				OUT		IN-F								R ₀ R ₁ R ₂ R ₃	37	→	
			418																										
			419																										
			420																										
	t _{PLH3} (06)		421			OUT		IN-F				OUT			→	OUT		IN-F								R ₀ R ₁ R ₂ R ₃	33	→	
			422																										
			423																										
			424			→																							
	t _{PHL4} (03)		425																							000	→		
			426				GND							OUT			GND					IN-H					40	40	
			427																								40	46	
	t _{PLH4} (06)		428																										

See footnotes at end of device types 03 and 06.

TABLE III. Group A inspection for device types 03 and 06 - Continued.
Terminal conditions (pins not designated may be high ≥ 2.0 V; or low $\leq V_{IL}$ (max); or open)

Subgroup	Symbol	MIL-STD-883 method	Pin Test No.	1 RLE	2 R ₀	3 A ₀	4 BUS ₀	5 GND	6 BUS ₁	7 A ₁	8 R ₁	9 BE	10 OOD	11 OE	12 R ₂	13 A ₂	14 BUS ₂	15 GND	16 BUS ₃	17 A ₃	18 R ₃	19 DRCP	20 V _{CC}	Meas. terminal	Test limits		
																									Min	Max	Unit
10	t _{PLH5} (03) (06)	3003	429 430					GND	GND			4.5 V	OUT					GND	IN-H				5.0 V	OOD		40 36	ns
	t _{PHL5} (03) (06)		431 432																							40 36	
	t _{PHL6} (03) (06)		433 434	IN-J															IN-I							40 36	
	t _{PLH6} (03) (06)		435 436																							40 36	
11	Same tests, terminal conditions and units as for subgroup 9, except T _C = +125°C.																										

NOTES:

1. $C = \begin{cases} 3.0 \text{ V } \pm 0.2 \text{ V} \\ 0 \text{ V } \pm 0.2 \text{ V} \end{cases}$
2. Input voltages are: $A = 2.4 \text{ V}$; $B = 0.4 \text{ V}$ except * where $A = 2.8 \text{ V}$; $B = 1.1 \text{ V}$ for device type 03 only.
3. The measurement terminal is all outputs. Output voltages shall be either:
H = 2.4 V minimum and L = 0.4 V maximum when using a high speed checker double comparator; or
H $\geq 1.5 \text{ V}$ and L $\leq 1.5 \text{ V}$ when using a high speed checker single comparator.
4. X = Don't care.
5. Z = High impedance - The maximum current into or out of the disabled outputs shall be as shown:

Device type	03	06
V_{out}	0.4 V	2.4 V
$R_3 - R_0$	$\pm 20 \mu\text{A}$	$\pm 20 \mu\text{A}$
$B_3 - B_0$	$-50 \mu\text{A}$	$-200 \mu\text{A}$

6. Test numbers 161 through 212 shall be run in sequence.
7. Maximum limits for device types are: 03 = -20, 06 = -50.
8. Maximum limits for device types are: 03 = 20, 06 = 50.

6.4 Abbreviations, symbols, and definitions. The abbreviations, symbols, and definitions used herein are defined in MIL-M-38510, MIL-STD-1331, and as follows:

GND	- - - - -	Electrical ground (common terminal)
V _{IN}	- - - - -	Voltage level at an input terminal
T _C	- - - - -	Case temperature
F _{OSC}	- - - - -	Oscillating frequency

6.5 Logistic support. Lead materials and finishes (see 3.3), are interchangeable. Unless otherwise specified, microcircuits acquired for Government logistic support will be acquired to device class B (see 1.2.2) and lead material and finish C (see 3.3). Longer length leads and lead forming shall not affect the part number.

6.6 Generic test data. Generic test data may be used to satisfy the requirements of 4.4.3. Group C generic test data shall be on date codes no more than one year old and on a die in the same microcircuit group (see appendix E of MIL-M-38510) with the same material, design and process and from the same plant as the die represented. Group D (see 4.4.4) generic data shall be on date codes no more than one year old and on the same package type (see terms, definitions, and symbols of MIL-M-38510) and from the same plant as the package represented. The vendor is required to retain the generic data for a period of not less than 36 months from the date of shipment.

6.7 Substitutability. The cross-reference information below is presented for the convenience of users. Microcircuits covered by this specification will functionally replace the listed generic-industry type. Generic-industry microcircuit types may not have equivalent operational performance characteristics across military temperature ranges or reliability factors equivalent to MIL-M-38510 device types and may have slight physical variations in relation to case size. The presence of this information shall not be deemed as permitting substitution of generic-industry types for MIL-M-38510 types or as a waiver of any of the provisions of MIL-M-38510.

<u>Military device type</u>	<u>Generic-industry type</u>
01	2905
02	2906
03	2907
04	2915
05	2916
06	2917

6.8 Ordering guidance. Since the qualification and certification requirements have been removed from the specification, orders may be placed immediately.

6.9 Changes from previous issue. Asterisks are not used in this revision to identify changes with respect to the previous issue, due to the extensiveness of the changes.

Custodians:

Army - ER
Navy - EC
Air Force - 17

Preparing activity:
Air Force - 17

(Project 5962-0603-7)

Review activities:

Army - AR, MI
Navy - OS, SH
Air Force - 11, 19, 85, 99
DLA - ES

User activities:

Army - SM
Navy - AS, CG, MC

Agent:

DLA - ES