INCH-POUND

MIL-M-38510/328C 18 November 2003 SUPERSEDING MIL-M-38510/328B 23 March 1984

MILITARY SPECIFICATION

MICROCIRCUITS, DIGITAL, BIPOLAR, LOW-POWER SCHOTTKY TTL, BUS TRANSCEIVERS WITH THREE STATE OUTPUTS, MONOLITHIC SILICON

Inactive for new design after 18 April 1997.

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

The requirements for acquiring the product herein shall consist of this specification sheet and MIL-PRF-38535.

1. SCOPE

1.1 <u>Scope.</u> This specification covers the detail requirements for monolithic silicon, low-power Schottky TTL, bus transceivers with three state outputs. Two product assurance classes and a choice of case outlines and lead finishes are provided for each type and are reflected in the complete part number. For this product, the requirements of MIL-M-38510 have been superseded by MIL-PRF-38535, (see 6.3).

1.2 Part or Identifying Number (PIN). The PIN should be in accordance with MIL-PRF-38535, and as specified herein.

1.2.1 <u>Device types.</u> The device types should be as follows:

Device type	Circuit
01	Quadruple inverting bus transceivers with three state outputs
02	Quadruple noninverting bus transceivers with three state outputs
03	Octal noninverting bus transceivers with three state outputs
04	Octal inverting bus transceivers and registers with three state outputs
05	Octal inverting bus transceivers and registers with three state outputs

1.2.2 Device class. The device class should be the product assurance level as defined in MIL-PRF-38535.

1.2.3 <u>Case outlines</u>. The case outlines should be as designated in MIL-STD-1835 and as follows:

Descriptive designator	<u>Terminals</u>	Package style
GDFP5-F14 or CDFP6-F14	14	Flat pack
GDIP1-T14 or CDIP2-T14	14	Dual-in-line
GDFP1-F14 or CDFP2-F14	14	Flat pack
GDIP1-T20 or CDIP2-T20	20	Dual-in-line
GDFP2-F20 or CDFP3-F20	20	Flat pack
GDIP3-T24 or CDIP4-T24	24	Dual-in-line
CQCC1-N20	20	Square leadless chip carrier
	Descriptive designator GDFP5-F14 or CDFP6-F14 GDIP1-T14 or CDIP2-T14 GDFP1-F14 or CDFP2-F14 GDIP1-T20 or CDIP2-T20 GDFP2-F20 or CDFP3-F20 GDIP3-T24 or CDIP4-T24 CQCC1-N20	Descriptive designatorTerminalsGDFP5-F14 or CDFP6-F1414GDIP1-T14 or CDIP2-T1414GDFP1-F14 or CDFP2-F1414GDIP1-T20 or CDIP2-T2020GDFP2-F20 or CDFP3-F2020GDIP3-T24 or CDIP4-T2424CQCC1-N2020

Comments, suggestions, or questions on this document should be addressed to: Commander, Defense Supply Center Columbus, ATTN: DSCC-VAS, 3990 East Broad St., Columbus, OH 43216-5000, or emailed to bipolar@dscc.dla.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at www.dodssp.daps.mil.

1.3 Absolute maximum ratings.

Supply voltage range Input voltage range Storage temperature range	-0.5 V dc to +7.0 V dc -1.5 V dc at -18 mA to +5.5 V dc -65° to +150°C
Maximum power dissipation (P_D) <u>1</u> /	
Device type 01 and 02	297 mW dc
Device type 03	522.5 mW dc
Device type 04 and 05	907.5 mW dc
Lead temperature (soldering, 10 seconds)	+300°C
Thermal resistance, junction to case (θ_{JC}):	
Cases A, C, D, R, S, L, and 2	(See MIL-STD-1835)
Junction temperature (T _J) <u>2</u> /	+175°C

1.4 <u>Recommended operating conditions.</u>

Supply voltage (V _{CC}) Minimum high level input voltage (V _{IH})	4.5 V dc minimum to 5.5 V dc maximum 2.0 V
Maximum low level input voltage (V_{IL}):	-
Device types 01, 02, and 03	0.7 V dc
Device types 04 and 05	0.5 V dc
Normalized fanout (each input) 3/	20 maximum
Case operating temperature range (T _c)	-55°C to +125°C
Width of clock pulse (t _{CLK})	
Device types 04 and 05	20 ns
Setup time before clock (t _{SETUP})	
Device types 04 and 05	20 ns
Hold time (t _{HOLD})	
Device types 04 and 05	0 ns

2. APPLICABLE DOCUMENTS

2.1 <u>General.</u> The documents listed in this section are specified in sections 3, 4, or 5 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3, 4, or 5 of this specification, whether or not they are listed.

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

^{2/} Maximum junction temperature shall not be exceeded except for allowable short duration burn-in screening conditions in accordance with MIL-PRF-38535.

^{3/} The device shall fanout in both high and low levels to the specified number of inputs of the same device type as that being tested.

2.2 Government documents.

2.2.1 <u>Specifications and Standards</u>. The following specifications and standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-PRF-38535 - Integrated Circuits (Microcircuits) Manufacturing, General Specification for.

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-883 - Test Method Standard for Microelectronics. MIL-STD-1835 - Interface Standard Electronic Component Case Outlines

(Copies of these documents are available online at http://assist.daps.dla.mil;quicksearch/ or www.dodssp.daps.mil or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 <u>Order of precedence.</u> In the event of a conflict between the text of this specification and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 <u>Qualification</u>. Microcircuits furnished under this specification shall be products that are manufactured by a manufacturer authorized by the qualifying activity for listing on the applicable qualified manufacturers list before contract award (see 4.3 and 6.4).

3.2 <u>Item requirements</u>. The individual item requirements shall be in accordance with MIL-PRF-38535 and as specified herein or as modified in the device manufacturer's Quality Management (QM) plan. The modification in the QM plan shall not affect the form, fit, or function as described herein.

3.3 <u>Design, construction, and physical dimensions.</u> The design, construction, and physical dimensions shall be as specified in MIL-PRF-38535 and herein.

3.3.1 Logic diagrams and terminal connections. The logic diagrams and terminal connections shall be as specified on figure 1.

3.3.2 <u>Truth tables.</u> The truth tables shall be as specified on figure 2.

3.3.3 <u>Schematic circuits</u>. The schematic circuits shall be maintained by the manufacturer and made available to the qualifying activity and the preparing activity upon request.

3.3.4 Case outlines. The case outlines shall be as specified in 1.2.3.

3.4 Lead material and finish. The lead material and finish shall be in accordance with MIL-PRF-38535 (see 6.6).

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

3.6 <u>Electrical test requirements.</u> The electrical test requirements for each device class shall be the subgroups specified in table II. The electrical tests for each subgroup are described in table III.

3.7 Marking. Marking shall be in accordance with MIL-PRF-38535.

3.8 <u>Microcircuit group assignment.</u> The devices covered by this specification shall be in microcircuit group number 9 (see MIL-PRF-38535, appendix A).

4. VERIFICATION

4.1 <u>Sampling and inspection</u>. Sampling and inspection procedures shall be in accordance with MIL-PRF-38535 or as modified in the device manufacturer's Quality Management (QM) plan. The modification in the QM plan shall not effect the form, fit, or function as described herein.

4.2 <u>Screening</u>. Screening shall be in accordance with MIL-PRF-38535 and shall be conducted on all devices prior to qualification and quality conformance inspection. The following additional criteria shall apply:

- a. The burn-in test duration, test condition, and test temperature, or approved alternatives shall be as specified in the device manufacturer's QM plan in accordance with MIL-PRF-38535. The burn-in test circuit shall be maintained under document control by the device manufacturer's Technology Review Board (TRB) in accordance with MIL-PRF-38535 and shall be made available to the acquiring or preparing activity upon request. The test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in test method 1015 of MIL-STD-883.
- 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. Additional screening for space level product shall be as specified in MIL-PRF-38535, appendix B.
- 4.3 <u>Qualification inspection</u>. Qualification inspection shall be in accordance with MIL-PRF-38535.

4.4 <u>Technology Conformance inspection (TCI)</u>. Technology conformance inspection shall be in accordance with MIL-PRF-38535 and herein for groups A, B, C, and D inspections (see 4.4.1 through 4.4.4).

- 4.4.1 Group A inspection. Group A inspection shall be in accordance with table III of MIL-PRF-38535 and as follows:
 - a. Tests shall be as specified in table II herein.
 - b. Subgroups 4, 5, and 6 shall be omitted.
- 4.4.2 Group B inspection. Group B inspection shall be in accordance with table II MIL-PRF-38535.
- 4.4.3 Group C inspection. Group C inspection shall be in accordance with table IV of MIL-PRF-38535 and as follows:
 - a. End-point electrical parameters shall be as specified in table II herein.
 - b. Subgroups 3 and 4 shall be added to the group C inspection parameters for class B devices and shall consist of the tests, conditions, and limits specified for subgroups 10 and 11 of group A.
 - c. The steady-state life test duration, test condition, and test temperature, or approved alternatives shall be as specified in the device manufacturer's QM plan in accordance with MIL-PRF-38535. The burn-in test circuit shall be maintained under document control by the device manufacturer's Technology Review Board (TRB) in accordance with MIL-PRF-38535 and shall be made available to the acquiring or preparing activity upon request. The test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in test method 1005 of MIL-STD-883.

Test	Symbol	Conditions		Device	Lin	nits	Unit	
		$-55^{\circ}C \le T_{C} \le +125^{\circ}C$		type	Min	Max		
High level output voltage	V _{OH1}	$V_{CC} = 4.5 \text{ V}, \text{ V}_{IH} = 2.0 \text{ V}, \text{ V}_{IL} = 0.7 \text{ V}$		01, 02, 03	2.4		V	
		I _{ОН} = -3 mA	$V_{IL} = 0.5 V$	04, 05	2.4		"	
	V _{OH2}	$V_{CC} = 4.5 \text{ V}, \text{ V}_{IH} = 2.0 \text{ V},$	$V_{IL} = 0.5 V$	01, 02, 03	2.0		"	
		I _{OH} = -12 mA	$V_{IL} = 0.5 V$	04, 05	2.0		"	
High level output voltage	Vol	$V_{CC} = 4.5 \text{ V}, \text{ V}_{IH} = 2.0 \text{ V},$	$V_{IL} = 0.7 V$	01, 02, 03		0.4	"	
		I _{OL} = 12 mA	$V_{IL} = 0.5 V$	04, 05		0.4	"	
Input clamp voltage	VIC	$V_{CC} = 4.5 \text{ V}, \text{ I}_{IN} = -18 \text{ mA}$,	All		-1.5	"	
		T _C = +25°C						
High level input current	I _{IH1}	$V_{CC} = 5.5 \text{ V}, \text{ V}_{IN} = 2.7 \text{ V}$		All		20	μA	
High level input current	I _{IH2}	$V_{CC} = 5.5 \text{ V}, \text{ V}_{IN} = 5.5 \text{ V}$		All		0.1	mA	
Inhibited state output	I _{OZH}	$V_{CC} = 5.5 \text{ V}, \text{ V}_{OUT} = 2.7 \text{ V}$	/	01, 02		40	μA	
leakage current				03		20		
				04, 05		20		
	I _{OZL}	$V_{CC} = 5.5 \text{ V}, V_{OUT} = 0.4 \text{ V}$	01, 02, 03		-200	μA		
				04, 05		-400		
Low level input current	IIL .	$V_{CC} = 5.5 \text{ V}, V_{IN} = 0.4 \text{ V}$	01, 02, 03	0	-240	μA		
				04, 05	0	-200		
Short circuit output current	I _{OS}	$V_{CC} = 5.5 \text{ V} \underline{1}/$	All	-40	-225	mA		
Supply current	Іссн	V _{CC} = 5.5 V		01, 02		38	mA	
				03		70		
				04, 05		145		
	ICCL	V _{CC} = 5.5 V		01, 02		50	mA	
			03		90			
				04, 05		165		
	Iccz	V _{CC} = 5.5 V		01, 02		50	mA	
				03		95		
				04, 05		165		
Propagation delay time,	t _{PLH1}	$V_{CC} = 5.0 V,$		04, 05	2	39	ns	
low to high clock to bus		$R_L = 110\Omega$,						
Propagation delay time,	t _{PHL1}	C _L = 50 pF		04	2	52	ns	
high to low clock to bus				05	2	59		
Propagation delay time,	t _{PLH2}			01, 02	2	25	ns	
low to high bus to bus				03	2	22		
			04, 05	2	30	ns		

TABLE I. Electrical performance characteristics.

See footnote at end of table.

Test	Symbol	Conditions	Device	Limits		Unit
		$-55^{\circ}C \le T_{C} \le +125^{\circ}C$	type	Min	Max	
Propagation delay time,	t _{PHL2}	V _{CC} = 5.0 V,	01, 02	2	30	ns
high to low bus to bus		C _L = 50 pF,	03	2	22	
		$R_L = 110 \Omega$	04	2	33	
			05	2	39	
Propagation delay time, low to high	t _{PLH3}		04	2	59	ns
select (with bus input high) to bus			05	2	78	
Propagation delay time, high to low	t _{PHL3}		04	2	52	ns
select (with bus input high) to bus			05	2	59	
Propagation delay time, low to high	t _{PLH4}		04	2	72	ns
select (with bus input low) to bus			05	2	59	
Propagation delay time, high to low	t _{PHL4}		04	2	39	ns
select (with bus input low) to bus			05	2	59	
Propagation delay time, disabled	t _{PZH1}		01, 02	2	36	ns
to high level output			03	2	58	
Propagation delay time, disabled to	t _{PZH2}		04	2	78	ns
high level output enable to bus			05	2	72	
Propagation delay time, disabled to	t _{PZH3}		04	2	65	ns
high level output direction to bus			05	2	59	
Propagation delay time, disabled to	t _{PZL1}		01, 02	2	46	ns
low level output			03	2	58	
Propagation delay time, disabled to	t _{PZL2}		04	2	91	ns
low level output enable to bus			05	2	78	
Propagation delay time, disabled to	t _{PZL3}		04	2	85	ns
low level direction to bus			05	2	65	
Propagation delay time high level	t _{PHZ1}		01, 02	2	46	ns
to disabled output			03	2	39	
Propagation delay time high level	t _{PHZ2}		04	2	52	ns
to disabled output enable to bus			05	2	65	
Propagation delay time high level	t _{PHZ3}		04	2	46	ns
to disabled output direction to bus			05	2	52	
Propagation delay time, low level to	t _{PLZ1}		01, 02	2	39	ns
disabled output			03	2	39	
Propagation delay time, low level to	t _{PLZ2}		04	2	52	ns
disabled output enable to bus			05	2	52	
Propagation delay time, low level to	t _{PLZ3}		04	2	46	ns
disabled output direction to bus			05	2	46	

TABLE I. Electrical	performance	characteristics	- Continued.
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 $\underline{1}$ Not more than one output should be shorted at one time.

	Subgroups (see table III)			
MIL-PRF-38535	Class S	Class B		
test requirements	devices	devices		
Interim electrical parameters	1	1		
Final electrical test parameters	1*, 2, 3, 7, 8, 9, 10, 11	1*, 2, 3, 7, 8, 9		
Group A test requirements	1, 2, 3, 7, 8 9, 10, 11	1, 2, 3, 7, 8, 9		
Group B electrical test parameters when using the method 5005 QCI option	1, 2, 3, 7, 9, 10, 11	N/A		
Group C end-point electrical parameters	1, 2, 3, 7, 9, 10, 11	1, 2, 3		
Additional electrical subgroups for group C periodic inspections	N/A	10, 11		
Group D end-point electrical parameters	1, 2, 3	1, 2, 3		

TABLE II. Electrical test requirements.

*PDA applies to subgroup 1.

4.4.4 <u>Group D inspection</u>. Group D inspection shall be in accordance with table V of MIL-PRF-38535. End-point electrical parameters shall be as specified in table II herein.

4.5 <u>Methods of inspection</u>. Methods of inspection shall be specified and as follows:

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

4.6 Inclusion with other detail specifications. For qualification and quality conformance inspection purposes, devices covered by this specification may be treated as though they were included on the same detail specification as devices covered by MIL-M-38510/324. In addition, if a manufacturer is already qualified for type 32402, and if the respective devices on this specification (MIL-M-38510/328) are designed and manufactured identically (same die, same process, same screening) in all respects except electrical testing, then device type 32802 may be qualified by conducting only group A electrical tests with approval of the qualifying activity including subgroups A-10 and A-11, and submitting data in accordance with MIL-M-38510, appendix D (i.e., groups B, C, and D tests are not required).



FIGURE 1. Logic diagrams and terminal connections.



FIGURE 1. Logic diagrams and terminal connections - Continued.



FIGURE 1. Logic diagrams and terminal connections - Continued.



FIGURE 1. Logic diagrams and terminal connections - Continued.

Device type 01

CON	TROL	DATA	PORT	
INP	UTS	STA	TUS	
GAB	GBA	А	В	
Н	Н	ō	I	
L	Н	*	*	
Н	L	ISOLATED		
L	L	I ō		

* Possibly destructive oscillation may occur if the transceivers are enabled in both directions at once.

I = Input, O = Output, \overline{O} = Inverting Output

Device type 02

CON	TROL	DATA	PORT
INPUTS		STA	TUS
GAB	GBA	А	В
Н	Н	0	Ι
L	Н	*	*
Н	L	ISOL	ATED
L	L	I	0

* Possibly destructive oscillation may occur if the transceivers are enabled in both directions at once.

I = Input, O = Output, \overline{O} = Inverting Output

Device type 03

ENABLE G	DIRECTION CONTROL DIR	OPERATION
L	L	B data to A bus
L	Н	A data to B bus
Н	Х	Isolation

H = high level, L = low level, X = irrelevant

FIGURE 2. Truth tables.

Device type 04

	INPUTS					DATA I/O *		OPERATION OR FUNCTION
G	DIR	CAB	CBA	SAB	SBA	A1 thru A8	B1 thru B8	
Н	Х	H or L	H or L	Х	Х	Input	Input	Isolation
Н	Х	\leftarrow	↑	Х	Х			Store A and B Data
L	L	Х	Х	Х	L	Output	Input	Real Time B Data to A Bus
L	L	Х	Х	Х	Н			Stored B Data to A Bus
L	Н	Х	Х	L	Х	Input	Output	Real Time A Data to B Bus
L	Н	H or L	Х	Н	Х			Stored A Data to B Bus

H = High LevelL = Low LevelX = Irrelevant \uparrow = Low to high level transition

* The data output function may be enabled or disabled by various signals at the \overline{G} and DIR inputs. Data input functions are always enabled, i.e., data at the bus pins will be stored on every low to high transition on the clock inputs.

Device type 05

		IN	PUTS			DAT	4 I/O *	OPERATION OR FUNCTION
IJ	DIR	CAB	CBA	SAB	SBA	A1 thru A8	B1 thru B8	
Н	Х	H or L	H or L	Х	Х	Input	Input	Isolation
н	Х	\uparrow	\uparrow	Х	Х			Store A and B Data
L	L	Х	Х	Х	L	Output	Input	Real Time \overline{B} Data to A Bus
L	L	Х	Х	Х	Н			Stored \overline{B} Data to A Bus
L	Н	Х	Х	L	Х	Input	Output	Real Time \overline{A} Data to B Bus
L	Н	H or L	Х	Н	Х			Stored A Data to B Bus

H = High Level

L = Low Level

X = Irrelevant

 \uparrow = Low to high level transition

* The data output function may be enabled or disabled by various signals at the \overline{G} and DIR inputs. Data input functions are always enabled, i.e., data at the bus pins will be stored on every low to high transition on the clock inputs.

FIGURE 2. Truth tables - Continued.



NOTES:

- 1. $R_L = 110\Omega \pm 5\%$
- 2. All diodes are 1N3064 or equivalent.
- 3. C_L = 50 pF $\pm 10\%$ including probe and jig capacitance.
- 4. The pulse generators have the following characteristics: V_{gen} = 3.0 V, PRR \leq 1 MHz, t_{TLH} \leq 15 ns, t_{THL} \leq 6 ns Z_{OUT} = 50 Ω .
- 5. Clock pulse characteristics: $t_{P(CLK)} = 20 \text{ ns}, t_{SETUP} = 20 \text{ ns}.$
- The diode and resistor shown within the dotted area are optional. When the diode and resistor are used, V_{BIAS} shall be 5.5 V for all tests except for t_{PHZ}, for t_{PHZ} tests, V_{BIAS} shall be -0.6V.

FIGURE 3. Switching time test circuit and waveforms.



THREE-STATE OUTPUTS, ALL DEVICES

FIGURE 3. Switching time test circuit and waveforms - Continued.



FIGURE 3. Switching time test circuit and waveforms - Continued.

Subgroup	Symbol	MIL-STD- 883	Cases A, C, D Case	1 2	2 3	3	4 6	5 8	6 9	7 10	8 12	9 13	10 14	11 16	12 18	13 19	14 20	Measured	Lin	nits	Unit
		method	2 <u>1</u> / Test no.	GAB	NC	1A	2A	3A	4A	GND	4B	3B	2B	1B	NC	GBA	V _{cc}	terminal	Min	Max	
1	V _{OH1}	3006	1	0.7 V		0.7 V				GND				-3 mA		0.7 V	4.5 V	1B	2.4		V
Tc = 25°C	om	"	2	"			0.7 V			"			-3 mA	-			"	2B	"		
			3	"				0.7 V		u		-3 mA					"	3B	"		"
			4	"					0.7 V	u	-3 mA					-		4B	"		"
			5	2.0 V		-3 mA								0.7 V		2.0 V	-	1A	"		
			6	"			-3 mA			"			0.7 V					2A	"		"
			7	"				-3 mA		"		0.7 V					"	ЗA	"		"
			8	"					-3 mA	"	0.7 V						"	4A	"		"
	V _{OH2}		9	0.5 V		0.5 V				ű				-12 mA		0.5 V	=	1B	2.0		
			10	"			0.5 V			ű			-12 mA					2B	"		"
			11	"				0.5 V		"		-12 mA						3B	"		"
			12	"					0.5 V	ű	-12 mA						"	4B	"		
			13	2.0 V		-12 mA				ű				0.5 V		2.0 V	-	1A	"		
			14	"			-12 mA			u			0.5 V			-	"	2A	"		"
			15					-12 mA		"		0.5 V						3A	"		"
			16						-12 mA		0.5 V							4A	"		
	V _{OL}	3007	17	0.7 V		2.0 V								12 mA		0.7 V		1B		0.4	
			18				2.0 V						12 mA					2B			
			19					2.0 V	0.0.1/	"	10 1	12 mA						3B			
			20			40			2.0 V	"	12 mA			0.0.1/				4B			
			21	2.0 V		12 MA	40			"			0.0.1/	2.0 V		2.0 V		1A			
			22				12 MA	10		"		0.0.1/	2.0 V					ZA			
			23					12 MA	12 m A	"	201/	2.0 V						3A 4A			
	-		24			271			12 IIIA	и	2.0 V					071/	E E V	4A		2/	2/
	OZH		25			2.7 V	271/			u						0.7 V	J.J V "	24		<u>2</u> / "	<u>2</u> /
			20				2.7 V	271/		u							"	34			
			28					2.1 V	27V	u							"	44			
			20	20V					2.1 V	u	27V						"	1B			
			30	2.0 V						u	2.1 V	27 V						2B		"	
			31	"						и		2 1	2.7 V				"	3B			
			32	"						ű				2.7 V			"	4B		"	
	lozi		33			0.4 V				u						0.7 V	"	1A		-200	uА
			34				0.4 V			u							"	2A		"	
			35					0.4 V		u						-	-	3A		"	
			36						0.4 V	u								4A		"	"
			37	2.0 V						u	0.4 V						-	1B		"	"
			38	"						u		0.4 V					-	2B		"	"
			39	"						ű			0.4 V				-	3B		"	"
			40	"						ű				0.4 V				4B		"	"
	ΙL	3009	41	0.4 V						"								GAB	<u>3</u> /	<u>3</u> /	
			42			0.4 V				u						GND	"	1A	"	"	"
			43				0.4 V			u						"	"	2A	"	"	
			44					0.4 V		u							"	ЗA	"	"	
			45						0.4 V	"						"	"	4A	"	"	"
			46	5.5 V						"	0.4 V						"	4B	"	"	"
			47	"						u		0.4 V					"	3B	"	"	
			48	"						"			0.4 V					2B	"		
			49	"						"				0.4 V			"	1B	"	"	
			50							"						0.4 V	"	GBA	"		

See footnotes at end of device type 01.

		MIL-STD-		1	2	3	4	5	6	7	8	9	10	11	12	13	14				
Subgroup	Symbol	883	Case	2	3	4	6	8	9	10	12	13	14	16	18	19	20	Measured	Lin	nits	Unit
		method	2 <u>1/</u> Test no.		NC	1A	2A	3A	4A	GND	4B	3B	2B	1B	NC	GBA	Vcc	terminal	Min	Max	
				GAB																	<u> </u>
1	I _{IH1}	3010	51	2.7 V						GND							5.5 V	GAB		20	μA
Tc = 25°C			52			2.7 V				"						GND	"	1A		"	
			53				2.7 V			"							"	2A			
			54					2.7 V		"							"	3A			
			55						2.7 V	"							-	4A			
			56	5.5 V						"	2.7 V						"	4B			
			57	"						"		2.7 V					"	3B			
			58	"						и			2.7 V				"	2B		"	"
			59	"						и				2.7 V			"	1B		"	"
			60							"						2.7 V	=	GBA		"	"
	I _{IH2}		61	5.5 V						u								GAB		100	
			62			5.5 V				"						GND	"	1A		"	
			63				5.5 V			"							"	2A			
			64					5.5 V		"							-	3A			
			65						5.5 V	"							"	4A			
			66	5.5 V						"	5.5 V						"	4B			
			67	"						и		5.5 V					"	3B		"	"
			68	"						и			5.5 V				"	2B		"	"
			69	"						"				5.5 V			=	1B		"	
			70							"						5.5 V	=	GBA		"	
	VIC		71	-18 mA						"							4.5 V	GAB		-1.5	V
			72			-18 mA				"						GND	"	1A		"	
			73				-18 mA			"							-	2A			"
			74					-18 mA		"							-	3A			"
			75						-18 mA	"							"	4A		"	"
			76	5.5 V						"	-18 mA						"	4B		"	"
			77	"						"		-18 mA					=	3B			"
			78	"						"			-18 mA				=	2B			"
			79	"						"				-18 mA			=	1B			"
			80							"						-18 mA	-	GBA			
	I _{CCH}	3005	81	GND		GND	GND	GND	GND	"						GND	5.5 V	V _{CC}		38	mA
	ICCL	3005	82	GND		5.5 V	5.5 V	5.5 V	5.5 V	"						GND	"	V _{CC}		50	
	I _{CCZ}	3005	83	5.5 V						"						GND	"	V _{cc}		50	
	los	3011	84	GND		GND				"				GND		GND		1B	-40	-225	
			85	"			GND			"			GND					2B	"	"	
			86					GND	01/15	"	0115	GND						3B	"		
			87						GND		GND							4B			<u> </u>
			88	4.5 V		GND	0115			"			0115	GND		4.5 V		1A			<u> </u>
			89				GND						GND					2A			
			90					GND		"		GND						3A			
0			91						GND		GND							4A			
2	Same test	s, terminal con	ditions, and li	mits as for s	ubgroup 1,	except Ic =	= 125°C an	a VIC tests	are omitted												
3	Same lesi	ists, terminal conditions, and limits as for subgroup 1, except Tc = -55°C and V _{1C} tests are omitted. 92 B A A A GND L L L B													5 O V	1					
	toblo	93 B B B B B " H H H H B "												5.U V		E/					
$1C = 25^{\circ}C$	table		93	D		D	D	D	D	"						D			<u>)</u>		
			94	A	<u> </u>				L H		A P	A P	P	A P		A		1			
	<u>4</u> /	Tost 06	30	A	<u> </u>		- n - u	- 11 - L1	-11	"			в Ц			R	"	1	6/ 40	r toot OF o	nhu)
		optional	90	~		п	п	п	п		п	п	п	п		D			<u>0</u> / 10	1 1851 90 01	iiy)
8	Same test	s and terminal	conditions as	subaroup 7	excent To	= +125°C	and -55°C		1					1	1	1		1			

See footnotes at end of device type 01.

Subgroup	Symbol	MIL-STD- 883	Cases A, C, D Case	1	2	3	4	5 8	6 9	7	8 12	9 13	10 14	11 16	12 18	13 19	14 20	Measured	Lin	nits	Unit
	-,	method	2 <u>1</u> / Test no.	GAB	NC	1A	2A	ЗA	4A	GND	4B	3B	2B	1B	NC	GBA	V _{cc}	terminal	Min	Max	
9	to up	3003	97	GND		IN				GND				OUT		GND	5.0 V	1A to 1B	2	19	ns
Tc = 25°C	-FLHZ	See fig. 3	98	"			IN			"			OUT			"	"	2A to 2B	"	"	"
		"	99	"				IN		"		OUT				"	"	3A to 2B	"		"
			100	"					IN	"	OUT						"	4A to 2B	"		"
			101	4.5 V		OUT				"				IN		4.5 V	"	1B to 1A	"		
			102	"			OUT			"			IN				"	2B to 2A	"		
			103	"				OUT		"		IN						3B to 3A	"	"	"
			104	"					OUT	"	IN							4B to 4A	"	"	"
	t _{PHL2}		105	GND		IN				"				OUT		GND	"	1A to 1B	"	23	
			106	"			IN			"			OUT					2A to 2B	"		"
			107	"				IN		"		OUT					"	3A to 2B	"	"	
			108	"					IN	"	OUT							4A to 2B	"		
			109	4.5 V		OUT				"				IN		4.5 V	"	1B to 1A	"	"	
			110	"			OUT			"			IN				"	2B to 2A	"		
			111					OUT	OUT	"		IN						3B to 3A	"		
			112			4514			001		IN			OUT		0.10		4B to 4A			
	t _{PZL1}		113	IN		4.5 V	45.1			"			OUT	001		GND		GAB to 1B		35	
			114				4.5 V	45.1		"		OUT	001				"	GAB to 2B	"	"	"
			115	"				4.5 V	4.5.1/	"	OUT	001					"	GAB to 2B	"	"	"
			110						4.5 V		001							GAB to 2B			
			117	4.5 V		001	0.UT						4 5 14	4.5 V		IN		GBA to 1A			
			118				001	0.117				4 5 14	4.5 V					GBA to 2A			
			119					001	OUT	"	4514	4.5 V						GBA to 3A			
	t _{P7H1}	"	120	IN		GND			001		4.5 V			OUT		GND	"	GBA to 4A	"	28	
			122	"			GND			"			OUT			"	"		"	"	"
			123	"				GND		"		OUT							"		"
			124	"					GND	"	OUT					"	"		"	"	"
			125	45 V		OUT				"				GND		IN	"	GRA to 1A	"		
			125	4.J V "		001	OUT			"			GND	GND		"	"	GBA to 2A	"		
			127	"			001	OUT		"		GND				"	"	GBA to 3A	"		"
			128	"				00.	OUT	"	GND	0.15					"	GBA to 4A	"		
	t _{PLZ1}	"	129	IN		4.5 V				"				OUT		GND	"	GAB to 1B	"	30	"
		"	130	"			4.5 V			"			OUT			"	"	GAB to 2B	"	"	"
			131	"				4.5 V		"		OUT				"	"	GAB to 2B	"	"	"
			132	"					4.5 V	"	OUT					"	"	GAB to 2B	"	"	"
			133	4.5 V		OUT				"				4.5 V		IN	"	GBA to 1A	"		"
			134	"			OUT			"			4.5 V			"	"	GBA to 2A	"		
			135	"				OUT		"		4.5 V				"	"	GBA to 3A	"		"
			136	"					OUT	"	4.5 V					"	"	GBA to 4A	"	"	"

See footnotes at end of device type 01.

TABLE III. Group A inspection for device type 01.

Terminal conditions (pins not designated may be high ≥ 2.0 V, or low ≤ 0.7 V, or open).

		MIL-STD-	Cases A, C, D	1	2	3	4	5	6	7	8	9	10	11	12	13	14				
Subgroup	Symbol	883 method	Case 2 <u>1</u> /	2	3	4	6	8	9	10	12	13	14	16	18	19	20	Measured terminal	Lin	nits	Unit
			Test no.	GAB	NC	1A	2A	ЗA	4A	GND	4B	3B	2B	1B	NC	GBA	V _{cc}		Min	Max	
9	t _{PHZ1}	3003	137	IN		GND				GND				OUT		GND	5.0 V	GAB to 1B	2	35	ns
Tc = 25°C		See fig. 3	138	"			GND			"			OUT				"	\overline{GAB} to 2B	"	"	"
			139	"				GND		u		OUT					"	GAB to 2B	"	"	"
			140	"					GND	u	OUT						"	GAB to 2B	"	"	"
			140 " GND OUT " GAB 141 4.5 V OUT " GAD " GBA														GBA to 1A	"	-		
			142	"			OUT			"			GND				"	GBA to 2A	"		"
			143	"				OUT		"		GND				-	"	GBA to 3A	"	=	"
			144	"					OUT	"	GND					-	"	GBA to 4A	"	=	
10	t _{PLH2}	Same tests a	ns terminal co	nditions as a	subgroup 9,	except Tc	= +125°C.												"	25	
	t _{PHL2}																		"	30	
	t _{PZL1}																		"	46	
	t _{PZH1}																		"	36	
	t _{PLZ1}																		"	39	
	t _{PHZ1}																		"	46	
11	Same test	s, terminal con	ditions, and lir	mits as for s	ubgroup 10	, except Tc	= -55°C.														

 $\underline{1}/$ Pins not referenced are N/C. $\underline{2}/$ The I_{OZH} limit for circuits D and E shall be 20 μ A maximum; the limit for circuits A, B, and C shall be 40 μ A maximum. $\underline{3}/$ The I_{IL} limits are as follows:

20

Test		Min/N	/lax limits μA fo	or circuit:	
	A	В	С	D	E
IIL	-5/-200	0/-100	0/-200	-10/-150	0/-150

 $\underline{4}$ / A = 3.0 V minimum; B = 0.0 V or GND. $\underline{5}$ / H > 1.5 V; L < 1.5 V.

 $\overline{6}$ / Add resistor of 0.5 k Ω to 5 k Ω between V_{cc} and each output.

			Cases	1	2	3	4	5	6	7	8	9	10	11	12	13	14				
Subgroup	Symbol	MIL-STD- 883	A, C, D	2	3	4	6	8	Q	10	12	13	14	16	18	10	20	Measured	Lin	nite	Unit
Oubgroup	Oymbol	method	2 1/	2	5	-	0	0	5	10	12	15	14	10	10	15	20	terminal	LIII	11.5	Onic
			Test no.	GAB	NC	1A	2A	ЗA	4A	GND	4B	3B	2B	1B	NC	GBA	V _{cc}		Min	Max	
1	M	2006	1	0.7.V		201/				CND				2 m A		071/	4 E \/	10	2.4		M
To - 25°C	V OH1	3000	2	0.7 V		2.0 V	201/			GND "			-3 m/	-3 IIIA		0.7 V	4.3 V	10	2.4		V "
10 = 25 0			3				2.0 V	2 0 V		"		-3 m∆	-3 11/4				"	2D 3B	"		
			4	"				2.0 V	20V	"	-3 mA	-51114					"	4B	"		
			5	2.0 V		-3 mA			2.0 1		01101			2.0 V		2.0 V		1A	"		"
			6			0.112.	-3 mA						2.0 V	2.0 1				2A	"		"
			7	"				-3 mA		"		2.0 V				-	"	3A	"		"
			8	"					-3 mA	u	2.0 V						"	4A	"		"
	V _{OH2}		9	0.5 V		2.0 V				"				-12 mA		0.5 V		1B	2.0		"
			10				2.0 V			"			-12 mA					2B	"		"
			11	"				2.0 V		=		-12 mA				-	=	3B	"		"
			12	"					2.0 V	ű	-12 mA					-	-	4B	"		"
			13	2.0 V		-12 mA				"				2.0 V		2.0 V		1A	"		"
			14	"			-12 mA			"			2.0 V			-	-	2A	"		"
			15					-12 mA				2.0 V						3A	"		"
			16	"					-12 mA		2.0 V							4A	"		"
	V _{OL}	3007	17	0.7 V		0.7 V	0714			"			10. 1	12 mA		0.7 V		1B		0.4	
			18				0.7 V					10.1	12 mA					2B			
			19					0.7 V	071/	"	10 1	12 mA						3B			
			20	201		10			0.7 V	"	12 MA			071/		2.0.1/		4B			
			21	2.0 V		12 MA	12 m A			"			071/	0.7 V		2.0 V		1A 2A			"
			22			1	121114	12 mA		"		071	0.7 V					2A			"
			23						12 mA	"	07V	0.7 V						14			"
	10711		25			27V			12 11/4	"	0.1 V					07V	55V	14		2/	2/
	102H		26			2.1 V	2.7 V			u						"	"	2A		<u></u> /	<u></u> /
			27					2.7 V		u							"	3A		"	"
			28						2.7 V	"								4A			"
			29	2.0 V						u	2.7 V						"	4B			"
			30	"						"		2.7 V					-	3B		"	"
			31	"						"			2.7 V				-	2B		"	"
			32	"						"				2.7 V			-	1B		"	"
	I _{OZL}		33			0.4 V				"						0.7 V	"	1A		-200	μA
			34				0.4 V			"							"	2A			"
			35					0.4 V		"							"	3A		"	"
1			36						0.4 V	"							"	4A		"	"
			37	2.0 V						"	0.4 V							4B			
			38							"		0.4 V						3B			
			39							"			0.4 V	0.414				2B			
		2000	40							"				0.4 V				18	2/	2/	
	ιL	3009	41	0.4 V														GAB	<u>3</u> /	<u>3</u> /	-
			42			0.4 V				"						GND	"	1A	"		"
1			43		1	<u> </u>	0.4 V			"						=	"	2A	"	"	"
			44			l I		0.4 V		"						"	"	ЗA	"	"	"
			45			l I			0.4 V	"						"	"	4A	"	"	"
1			46	5.5 V						"	0.4 V						"	4B	"	"	"
			47	"						"		0.4 V					"	3B	"	"	"
			48	"						u			0.4 V				"	2B	"		"
			49	"						u				0.4 V			"	1B	"	"	"
			50							"						0.4 V		GBA	"		

See footnotes at end of device type 02.

Subgroup	Symbol	MIL-STD- 883	Cases A, C, D Case	1	2	3	4	5	6 9	7 10	8 12	9 13	10 14	11 16	12 18	13 19	14 20	Measured	Lin	nits	Unit
		method	2 <u>1</u> / Test no.	GAB	NC	1A	2A	ЗA	4A	GND	4B	3B	2B	1B	NC	GBA	V _{CC}	terminal	Min	Max	
1	I _{IH1}	3010	51	2.7 V						GND							5.5 V	GAB		20	μΑ
Tc = 25°C			52			27V				"						GND	"	1A			
10 - 20 0			53			2 1	2.7 V			u						"	"	2A			
			54					2.7 V		"							"	3A			
			55						2.7 V	"							"	4A			
			56	5.5 V						"	2.7 V						"	4B			
			57	"						"		2.7 V					"	3B			
			58	"						"			2.7 V				"	2B			
			59	"						"				2.7 V			"	1B			
			60							"						2.7 V	"	GBA			
	I _{IH2}	"	61	5.5 V						"							"	GAB		100	
			62			5.5 V				"						GND	"	1A			
			63				5.5 V			"						"	"	2A			
			64					5.5 V		"							"	3A			
			65						5.5 V	"						"	"	4A			
			66	5.5 V						"	5.5 V						"	4B			
			67	"						"		5.5 V					"	3B			
			68	"						"			5.5 V				"	2B			
			69	"						"				5.5 V			"	1B			
			70							"						5.5 V	"	GBA			
	VIC		71	-18 mA						u							4.5 V	GAB		-1.5	V
			72			-18 mA				u						GND	"	1A			
			73				-18 mA			"							"	2A			"
			74					-18 mA		"							"	3A			"
			75						-18 mA	"							"	4A		"	"
			76	5.5 V						u	-18 mA						"	4B			"
			77	"						"		-18 mA					"	3B			"
			78	"						"			-18 mA				"	2B			"
			79	"						"				-18 mA			"	1B			"
			80	"						"						-18 mA	"	GBA			
	I _{CCH}	3005	81	GND		5.5 V	5.5 V	5.5 V	5.5 V	"						GND	5.5 V	V _{CC}		38	mA
	ICCL	3005	82	GND		GND	GND	GND	GND	"						GND	"	V _{CC}		50	
	I _{CCZ}	3005	83	5.5 V						"						GND	"	V _{CC}		50	
	I _{OS}	3011	84	GND		5.5 V	\			"			0.115	GND		GND		1B	-40	-225	
			85				5.5 V						GND					2B			<u> </u>
			86					5.5 V	5 5 V	"	OND	GND						3B			
			87			OND			5.5 V	"	GND			5.5.1		V		4B			-
			88	5.5 V		GND	0115			"			5 5 1 (5.5 V		5.5 V		1A			
			89			├ ───	GND	OND				551	5.5 V					2A			
			90					GND	CNID	"	EEV	5.5 V						3A			
2	0		90 GND S.5 V 91 91 7 GND 6ND 5.5 V															4A			
2	Same test	s, terminal con	$ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $																		
3	Same test	s, terminai con	unions, and lir	THIS AS TOP SI	upgroup 1,	except IC =	-55°C and	vic tests a	are omitted.	CND						Б	FOV				
Ta 0500	toble	92 B A A A GND H H H H B 5.0V 93 B B B B B B " I I I I I B B "													1	E /					
1C = 25°C	table	is 93 B B B B B L L L B B B Is is 194 A H H H H H H H H H A A A A A A A A A														<u>)</u>					
	tests		94	A		н	H	<u>н</u>	н		A	A	A	A		A					
	<u>4</u> /		90	A			L	L U		"			D L			A	"		6/4-	r toot OC a	nhu)
0	8 Same task and tarminal conditions as subarroup 7, except To = +125°C, and 65°C											<u>o</u> / fC	1 1621 30 01	iiy)							
Ö	Same test	s and terminal	conditions as	subgroup 7,	, except I C	= +125°C a	anu -55°C.														

See footnotes at end of device type 02.

Outerson	Question	MIL-STD-	Cases A, C, D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Management	1.5		11-24
Subgroup	Symbol	883 method	Case 2 <u>1</u> /	2	3	4	6	8	9	10	12	13	14	16	18	19	20	terminal	Lin	nits	Unit
			Test no.	GAB	NC	1A	2A	ЗA	4A	GND	4B	3B	2B	1B	NC	GBA	V _{cc}		Min	Max	
9	t _{PLH2}	3003	97	GND		IN				GND				OUT		GND	5.0 V	1A to 1B	2	19	ns
Tc = 25°C		See fig. 3	98				IN			**			OUT					2A to 2B	"	"	"
			99					IN		"		OUT					"	3A to 3B	"		"
			100	"					IN	"	OUT							4A to 4B	"		
			101	4.5 V		001								IN		4.5 V		1B to 1A			
			102				001						IN					2B to 2A			
			103					001	OUT	"		IN						3B to 3A			
	4		104			INI			001		IN			OUT				4B to 4A			
	LPHL2		105	GND		lin	INI			"			OUT	001		GND		TA LO TB	"	23	
			100				IIN	INI	-	"		OUT	001					2A to 2B	"		
			107	"				IIN	IN	"	OUT	001					"	JA to JB	"		
			100	45 V							001			IN		45 V	"	1B to 1A	"		
			103	4.5 V		001	OUT						IN			4.5 V	"	2B to 2A			
			111	"			001	OUT		"		IN						3B to 3A	"	"	"
			112	"				001	OUT	"	IN							4B to 4A	"	"	"
	tozi i	"	113	IN		GND								OUT		GND	"		"	35	
	1201		114	"		-	GND			"			OUT				"	GAB to 1B	"	"	"
			115	"			0.15	GND		"		OUT						GAB to 2B	"		"
			116	"				OND	CND	"	OUT	001						GAB to 3B		"	"
			110						GND		001							GAB to 4B			
			117	4.5 V		OUT				"				GND		IN	"	GBA to 1A	"		"
			118				OUT						GND					GBA to 2A	"		"
			119	"				OUT		u		GND					"	GBA to 3A	"		
			120	"					OUT	u	GND						"	GBA to 4A	"		
	t _{PZH1}		121	IN		4.5 V				"				OUT		GND	"		"	28	"
			122	"			4.5 V			"			OUT							"	"
			123	"				4.5 V		"		OUT						GAB to 2B	"		"
																		GAB to 3B			
		"	124	"					4.5 V	"	OUT						"	GAB to 4B	"	"	"
			125	4.5 V		OUT				"				4.5 V		IN	"	GBA to 1A	"	"	"
			126	"	1	1	OUT			"			4.5 V			"	"	GBA to 2A	"	"	"
			127	"				OUT		"		4.5 V					"	GBA to 3A	"		"
			128	"					OUT	"	4.5 V						"	GBA to 4A	"		
	t _{PLZ1}	"	129	IN		GND								OUT		GND	"	GAB to 1B	"	30	
		"	130	"			GND			"			OUT				"	GAB to 2B	"	"	"
			131	"				GND		"		OUT				"	"	GAB to 3B	"	"	"
		"	132	"					GND	"	OUT					"	"	GAB to 4B	"	"	"
			133	4.5 V		OUT				"				GND		IN	"	GBA to 1A	"		"
			134	"			OUT			"			GND	0.15		"	"	GBA to 2A	"		"
			135	"				OUT		ű		GND					"	GBA to 3A	"		"
			136	"					OUT	"	GND					"	"	GBA to 4A	"	"	"

See footnotes at end of device type 02.

TABLE III. Group A inspection for device type 02.

Cases A, C, D 12 2 3 5 6 8 9 10 11 13 14 1 4 7 MIL-STD-Subgroup Symbol 883 Case 2 3 4 6 8 9 10 12 13 14 16 18 19 20 Measured Limits Unit method 2 1/ terminal Test no. ЗA GND 4B 3B 2B NC GBA Max NC 1A 2A 4A 1B V_{CC} Min GAB 3003 137 IN 4.5 V GND OUT GND 5.0 V 35 9 t_{PHZ1} 2 ns GAB to 1B OUT See fig. 3 138 4.5 V Tc = 25°C GAB to 2B 139 OUT 4.5 V GAB to 3B 140 OUT 4.5 V GAB to 4B GBA to 1A OUT 4.5 V 141 4.5 V IN 142 OUT 4.5 V GBA to 2A 4.5 V GBA to 3A 143 OUT OUT " GBA to 4A 144 4.5 V 10 Same tests ans terminal conditions as subgroup 9, except Tc = +125°C. 25 t_{PLH2} t_{PHL2} 30 t_{PZL1} 46 36 t_{PZH1} 39 t_{PLZ1} 46 t_{PHZ1} Same tests, terminal conditions, and limits as for subgroup 10, except Tc = -55°C. 11

Terminal conditions (pins not designated may be high ≥ 2.0 V, or low ≤ 0.7 V, or open).

1/ Pins not referenced are N/C.

2/ The I_{OZH} limit for circuits D and E shall be 20 µA maximum; the limit for circuits A, B, and C shall be 40 µA maximum.

3/ The I_{IL} limits are as follows:

Test		Min/N	lax limits μA fo	or circuit:	
	A	В	С	D	E
Ι _{ΙL}	-5/-200	0/-100	0/-200	-10/-150	0/-150

 $\underline{4}/~$ A = 3.0 V minimum; B = 0.0 V or GND. $\underline{5}/~$ H > 1.5 V; L < 1.5 V.

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<u>6</u>/ Add resistor of 0.5 k Ω to 5 k Ω between V_{cc} and each output.

Subgroup	Symbol	MIL-STD- 883	Cases R, S, 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Measured	Test	limits	Unit
		method	Test no.	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	G	V _{CC}	terminal	Min	Max	
1	V _{OH1}	3006	1	2.0 V	2.0 V								GND								-3mA	0.7 V	4.5 V	B1	2.4		V
Tc = 25°C			2			2.0 V							"							-3mA		"	"	B2			"
			3				2.0 V												-3mA			"	"	B3			"
			4					2.0 V					"					-3mA				"	"	B4			"
			5						2.0 V								-3mA					"	"	B5			"
			6							2.0 V						-3mA						"	"	B6			"
			7								2.0 V		"		-3mA							"	"	B7			"
			8									2.0 V		-3mA								"	"	B8			"
			9	0.7 V	-3mA								"								2.0 V	"	"	A1	"		"
			10			-3mA							"							2.0 V		"	"	A2			"
			11				-3mA												2.0 V			"	"	A3			"
			12					-3mA										2.0 V				"	"	A4			"
			13						-3mA				"				2.0 V					"	"	A5	"		"
			14							-3mA			"			2.0 V						"	"	A6			"
			15								-3mA				2.0 V							"	"	A7			"
			16									-3mA		2.0 V								"	"	A8			"
ĺ	V _{OH2}		17	2.0 V	2.0 V								GND								-12mA	0.5 V	"	B1	2.0		"
			18			2.0 V							"							-12mA		"	"	B2			"
			19				2.0 V												-12mA			"	"	B3			"
			20					2.0 V										-12mA				"	"	B4			"
			21						2.0 V								-12mA					"	"	B5			"
			22							2.0 V						-12mA						"	"	B6			"
			23								2.0 V				-12mA							"	"	B7			"
			24									2.0 V		-12mA								"	"	B8			"
			25	0.5 V	-12mA																2.0 V	"	"	A1			"
			26			-12mA							"							2.0 V		"	"	A2			"
			27				-12mA												2.0 V				"	A3			"
			28					-12mA					"					2.0 V				"	"	A4			"
			29						-12mA				"				2.0 V					"	"	A5			"
			30							-12mA						2.0 V							"	A6			"
			31	-							-12mA				2.0 V							"	"	A7			"
			32									-12mA	-	2.0 V								"	-	A8	-		"
ſ	Vol	3007	33	2.0 V	0.7 V								-								12 mA	0.7 V	-	B1		0.4	"
			34			0.7 V							-							12 mA		"	"	B2		-	"
			35				0.7 V						"						12 mA			"	"	B3			"
			36					0.7 V					"					12 mA				"	"	B4			"
		"	37						0.7 V				"				12 mA					"	"	B5			"
		"	38							0.7 V			"			12 mA						"	"	B6			"
		"	39								0.7 V				12 mA							"	"	B7			"
		"	40									0.7 V		12 mA								"	"	B8			"
		"	41	0.7 V	12 mA								"								0.7 V	"	"	A1			"
		"	42			12 mA							"							0.7 V		"	"	A2			"
			43				12 mA												0.7 V			"	"	A3		-	"
			44					12 mA					"					0.7 V				"	"	A4			"
			45						12 mA								0.7 V					"	"	A5			
			46							12 mA						0.7 V						"	"	A6		-	"
			47								12 mA				0.7 V									A7			
ļ	.,		48									12 mA		0.7 V										A8			
	VIC		49	-18 mA	40																	5.5 V		DIR		-1.5	<u> </u>
			50		-18 mA	40																		A1			
			51			-18 mA	10																	A2			
			52				-18 mA	10																A3			-
			53					- 18 mA	10 1															A4			-
			54						-10 MA	10 1									<u> </u>			"	"	AD AC			
			50 56							-18 MA	-18 m^											"	"	A0 A7			
			57								-10 IIIA	-18 m^										"	"	A7 A9			
			57									- 10 IIIA					I	[HO			<u>لــــــــــــــــــــــــــــــــــــ</u>

See footnotes at end of device type 03.

		-						101111		laitionio	(pino n	01 400	gnate	a may b	o nigh	<u> </u>	$, 100 \leq 0$	0.1 0,0		•	-						
Subgroup	Symbol	MIL-STD- 883	Cases R, S, 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Measured	Test	limits	Unit
		method	Test no.	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	Ğ	V _{CC}	terminal	Min	Max	1
1	Vic		58										GND	-18 mA								55V	45 V	B8		-1.5	V
Tc = 25°€	•10		59										"	101121	-18 mA							"	"	B7		"	
10 - 25 0			60												10111/1	10 m A							"	DI DC			
			61													-10 IIIA	10 m/						"	D0 P5			
			01														-10 IIIA	40						BJ D4			
			62															-18 MA	40.4					B4			<u> </u>
			63																-18 mA				"	B3			<u> </u>
			64																	-18 mA			"	B2			<u> </u>
			65																		-18 mA		"	B1			
			66																			-18 mA	"	G			
	-		67		271																	201/	EEV	<u> </u>		10 1/	—
	OZH		67		2.7 V	0.714																2.0 V	5.5 V	AI		10 1/	μΑ
			68			2.7 V																		A2			<u> </u>
			69				2.7 V																"	A3		"	<u> </u>
			70					2.7 V															"	A4		"	
			71						2.7 V													"	"	A5		"	"
			72							2.7 V												"	"	A6		"	"
			73								2.7 V											"	"	A7		"	"
			74									2.7 V										"	"	A8		"	
			75											2.7 V								"	"	B8		"	"
			76												2.7 V							"		B7		"	"
			77										-			2.7 V						-	"	B6		"	"
			78														2.7 V							B5		"	
			79										-					2.7 V				"	"	B4		"	
			80																2.7 V			"	"	B3		"	"
			81																	2.7 V		"	"	B2		"	"
			82																		2.7 V	"	"	B1		"	"
	I _{OZL}		83		0.4 V																	"	"	A1		-200	
			84			0.4 V																"	"	A2		"	
			85				0.4 V																"	A3		"	<u> </u>
			86					0.4 V															"	A4		"	
			87						0.4 V														"	A5		"	
			88							0.4 V													"	A6		"	L
			89								0.4 V												"	A7		"	
			90									0.4 V												A8			L
			91											0.4 V									"	B8			
			92												0.4 V								"	B7		"	L
			93													0.4 V							"	B6		"	L
			94														0.4 V							B5			L
			95															0.4 V					"	B4		"	L
			96																0.4 V				"	B3			
			97																	0.4 V	0.4.14			B2			<u> </u>
		0000	98	0.4.14		<u> </u>	<u> </u>										L	ļ			0.4 V			<u>в1</u>		000.01	
	Ι _{IL}	3009	99	0.4 V																		5.5 V		DIR	-5	-200 2/	<u> </u>
			100		0.4 V	0.414																		A1			<u> </u>
			101			0.4 V	0.414																	A2			<u> </u>
			102				0.4 V	0.414																A3			L
			103					0.4 V	0.4.1/															A4	"		
			104						0.4 V	0.414														AS			
			105							0.4 V	0.4.1/													A6			L
			106								0.4 V	0.414												A7			
			107									0.4 V		0.4.1/										A8			
			108											0.4 V	0.4.1/									D0 D7	"	"	
			109												0.4 V	0.4.V							"	B/ B6		"	
			111													0.4 V	0.4.V						"	B5	"	"	
			112			1	1										0.4 V	04V				"	"	B4	"	"	"
			113			1	1								-	-	1	0.4 V	0.4 V	-	-	"	"	B3	"	"	"
			114			1	1													0.4 V		"	"	B2	"	"	"
			115			1	1										İ	İ			0.4 V	"	"	B1	"	"	"
			116			1	1										1	İ 👘				0.4 V	"	-	"	"	"
						1																		G			

See footnotes at end of device type 03.

Subgroup	Symbol	MIL-STD- 883	Cases R, S, 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Measured	Test	limits	Unit
		method	Test no.	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	G	V _{cc}	terminal	Min	Max	1
1	I _{IH1}	3010	117	2.7 V									GND									5.5 V	5.5 V	DIR		20	μA
Tc = 25°C		"	118		2.7 V																		-	A1		-	
		"	119			2.7 V																	-	A2		-	
		"	120				2.7 V																-	A3			"
		"	121					2.7 V															-	A4			
		"	122						2.7 V				"									-	=	A5			
		"	123							2.7 V														A6			
		"	124								2.7 V													A7			
		"	125									2.7 V										"	-	A8			
		"	126										"	2.7 V										B8			-
			127												2.7 V									B7		-	
			128													2.7 V								B6			<u> </u>
			129														2.7 V	0.71/						B5			<u> </u>
			130															2.7 V	0714					B4			<u> </u>
			131																2.7 V	271/				B3 P2			
			132										"							2.7 V	271/			D2 D1			
			133																		2.7 V	271/					
			134																			2.7 V		G			.
	I _{IH2}	"	135	5.5 V									"									5.5 V		DIR		100	
		"	136		5.5 V								"										-	A1		-	
		"	137			5.5 V																		A2			
		"	138				5.5 V						"											A3			"
		"	139					5.5 V					"											A4			-
			140						5.5 V				"											A5		-	
			141							5.5 V														A6		-	
			142								5.5 V	5 5 1 (A7			<u> </u>
			143									5.5 V		5.5.1										A8			-
			144											5.5 V	EEV									B8 P7			
			145												5.5 V	E E V								B/ BC			
			140													J.J V	55V							B5			
			147										"				J.J V	55V						BJ B4			
			149										"					0.0 V	55V					B3			
			150										"						0.0 1	5.5 V				B2			
		"	151										"								5.5 V			B1			
		"	152										"											_			
																								G			\square
	los	3011	153	5.5 V	5.5 V	1 /							GND								GND	GND		B1	-40	-225	mA
			154			5.5 V	5.5.1												ONID	GND				B2			<u> </u>
			100	"			5.5 V	EEV											GND					B3			
			150	"				5.5 V	5 5 V								GND	GND						B5			
			159	"					J.J V	5 5 V						GND	GIND							BG			
			159	"						5.5 v	55V		"		GND	OND								B7		"	
			160	"							0.0 V	55V	"	GND	OND									B8		"	
			161	GND	GND							0.0 1	"	0.15							5.5 V			A1		"	
		"	162	"		GND							"							5.5 V		"		A2	"	"	
		"	163	"			GND						"						5.5 V					A3		"	"
		"	164	"				GND										5.5 V					-	A4		"	"
		"	165	"					GND								5.5 V						-	A5			"
		"	166	"						GND			"			5.5 V								A6		"	
		"	167	"							GND				5.5 V								-	A7		"	
		"	168	"								GND	"	5.5 V										A8			
	I _{CCH}	3005	169										"	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V			V _{CC}		70	
	CCL	3005	170			ļ							-	GND		Ľ.	V _{CC}		90	L -							
	I _{CCZ}	3005	1/1																			5.5 V		V _{CC}		95	

See footnotes at end of device type 03.

								TCIIII	11101 00	nuitiona	(pins i	iot uca	signate	u may c	Je nign	<u>< 2.0 v</u>	$, 1000 \ge 0$	$0.1 \mathrm{v}, 0$	i open	<i>)</i> .							
Subgroup	Symbol	MIL-STD- 883	Cases R, S, 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Measured	Test	limits	Unit
	-	method	Test no.	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	Ğ	V _{cc}	terminal	Min	Max	
2	Somo tr	ooto tormir	a l conditi	000 000	limite or	for oub	aroup 1	oveent 7	- 12E	C and V	tooto or	o omittad															L
2	Same te	ests, termin		ons, and	l limite as	for oub	group 1,	except	10 = 123		tooto or																
3	Same le	esis, termir		ons, and	innits as		group I,	except	C = -55-													Б	FOV				
- 1 <u>3/</u>	table		172	A	A	A	A	A	A	A	A	A	GND									B	5.0 V				
$1c = 25^{\circ}C$	lable		173	A	 	Б	Б	Б	В	D	 	Б		L	L	L	L	L	L	L	L	D				4/	
	tests		174	В	H	н	н	н	н	н	н	н		A	A	A	A	A	A	A	A	В				<u>-</u>	
			175	В	L	L	L	L	L	L	L	L		В	в	В	В	В	В	В	В	В			5/ (t	est 176 or	alv)
0	^		1/6	В	́н	н	н	н	H	H	H	Н		Н	Н	Н	Н	Н	Н	Н	Н	A			<u> </u>		,
8	Same te	ests and te	rminal cor	nditions a	as for sul	bgroup <i>i</i>	(, except	: IC = +1	25°C an	d IC = -55	°C.	1	0115		1							ONE	5 0 1 (544.44			
9	t _{PHL2}	3003	1//	GND	001	OUT							GND							INI	IN	GND	5.0 V	B1 to A1	2	1/	ns
1c = 25°C		See lig. 3	178			001	OUT													IN				BZ IO AZ			<u> </u>
			179				001	OUT											IN					B3 to A3			
			180					001	OUT								INI	IIN						B4 to A4			
			181						001	OUT						INI	IN							B5 to A5			
			102							001	OUT				INI	IIN								BO IO AO			
			103								001	OUT		INI	lin									B/ IO A/			
			104	451/	INI							001		IIN							OUT			66 10 A6			
			100	4.5 V	IIN	INI															001			AT LOBT			
			100			IIN	INI													001				A2 to B2			
			107				IIN	IN										OUT	001					A3 to B3			
			100					IIN	INI									001						A4 IU D4			
			109				-	-	IIN	INI		-				OUT	001							AS to BS			
			190							IIN	INI				OUT	001								AC LO BO			
			102								IIN	IN		OUT	001									AR to BR			
	t		102	4.5.V	INI							IIN		001							OUT			At to B1			
	^{UPLH2}		193	4.5 V	IIN	IN														OUT	001			A1 to B1			
			195	"			IN						"						OUT	001				A3 to B3			
			196					IN										OUT	001					A4 to B4			
			197	"					IN				"				OUT	001						A5 to B5			
			198	"						IN			"			OUT								A6 to B6			"
			199	"							IN		"		OUT									A7 to B7			"
			200	"								IN	"	OUT										A8 to B8			"
			201	GND	OUT								"								IN			B1 to A1			"
			202	"		OUT							"							IN				B2 to A2			"
			203	"			OUT						"						IN			-		B3 to A3		"	"
		"	204	"				OUT					"					IN						B4 to A4			"
			205	"					OUT								IN							B5 to A5	"	"	"
			206	"						OUT						IN							"	B6 to A6			"
			207	"							OUT				IN									B7 to A7			"
			208	"								OUT		IN										B8 to A8			"
	t _{PZL1}	"	209	"	OUT								"								GND	IN		G to A1	-	45	
			210			OUT														CNID							
			210			001														GND				G to A2			
			211	"			OUT						"						GND			"		G to A3	"	"	"
		"	212	"				OUT					"					GND				"		G to A4	"	"	"
		"	213	"					OUT				"				GND					"	"	G to A5	"	"	"
		"	214	"						OUT			"			GND							"	G to A6	"	"	"
		"	215	"							OUT		"		GND							"		G to A7	"	"	"
		"	216	"								OUT	"	GND									"	G to A8	"		"

											, i		9	,	<u> </u>		1 -	,		/							
Subgroup	Symbol	MIL-STD- 883	Cases R, S, 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Measured	Test	limits	Unit
		method	Test no.	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	G	V _{cc}	terminal	Min	Max	
9	t _{PZL1}	3003	217	4.5 V	GND								GND								OUT	IN	5.0 V	G to B1	2	45	ns
Tc = 25°C		See fig. 3	218	"		GND							"							OUT				G to B2		"	"
		"	219	"			GND						"						OUT					G to B3	"	"	"
		"	220	"				GND					"					OUT					"	G to B4			"
		"	221	"					GND				"				OUT					=		G to B5			"
		"	222	"						GND						OUT						=	-	G to B6		"	
		"	223	"							GND		"		OUT							=		G to B7			"
		"	224	"								GND	"	OUT								=		G to B8			
	t _{PZH1}	"	225	"	4.5 V								"								OUT	=		G to B1		"	
		"	226	"		4.5 V							-							OUT		-		G to B2			
		"	227	"			4.5 V						"						OUT			=		G to B3			
		"	228	"				4.5 V					"					OUT						G to B4			
		"	229	"					4.5 V				"				OUT					=		G to B5			
		"	230	"						4.5 V			"			OUT							"	G to B6			
		"	231	"							4.5 V		"		OUT							-		G to B7			
		"	232	"								4.5 V	-	OUT								-		G to B8			
		"	233	GND	OUT								"								4.5 V	-		G to A1			"
		"	234	"		OUT							-							4.5 V				G to A2		"	
		"	235	"			OUT						"						4.5 V					G to A3		"	
		"	236	"				OUT					"					4.5 V				=		G to A4			
		"	237	"					OUT				"				4.5 V					-	"	G to A5		"	"
		"	238	"						OUT			-			4.5 V								G to A6		"	
		"	239	"							OUT		"		4.5 V									G to A7		"	
		"	240	"								OUT	-	4.5 V										G to A8		"	
	t _{PLZ1}	"	241	"	OUT								"								GND			G to A1		30	
		"	242	"		OUT							"							GND				\overline{G} to A2		"	
		"	243	"			OUT						"						GND			-	"	G to A3		"	"
		"	244	"				OUT					"					GND						\overline{G} to A4			
		"	245	"					OUT D				"				GND						"	G to A5	"	"	
		"	246	"						OUT			"			GND							"	G to A6	"	"	"
		"	247	"							OUT		"		GND								"	G to A7	"		"
		"	248	"								OUT	"	GND									"	G to A8	"		"

Subgroup	Symbol	MIL-STD- 883	Cases R, S, 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Measured	Test	limits	Unit
		method	Test no.	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	G	V _{cc}	terminal	Min	Max	
9	t _{PLZ1}	3003	249	4.5 V	GND								GND								OUT	IN	5.0 V	G to B1	2	30	ns
Tc = 25°C		See fig. 3	250	"		GND							"							OUT		"	"	G to B2			"
			251	"			GND						"						OUT			"	"	G to B3			"
			252	"				GND					"					OUT				"	"	G to B4			"
			253	"					GND				"				OUT					"		G to B5			"
			254	"						GND			"			OUT						"	"	G to B6			"
			255	"							GND		"		OUT							"		G to B7			"
			256	"								GND	"	OUT								"					"
	t _{PHZ1}	"	257	"	4.5 V								"								OUT	"					
			258	"		4.5 V			-				"							OUT		"					
			259	"			4.5 V						"						OUT			"				"	
			260	"				4.5 V					"					OUT				"		G to B3			
			261	"				_	4.5 V				"				OUT					"		G to B4			
			262	"					-	4.5 V			"			OUT						"		G to B5			
			263	"							4.5 V		"		OUT							"		G to B6			
			264	"								45 V	"	OUT								"		G to B7 -			
			265	GND	OUT							4.0 V	"	001							45 V			G to B8			
			200	"	001	OUT														4 5 \/	4.5 V			G to A1			
			200			001	OUT												45.1	4.5 V				G to A2		.	<u> </u>
			207				001	OUT										45.14	4.5 V					G to A3			<u> </u>
			268					001										4.5 V						G to A4		<u> </u>	
			269	"					001								4.5 V							G to A5			
		"	270	"						OUT			"			4.5 V								G to A6			
		"	271	"							OUT		"		4.5 V									G to A7			
		"	272	"								OUT	"	4.5 V								"		G to A8			
10	t _{PHL2}																									22	
	t _{PZI 1}		Same tes	sts termi	nal cond	litions a	nd limits	as for si	ibaroup 9	excent T	c = 125°	n.														58	
	t _{PZH1}			,		,, u				,		-													_	58	"
	t _{PLZ1}																									39	"
	t _{PHZ1}					<i>,</i> .		. =	105-1	_																39	<u> </u>
11	Same te	ists, termin	iai conditio	ons, and	limits as	tor sub	group 9,	except I	c = 125°(J.																	

 $\begin{array}{l} \label{eq:local_limits} \end{tabular} 1/ \end{tabular} The \end{tabular}_{\text{LM}} \end{tabular} \text{Imits for circuit B and E are +20 μA maximum.} \\ \end{tabular}_{2} \end{tabular} \end{tabular} The \end{tabular}_{\text{L}} \end{tabular} \end{tabular}_{1} \end{tabular} \end{tabular}_{2} \end{tabular} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_{2} \end{tabular}_$

Subgroup	Symbol	MIL-STD-					u			Ŭ		Ĺ	,						
	-	883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	mits	Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	V _{OH1}	3006	1	0.5 V	0.5 V	2.0 V	2.0 V								GND	B1	2.4		V
Tc = 25°C		"	2					2.0 V								B2			"
			3		"	"			2.0 V							B3			"
			4							2.0 V	0.01/					B4			
			5								2.0 V	0.01/				B5			
			0		"	"						2.0 V	2.0.1/			B6			
			8		"	"							2.0 V	2 0 V		B8			"
			9		"	0.5 V	-3 mA							2.0 1	"	A1			"
			10		"	"	011/1	-3 mA								A2			"
		"	11	"	"	"		-	-3 mA						"	A3			"
		"	12	"	"	-				-3 mA					"	A4	"		"
		"	13	"	"						-3 mA					A5			"
		"	14		"							-3 mA				A6			"
		"	15			-							-3 mA		"	A7			"
		"	16		"	"								-3 mA		A8			
	V _{OH2}		17			2.0 V	2.0 V	0.0.1/								B1	2.0		
			18					2.0 V	2.0.1/							B2			
			19		"	"			2.0 V	201/						D3			"
			20		"	"				2.0 V	201/					B5			"
			22		"	"					2.0 V	20V			"	B6			"
			23		"	"						2.0 V	2.0 V		"	B7	"		"
		"	24		"	"								2.0 V		B8			"
		"	25	"	"	0.5 V	-12 mA								"	A1			"
		"	26		"	-		-12 mA							"	A2			"
		"	27		"				-12 mA							A3			"
		"	28		-	-				-12 mA					"	A4			"
			29		"						-12 mA					A5			
			30									-12 mA	40.4			A6			
			31										-12 mA	10 1		A7			
	V		32		"	2.0.1/	0.5.1/							-12 MA		A6 P1		0.4	
	VOL		33		"	2.0 V	0.5 V	05V								B2		0.4	"
			35		"	"		0.0 ¥	0.5 V						"	B3		"	"
			36		"	"				0.5 V						B4		"	"
		"	37		"	-					0.5 V					B5		"	"
		"	38	"	"	-						0.5 V			"	B6		"	"
		"	39		"	"							0.5 V			B7		"	"
			40		"	"								0.5 V		B8		"	"
			41			0.5 V	12 mA	10. 1								A1			
			42					12 mA	40							A2			
			43						12 MA	12 m A						A3		"	
			44		"					12 IIIA	12 m∆				"	A4 45		"	"
			46		"						12 1114	12 mA				A6		"	"
			40		"							12 11/1	12 mA			A7		"	"
			48		"									12 mA		A8		"	"
	VIC	"	49	-18 mA											"	CAB		-1.5	"
		"	50		-18 mA										"	SAB		"	"
		"	51			-18 mA										DIR		"	"
		"	52				-18 mA									A1		"	"
			53					-18 mA								A2		"	"
			54						-18 mA	40.						A3		"	
			55	L						-18 mA	10 10					A4			
			50								-18 mA	10 m/				AD			"
			59									-18 MA	-18 mA			A0 A7		"	"
			50										-10 IIIA	-18 m4		<u>Α</u> γ		"	"
			55													70			

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

 $\underline{\omega}$

Subaroup	Symbol	MIL-STD-						J		Ŭ			, -						
	-,	883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test L	imits.	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	ī	SEL BA	CLK BA	V _{cc}	terminal	Min	Max	
												G	0.5.1/	0.5.1/	4.5.14	54			
1 T- 0500	V _{OH1}	3006	1							2	-3 mA	0.5 V	0.5 V	0.5 V	4.5 V	B1 D2	2.4		V
$1C = 25^{\circ}C$			2						0	-3 MA		"				B2			
			3						-3 mA							B3			
			4					-3 mA								B4			
			5			0	-3 mA									B5			
			6		~ .	-3 mA										B6			
			/		-3 mA											B7			
			8	-3 mA												B8			
			9							0.01/	2.0 V					A1			
			10							2.0 V						A2			
			11						2.0 V							A3			
			12				0.01/	2.0 V								A4			
			13			0.01/	2.0 V									A5			
			14		0.0.1/	2.0 V										A6			
			15	0.014	2.0 V											A7			
	N/		16	2.0 V							40					A8			
	V _{OH2}		1/							10 ^	-12 mA					B1 B2	2.0		
			18						40	-12 MA						B2			
			19					10 1	-12 MA			"		"		D 3			"
			20				12 mA	-12 MA				"		"		D4			"
			21			10	-12 MA					"		"		BO			
			22		10 1	-12 MA						"		"		D0			"
			23	10 10	-12 MA							"		"		D/			"
			24	-12 MA							201/	"				D0			"
			20							201/	2.0 V	"				A1			"
			20						201/	2.0 V		"				A2			"
			21					201/	2.0 V			"				A3			"
			20				201/	2.0 V				"				A4 A5			"
			29			201/	2.0 V					"				A5 A6			"
			31		201/	2.0 V						"				A0			"
			32	201/	2.0 V							"				48			"
	Va	"	33	2.0 V							12 m∆	"		"		R1		0.4	"
	* OL		34							12 m∆	12 1103	"		"		B2		"	"
			35						12 m4			"		"		B3		"	"
			36					12 mA	12 1103			"		"		B4		"	"
			37				12 mA	12 1103				"		"		B5		"	"
			38			12 mA	121101					"		"		B6		"	"
			39		12 mA	12 110 ("		"		B7		"	"
			40	12 mA								"		"	"	B8		"	"
			41								0.5 V	"			"	A1		"	"
			42							0.5 V		"			"	A2		"	"
			43						0.5 V				"	"	"	A3		"	"
			44					0.5 V					"	"	"	A4		"	"
			45				0.5 V						"	"	"	A5		"	"
			46			0.5 V								"	"	A6		"	"
		"	47		0.5 V							"	"	"	"	A7		"	"
		"	48	0.5 V								"	"	"	"	A8		"	"
	VIC	"	49												"	CAB		-1.5	"
		"	50												"	SAB		"	"
		"	51												"	DIR		"	"
		"	52												"	A1		"	"
			53												"	A2		"	"
		"	54												"	A3		"	"
		"	55												"	A4		"	"
		"	56												"	A5		"	"
		"	57												"	A6		"	"
		"	58												"	A7		"	"
		"	59												"	A8		"	"

See footnotes at end of device type 04.

Subaroup	Symbol	MIL-STD-					N -	<u> </u>				,							1
Gubgroup	Cymbol	883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	imits	Unit
						-		-	-			10		10	0.15				• · · · ·
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	VIC		60												GND	B8		-1.5	V
Tc = 25°C			61													B7			
			62													B6		"	"
			63													B5		"	"
			64													B4		"	"
			65													B3		"	"
			66													B2		"	"
			67													B1		"	"
			68													10		-	"
																G			-
			69													SBA		"	"
			70													CBA		"	"
	I _{IL}	3009	71	0.4 V												CAB	0	-200	μA
		"	72		0.4 V											SAB		"	"
		"	73			0.4 V										DIR		"	"
		"	74				0.4 V									A1		"	"
		"	75					0.4 V								A2		"	"
		"	76						0.4 V							A3	-	"	"
		"	77							0.4 V						A4		-	"
			78								0.4 V					A5	"	"	"
		"	79									0.4 V				A6		"	"
		"	80										0.4 V			A7		"	"
		"	81											0.4 V		A8		"	"
		"	82													B8		"	"
			83													B7		"	"
			84													B6		"	"
			85													B5		"	"
			86													B4		"	"
			87													B3		"	"
			88													B2		"	"
			89													B1		"	"
			90													-		"	"
			50													G			
		"	91													SBA		"	"
		"	92													CBA		"	"
		3010	93	2.7 V												CAB		20	"
		"	94		2.7 V											SAB		"	"
			95			2.7 V										DIR		"	"
			96				2.7 V									A1		"	"
			97					27 V								A2		"	"
			98					2	27 V							A3		"	"
			99							27V						A4		"	"
			100							2 1	27V					A5		"	"
			100								2.1 V	271/				A6		"	"
			107									2.1 V	271/			Δ7		"	"
			102										2.1 V	271/		A9			"
			103											2.1 V		A0 D0		"	"
			104													D0			"
			105															"	"
			100													D0			"
			107													85			
			108		ļ	L					-		L			B4			
			109						L							83			
			110													B2			
			111						L							B1			
		"	112												"	G		"	"
			113													SBA		"	"
			113													CDA			"
			114													UDA			

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

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Subgroup	Symbol	MIL-STD-	0	40		45	40	47	40	40	00	04	00		0.4	Management	Test	1	L La M
		883	Case L	13	14	15	16	17	18	19	20	21		23	24	Measured	Test L	Imits	Unit
		method	Test no.	B8	В7	Bo	B2	В4	В3	BZ	BI	G	SEL BA	CLK BA	V _{CC}	terminal	IVIIN	wax	
1	VIC		60	-18 mA											4.5 V	B8		-1.5	V
Tc = 25°C			61		-18 mA	40 4										B7			
			62			-18 MA	-18 mA									B6 B5			
			64				-1011/4	-18 mA								B4		"	"
			65					101101	-18 mA							B3		"	"
			66							-18 mA					-	B2		=	"
			67								-18 mA					B1		-	"
			68									-18 mA				G		"	
			69										-18 mA			SBA		"	"
			70											-18 mA		CBA		"	"
	IIL.	3009	71												5.5 V	CAB	0	-200	μA
			72													SAB			
			73													DIR			
			74													Δ2		"	"
			76													A3	"	"	"
			77													A4	"	"	"
			78													A5		"	"
			79													A6		"	"
			80													A7			
			81	0.4.1/												A8 Do			
			83	0.4 V	04V											B7		"	"
			84		0	0.4 V										B6	"	"	"
			85				0.4 V									B5	"	=	"
		"	86					0.4 V							-	B4		=	"
			87						0.4 V							B3			
			88							0.4 V	0.4.1/					B2			
			90								0.4 V	04V				-		"	"
			00									0.4 V				G			
			91										0.4 V	0.434		SBA			
			92											0.4 V		CBA			
	IH1	3010	93													SAB		20	"
			95													DIR		"	"
			96													A1		"	"
			97													A2		"	"
			98													A3		"	"
			99													A4			
			100													A5			
			101													A0 A7		"	"
			102													A8		"	"
			104	2.7 V												B8		"	"
			105		2.7 V											B7		"	"
			106			2.7 V										B6		"	"
			107				2.7 V	271								B5			
			108					2.1 V	271/							B3			
			110						2.1 V	27V						B2		"	"
		"	111							·	2.7 V				"	B1		"	"
		"	112									2.7 V			"	Ē		"	"
			110										271/			6			
			113										2.1 V	27V		CBA			"
			114	ļ	I	I			I		I	I	l	4.1 V			I	L	ıl

TABLE III. Group A inspection for device type 04. Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

See footnotes at end of device type 04.

Subgroup	Symbol	MIL-STD-						Ŭ		Ŭ									
• •		883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	imits	Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	I _{IH2}	3010	115	5.5 V											GND	CAB		100	μA
Tc = 25°C			116		5.5 V										"	SAB		"	"
		"	117			5.5 V									"	DIR		"	"
		"	118				5.5 V									A1		"	"
		"	119					5.5 V							"	A2		"	"
		"	120						5.5 V							A3		"	"
			121							5.5 V	/					A4			
			122								5.5 V	\				A5			
			123									5.5 V	EEV			A6			"
			124										5.5 V	EEV		A7		"	"
			125											5.5 V		R8		"	"
			120													B7		"	"
			128													B6		"	"
			129												"	B5		"	"
		"	130												"	B4		"	"
		"	131												"	B3		"	"
			132													B2		"	"
			133												"	B1		"	"
			134													IG		"	"
			135													SBA		"	"
			136													CBA		"	"
	07		137				0.4 V								"	A1		-400	"
	-OZL		138					0.4 V								A2		"	"
			139						0.4 V						"	A3		"	"
			140							0.4 V					"	A4		"	"
			141								0.4 V					A5		"	"
			142									0.4 V			"	A6		"	"
			143										0.4 V		"	A7		"	"
			144											0.4 V		A8		"	"
			145													B8			
			146													B7			
			147													B5		"	"
			140													B3 B4		"	"
			150												"	B3		"	"
			151												"	B2		"	"
			152													B1		"	"
	I _{OZH}		153				2.7 V								"	A1		20	"
			154					2.7 V							"	A2		"	"
			155						2.7 V						"	A3		"	"
			156							2.7 V						A4		"	"
			157								2.7 V				"	A5		"	"
			158									2.7 V	071			A6			
			159										2.7 V	271		A7			"
			161											2.1 V		A0 B9		"	"
			162													B7		"	"
			163													B6		"	"
			164												"	B5		"	"
			165												"	 B4		"	"
			166												"	B3		"	"
			167												"	B2		"	"
			168												"	B1		"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

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Subgroup	Symbol	MIL-STD-						0	,	Ŭ		,	Í						
		883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test L	imits	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	Ğ	SEL BA	CLK BA	V _{CC}	terminal	Min	Max	
1	I _{IH2}	3010	115												5.5 V	CAB		100	μA
Tc = 25°C		"	116												"	SAB		"	
		"	117												"	DIR		"	"
		"	118													A1		"	"
		"	119												"	A2		"	"
		"	120													A3		"	"
			121													A4		"	"
			122													A5		"	
			123													A6			
			124													A7			
			125	E E M												A8			
			120	5.5 V	E E V											D0 P7		"	
			127		5.5 V	EEV										B/ BC		"	
			120			5.5 V	55V									B5		"	"
			120				5.5 V	55V								B4		"	"
			131					5.5 V	55V							B3		"	"
			132						0.0 ¥	5.5 V					"	B2		"	"
			133								5.5 V					B1		"	"
		"	134									5.5 V				Ğ		"	"
			135										5.5 V		"	SBA		"	"
			136											5.5 V		CBA		"	"
	I _{OZL}		137									2.0 V			"	A1		-400	"
			138									-				A2		"	"
			139												"	A3		"	"
			140									"				A4		"	"
			141									"				A5		"	"
			142									"				A6		"	"
			143													A7		"	
			144													A8			
			145	0.4 V	0.4.1/											B8			
			140		0.4 V	0.4.1/						"				B/		"	
			147			0.4 V	0.4.1/					"				D0 D5		"	
			140				0.4 V	0.4.V				"				B/		"	
			150					0.4 V	04V			"				B3		"	"
			151						0.1.1	04V		"				B2		"	"
			152								0.4 V	"				B1		"	"
	I _{O7H}		153									"				A1		20	"
			154									"			"	A2		"	"
			155									"				A3		"	"
			156									-			"	A4		"	"
			157									=				A5		"	"
			158												"	A6		"	"
			159									"				A7		"	"
			160									"				A8		"	
			161	2.7 V	0.7.1							"				88			
			162		2.7 V	0.71										B7			
			163			2.7 V	271									B6			
			164				2.7 V	271								B5		"	
			100					2.1 V	271/			"				D4 D2		"	
			100					1	2.1 V	271/		"				B3		"	"
			168							2.1 V	27V	"				B1		"	"
.		L <u></u>	100			L	I		l	I	2.1 V	l	1			וט		1	

See footnotes at end of device type 04.

0	O wash at						(1-11-0-11-0		,			,							
Subgroup	Symbol	MIL-STD-	0		0	0		-	0	-	0	0	10		40	Management	T 4 1		1.1
		883	Case L	1	2	3	4	5	6		8	9	10	11	12	weasured	Test L	limits	Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	los	3011	169	GND	GND	4.5 V	4.5 V								GND	B1	-40	-225	mA
Tc = 25°C		"	170		"	"		4.5 V								B2		"	"
		"	171		"	"			4.5 V						"	B3		"	"
		"	172		"	"				4.5 V						B4		"	"
		"	173	"	"	"					4.5 V					B5	"	"	"
		"	174		"							4.5 V				B6		"	"
		"	175		"								45V			B7		"	"
		"	176		"	"							4.0 V	45V		B8		"	"
		"	177		"	GND	GND							4.0 V		A1		"	"
			178		"	"	UND	GND								Δ2		"	"
			170		"			OND	GND							A2		"	"
			179		"	"			GND	GND						A3		"	"
			100							GND	CNID					A4		"	
			161								GND	ONID				AD			
			182									GND				Ab			
			183										GND	01/17		A7			
		0005	184			4 5 1 4	4 5 1 4		4 5 1 4	4 = 14	4.5.1		4 5 1 4	GND		A8			
	I _{CCH}	3005	185			4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V		V _{CC}		145	
	ICCL		186			4.5 V	GND	GND	GND	GND	GND	GND	GND	GND		V _{CC}		165	
	I _{CCZ}		187			4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	-	V _{CC}		165	
2	Same tests	, terminal con	iditions, and	l limits as su	bgroup 1, e	xcept T _C =	⊧ +125°C a	ind omit V _{IC} to	ests.										
3	Same tests	, terminal con	ditions, and	limits as su	bgroup 1, e	xcept T _C =	-55°C and	d omit V _{IC} tes	ts.										
7	Truth		188	В	В	A	Α	A	A	A	A	A	A	A	GND				
Tc = 25°C	table		189		"	A	В	В	В	В	В	В	В	В					
	tests		190	"	"	В	Н	Н	Н	Н	Н	Н	Н	Н					
	1/		191		"	В	L	L	L	L	L	L	L	L					
	-		192	"	А	Α	Α	А	Α	Α	Α	А	А	А					
			193	А	"		Α	А	А	Α	Α	А	Α	Α					
			194	B	"		В	В	В	B	B	B	B	В			<u>2</u> /, <u>3</u>	/	
			195	A	"	"	B	B	B	B	B	B	B	B					
			196	B	В	В	1		Ī	Ī	- E	1		ī					
			100	"	"	"	H	<u> </u>	н	н	н	н	<u> </u>	н					
			109		"							н Ц	- П						
			100		"	"	11	1		1		1	1						
			200			"	L	L					L						
9	Sama tasta	and torminal	200		7 overt 7	- 1250			L L	L L		L	L	L					
0		2002				$C = +123^{-1}$									CND	CAR to R4	2	20	20
9	LPLH1	3003 (fig. 2)	201	IIN "	4.3 V "	4.5 V "	IIN	INI							GND	CAB to B2	2	30	115
		(iig. 3) "	202			"		IIN	INI							CAR to R2			"
			203						IIN	INI									
			204							IIN	INI					CAB to B4			
			205								IN					CAB to B5			
			206									IN				CAB to B6			
			207										IN			CAB to B7			
			208											IN		CAB to B8			
		"	209	GND	GND	GND	OUT									CBA to A1		"	"
		"	210		"			OUT							"	CBA to A2		"	"
		"	211		"	"			OUT							CBA to A3		"	"
		"	212		"	"				OUT						CBA to A4		"	"
		"	213		"	"					OUT				"	CBA to A5		"	"
		"	214		"	"						OUT				CBA to A6		"	"
		"	215		"								OUT			CBA to A7		"	"
		"	216	"	"	"								OUT		CBA to A8		"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

			1	101			(pine n	ot abolgila	iou maj	, so mg	1 = 2.0	•, ION _	0.1 1, 01	opon).					
Subgroup	Symbol	MIL-STD-																	
		883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	l est l	limits	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	G	SEL BA	CLK BA	V _{cc}	terminal	Min	Max	
1	los	3011	169								GND	GND	GND	GND	5.5 V	B1	-40	-225	mA
$Tc = 25^{\circ}C$	00	"	170							GND		"	"	"		B2		"	"
			171						GND	-		"				B3		"	"
			172					GND	0.10			"				B4		"	"
			172				GND	CITE				"				B5		"	"
			174			GND	OND					"				B6		"	"
			175		GND	OND						"				87		"	"
			175	CNID	GND											D/ D0			"
			170	GND							EEV					D0			"
			177							051/	5.5 V					A1			
			178						0.5.1/	0.5 V						AZ			
			179						0.5 V							A3			
			180					0.5 V								A4			
			181				0.5 V									A5	"		"
		"	182			0.5 V										A6	"	"	"
1		"	183		0.5 V											A7			"
1		"	184	0.5 V								"	"		"	A8	"	"	"
	I _{CCH}	3005	185									"		"		V _{cc}		145	"
	I _{CCL}	"	186									"		"		V _{cc}		165	"
	I _{CCZ}	-	187									4.5 V				Vcc		165	"
2	Same tests	, terminal cor	nditions, and	l limits as su	ibgroup 1, e	except T _C =	= +125°C a	and omit V _{IC} t	ests.										
3	Same tests	. terminal cor	nditions, and	l limits as su	ibaroup 1. e	except To a	= -55°C an	d omit Vic tes	sts.										
7	Truth		188	Н	Г Н	Н	Н	Н	Н	Н	Н	В	В	В	4.5 V				
$T_{C} = 25^{\circ}C$	table		189	L	L	L	L	L	L	L	L	"							
10 - 20 0	tests		190	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ								
	1/		100	B	B	B	B	B	B	B	B	"							
	<u>.</u>		102	<u>ь</u>				1				"							
			102									"							
			193									"					2/, 3	/	
			194																
			195	L	L	L	L	L	L	L	L		•						
			196	A	A	A	A	A	A	A	A		A						
			197	A	A	A	A	A	A	A	A			A					
			198	В	В	В	В	В	В	В	В			В					
			199											A					
			200		"		L		"	"	"	"		В	"				
8	Same tests	and terminal	conditions a	as subgroup	7, except	I _C = +125°	°C and T _C	= -55°C.	1										1
9	t _{PLH1}	3003	201								OUT	GND	GND	GND	5.0 V	CAB to B1	2	30	ns
Tc = 25°C		(fig. 3)	202							OUT		"		"		CAB to B2		"	"
		"	203						OUT			"		"		CAB to B3		"	"
		"	204					OUT				"		"		CAB to B4		"	"
1		"	205				OUT					"	"	"		CAB to B5	"	"	"
1		"	206			OUT						"	"	"		CAB to B6	"	"	"
			207		OUT							"	"	"		CAB to B7	"	"	"
			208	OUT								"	"	"		CAB to B8	"	"	"
		"	209			1	1			1	IN	"	4.5 V	IN	"	CBA to A1	"	"	"
			210			1	1			IN		"		"		CBA to A2	"	"	"
1			211					1	IN			"	"	"		CBA to A3		"	"
			212		1	1	1	IN		1		"	"			CBA to A4		"	"
			213		1	1	IN			1		"		"	"	CBA to A5	"	"	"
			214			IN						"				CBA to A6		"	"
			214		IN							"				CBA to A7			"
			210	INI						+		"							"
	1	1	210	IIN	1	1	1	1	1	1	1	1	1	1	1		1	1	

See footnotes at end of device type 04.

Subaroup	Symbol	MIL-STD-					U.	Ŭ	l í	Ŭ		ĺ.	, 	. /					
5 5 5 <u>5</u> 5 5 5 F	-,	883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	imits	Unit
		ma a the a d	Test as			DID	A 4	40	40	A 4	۸ <i>۲</i>	A.C.	A.7	4.0	CNID	terminel	Min	Max	
0	4	method	Test no.		SELAD		AI	AZ	A3	A4	AS	Ab	A/	Að	GND	CAD to D1	IVIIN	IVIAX	
9	LPHL1	3003	217	IIN "	4.5 V	4.5 V	lin	INI							GND			40	ns "
1c = 25°C		(fig. 3)	218					IIN								CAB to B2	-		
			219						IN							CAB to B3			
			220							IN						CAB to B4			
			221								IN					CAB to B5			
			222									IN				CAB to B6			
			223										IN			CAB to B7			
			224			"								IN		CAB to B8			
			225	GND	GND	GND	001									CBA to A1		"	
			226		"			OUT								CBA to A2		"	
			227						OUT							CBA to A3		"	
			228							001						CBA to A4			
			229								001					CBA to A5		"	
			230									OUT				CBA to A6		"	
			231										001			CBA to A7			
		"	232		"									OUT	"	CBA to A8		"	"
	t _{PLH2}		233		"	4.5 V	IN									A1 to B1		23	
			234					IN								A2 to B2			
			235						IN							A3 to B3			
			236							IN						A4 to B4			
			237								IN					A5 to B5			
			238									IIN	15.1			A6 t0 B6			
			239		"	"							IIN	INI		A7 to B7		"	
			240		"	CNID	OUT							IIN		A6 10 B6			"
			241		"	GND "	001	OUT								B1 to A1			
			242		"			001	OUT							B2 to A2		"	
			243		"				001							B4 to A4		"	
		"	245		"					001	OUT					B5 to A5		"	"
		"	246		"						001	OUT				B6 to A6		"	"
		"	247		"								OUT			B7 to A7		"	"
			248		"									OUT	"	B8 to A8	"	"	"
	tou a	"	249		"	4.5 V	IN							001		A1 to B1		25	
	*FRLZ		250		"	"		IN								A2 to B2		"	
		"	251		"	"			IN							A3 to B3		"	"
			252		"	"				IN						A4 to B4		"	"
			253		"	"					IN					A5 to B5		"	"
		"	254		"	"						IN				A6 to B6		"	"
		"	255	"	"	"							IN			A7 to B7	"	"	"
		"	256	"	"	"			1					IN	"	A8 to B8		"	"
		"	257	"	"	GND	OUT									B1 to A1	"	"	"
		"	258	"	"			OUT								B2 to A2	"	"	"
			259	"	"				OUT						"	B3 to A3	"	"	"
		"	260		"					OUT						B4 to A4		"	"
		"	261		"						OUT					B5 to A5		"	"
		"	262		"							OUT				B6 to A6		"	"
		"	263		"								OUT			B7 to A7		"	"
		"	264		"									OUT	"	B8 to A8		"	"
	t _{PLH3}	"	265	4/	IN	4.5 V	4/									SAB to B1		45	"
		"	266		"	"		4/							"	SAB to B2	"	"	"
		"	267			"			4/							SAB to B3		"	"
		"	268		"					4/					"	SAB to B4		"	"
		"	269	"	"	"					4/				"	SAB to B5	"	"	"
		"	270		"							4/			"	SAB to B6	"	"	"
		"	271		"								4/			SAB to B7		"	"
		"	272											4/		SAB to B8			

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

Subgroup	Symbol	MIL-STD-	Casal	12	14	15	16	17	19	10	20	21	22	22	24	Mossurod	Tost I	imite	Unit
		method	Test no.	B8	14 B7	B6	B5	B4	B3	B2	20 B1	21	SEL BA	23 CLK BA	24 V _{CC}	terminal	Min	Max	Unit
0	+	2002	217			-					OUT	G	CND	CND	FOV	CAR to R1	2	40	
- 25°C	PHL1	(fig. 2)	217								001	GND "	GND	GND "	3.0 V	CAB to B2	<u>۲</u>	40	"
10 = 25°C		(iig. 3) "	210						OUT	001		"		"		CAB to B2		"	
			219					OUT	001							CAB to B3			
			220				OUT	001								CAB to B4			
			221			OUT	001									CAB to B5			
			222		OUT	001										CAB to Bo			
			223	OUT	001											CAB to B7			
			224	001									4 = 14			CAB to B8			
			225							INI	IIN		4.5 V	IN "		CBA to A1			
			220						INI	IN						CBA to A2			
			227					INI	lin							CBA to A3			
			228				INI	IIN						"		CBA to A4		"	
			229			INI	IIN					"		"		CBA to AS		"	
			230		INI	lin						"		"		CBA to A6		"	
			231	INI	IIN											CBA to A7			
	+	"	232	IIN								"	GND	GND		A1 to B1		22	"
	PLH2		233								001	"	GND	GND "		A2 to B2		23	"
			235						OUT	001		"		"		A3 to B3		"	
			236						001			"		"		A4 to B4		"	"
			237				OUT	001				"		"		A5 to B5		"	"
			238			OUT						"		"		A6 to B6		"	"
			239		OUT	001						"		"		A7 to B7		"	"
			240	OUT								"		"		A8 to B8		"	"
		"	241								IN	"		"		B1 to A1		"	"
		"	242							IN		"		"		B2 to A2		"	"
		"	243						IN			"		"		B3 to A3		"	"
		"	244					IN				"		"	"	B4 to A4	"	"	"
		"	245				IN					"		"		B5 to A5		"	"
		"	246			IN						"		"		B6 to A6		"	"
		"	247		IN							"		"		B7 to A7		"	"
		"	248	IN										"		B8 to A8	"	"	"
	t _{PHL2}	"	249								OUT	"		"		A1 to B1		25	
		"	250							OUT		"		"		A2 to B2		"	"
		"	251						OUT			"		"		A3 to B3		"	
		"	252					OUT				"		"		A4 to B4		"	"
		"	253				OUT					"		"	"	A5 to B5		"	"
		"	254			OUT						"		"	"	A6 to B6		"	"
			255	a	OUT				ļ		ļ			"		A7 to B7		"	"
		"	256	OUT							L	"		"		A8 to B8		"	"
			257								IN			"		B1 to A1		"	
			258							IN				"		B2 to A2		"	"
			259						IN							B3 to A3		"	
			260					IN						"		B4 to A4			
			261				IN							"		B5 to A5			
			262			IN										B6 to A6			
			263		IIN											B7 to A7			
	4		264	IN							OUT					B8 to A8		45	
	IPLH3		200								001			"		SAD to D1		45	"
			200							001		"		"		SAB to B2		"	"
			268					OUT	001			"		"		SAB to B4		"	"
			269				OUT	001				"		"		SAB to B5		"	"
			270			OUT	001		<u> </u>			"	"	"		SAB to B6	"	"	"
		"	271		OUT							"	"	"	"	SAB to B7	"	"	"
			272	OUT					1			"		"		SAB to B8	"	"	"
	1			00.			L	1	J	L		l	l	L		27.12.10.20			

See footnotes at end of device type 04.

Subgroup	Symbol	MIL-STD-			_						-								
		883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	imits	Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t _{PLH3}	3003	273	GND	GND	GND	001	OUT							GND	SBA to A1	2	45	ns
1c = 25°C		(fig. 3)	274					001	OUT							SBA to A2			
			275		"				001	OUT						SBA to A3			
			270		"					001						SBA to A5		"	"
			278		"						001	OUT				SBA to A6		"	"
			279		"							001	OUT			SBA to A7		"	"
			280		"								001	OUT	"	SBA to A8		"	"
	t _{PHL3}	"	281	4/	IN	4.5 V	4/								"	SAB to B1		40	"
		"	282		"			4/							"	SAB to B2		"	"
		"	283		"	"			<u>4</u> /							SAB to B3		"	"
		"	284		"					<u>4</u> /					"	SAB to B4		"	"
			285		"	-					<u>4/</u>				"	SAB to B5	-	"	"
			286		"	"						<u>4</u> /			"	SAB to B6		"	"
			287		"	"							4/			SAB to B7	"	"	"
			288											<u>4</u> /		SAB to B8		"	
			289	GND	GND	GND	001	0.17								SBA to A1			
			290					001	OUT							SBA to A2			
			291		"				001	OUT						SBA to A4		"	"
			292		"					001						SBA to A5		"	"
			293		"						001	OUT				SBA to A6		"	"
			295		"							001	OUT			SBA to A7		"	"
			296		"								001	OUT		SBA to A8	"	"	"
	tei H4	"	297	5/	IN	4.5 V	5/								"	SAB to B1		55	"
			298		"			5/							"	SAB to B2		"	"
		"	299		"	"			<u>5</u> /						"	SAB to B3	"	"	"
		"	300		"					<u>5</u> /						SAB to B4		"	"
		"	301		"	"					5/					SAB to B5		"	"
			302		"	"						<u>5</u> /				SAB to B6	"	"	"
			303		"								<u>5</u> /	- 1		SAB to B7		"	
			304				OUT							<u>5</u> /		SAB to B8			
			305	GND	GND	GND	001	OUT								SBA to A1			
			300		"			001								SBA to A2		"	
			307		"				001	OUT					"	SBA to A4		"	"
			300		"					001						SBA to A5		"	"
			310		"						001	OUT				SBA to A6	"	"	"
			311		"								OUT		"	SBA to A7		"	"
			312	"	"	"								OUT	"	SBA to A8	"	"	"
	t _{PHL4}	"	313	<u>5</u> /	IN	4.5 V	<u>5</u> /								"	SAB to B1	"	30	"
		"	314		"			<u>5</u> /								SAB to B2		"	"
		"	315		"				<u>5</u> /							SAB to B3	"	"	"
		"	316							<u>5</u> /					"	SAB to B4		"	"
			317		"	"					<u>5</u> /					SAB to B5	"	"	"
			318		"							<u>5</u> /	- /			SAB to B6		"	
			319										<u>5</u> /	= /		SAB to B7			
			320				OUT							<u>5</u> /		SAB to B8			
			321	UND "	UND "	UND "	001								"	SBA to A2		"	"
			322		"			001							"	SBA to A2		"	"
			323	"	"				001	OUT					"	SBA to Ad		"	"
		"	325	"	"					001	OUT				"	SBA to A5	"	"	"
			326	"	"							OUT			"	SBA to A6		"	"
		"	327	"	"	"							OUT		"	SBA to A7	"	"	"
		"	328	"	"	"								OUT	"	SBA to A8		"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

Subaroup	Symbol	MIL-STD-		_			(1-11-0-11-0					,	··· · , ··	1 . /					
Cubgroup	Cymbol	883	Case I	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test I	imits	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	Ğ	SEL BA	CLK BA	V _{cc}	terminal	Min	Max	onit
0	+	2002	272								4/	CND	INI	4/	E O V	SPA to A1	2	46	20
9	LPLH3	3003	273							4/	4/	GND	IN	4/	5.0 V	SBA to AT		45	ns "
1C = 25°C		(lig. 3)	274							4/						SBA IO AZ			
			275						<u>4</u> /							SBA to A3			
		"	276					<u>4</u> /								SBA to A4			"
		"	277				<u>4</u> /							"		SBA to A5		"	
		"	278			<u>4</u> /						"		"		SBA to A6		"	"
		"	279		<u>4</u> /									"		SBA to A7		"	"
		"	280	4/								"		"		SBA to A8		"	"
	t _{PHL3}	"	281								OUT		GND	GND		SAB to B1		40	
		"	282							OUT				"		SAB to B2		"	"
		"	283						OUT			"		"	-	SAB to B3		"	"
		"	284					OUT				"		"		SAB to B4	-	"	"
		"	285				OUT					"		"		SAB to B5	-	"	"
		"	286			OUT								"		SAB to B6		"	"
		"	287		OUT									"		SAB to B7	"	"	"
		"	288	OUT								"		"		SAB to B8		"	"
		"	289								4/	"	IN	4/		SBA to A1	"	"	"
		"	290							4/		"		"		SBA to A2		"	"
		"	291						4/	-		"		"		SBA to A3	"	"	"
			292					4/	-			"		"		SBA to A4		"	
			293				4/					"		"		SBA to A5		"	"
			294			4/	<u> </u>					"		"		SBA to A6		"	"
			295		4/							"		"		SBA to A7		"	"
			200	4/	<u>-</u> <u>u</u>									"		SBA to A8		"	
	tour	"	207	7/								"	GND	GND		SAB to B1		55	
	PLH4		208								001		"	"		SAB to B2			
			200						OUT	001		"		"		SAB to B3		"	
			299					OUT	001					"		SAB to B4		"	
			201				OUT	001						"		SAD to D4		"	
			301				001							"		SAB to BS		"	
			302		OUT	001								"		SAB to B7		"	
			303	OUT	001									"		SAD to DI		"	
			304	001							F /		INI	F /		SAB IU BO			
			305							E/	<u>5</u> /		IN	<u>5</u> /		SBA to A1		"	
			306						F/	<u>)</u>						SBA to A2			
			307					= /	<u>5</u> /							SBA to A3			
			308				= /	<u>5</u> /								SBA to A4			
			309			= /	5/									SBA to A5			
			310		- /	5/										SBA to A6			
			311	= /	<u>5</u> /											SBA to A7			
			312	<u>5</u> /							OUT					SBA to A8			
	t _{PHL4}		313							<u></u>	001		GND	GND		SAB to B1		30	
			314							001				"		SAB to B2			
		"	315						OUT			"		"		SAB to B3		"	
		"	316					OUT				"		"		SAB to B4		"	"
		"	317				OUT					"		"		SAB to B5		"	"
		"	318			OUT								"		SAB to B6		"	"
		"	319		OUT							"		"		SAB to B7	"	"	"
		"	320	OUT								"		"		SAB to B8		"	"
		"	321								<u>5</u> /	"	IN	<u>5</u> /		SBA to A1		"	"
		"	322							5/		"	"	"		SBA to A2		"	"
		"	323						<u>5</u> /			"		"		SBA to A3		"	"
		"	324					5/				"	"	"		SBA to A4	"	"	"
		"	325				5/					"		"		SBA to A5		"	"
		"	326			5/						"	"	"	"	SBA to A6	"	"	"
		"	327		5/	_						"		"		SBA to A7	"	"	"
		"	328	5/								"	"	"	"	SBA to A8	"	"	"

See footnotes at end of device type 04.

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Subgroup	Symbol	MIL-STD-				-	(p.i.e iii	-				,							
		883 mathad	Case L			3	4	5	6	7	8	9	10	11	12	Measured	Test L	imits	Unit
9	t _{PZH2}	3003	329	CLK AB	GND	GND	OUT	AZ	A3	A4	Ab	Ab	A	Ao	GND		2	60	ns
Tc = 25°C		(fig. 3)	330		"			OUT							"	G to A2		"	"
		"	331		"				OUT									"	"
		"	332		"					OUT					"	G to A4	"	"	"
		"	333		"	"					OUT						"	"	"
		"	334		"	"						OUT				G to A6	"	"	"
			335		"	"							OUT			G to A7	"	"	"
			336		"	"								OUT		\overline{G} to A8	"	"	"
		"	337		"	4.5 V	4.5 V									G to B1	"	"	"
		"	338		"	"		4.5 V								G to B2	"	"	"
		"	339		"	"			4.5 V							G to B3	"	"	"
		"	340		"	"				4.5 V						G to B4	"	"	"
		"	341		"	"					4.5 V					G to B5	"	"	"
		"	342		"	"						4.5 V				G to B6	"	"	"
			343		"	"							4.5 V			G to B7	"	"	"
			344		"	"								4.5 V		G to B8	"	"	"
	t _{PZL2}	"	345		"	GND	OUT								"	G to A1	"	70	"
			346		"			OUT								G to A2	"	"	"
		"	347		"	"			OUT						"	G to A3	"	"	"
		"	348		"	"				OUT					"	G to A4	"	"	"
		"	349		"	"					OUT					G to A5	"	"	"
		"	350		"	"						OUT			"	G to A6	"	"	"
		"	351		"	"							OUT		-	G to A7	"	"	"
		"	352		"	-								OUT		G to A8	-	"	"
		"	353		"	4.5 V	GND								-	G to B1	"	"	"
		"	354		"			GND							-	G to B2	"	"	"
			355		"				GND							G to B3		"	"
			356		"					GND						G to B4		"	"
		"	357		"						GND					G to B5	"	"	"
		"	358		"							GND			"	G to B6	"	"	"
		"	359		"								GND			G to B7	"	"	"
		"	360		"									GND		G to B8	"	"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

Subgroup	Symbol	MIL-STD- 883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test L	imits	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	G	SEL BA	CLK BA	V _{cc}	terminal	Min	Max	
9	t _{PZH2}	3003	329								4.5 V	IN	GND		5.0 V	G to A1	2	60	ns
Tc = 25°C		(fig. 3)	330							4.5 V		"	"			G to A2	"	"	"
		"	331						4.5 V			"	"		"	G to A3	"	"	"
		"	332					4.5 V				"	"		"	G to A4	"	"	"
		"	333				4.5 V					"	"			G to A5	"	"	"
		"	334			4.5 V						"	"		"	G to A6	"	"	"
		"	335		4.5 V							"	"			G to A7	"	"	"
		"	336	4.5 V								"	"		"	G to A8	"	"	"
		"	337								OUT	"	"		"	G to B1	"	"	"
		"	338							OUT		"	"			G to B2	"	"	"
		"	339						OUT			"	"			G to B3	"	"	"
		"	340					OUT				"				G to B4	"	"	"
		"	341				OUT					"	"		"	G to B5	"	"	"
		"	342			OUT						"				G to B6	"	"	"
		"	343		OUT							"	"			G to B7	"	"	"
		"	344	OUT								"	"			G to B8	"	"	"
	t _{PZL2}	"	345								GND	"	"			G to A1	"	70	"
		"	346							GND		"	"			G to A2	"	"	"
		"	347						GND			"	"			G to A3	"	"	"
		"	348					GND				"	"			G to A4	"	"	"
		"	349				GND					"	"			G to A5	"	"	"
		"	350			GND						-	"			G to A6	"	"	"
		"	351		GND							"				G to A7	"	"	"
		"	352	GND								-	"			G to A8	"	"	"
		"	353								OUT	"				G to B1	"	"	"
		"	354							OUT		-	"			G to B2	"	"	"
		"	355						OUT			"	"			G to B3	"	"	"
		"	356					OUT				"	"			G to B4		"	"
		"	357				OUT					"	"			G to B5	"	"	"
		"	358			OUT						"	"			G to B6	"	"	"
		"	359		OUT							"	"			G to B7	"	"	"
		"	360	OUT								"	"			G to B8	"	"	"

TABLE III. Group A inspection for device type 04.Terminal conditions (pins not designated may be high \geq 2.0 V; low \leq 0.7 V; or open).

See footnotes at end of device type 04.

Subgroup	Symbol	MIL-STD-																	
		883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	imits	Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9 To - 25°C	t _{PZH3}	3003 (fig. 3)	361		GND "	IN "	4.5 V	45 V							GND "	DIR to B1	2	50	ns "
10 = 25 C		(lig. 5) "	363		"	"		4.J V	4.5 V						"	DIR to B3		"	"
		"	364		"	"				4.5 V					"	DIR to B4		"	"
		"	365		"	"					4.5 V				"	DIR to B5		"	"
		"	366		"	"						4.5 V			"	DIR to B6		"	"
			367			"							4.5 V	451/		DIR to B7			
			369		"		OUT							4.3 V	"	DIR to A1		"	"
		"	370		"	"	001	OUT							"	DIR to A2		"	"
		"	371		"	"			OUT						"	DIR to A3		"	"
		"	372		"	"				OUT					"	DIR to A4		"	"
			373								OUT	OUT				DIR to A5			
			374		"							001	OUT			DIR to A6		"	"
			376		"	"							001	OUT	"	DIR to A8		"	"
	t _{PZL3}	"	377		"	"	GND								"	DIR to B1		65	"
		"	378		"	"		GND							"	DIR to B2		"	"
			379						GND							DIR to B3			
			380			"				GND	GND					DIR to B4			
			382		"	"					UND	GND			"	DIR to B6		"	"
		"	383		"	"							GND		"	DIR to B7		"	"
		"	384		"	"								GND	"	DIR to B8		"	"
			385				OUT	0.117								DIR to A1		"	
			380					001	OUT							DIR to A2		"	
		"	388		"	"			001	OUT					"	DIR to A4		"	"
			389		"	"					OUT				"	DIR to A5		"	"
		"	390		"	"						OUT				DIR to A6	-	"	
			391										OUT	OUT		DIR to A7			
	touro		392		GND	45 V	45 V							001				40	
	4PHZ2		555		OND	4.5 V	4.5 V									G to B1		40	
		"	394		-	"		4.5 V								G to B2		"	"
		"	395			"			4.5 V							G to B3		"	"
		"	396		"	"				4.5 V					"	G to B4	"	"	"
		"	397		"	"					4.5 V				"	G to B5		"	"
		"	398		"	"						4.5 V			"	G to B6		"	"
		"	399		"	"							4.5 V		"	G to B7		"	"
		"	400		"	"								4.5 V	"	G to B8		"	"
		"	401		"	GND	OUT								"	G to A1	"	"	"
		"	402		"	"		OUT							"	G to A2		"	"
		"	403		"	"			OUT						"	G to A3		"	"
		"	404		"	"				OUT					"	G to A4		"	"
		"	405		"	"					OUT				"	G to A5		"	"
		"	406		"	"						OUT				G to A6	"	"	"
		"	407		"	"							OUT			G to A7	"	"	"
		"	408		"	"								OUT	"	G to A8		"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

Subgroup	Symbol	MIL-STD-					<u>.</u>	J				, -	, -						
	-	883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test L	imits.	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	Ğ	SEL BA	CLK BA	V _{CC}	terminal	Min	Max	
9	t _{PZH3}	3003	361								OUT	GND	GND		5.0 V	DIR to B1	2	50	ns
Tc = 25°C		(fig. 3)	362							OUT		"				DIR to B2	"	"	"
		"	363						OUT			"				DIR to B3		"	"
			364					OUT				"				DIR to B4			"
			365			OUT	OUT									DIR to B5			"
			366		OUT	001										DIR to B6			"
			307		001							"				DIR to B7			"
			369	001							45 V	"				DIR to A1		"	"
			370							4.5 V	4.0 ¥	"	"		"	DIR to A2		"	"
			371						4.5 V			"	"			DIR to A3	"	"	"
		"	372					4.5 V				"	"			DIR to A4	"	"	"
		"	373				4.5 V					-				DIR to A5	-	=	"
		"	374			4.5 V						"	"		"	DIR to A6		-	"
		"	375		4.5 V							"				DIR to A7		"	"
			376	4.5 V							0.UT					DIR to A8		"	"
	t _{PZL3}		377							OUT	001					DIR to B1		65	
			378						OUT	001						DIR to B2			"
			379					OUT	001			"				DIR to B4			"
			381				OUT	001				"	"			DIR to B5		"	"
			382			OUT	001					"	"			DIR to B6	"	"	"
			383		OUT							"				DIR to B7	"	"	"
		"	384	OUT								-	"			DIR to B8	"	-	"
		"	385								GND	-	"		"	DIR to A1	"	-	-
		"	386							GND		"	"		"	DIR to A2		-	"
			387						GND			"				DIR to A3		"	"
			388				01/15	GND								DIR to A4			
			389				GND									DIR to A5			
			390		CND	GND						"				DIR to A6			"
			391	GND	GND							"				DIR to A8		"	"
	touzo	"	393	OND							OUT	IN	"		"	-	"	40	"
	-FRZZ		394							OUT		"				G to B1			"
			305						OUT	001						G to B2		"	
			395					OUT	001							G to B3			
			390				OUT	001								G to B4			
			397				001									G to B5			
			398			001										G to B6			
		"	399		OUT							"				G to B7		"	"
		"	400	OUT								"				G to B8	"	"	"
		"	401								4.5 V					G to A1	"	"	
		"	402							4.5 V		"				G to A2	"	"	"
		"	403						4.5 V			"				G to A3	"	"	"
		"	404					4.5 V				"	"			G to A4	"	"	"
		"	405				4.5 V					"	"			G to A5	"	"	"
		"	406			4.5 V						"	"			G to A6	"	"	"
		"	407		4.5 V							"				G to A7	"	"	"
		"	408	4.5 V								"				G to A8	"	"	"
<u> </u>										•			•	•			•	•	

Subgroup	Symbol	MIL-STD-	a .			_		_		_		, -			10		T	,	
		883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	lest L	imits	Unit
0	tpi 72	3003	Lest no.	CLK AB	GND	DIR 4.5 V	A1 GND	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min 2	Max 40	ns
9	4PLZZ	(6 - 2)	440			-1.0 V	OND	CND								G to B1	-	-10	"
1c = 25°C		(fig. 3)	410					GND								G to B2			
		"	411		"				GND						"	G to B3	"	"	"
		"	412		"					GND					"	G to B4		"	"
		"	413		"						GND				"	G to B5		"	"
		"	414		"							GND						"	"
		"	415		"								GND			G 10 B0		"	"
			416		"								-	GND		G to B7		"	"
			447			CND	OUT							CINE		G to B8			
			417			GND	001									G to A1			
		"	418		"			OUT							"	\overline{G} to A2	"	"	"
		"	419		"				OUT						"	G to A3	"	"	"
		"	420		"					OUT					"	G to A4	"	"	"
		"	421		"						OUT				"	G to A5	"	"	"
		"	422		"							OUT			"			"	"
		"	423		"								OUT		"	G IO A6		"	"
			424											OUT		G to A7		"	"
			424											001		G to A8			
	t _{PHZ3}		425		GND "	IN "	4.5 V	4 5 \/								DIR to B1		35	
			420		"	"		4.3 V	45 V							DIR to B3			"
			428		"	"			4.0 V	45 V					"	DIR to B4		"	"
			429		"	"					4.5 V				"	DIR to B5		"	"
		"	430		"	"						4.5 V			"	DIR to B6		"	"
		"	431		"	"							4.5 V		"	DIR to B7		"	"
		"	432		"	"								4.5 V		DIR to B8		"	"
		"	433		"	"	OUT									DIR to A1		"	"
		"	434		"	"		OUT								DIR to A2		"	"
		"	435		"				OUT						"	DIR to A3		"	"
		"	436		"					OUT						DIR to A4		"	"
		"	437		"						OUT					DIR to A5		"	"
		"	438		"							OUT			"	DIR to A6	-	"	"
		"	439		"								OUT			DIR to A7		"	"
		"	440		"	"								OUT	"	DIR to A8		"	"
	tpi 73	"	441		"	"	GND									DIR to B1		"	"
	1 110	"	442		"	"		GND								DIR to B2		"	"
		"	443		"	"			GND							DIR to B3		"	"
		"	444		"	"				GND						DIR to B4		"	"
		"	445		"	"				-	GND					DIR to B5		"	"
			446		"	"						GND				DIR to B6		"	"
		"	447		"	"						ONE	GND			DIR to B7		"	"
			448		"	"							OND	GND		DIR to B8		"	"
			440		"									OND		DIR to A1		"	"
			450		"		001	OUT							"	DIR to A?		"	"
			150		"			001							"	DIR to A2		"	"
			401		"				001						"			"	"
			402		"			1		001									
			403 4F4		"						001				"	DIR to AS		"	"
			404		"							001			"			"	"
			400										001	OUT					
			400	L					I	I	I	I	I	001		DIK 10 AV			

TABLE III.	Group A inspection for device type 04.
Terminal conditions (pins not	t designated may be high ≥ 2.0 V: low ≤ 0.7 V; or open).

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

Subgroup	Symbol	MIL-STD-	Coss I	12	14	15	16	17	10	10	20	21	22	22	24	Maggurod	Teat I	imita	Linit
		method	Test no	B8	14 B7	B6	B5	17 R4	B3	19 B2	20 B1	-	SEL BA		Z4 Vaa	terminal	Min	Max	Unit
0		0000	100	80	ы	Bo	80	B	80	52		G		OERBA	•00 5 0 V	_		10	
9	t _{PL22}	3003	409								001	IN	GND		5.0 V	G to B1	2	40	ns
Tc = 25°C		(fig. 3)	410							OUT		"				G to B2		"	"
		"	411						OUT			"			"	G to B3		"	"
		"	412					OUT				"			"	G to B4		"	"
		"	413				OUT					"			"	G to B5		"	"
			414			OUT						"			"	G to B6		"	"
			415		OUT							"			"			"	"
			416	OUT								"				G to B7		"	"
			417	001							CND					G to B8		"	"
			417							0115	GND					G to A1			
			418							GND						G to A2			
		"	419						GND			"				G to A3		"	"
		"	420					GND				"			"	G to A4		"	"
		"	421				GND					"	"		"	G to A5		"	"
			422			GND						"			"	G to A6		"	"
			423		GND							"			"	G to A7		"	"
			424	GND								"			"			"	"
	touzo	"	425								OUT	GND			5 0 V	G to A8		35	"
	4PHZ3	"	426							OUT	001	"			"	DIR to B2		"	"
		"	427						OUT			"				DIR to B3			"
			428				0.117	OUT								DIR to B4			"
			429			OUT	001									DIR to B5			
			430		OUT	001						"			"	DIR to B7		"	"
			432	OUT	001							"			"	DIR to B8		"	"
		"	433								4.5 V	"				DIR to A1		"	"
		"	434							4.5 V		"			"	DIR to A2			"
		"	435						4.5 V			"			"	DIR to A3		"	"
			436					4.5 V				"				DIR to A4		"	"
			437			4.5.14	4.5 V					"				DIR to A5			"
			438		4 5 1/	4.5 V										DIR to A6			
			439	45 V	4.J V							"				DIR to A8		"	"
	to: 72	"	441	4.5 V							OUT	"			"	DIR to B1		"	"
	PLZ3		442							OUT	001	"			"	DIR to B2		"	"
		"	443						OUT			"	"		"	DIR to B3		"	"
		"	444					OUT				"	"		"	DIR to B4	"	"	"
		"	445				OUT					"				DIR to B5		"	"
			446			OUT						"			"	DIR to B6		"	"
			447		OUT							"			"	DIR to B7		"	"
			448	OUT								"			"	DIR to B8	"	"	"
		"	449								GND	"			"	DIR to A1			"
		"	450							GND		"				DIR to A2		"	"
		"	451						GND			"			"	DIR to A3		"	"
		"	452					GND				"				DIR to A4		"	"
		"	453				GND					"				DIR to A5		"	"
		"	454			GND						"			"	DIR to A6		"	"
			455		GND							"			"	DIR to A7		"	"
			456	GND		L										DIR to A8		"	

TABLE III. <u>Group A inspection for device type 04</u>. Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

Subgroup	Symbol	MIL-STD- 883	Case I	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test I	imits	Unit
						, DID						о 10	10						0
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
10	t _{PLH1}																2	39	ns
Tc = 125°C	t _{PHL1}																"	52	"
	t _{PLH2}																	30	"
	t _{PHL2}																-	33	
	t _{PLH3}		tests and terminal conditions as subgroup 9, except $T_0 = \pm 125^{\circ}C$.														"		
	t _{PHL3}		$ \begin{array}{c c} $														"		
	t _{PLH4}		tests and terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$.															72	-
	t _{PHL4}	Same tests	e tests and terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$. $\begin{pmatrix} " & 52 \\ ~ ? & 72 \\ ~ ~ 39 \\ ~ ~ 78 \\ ~ ~ ~ 78 \\ ~ ~ ~ ~ 78 \\ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ $															-	
	t _{PZH2}	Game tests a	e tests and terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$. $\begin{array}{c} & 72 \\ & 39 \\ & 78 \\ & 78 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ $															-	
	t _{PZL2}		The tests and terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$. The tests and terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$. The tests and terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$. The tests and terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$. The tests and terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$. The tests and terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$.															-	
	t _{PZH3}																	65	"
	t _{PZL3}																"	85	"
	t _{PHZ2}																-	52	-
	t _{PLZ2}																-	52	-
	t _{PHZ3}																-	46	-
	t _{PLZ3}																	46	"
11	Same test	s, terminal co	nditions, and	d limits as su	ubgroup 10,	except T	c = -55°C.												
$T_C = -55^{\circ}C$							-												

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high \ge 2.0 V; low \le 0.7 V; or open).

Subgroup	Symbol	MIL-STD- 883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test L	imits.	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	Ğ	SEL BA	CLK BA	V _{cc}	terminal	Min	Max	
10	t _{PLH1}																2	39	ns
Tc = 125°C	t _{PHL1}																-	52	"
	t _{PLH2}																-	30	"
	t _{PHL2}																	33	"
	t _{PLH3}																	59	"
	t _{PHL3}		a tests and terminal conditions as subgroup 9, except $T_{e} = \pm 125^{\circ}C$.															52	
	t _{PLH4}		e tests and terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$.															72	
	t _{PHL4}	Same tests a	e tests and terminal conditions as subgroup 9, except T_c = +125°C.															39	
	t _{PZH2}		te tests and terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$.															78	
	t _{PZL2}		ne tests and terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$.															91	
	t _{PZH3}																	65	
	t _{PZL3}																	85	
	t _{PHZ2}																	52	
	t _{PLZ2}																	52	
	t _{PHZ3}																	46	
<u> </u>	t _{PLZ3}	L																46	~
11 T _C = -55°C	Same test	s, terminal co	nditions, and	d limits as s	ubgroup 10,	except T _c	; = -55°C.												

1/ Tests shall be performed in sequence, attributes data only.

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 $\frac{5}{7}$ Prior to test, bus registers are loaded low by placing GND on bus data and applying one clock pulse ($\frac{2.5 \text{ V/5.5 V}}{0 \text{ V}}$ the bus is then placed at 4.5 V for the duration of the test.

2.5 V/5.5 V); ¯∟ ov

Subgroup	Symbol	MIL-STD- 883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	imits	Unit
		method	Test no	CLKAB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	•••••
1	V _{OH1}	3006	1	0.5 V	0.5 V	2.0 V	0.5 V	7.2	7.0		7.0	7.0	7.0		GND	B1	2.4	max	V
Tc = 25°C			2	"	"	"		0.5 V							"	B2	"		"
		"	3		"	"			0.5 V							B3			"
			4		"	"				0.5 V	0.51/					B4			
			5								0.5 V	0.5.1/				B5			
			0 7									0.5 V	0.5.V			B6 B7			
			8		"	"							0.5 V	0.5 V		B8			"
			9		"	0.5 V	-3 mA							0.0 1	"	A1			"
			10	"	"	"		-3 mA								A2			"
		"	11		"				-3 mA							A3			"
		"	12		"	"				-3 mA					"	A4			"
			13								-3 mA					A5			"
			14									-3 mA	2 m A			A6			
			15		"								-3 IIIA	-3 mA		A7 A8			"
	Vous	"	17	"	"	2.0 V	0.5 V							0111/1		B1	2.0		"
	0112		18	"	"	"		0.5 V								B2			"
		"	19	"	"	"			0.5 V						"	B3	"		"
		"	20		"	"				0.5 V						B4			"
			21		"	"					0.5 V				"	B5			"
			22									0.5 V	0.5.1/			B6			
			23		"	"							0.5 V	0.5.V		B8			"
			25		"	0.5 V	-12 mA							0.5 V		A1			"
		"	26	"	"	"		-12 mA							"	A2	"		"
			27	"	"				-12 mA						"	A3			"
		"	28		"					-12 mA						A4	-		"
		"	29		"	"					-12 mA				"	A5			"
			30									-12 mA	40			A6			"
			31										-12 mA	_12 m∆		A7			
	Voi	"	33		"	20V	20V							-12 11/4		R1		0.4	"
	♥ OL		34	"	"	"	2.0 V	2.0 V							"	B1 B2		"	"
			35		"	"			2.0 V						"	B3		"	"
		"	36		"	"				2.0 V						B4			"
		"	37		"	"					2.0 V				"	B5			"
			38									2.0 V	0.01/			B6			"
			39		"	"							2.0 V	2.0.1/		B/			"
			40		"	0.5 V	12 mA							2.0 V		<u>Во</u> А1		"	"
			42	"	"	"	121101	12 mA							"	A2		"	"
			43		"				12 mA						"	A3		"	"
		"	44		"					12 mA						A4			"
		"	45		"	"					12 mA				"	A5		"	"
			46									12 mA	40 4			A6			
			47		"								12 MA	12 m A		A7			"
	Vic	"	40	-18 mA										12 IIIA		CAB		-1.5	"
	•10		50	101101	-18 mA										"	SAB		"	"
		"	51			-18 mA									"	DIR		"	"
			52				-18 mA									A1		"	"
		"	53					-18 mA							"	A2		"	"
			54						-18 mA	10 .						A3			"
			55							-18 mA	10 m/					A4			
			57								- IO IIIA	-18 mΔ				GM AA		"	"
			58									- 10 11/4	-18 mA			A0 A7		"	"
		"	59											-18 mA	"	A8		"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

Subaroup	Symbol	MIL-STD-												i í I					
ousgroup	0,111001	883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test L	imits	Unit
		method	Test no	B8	B7	B6	B5	R4	B3	B2	B1	_	SEL BA	CLK BA	Vaa	terminal	Min	Max	
		method	rest no.	DO	07	DU	5	D4	55	02	ы	G	OLL DA	OLIVDA	v CC	terminar	IVIIII	IVIAA	
1	V _{OH1}	3006	1								-3 mA	0.5 V	0.5 V	0.5 V	4.5 V	B1	2.4		V
Tc = 25°C		"	2							-3 mA		"		"		B2			"
		"	3						-3 mA			"		"	"	B3			"
		"	4					-3 mA				"		"	"	B4			"
		"	5				-3 mA					"		"	"	B5			"
		"	6			-3 mA						"		"		B6	"		"
		"	7		-3 mA							"		"		B7	"		"
		"	8	-3 mA								"		"		B8	"		"
		"	9								0.5 V	"				A1			
			10							0.5 V						A2			
			11					0.5.1	0.5 V							A3			
			12				0.514	0.5 V								A4			
			13			0.5.1/	0.5 V									A5			
			14		0.5.1/	0.5 V										A6			
			15	0.5.1/	0.5 V							"				A7			
	V	"	10	0.5 V							-12 mA	"				A0 B1	2.0		"
	V OH2		17							-12 mA	-12 MA	"				B1 B2	2.0		"
			10						-12 mA	-12 IIIA		"				B2			
			20					_12 m∆	-12 IIIA			"				B4			
			20				-12 mA	-12 11/4				"		"		B5			"
			22			-12 mA	12 1103					"		"	"	B6			"
			23		-12 mA	12 11/1						"			"	B7			"
			24	-12 mA	12 110 1							"		"		B8			"
			25	12 110 1							0.5 V	"				A1			"
			26							0.5 V		"			"	A2			"
		"	27						0.5 V			"			"	A3			"
		"	28					0.5 V				"				A4			"
		"	29				0.5 V					"				A5			"
			30			0.5 V						"				A6	-		"
			31		0.5 V							"		"	"	A7			"
		"	32	0.5 V								"				A8			"
	V _{OL}	"	33								12 mA	"				B1		0.4	"
		"	34							12 mA		"				B2		"	"
		"	35						12 mA			"		"	"	B3		"	"
		"	36					12 mA				"		"		B4		"	"
		"	37				12 mA					"		"		B5		"	"
		"	38			12 mA						"		"		B6		"	"
		"	39		12 mA							"		"		B7		"	
			40	12 mA							0.01/					B8			
			41							0.0.1/	2.0 V					A1			
			42						2.0.1/	2.0 V						A2			
			43					2.0.1/	2.0 V							A3		"	
			44 4F				2.0.1/	2.0 V							"	A4		"	"
			40 46			201/	2.0 V									AG AG		"	
			40 17		2 0 V	2.U V										Δ7		"	"
			47	201/	2.0 V											48		"	"
	Via	"	40	2.0 V												CAB		-15	
	VIC		50											┝──┤		SAR		"	"
			51			-					-				"	DIR		"	"
			52												"	A1		"	"
			53													A2		"	"
			54												"	A3		"	"
		"	55												"	A4		"	"
		"	56												"	A5		"	"
			57												"	A6		"	"
		"	58												"	A7		"	"
			59												"	A8		"	"

See footnotes at end of device type 05.

Subaroup	Symbol	MIL-STD-		-			<u> </u>	J		J	_	, -	- , -	/					
Subgroup	Symbol	883	Case I	1	2	3	1	5	6	7	8	9	10	11	12	Measured	Test I	imite	Linit
		005	Case L		2	3	4	5	0	1	υ	9	10		12	Measureu	Test	1111113	Onit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	VIC		60												GND	B8		-1.5	V
Tc = 25°C			61													B7		"	"
			62													B6		"	"
			63													B5		"	"
			64													B/		"	"
			04													D4 D2			"
			65													B3			
			66													B2			
			67													B1			
			68													Ğ		"	"
			00													00.4			
			69													SBA			
			70													CBA			
	IIL I	3009	71	0.4 V												CAB	0	-200	μA
		"	72		0.4 V											SAB		"	"
		"	73			0.4 V										DIR		"	"
		"	74				0.4 V									A1		"	"
		"	75					0.4 V								A2	"	"	"
			76						04V							A3	"	"	"
		"	77						0.4 V	04V						A4		"	"
			79							0.4 V	0.4.V					A5		"	"
			70								0.4 V	0.4.1/				AG			"
			79									0.4 V	0.414			Ab			
			80										0.4 V			A7			
		"	81											0.4 V		A8		"	"
		"	82													B8		"	"
		"	83													B7		"	"
		"	84													B6	-	"	"
		"	85													B5		"	"
		"	86													B4	"	"	"
		"	87													B3		"	"
			99													B2		"	"
			80													B1		"	"
			09													-			"
			90													G			
		"	01													SBA		"	"
			02													CBA		"	"
		2010	92	071/												CDA		20	"
	IIH1	3010	93	2.7 V	071											CAB		20	
			94		2.7 V											SAB			
			95			2.7 V										DIR			"
		"	96				2.7 V									A1		"	"
		"	97					2.7 V								A2		"	"
		"	98						2.7 V							A3		"	"
		"	99							2.7 V						A4		"	"
		"	100								2.7 V					A5		"	"
		"	101									2.7 V				A6		"	"
		"	102										2.7 V			A7		"	"
		"	103											27V		48		"	"
			100											2.7 V		Re		"	"
			104													D0			"
			103													B/			
			106	-												D0			
			107													B5			
		"	108													B4		"	"
		"	109													B3		"	"
		"	110													B2		"	"
		"	111													B1		"	"
		"	112													Ē		"	"
																G			
		"	113													SBA		"	"
		"	114													CBA		"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

Subgroup	Symbol	MIL-STD- 883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test L	imits	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	G	SEL BA	CLK BA	V _{cc}	terminal	Min	Max	
1	VIC		60	-18 mA											GND	B8		-1.5	V
Tc = 25°C			61		-18 mA	40										B7			
			62			-18 MA	-18 mA									B6			
			64				-10 IIIA	-18 mA								B3		"	"
			65					101121	-18 mA						"	B3		"	"
			66							-18 mA					"	B2		"	"
			67								-18 mA				"	B1		"	"
			68									-18 mA				G		=	
			69										-18 mA		"	SBA		"	"
		0000	70											-18 mA		CBA	0	"	"
	IIL	3009	71													CAB	0	-200	μA "
			73												"	DIR		"	"
			74												"	A1		"	"
			75												"	A2		"	"
		"	76												"	A3		"	"
			77													A4		"	
			78													A5			
			80												"	A0 A7		"	"
			81												"	A8		"	"
			82	0.4 V												B8	=	-	"
			83		0.4 V										-	B7	=	-	"
			84			0.4 V	0.414									B6			
			85				0.4 V	0.4.V								B5 B4			
			87					0.4 V	0.4 V						"	B3		"	"
			88							0.4 V					"	B2		"	"
			89								0.4 V				"	B1		"	"
		"	90									0.4 V				G		"	"
			91										0.4 V		"	SBA	-	"	"
		"	92											0.4 V	"	CBA		"	"
	I _{IH1}	3010	93													CAB		20	
			94													DIR		"	"
			96												"	A1		"	"
			97												"	A2		"	"
		"	98												-	A3		-	"
			99													A4		"	"
			100													A5			"
			101												"	A0 A7		"	"
			103												"	A8		"	"
			104	2.7 V											-	B8		=	"
			105		2.7 V										"	B7		"	"
			106			2.7 V	271/		ļ		ļ					B6		"	"
			107				2.1 V	27 V								B0 B4		"	"
		"	109					2.1 V	2.7 V						"	B3		"	"
		"	110							2.7 V					"	<u>B</u> 2		"	"
		"	111								2.7 V					B1		"	"
		"	112									2.7 V			"	G		"	"
		"	113										2.7 V		"	SBA		"	"
		"	114					-						2.7 V		CBA		"	"

See footnotes at end of device type 05.

Subgroup	Symbol	MIL-STD-						- U				Ĺ	, í						
	-,	883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	imits	Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	I _{IH2}	3010	115	5.5 V	-										GND	CAB		100	μA
Tc = 25°C		"	116		5.5 V											SAB		"	"
		"	117			5.5 V									-	DIR		-	"
		"	118				5.5 V									A1			"
		"	119					5.5 V							-	A2		"	"
			120						5.5 V							A3		"	
			121							5.5 V	E E M					A4			
			122								5.5 V	EEV				A5			
			123									5.5 V	55V			Δ7		"	"
			125										5.5 V	55V		A8		"	"
			126											0.0 V	"	B8		"	"
		"	127												"	B7		"	"
		"	128													B6		"	"
		"	129												-	B5		"	"
		"	130												"	B4			"
		"	131													B3		"	"
			132													B2		"	
			133													B1			
			134													G			
		"	135													SBA		"	"
		"	136													CBA			"
	I _{OZL}		137				0.4 V								-	A1		-400	"
			138					0.4 V								A2		"	"
			139						0.4 V	0.414						A3			
			140							0.4 V	0.414					A4			
			141								0.4 V	0.4.1/				AS			
			142									0.4 V	0.4.V			A6 47			"
			143										0.4 V	04V		A8		"	"
			145											0	"	B8		"	"
			146												"	B7		"	"
			147													B6		"	"
			148												-	B5		"	"
			149												-	B4		"	"
			150													B3		"	
			151													B2			
	1		152				271/									Bi		20	
	IOZH		153				2.7 V	271/								Δ2		20	"
			155					2.1 V	27V							A3		"	"
			156						2.1 V	2.7 V						A4		"	"
			157								2.7 V					A5		"	"
			158									2.7 V				A6		"	"
			159										2.7 V			A7		"	"
			160											2.7 V		A8		"	"
			161												-	B8		"	"
			162												"	B7		"	"
			163													B6			
			164													B5			
			166													B4 B2		"	"
			167													B2		"	"
			168							1	İ					B1		"	"
								0											

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

Subgroup	Symbol	MIL-STD-					, i	Ŭ	, j					r í r					
0 1		883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test L	imits	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	Ğ	SEL BA	CLK BA	V _{cc}	terminal	Min	Max	
1	1142	3010	115												5.5 V	CAB		100	μА
Tc = 25°C		"	116													SAB		"	"
			117													DIR		"	"
		"	118												"	A1		"	"
		"	119													A2		"	"
		"	120													A3		"	"
		"	121													A4		"	"
		"	122													A5		"	"
		"	123													A6		"	
		"	124													A7		"	"
		"	125													A8		"	"
		"	126	5.5 V												B8		"	
		"	127		5.5 V											B7		"	"
		"	128			5.5 V										B6		"	"
		"	129				5.5 V									B5		"	"
		"	130					5.5 V								B4		"	"
			131						5.5 V							B3		"	"
			132							5.5 V						B2		"	
			133								5.5 V					B1		"	
			134									5.5 V				Ğ		"	"
		"	135										5.5 V			SBA		"	"
		"	136											5.5 V		CBA		"	"
	I _{OZL}		137									2.0 V				A1		-400	"
			138													A2			
			139													A3			
			140													A4			
			141									"				A5		"	
			142									"				Ab		"	
			143	-	-							"				A7		"	
			144	0.4.1/								"				Ro		"	"
			145	0.4 V	04V							"				B7		"	"
			140		0.4 V	0.4.V						"				B6		"	"
			148			0.4 V	04V					"				B5		"	"
			149				0.4 V	04V				"				B4		"	"
			150						0.4 V			"				B3		"	"
			151							0.4 V		"				B2		"	"
			152								0.4 V	"				B1		"	"
	I _{OZH}		153									"				A1		20	"
			154									"				A2		"	"
			155									"				A3		"	"
			156									=				A4		"	"
			157									-				A5		"	"
			158									"				A6		"	"
			159									"				A7		"	
			160									"				A8		"	"
			161	2.7 V						ļ	ļ	"				B8		"	"
			162		2.7 V							"				B7		"	"
			163			2.7 V	0.71									B6			"
			164				2.7 V	0.7.1		<u> </u>	<u> </u>	.,			-	B5			
			165					2.7 V	071/							B4			
			100						2.7 V	071						83			
			160							2.7 V	271/					BZ B1			
			168			l	I				2.7 V					BI			

See footnotes at end of device type 05.

				101		laitionio	(pino n	st debignu	ica may	be nigi	1 = 2.0	, 1010 _ 1	0.1 0,01	open).	-				-
Subgroup	Symbol	MIL-STD-																	
		883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	.imits	Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	los	3011	169	GND	GND	4.5 V	GND								GND	B1	-40	-225	mA
Tc = 25°C		"	170		"	"		GND							-	B2		"	-
			171		"	"		-	GND							B3	-	"	"
		"	172		"	"				GND						B4	-	"	"
			173		"						GND					B5		"	"
			174		"						0.15	GND				B6		"	"
			175									GILD	GND			B7		"	"
			176		"								OND	GND		B8		"	"
			177			GND	GND							OND		Δ1		"	"
			178			"	OND	GND								Δ2		"	"
			170					GND	GND							A2			"
			180						GND	GND						A3			
			100							GND	CND					A4 A5			"
			101								GND	CNID				AS			
			182									GND				A6			
			183										GND			AZ			
		0005	184			4514	OND	OND		OND		OND		GND		A8	-	4.45	
	ICCH	3005	185			4.5 V	GND	GND	GND	GND	GND	GND	GND	GND		V _{CC}		145	
	ICCL		186			4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V		V _{cc}		165	
	I _{CCZ}		187			4.5 V	GND	GND	GND	GND	GND	GND	GND	GND		V _{CC}		165	
2	Same tests	, terminal cor	nditions, and	l limits as su	bgroup 1, e	except T _C =	= +125°C a	ind omit V _{IC} to	ests.										
3	Same tests	, terminal cor	nditions, and	l limits as su	bgroup 1, e	except T _C =	-55°C an	d omit V _{IC} tes	ts.										
7	Truth		188	В	В	A	В	В	В	В	В	В	В	В	GND				
Tc = 25°C	table		189			A	A	A	A	A	A	A	A	A					
	tests		190	"	"	В	Н	Н	Н	Н	Н	Н	Н	Н					
	1/		191		"	В	L	L	L	L	L	L	L	L					
	_		192		A	Α	В	В	В	В	В	В	В	В	-				
			193	Α	"	"	В	В	В	В	В	В	В	В	-				
			194	В	"		А	A	Α	Α	Α	А	A	Α			<u>2</u> /, <u>3</u>	/	
			195	Α	"		А	А	А	А	А	А	А	А					
			196	В	В	В	L	L	L	L	L	L	L	L					
			197		"	"	н	Н	н	н	н	Н	н	н					
			198		"		н	н	н	н	н	н	н	н					
			199		"	"	1	1	1	1	1	1		1					
			200			"	-		-	-	-			-					
8	Same tests	and terminal	conditions	as subaroup	7 excent 7	. – ⊥125°	Cand T	55°C		-		-	<u> </u>						
0	tourie idolo	3003	201			Δ = T 120									GND	CAB to B1	n	30	nc
9	PLH1	(fig. 3)	201	11N "	4.5 V	4.5 V	IIN	IN							UND "	CAB to B2	2	30	115
		(iig. 3) "	202		"	"		IIN	IN							CAR to R2			"
			203		"	"			IIN	INI						CAR to R4			"
			204							IIN	INI					CAB to B4			
			205								IN	15.1				CAB to B5			
			206									IN	INI			CAB to B6			
			207	+ .									IN			CAB to B7			
			208				0.117							IN		CAB to B8			
			209	GND	GND	GND	001									CBA to A1			
			210		"			OUT								CBA to A2			"
			211		"				OUT							CBA to A3		"	"
		"	212		"					OUT						CBA to A4		"	"
		"	213		"	"					OUT				"	CBA to A5		"	"
		"	214		"							OUT				CBA to A6		"	"
		"	215		"								OUT			CBA to A7		"	"
		"	216		"	"								OUT		CBA to A8		"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

-		-		101			(pino n	or accigina	iou maj	, bo mg		, 1011 _	0.1 1, 01	00011).			r		
Subgroup	Symbol	MIL-STD-																	
		883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test I	_imits	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	Ğ	SEL BA	CLK BA	V _{CC}	terminal	Min	Max	
1	los	3011	169								GND	GND	GND	GND	5.5 V	B1	-40	-225	mA
$T_{C} = 25^{\circ}C$.00		170							GND		"	"	"		B2	"	"	"
10 - 20 0			171						GND			"				B3		"	"
			172					GND	OND			"				B0		"	"
			172				CND	GND								D4 D5		"	"
			173			CND	GND					"				D0 D6		"	"
			174		CNID	GND										D0		"	
			175	ONE	GND											B/			
			176	GND												88			
			177								GND					A1		"	
		"	178							GND						A2		"	
		"	179						GND			"	"	"		A3	"	"	"
		"	180					GND				"	"	"		A4		"	"
		"	181				GND					"				A5		"	"
		"	182			GND						"		"		A6		"	"
			183		GND							"	"	"		A7	"	"	"
			184	GND								"		"		A8	"	"	"
	Icc4	3005	185									"	"	"		Vcc		145	"
		"	186									"	"	"		Vcc		165	"
		"	187									45V		"		Vcc		165	"
2	Same tests	terminal cor	nditions and	limite as su	ibaroup 1 c	vcent T _e -	- ±125°C :	and omit V. a t	oete		1			1		•00	1		
3	Same tests	torminal cor	aditions, and	limite as su	bgroup 1, c	voont T	- FE°C on	d omit V to	0313.										
3	Same lesis	s, terminal cor	and the second	inniis as su	ibgroup 1, e	except T _C =	= -55°C an		515.	<u> </u>	<u> </u>	_ _		_	4514	1			
T (0500	Truth		188	н	н	н	н	н	н	н	н	В	В	В	4.5 V				
1c = 25°C	table		189	L	L	L	L	L	L	L	L								
	tests		190	В	В	В	В	В	В	В	В								
	<u>1</u> /		191	A	A	A	A	A	A	A	A	"		"					
			192	L	L	L	L	L	L	L	L	"	"	"					
			193	Н	Н	Н	Н	Н	Н	Н	Н	"	"	"			2/ 2	2/	
			194	Н	Н	Н	Н	Н	Н	Н	Н	"		"			<u> </u>	<u>-</u>	
			195	L	L	L	L	L	L	L	L	"		"					
			196	В	В	В	В	В	В	В	В	"	A	"					
			197	В	В	В	В	В	В	В	В	"		Α					
			198	А	A	A	A	A	A	Α	A	"	"	В					
			199		"	"		"	"	"	"	"		Α					
			200		"	"		"	"	"	"	"	"	В					
8	Same tests	and terminal	conditions a	as subgroup	7, except	Γ _C = +125°	C and To	= -55°C.	•	•	•	•	•	•					
9	t _{PI H1}	3003	201								OUT	GND	GND	GND	5.0 V	CAB to B1	2	30	ns
$T_{C} = 25^{\circ}C$		(fig. 3)	202	1				İ		OUT		"	"	"	"	CAB to B2		"	"
		(203						OUT			"		"		CAB to B3		"	"
			203						001			"		"		CAB to B4		"	"
			205	1			OUT	001				"	"	"		CAB to B5		"	"
			205	ł			001			+				"				"	"
			200		OUT	001													
			207	OUT	001		l		l	l									
			208	001							151		451/			CAB to B8			
			209	ł							IN		4.5 V	IN		CBA to A1			
			210		l	L				IN	L					CBA to A2			
1		"	211	l			L		IN	L						CBA to A3			"
		"	212	L				IN				"	"	"		CBA to A4		"	"
		"	213				IN					"	"	"		CBA to A5		"	"
		"	214			IN						"		"		CBA to A6		"	
		"	215		IN							"	"	"		CBA to A7	"	"	"
		"	216	IN								"	"	"		CBA to A8	"	"	"
-																			

See footnotes at end of device type 05.

Subaroup	Symbol	MIL-STD-					u -	<u> </u>	,		-	, -	- , -	-1 - 7					
Cubgroup	Cymbol	883	Case I	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test I	imits	Unit
		000	-		_		•	Ű	Ű		U	•	10			modourou			onit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t _{PHL1}	3003	217	IN	4.5 V	4.5 V	IN								GND	CAB to B1	2	45	ns
Tc = 25°C		(fig. 3)	218	-	-	"		IN								CAB to B2		"	"
		"	219		"	"			IN							CAB to B3		=	"
		"	220		"	"				IN						CAB to B4		"	"
		"	221		"	"					IN					CAB to B5		"	"
			222		"	"						IN				CAB to B6		"	"
			223		"	"							IN			CAB to B7		"	"
			224		"	"								IN		CAB to B8			"
			225	GND	GND	GND								111		CRA to A1		"	
			225	GND	GND	GND "	001									CBA to A2		"	
			220					001	OUT							CBA to A2			
			227						001	OUT						CBA to A3			
			228							001	OUT					CBA to A4			
			229								001					CBA to A5			
			230		"							OUT				CBA to A6		"	
			231		"								OUT			CBA to A7		"	"
		"	232		"									OUT		CBA to A8		"	"
	t _{PLH2}	"	233	-	-	4.5 V	IN									A1 to B1		23	"
		"	234			"		IN								A2 to B2		=	"
		"	235		"	"			IN							A3 to B3		"	"
		"	236	-	-	"				IN						A4 to B4		"	"
		"	237	-	-	"					IN					A5 to B5		"	"
			238		"	"						IN				A6 to B6		"	"
		"	239		"	"							IN			A7 to B7		"	"
			240		"	"								IN		A8 to B8		"	
			240		"	GND	OUT									R1 to A1		"	
			241		"	GND	001									DT to A2			"
			242					001	OUT							B2 to A2			
			243						001	OUT						B3 to A3			
			244							001	OUT					B4 to A4			
			245								001					B5 t0 A5			
			246		"							001				B6 to A6			
		"	247	-	-								OUT			B7 to A7		"	
		"	248		"	"								OUT	"	B8 to A8	"	"	"
	t _{PHL2}	"	249		"	4.5 V	IN									A1 to B1		30	
		"	250	-	-	"		IN								A2 to B2		"	"
		"	251		"	"			IN							A3 to B3		=	"
		"	252		"	"				IN						A4 to B4		=	"
		"	253		"	"					IN				"	A5 to B5		"	"
		"	254	-	-	"						IN				A6 to B6		"	"
		"	255		"	"							IN			A7 to B7	"	"	"
		"	256		"	"								IN		A8 to B8		"	"
		"	257		"	GND	OUT									B1 to A1		"	"
		"	258		"	"		OUT								B2 to A2	"	"	"
			250		"			001				-				B3 to A3		"	"
			200		"				001							B4 to A4		"	"
			200							001	OUT					DE to AE			
			201		"	,					001					DO IU AO		"	"
			262									001				B6 t0 A6			
			263						L				001	au :		B7 to A7			
		-	264	-	-									OUT		B8 to A8		"	"
	t _{PLH3}	"	265	<u>4</u> /	IN	4.5 V	<u>4</u> /									SAB to B1	"	60	"
		"	266		"			4/								SAB to B2		"	"
		"	267		"				4/							SAB to B3	"	"	"
		"	268		"	"				4/						SAB to B4		"	"
		"	269		"	"					4/					SAB to B5		"	"
		"	270	"	"	"						4/			"	SAB to B6		"	"
		"	271		"								4/			SAB to B7	"	"	"
		"	272		"				1					4/		SAB to B8	"	"	"
									I					<u> </u>					

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

Subaroup	Symbol	MIL-STD-		-			u -	J		5	_	, -	, -	-1 - /					
0 <u>9</u> p	-,	883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test L	imits.	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	G	SEL BA	CLK BA	V _{cc}	terminal	Min	Max	
9	toul 4	3003	217								OUT	GND	GND	GND	50V	CAB to B1	2	45	ns
Tc = 25°C	SENCI	(fig 3)	218							OUT		"	"	"	"	CAB to B2		"	"
10 - 20 0		(210						OUT					"		CAB to B3		"	"
			215					OUT	001					"		CAB to B4		"	"
			220					001						"		CAB to BE		"	"
			221				001							"		CAB to B6		"	"
			222		OUT	001								"		CAB to BO		"	"
			223	OUT	001											CAB to B/		"	
			224	001							INI		4514	151					
			225							INI	lin		4.5 V	IIN "		CBA to A1		"	"
			220						INI	lin						CBA to A2			
			227					15.1	IN							CBA to A3			
			228				INI	IN								CBA to A4			
			229			INI	IN									CBA to A5			
			230			IN										CBA to A6			
			231		IN											CBA to A/			
			232	IN							OUT					CBA to A8		"	
	t _{PLH2}		233								001		GND	GND		A1 to B1		23	
			234							001				"		A2 to B2			"
			235						OUT					"		A3 to B3		"	
			236					OUT						"	"	A4 to B4		"	"
			237				OUT							"	"	A5 to B5		"	"
		"	238			OUT						"		"	"	A6 to B6	"	"	"
		"	239		OUT									"		A7 to B7	"	"	"
		"	240	OUT								"		"		A8 to B8		"	"
		"	241								IN	"		"		B1 to A1		"	"
		"	242							IN		"		"	"	B2 to A2		"	"
		"	243						IN			"		"	"	B3 to A3		"	"
		"	244					IN				"		"		B4 to A4		"	"
		"	245				IN					"		"		B5 to A5		"	"
		"	246			IN								"		B6 to A6		"	"
		"	247		IN									"		B7 to A7		"	"
		"	248	IN								"		"		B8 to A8		"	"
	t _{PHL2}	-	249								OUT	"		"		A1 to B1		30	"
		"	250							OUT				"		A2 to B2	-	"	"
		"	251						OUT			"		"	-	A3 to B3	-	-	"
		"	252					OUT				"		"	-	A4 to B4		"	
		"	253				OUT					"		"	-	A5 to B5	-	"	-
		"	254			OUT						"	"	"	-	A6 to B6		"	"
		"	255		OUT							"		"	"	A7 to B7		"	"
		"	256	OUT								"		"	"	A8 to B8		"	"
		"	257								IN	"		"	"	B1 to A1	"	"	"
		"	258							IN		"		"	"	B2 to A2	"	"	"
		"	259						IN			"		"	"	B3 to A3	"	"	"
		"	260					IN				"		"	"	B4 to A4	"	"	"
		"	261				IN					"		"	"	B5 to A5	"	"	"
		"	262			IN						"		"		B6 to A6	"	"	"
		"	263		IN							"		"		B7 to A7		"	"
		"	264	IN								"	"	"	"	B8 to A8	"	"	"
	t _{PLH3}	"	265							1	OUT	"		"	"	SAB to B1	"	60	"
		"	266							OUT		"		"	"	SAB to B2		"	"
		"	267						OUT			"	"	"	"	SAB to B3	"	"	"
			268					OUT				"		"	"	SAB to B4	"	"	"
			269				OUT			1		"		"	"	SAB to B5		"	"
			270			OUT						"		"	"	SAB to B6	"	"	"
		"	271		OUT							"	"	"	"	SAB to B7	"	"	"
		"	272	OUT	001							"		"	"	SAB to B8		"	"
			212	001	I	l	l		I		I	I	I						

See footnotes at end of device type 05.

Subaroup	Symbol	MIL-STD-					u -	J			-	, -		-1 - 7					
		883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	imits	Unit
		no obb o d	Testas			DID	A 4	40	40	A 4	۸ <i>۲</i>	10	47	4.0	CNID	torminal	Min	Max	
0		method	Test no.		SEL AB	DIR	AI	AZ	A3	A4	A5	Ab	A/	A8	GND	terminal	IVIIN	Max	
9	T _{PLH3}	3003	273	GND	GND	GND	001	OUT							GND	SBA to A1	2	60	ns
Ic = 25°C		(fig. 3)	274					001								SBA to A2			
			275						OUT							SBA to A3		"	
			276							001						SBA to A4			
		"	277		"	"					OUT					SBA to A5	"	"	"
		"	278		"	"						OUT				SBA to A6	"	"	"
		"	279		"	"							OUT			SBA to A7		"	"
		"	280		"									OUT		SBA to A8		"	"
	t _{PHL3}	"	281	4/	IN	4.5 V	<u>4</u> /									SAB to B1		45	"
		"	282		"			<u>4/</u>								SAB to B2		"	
		"	283		"				4/							SAB to B3		"	
		"	284		"	"				<u>4</u> /						SAB to B4	-	"	"
		"	285		"	"					4/					SAB to B5	-	-	"
		"	286		"							4/				SAB to B6		=	"
		"	287		"								4/			SAB to B7		"	"
		"	288		"	"								4/		SAB to B8	"	"	"
		"	289	GND	GND	GND	OUT									SBA to A1		"	"
		"	290		"	"		OUT								SBA to A2		"	"
		"	291		"	"			OUT							SBA to A3		"	"
		"	292		"	"				OUT						SBA to A4	"	"	"
		"	293		"	"					OUT					SBA to A5	"	"	"
		"	294		"	"						OUT				SBA to A6		"	"
		"	295		"	"							OUT			SBA to A7	"	"	"
		"	296		"									OUT		SBA to A8		"	"
	tpi ни	"	297	5/	IN	4.5 V	5/									SAB to B1		"	"
	1 2114	"	298	-	"	"	<u>.</u>	5/								SAB to B2		"	"
		"	299		"				5/							SAB to B3		"	"
			300		"	"				5/						SAB to B4		"	"
		"	301		"					<u>.</u>	5/					SAB to B5		"	"
			302		"	"						5/				SAB to B6		"	"
			303		"	"						<u>.</u>	5/			SAB to B7		"	"
			304		"	"							<u>.</u>	5/		SAB to B8		"	
		"	305	GND	GND	GND	OUT							<u></u>		SBA to A1		"	"
		"	306	"	"	"	001	OUT								SBA to A2		"	"
		"	307		"	"		00.	OUT							SBA to A3		"	"
			308		"				001							SBA to A4		"	
			300		"					001	OUT					SBA to A5		"	
			310		"						001	OUIT				SBA to A6		"	
			311		"							001	OUT			SBA to A7		"	
			312		"								001	OUT		SBA to A8		"	
	t	"	313	5/	IN	45 V	5/							001		SAB to B1		"	
	PHL4		31/	"	"	4.5 V	<u> </u>	5/								SAB to B2		"	"
			314					2/	5/							SAB to B2		"	
			315		"	"			<u>J</u> /	5/						SAB to B4		"	
			317		"	"				5	5/					SAB to B5		"	
			210								5/	E/				SAB to BS		"	
			210									<u>J</u> /	E/			SAB to B7		"	
			319										<u>-</u>	E/		SAD to DI		"	
			320	GND	GND	GND	OUT							<u>)</u>		SAD IU D8		"	"
			321	UND "	UND "	UND "	001	OUT								SBA to A2		"	"
			322		"			001								SDA IU AZ		"	"
			323						001							SBA to A3			
			324							001	OUT					SBA to A4			
			325		"						001	OUT				SBA IU AS		"	"
			320									001				SBA TO AG			
			327						ļ				001			SBA to A7	-		
			328									l		001		SBA to A8		"	

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

Subaroup	Symbol	MIL-STD-		-			<u>u</u> -	<u> </u>		J		, -	- , -	/					
Oubgroup	Gymbol	883	Case I	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Tost I	imite	LInit
		method	Test no	B8	14 B7	B6	B5	B4	B3	13 B2	20 B1	-	SEL BA	CLK BA	V _{cc}	terminal	Min	Max	Offic
		0000	070	80		80	DU	DT	50	52		G		OER BA	•00 5 0 V			00	
9	t _{PLH3}	3003	273								<u>4</u> /	GND	IN	4/	5.0 V	SBA to A1	2	60	ns
Tc = 25°C		(fig. 3)	274							<u>4</u> /						SBA to A2		"	"
		"	275						4/			"		"	"	SBA to A3	-	"	"
		"	276					<u>4</u> /						"		SBA to A4		"	"
		"	277				4/							"	-	SBA to A5	-	"	"
		"	278			4/								"	"	SBA to A6		"	"
		"	279		4/							"		"		SBA to A7	-	"	"
		"	280	4/	-							-		"		SBA to A8		"	"
	tpul 3	"	281								OUT	-	GND	GND		SAB to B1		45	"
	4 HES	"	282							OUT		"		"		SAB to B2	-	"	"
			283						OUT					"		SAB to B3		"	"
			284						001					"		SAB to B4		"	"
			204					001								SAB to B5		"	"
			205				001							"		SAB to B6		"	"
			200			001										SAD to DO			"
			287	OUT	001											SAB to B7		"	
			288	001							4/		IN I			SAB to B8			
			289								4/		IN	4/		SBA to A1			
			290							4/						SBA to A2			
			291						4/					"		SBA to A3			"
		"	292					4/				-		"		SBA to A4		"	"
		"	293				4/					"		"		SBA to A5		"	"
		"	294			<u>4</u> /						"		"	"	SBA to A6	-	"	"
		"	295		<u>4</u> /									"		SBA to A7		"	"
		"	296	4/										"	-	SBA to A8	-	"	"
	t _{PLH4}	"	297								OUT		GND	GND	"	SAB to B1		"	"
		"	298							OUT		"		"	"	SAB to B2	-	"	"
		"	299						OUT			-		"		SAB to B3	-	"	"
		"	300					OUT				-		"		SAB to B4	-	"	"
		"	301				OUT					"		"	"	SAB to B5	"	"	"
		"	302			OUT						"		"		SAB to B6	-	"	"
			303		OUT							"		"		SAB to B7		"	"
			304	OUT	001							"		"		SAB to B8		"	"
			305	001							5/		INI	5/		SBA to A1		"	"
			305							E/	<u> </u>		"	<u>- 5/</u>		SBA to A2		"	"
			300						E/	<u> </u>				"		SDA to A2		"	"
			307					E/	<u>)</u>					"		SBA to A3		"	"
			308				F/	<u>)</u>						"		SBA to A4		"	
			309			- /	5/									SBA to A5			
		- -	310		- /	<u>5</u> /		1	L		L				-	SBA to A6			
			311	- /	<u>5</u> /											SBA to A7			
		"	312	<u>5</u> /										"	"	SBA to A8		"	"
	t _{PHL4}	"	313								OUT	"	GND	GND	"	SAB to B1		"	"
		"	314							OUT		"		"		SAB to B2		"	"
		"	315						OUT			"		"	"	SAB to B3			"
		"	316					OUT						"	-	SAB to B4	-	"	"
		"	317				OUT					"		"	"	SAB to B5	-	"	"
		"	318			OUT						"		"	"	SAB to B6	-	"	"
		"	319		OUT							"		"	"	SAB to B7	"	"	"
			320	OUT								"		"	"	SAB to B8		"	"
		"	321								5/	"	IN	5/	"	SBA to A1	"	"	"
		"	322							5/	<u> </u>	"		"		SBA to A?		"	"
			323						5/	<u> </u>		"		"	"	SBA to A3		"	"
			324					5/	5			"		"	"	SBA to A4		"	"
			324				E/	3/				"		"		SBA to AF		"	"
			323			E/	<u>u</u> /					"		"		SDA IU AS		"	"
			320		E/	<u>.</u>)/								"		SDA LU AD		"	"
			327	= /	<u>5</u> /	L			L		L					SBA to A/	-		
			328	<u>5</u> /			L									SBA to A8		"	

See footnotes at end of device type 05.

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Subgroup	Symbol	MIL-STD-					(pe	in accigina				,							
		883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	imits.	Unit
0	t	method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	nc
	^L PZH2	5005	323		GND	GND	001	0.117							GND	G to A1	2	33	115
Ic = 25°C		(fig. 3)	330					001								G to A2			
		"	331		"				OUT							G to A3		"	"
		"	332		"	"				OUT						G to A4	"	"	"
		"	333		"						OUT					G to A5		"	"
		"	334		"	"						OUT				G to A6	"	"	"
		"	335		"								OUT			G to A7		"	"
		"	336		"	"								OUT	"	G to A8	"	"	"
		"	337		"	4.5 V	GND									G to B1	"	"	"
		"	338		"			GND								G to B2		"	"
		"	339		"				GND							G to B3		"	"
		"	340		"	"				GND						G to B4	"	"	"
		"	341		"						GND				"	G to B5		"	"
		"	342		"	"						GND				G to B6	"	"	"
		"	343		"	"							GND			G to B7	"	"	"
		"	344		"	"								GND		G to B8	"	"	"
	t _{PZL2}	"	345		"	GND	OUT									G to A1	"	60	"
		"	346		"	"		OUT								G to A2	"	"	"
		"	347		"	"			OUT						"	G to A3	"	"	"
		"	348		"					OUT					"	G to A4		"	"
		"	349		"	"					OUT					G to A5	"	"	"
		"	350		"	"						OUT			"	G to A6	"	"	"
		"	351		"	"							OUT			G to A7	"	"	"
		"	352		"	"								OUT	-	G to A8	"	"	"
		"	353		"	4.5 V	4.5 V									G to B1	"	"	"
		"	354		"	"		4.5 V							-	G to B2	"	"	"
		"	355		"	"			4.5 V						-	G to B3	"	"	"
		"	356		"	"				4.5 V					"	G to B4	"	"	"
		"	357		"	"					4.5 V					G to B5	"	"	"
		"	358		"	"						4.5 V				G to B6	"	"	"
		"	359		"	"							4.5 V			G to B7	"	"	"
		"	360		"	"								4.5 V		G to B8	"	"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

Subgroup	Symbol	MIL-STD- 883	Case I	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test I	imits	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1		SEL BA	CLK BA	V _{cc}	terminal	Min	Max	01iii
9	t _{PZH2}	3003	329								GND	IN	GND		5.0 V	G to A1	2	55	ns
Tc = 25°C		(fig. 3)	330							GND		"				G to A2	"	"	"
		"	331						GND			"				G to A3	"	"	"
		"	332					GND				"				G to A4	"	"	"
		"	333				GND					"				G to A5	"	"	"
		"	334			GND						"				G to A6	"	"	"
		"	335		GND											G to A7	"	"	"
		"	336	GND												G to A8	"	"	"
		"	337								OUT					G to B1	"	"	"
		"	338							OUT		"				G to B2	"	"	"
		"	339						OUT			"				G to B3	"	"	"
		"	340					OUT				=				G to B4	"	"	"
		"	341				OUT					=				G to B5		-	"
		"	342			OUT						=				G to B6		"	"
		"	343		OUT											G to B7		"	"
		"	344	OUT												G to B8	"	"	"
	t _{PZL2}	"	345								4.5 V					G to A1		60	"
		"	346							4.5 V						\overline{G} to A2		"	"
		"	347						4.5 V							G to A3		"	"
		"	348					4.5 V								G to A4		"	"
		"	349				4.5 V									G to A5		"	"
		"	350			4.5 V										G to A6		"	"
		"	351		4.5 V											G to A7	"	"	"
		"	352	4.5 V												G to A8		"	"
		"	353								OUT					G to B1		"	"
		"	354							OUT						G to B2	"	"	"
		"	355						OUT							G to B3		"	"
		"	356					OUT								G to B4		"	"
		"	357				OUT					"				G to B5	"	"	"
		"	358			OUT						"				G to B6	"	"	"
		"	359		OUT							"				G to B7	"	"	"
		"	360	OUT								-				G to B8		"	

See footnotes at end of device type 05.

Subgroup	Symbol	MIL-STD-					(J-11-0-11-0					,							
•		883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	imits	Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t _{PZH3}	3003	361		GND	IN	GND								GND	DIR to B1	2	45	ns
Tc = 25°C		(fig. 3)	362		"	"		GND								DIR to B2	-	"	"
			363						GND	OND						DIR to B3			
			364			"				GND	CND					DIR to B4			
			366		"	"					GND	GND			"	DIR to B6		"	"
			367		"	"						OND	GND		"	DIR to B7		"	"
		"	368		"	"								GND	"	DIR to B8	"	"	"
		"	369		"	"	OUT								"	DIR to A1		"	"
		"	370		"	"		OUT							"	DIR to A2		"	"
			371		"				OUT	OUT						DIR to A3		"	"
			372		"					001	OUT					DIR to A4		"	"
			373		"						001	OUT				DIR to A6		"	"
		"	375		"							001	OUT		"	DIR to A7		"	"
		"	376		"									OUT	"	DIR to A8		"	"
	t _{PZL3}	"	377		"	"	4.5 V								"	DIR to B1		50	"
			378		"	"		4.5 V							"	DIR to B2		"	"
			379						4.5 V	4514						DIR to B3			
			380			"				4.5 V	4 E V					DIR to B4			
			382		"	"					4.3 V	45V			"	DIR to B6		"	"
		"	383		"	"						4.0 V	4.5 V		"	DIR to B7		"	"
		"	384		"	"							-	4.5 V	"	DIR to B8		"	"
		"	385		"		OUT								"	DIR to A1		"	"
			386		"			OUT								DIR to A2		"	"
			387						OUT	OUT						DIR to A3			
			388							001	OUT					DIR to A4		"	
			390		"						001	OUT			"	DIR to A6		"	"
		"	391		"								OUT		"	DIR to A7		"	"
		"	392		"	"								OUT	"	DIR to A8	-	"	"
	t _{PHZ2}	"	393		GND	4.5 V	GND								"	G to B1	"	"	"
		"	394		"	"		GND							"	G to B2	-	"	"
		"	395		"	"			GND						"	G to B3	-	"	"
		"	396		"	"				GND						G to B4	-	"	"
		"	397		"						GND				"	G to B5	"	"	"
			398		"	"						GND				G to B6	-	"	"
			399		"	"							GND			G to B7	"	"	"
			400		"									GND		G to B8	"	"	"
			401		"	GND	OUT									G to A1	-	"	"
		"	402		"	"		OUT							"	G to A2	"	"	"
		"	403		"	"			OUT						"	G to A3	"	"	"
			404		"	"				OUT						G to A4	-	"	"
		"	405		"	"					OUT				"	G to A5	"	"	"
		"	406		"	"						OUT	a		"	G to A6		"	"
		"	407		"	"							OUT		"	G to A7	"	"	"
		"	408		"	"								OUT		G to A8	"	"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

Subaroup	Symbol	MIL-STD-						0				<i>.</i>	, , -	-1 - /					
5.05	-,	883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test L	imits.	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	G	SEL BA	CLK BA	V _{cc}	terminal	Min	Max	
9	tozua	3003	361								OUT	GND	GND		5.0 V	DIR to B1	2	45	ns
Tc = 25°C	4 2113	(fig. 3)	362							OUT		"			"	DIR to B2		"	"
		"	363						OUT			"				DIR to B3		"	"
			364					OUT				"				DIR to B4		"	"
			365				OUT					"				DIR to B5		"	"
		"	366			OUT						"				DIR to B6	"	"	"
			367		OUT											DIR to B7	-		"
			368	OUT								"				DIR to B8	"	"	"
			369								GND	"				DIR to A1	"	"	"
		"	370							GND		=	=			DIR to A2	=	=	"
		"	371						GND			"				DIR to A3		"	"
		"	372					GND				-				DIR to A4	-	-	"
			373				GND					"				DIR to A5	"	"	"
			374			GND						"				DIR to A6		"	"
			375		GND											DIR to A7		"	"
			376	GND							OUT					DIR to A8			
	t _{PZL3}		377							OUT	001					DIR to B1		50	"
			378						OUT	001		"				DIR to B2		"	"
			379					OUT	001			"				DIR to B4		"	"
			381				OUT	001				"				DIR to B5		"	"
			382			OUT	001					"				DIR to B6	"	"	"
			383		OUT	001						"				DIR to B7		"	"
			384	OUT	001							"				DIR to B8	"	"	"
		"	385								4.5 V	"			"	DIR to A1	"	"	"
		"	386							4.5 V		"	"		"	DIR to A2	"	"	"
		"	387						4.5 V			"	"		"	DIR to A3	"	"	"
		"	388					4.5 V				"	-		"	DIR to A4		"	"
		"	389				4.5 V					-	=			DIR to A5	-	-	"
		"	390			4.5 V							-			DIR to A6		-	"
		"	391		4.5 V							-	-		"	DIR to A7	-	-	"
		"	392	4.5 V								"				DIR to A8	"	"	"
	t _{PHZ2}		393								001	IN				G to B1			
			394							001						G to B2			
			395					OUT	001							G to B3			
			396				OUT	001								G to B4			
			397			OUT	001					"				G to B5		"	
		"	399		OUT	001						"			"	G to B6		"	"
		"	400	OUT	001							"				G to B7			"
			401								GND	"	"			G to B8	"	"	"
		"	402							GND		"				G to A1		"	"
			403						GND			"						"	"
		"	404					GND				"	"		"	G to A4	"	"	"
		"	405				GND					"	"		"	G to A5	"	"	"
		"	406			GND						"	"		"	G to A6	"	"	"
		"	407		GND							"	"		"	G to A7		"	"
		"	408	GND								"	"		"	\overline{G} to A8	"	"	"

Subaroup	Symbol	MIL-STD-					(J-11-0-11-												
	-,	883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	imits.	Unit
		method	Test no	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t _{PLZ2}	3003	409	OLI (718	GND	4.5 V	4.5 V		7.0		7.0	7.6	7.0	7.0	GND	G to B1	2	40	ns
Tc = 25°C		(fig. 3)	410		"	"		4.5 V							"	G to B2	"	"	"
		"	411		"	"			4.5 V							G to B3	"	"	
			412		"	"				4.5 V						G to B4		"	
		"	413		"	"					4.5 V				"	G to B5	"	"	"
		"	414		"	"						4.5 V				G to B6	"	"	"
		"	415		"	"							4.5 V			G to B7	-	"	
		"	416		"	"								4.5 V		G to B8	-	"	
		"	417		"	GND	OUT									G to A1		"	"
		"	418		"	"		OUT							"	G to A2	"	"	"
		"	419		"				OUT							G to A3	-	"	
		"	420		"	-				OUT					-	G to A4	=	-	=
		"	421		"						OUT					G to A5	-	"	"
		"	422		"	"						OUT				\overline{G} to A6	-	"	
		"	423		"								OUT			G to A7	=	"	
			424		"									OUT		G to A8	-	"	"
	t _{PHZ3}		425		GND	IN	GND								GND	DIR to B1		"	"
			426		"	"		GND								DIR to B2		"	"
			427						GND	CNID						DIR to B3			
			428		"	"				GND	GND					DIR to B5		"	"
			430		"	"					OND	GND				DIR to B6		"	"
		"	431		"	"						0.15	GND			DIR to B7		"	"
		"	432		"	"								GND		DIR to B8		"	"
		"	433		"	"	OUT									DIR to A1	"	"	"
		"	434		"			OUT								DIR to A2		"	"
		"	435		"	"			OUT							DIR to A3		"	"
		"	436		"					OUT						DIR to A4		"	
			437								OUT					DIR to A5		"	"
			438									001	OUT			DIR to A6			
			439		"								001	OUT		DIR to A7		"	"
	tou no	"	440		"	"	45V							001		DIR to R1		35	"
	UPLZ3		441		"	"	4.J V	45 V								DIR to B2		- 35	"
			443		"	"		4.5 V	45 V							DIR to B3		"	"
		"	444		"	"			4.0 V	4.5 V						DIR to B4	"	"	"
		"	445		"	"				-	4.5 V					DIR to B5		"	"
		"	446		"	"						4.5 V				DIR to B6		"	"
		"	447		"	"							4.5 V			DIR to B7	"	"	"
		"	448		"	"								4.5 V		DIR to B8		"	"
		"	449		"		OUT									DIR to A1		"	"
			450		"	"		OUT							"	DIR to A2		"	"
			451						OUT							DIR to A3		"	"
			452		"					OUT						DIR to A4		"	"
			453						<u> </u>		OUT		L	<u> </u>		DIR to A5			"
			454						<u> </u>		<u> </u>	001	OUT	<u> </u>		DIR to A6			.,
			455										001						
			456											001		DIR to A8			

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

Subgroup	Symbol	MIL-STD-					<u>u</u> -	<u> </u>		J		, -							
		883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test L	imits.	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	G	SEL BA	CLK BA	V _{cc}	terminal	Min	Max	
9	t _{PL22}	3003	409								OUT	IN	GND		5.0 V	G to B1	2	40	ns
Tc = 25°C		(fig. 3)	410							OUT		"	"		"	G to B2		"	"
		"	411						OUT			"	"		"	G to B3		"	"
		"	412					OUT				"	"		"			"	"
		"	413				OUT					"	"					"	"
			414			OUT										G 10 BS	"	"	"
			415		OUT							"				G to B6		"	"
			416	OUT	001								"			G to B7		"	
			410	001							4.5.14					G to B8			
			417								4.5 V					G to A1			
		"	418							4.5 V			"			G to A2	-	"	"
		"	419						4.5 V			"	"			G to A3		"	"
		"	420					4.5 V				"	"			G to A4		"	"
		"	421				4.5 V					"	"		"	G to A5		"	"
		"	422			4.5 V						"	"		"	G to A6		"	"
		"	423		4.5 V							"	"		"	G to A7	"	"	"
		"	424	4.5 V								"	"		"			"	"
	t _{PHZ3}	"	425								OUT	GND	"		5.0 V	DIR to B1		"	"
		"	426							OUT			"		"	DIR to B2		"	"
			427					OUT	OUT							DIR to B3			
			428				OUT	001								DIR to B4			
			429			OUT	001								"	DIR to B6		"	"
			431		OUT	00.							"		"	DIR to B7	"	"	"
			432	OUT								-	"		"	DIR to B8	-	"	"
		"	433								GND	"				DIR to A1		"	"
			434							GND						DIR to A2		"	"
			435					0115	GND							DIR to A3			
			436				CNID	GND								DIR to A4			
			437			GND	GIND					"			"	DIR to A6		"	"
			439		GND	0110						"			"	DIR to A7		"	"
			440	GND	0.15							"			"	DIR to A8		"	"
	t _{PLZ3}	"	441	-							OUT	"	"			DIR to B1	"	35	"
		"	442							OUT		"			"	DIR to B2	"	"	"
		"	443						OUT			"			"	DIR to B3		"	"
		"	444					OUT				-			"	DIR to B4	-	"	"
			445				OUT									DIR to B5		"	"
			446		OUT	001										DIR to B6			
			447	OUT	001											DIR to B7			
			448	001							4.5 V					DIR to B8			"
			450							4.5 V		"			"	DIR to A2		"	"
			451						4.5 V	-			"		"	DIR to A3	"	"	"
		"	452					4.5 V				"			"	DIR to A4		"	"
		"	453				4.5 V					"				DIR to A5		"	"
			454			4.5 V									"	DIR to A6		"	"
			455	4514	4.5 V											DIR to A7			
		· · · · · · · · · · · · · · · · · · ·	456	4.5 V						I						DIR to A8			

TABLE III. <u>Group A inspection for device type 05</u>. Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

Subgroup	Symbol	MIL-STD- 883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test L	imits	Unit
		mothod	Toot no				Δ.1	42	-	A.4	- ^E	16	10	۸ o	CND	torminal	Min	Mox	•
10		method	Test no.	OLK AD	SEL AD	DIK	AI	AZ	AS	A4	AS	AO	Ar	Ao	GND	terminai	IVIIII	IVIAX	
10	TPLH1																2	39	ns
Tc = 125°C	t _{PHL1}																	59	
	t _{PLH2}																	30	"
	t _{PHL2}																-	39	"
	t _{PLH3}																-	78	"
	t _{PHL3}																	59	"
	t _{PLH4}																	59	"
	t _{PHI 4}	Como tooto o		d terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$.															
	t _{PZH2}	Same lesis a	sts and terminal conditions as subgroup 9, except $T_c = +125^{\circ}C$. $\begin{array}{c c} $																
	tP71.2																"	78	"
	t _{PZH3}																"	59	"
	t _{PZL3}																	65	"
	t _{PHZ2}																	65	"
	t _{PLZ2}																	52	"
	t _{PHZ3}																"	52	"
	t _{PLZ3}																-	46	"
11	Same test	s, terminal co	nditions, and	d limits as su	ubgroup 10,	except T	= -55°C.												
$T_C = -55^{\circ}C$							-												

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high \ge 2.0 V; low \le 0.7 V; or open).

Subgroup	Symbol	MIL-STD- 883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test L	imits	Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	Ğ	SEL BA	CLK BA	V _{cc}	terminal	Min	Max	
10	t _{PLH1}																2	39	ns
Tc = 125°C	t _{PHL1}																	59	"
	t _{PLH2}																	30	"
	t _{PHL2}																	39	"
	t _{PLH3}																	78	"
	t _{PHL3}																	59	
	t _{PLH4}																	59	
	t _{PHL4}	Same tests a	and terminal	conditions a	as subgrou	o 9, except	$t T_{\rm C} = +12$	5°C.										59	
	t _{PZH2}					•												72	
	t _{PZL2}																	78	
	t _{PZH3}																	59	
	L _{PZL3}																	00	
	L _{PHZ2}																	60 50	
	L _{PLZ2}																	52	"
	PHZ3																	32	"
44	PLZ3	I																40	1
$T_c = -55^{\circ}C$	Same test	s, terminal co	nditions, and	d limits as si	ubgroup 10	, except I (_c = -55°C.												

2.5 V/5.5 V);

1/ Tests shall be performed in sequence, attributes data only.

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<u>2</u>/ H > 1.5 V; L < 1.5 V.
 <u>3</u>/ A = 3.0 V minimum; B = 0.0 V or GND.
 <u>4</u>/ Prior to test, bus registers are loaded high by placing 4.5 V on bus data and applying one clock pulse (______ 0 V the bus is then placed at GND for the duration of the test.

5/ Prior to test, bus registers are loaded low by placing GND on bus data and applying one clock pulse (2.5 V/5.5 V); the bus is then placed at 4.5 V for the duration of the test the bus is then placed at 4.5 V for the duration of the test.

5. PACKAGING

5.1 <u>Packaging requirements.</u> For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Service or Defense Agency, or within the military service's system command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature which may be helpful, but is not mandatory.)

6.1 <u>Intended use.</u> Microcircuits conforming to this specification are intended for original equipment design applications and logistic support of existing equipment.

- 6.2 <u>Acquisition requirements.</u> Acquisition documents should specify the following:
 - a. Title, number, and date of the specification.
 - b. PIN and compliance identifier, if applicable (see 1.2).
 - c. Requirements for delivery of one copy of the conformance inspection data pertinent to the device inspection lot to be supplied with each shipment by the device manufacturer, if applicable.
 - d. Requirements for certificate of compliance, if applicable.
 - e. Requirements for notification of change of product or process to contracting activity in addition to notification to the qualifying activity, if applicable.
 - f. Requirements for failure analysis (including required test condition of method 5003 of MIL-STD-883), corrective action, and reporting of results, if applicable.
 - g. Requirements for product assurance options.
 - h. Requirements for special carriers, lead lengths, or lead forming, if applicable. These requirements should not affect the part number. Unless otherwise specified, these requirements will not apply to direct purchase by or direct shipment to the Government.
 - i. Requirements for "JAN" marking.
 - j. Packaging requirements (see 5.1).

6.3 <u>Superseding information</u>. The requirements of MIL-M-38510 have been superseded to take advantage of the available Qualified Manufacturer Listing (QML) system provided by MIL-PRF-38535. Previous references to MIL-M-38510 in this document have been replaced by appropriate references to MIL-PRF-38535. All technical requirements now consist of this specification and MIL-PRF-38535. The MIL-M-38510 specification sheet number and PIN have been retained to avoid adversely impacting existing government logistics systems and contractor's parts lists.

6.4 <u>Qualification</u>. With respect to products requiring qualification, awards will be made only for products which are, at the time of award of contract, qualified for inclusion in Qualified Manufacturers List QML-38535 whether or not such products have actually been so listed by that date. The attention of the contractors is called to these requirements, and manufacturers are urged to arrange to have the products that they propose to offer to the Federal Government tested for qualification in order that they may be eligible to be awarded contracts or purchase orders for the products covered by this specification. Information pertaining to qualification of products may be obtained from DSCC-VQ, 3990 E. Broad Street, Columbus, Ohio 43123-1199.

6.5 <u>Abbreviations, symbols, and definitions.</u> The abbreviations, symbols, and definitions used herein are defined in MIL-PRF-38535, MIL-HDBK-1331, and as follows:

GND V _{IN} I _{IN} I _{PHZ}	Ground zero voltage potential. Voltage level at an input terminal. Current flowing into an input terminal. Output disable time (of a three state output) from high level. The time between the specified reference points on the input and output voltage waveforms with the three state output changing from the defined high level to a high impedance (off) state.
IPLZ	Output disable time (of a three state output) from low level. The time between the specified reference points on the input and output voltage waveforms with the three state output changing from the defined low level to a high impedance (off) state.
lpzн	Output enable time (of a three state output) to high level. The time between the specified reference points on the input and output voltage waveforms with the three state output changing from a high impedance (off) state to the defined high level.
tpzL	Output enable time (of a three state output) to low level. The time between the specified reference points on the input and output voltage waveforms with the three state output changing from a high impedance (off) state to the defined low level.

6.6 <u>Logistic support.</u> Lead materials and finishes (see 3.4) are interchangeable. Unless otherwise specified, microcircuits acquired for Government logistic support will be acquired to device class B (see 1.2.2), lead material and finish A (see 3.4). Longer length leads and lead forming should not affect the part number.

6.7 <u>Substitutability.</u> 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 should 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-PRF-38535.

Military device	Generic-industry
type	type
01	54LS242
02	54LS243
03	54LS245
04	54LS646
05	54LS648

6.8 <u>Manufacturers' designation</u>. Manufacturers' circuits, which form a part of this specification, are designated with an "X" as shown in table IV herein.

			Circuits		
	А	В	С	D	Е
Device	Texas	Signetics Corp.	National	Raytheon Co.	Motorola Inc.
types	Instruments		Semiconductor		
01	Х	Х	Х	Х	Х
02	Х	Х	Х	Х	Х
03	Х	Х			Х
04	Х				
05	х				

TABLE IV. Manufacturer's designator.

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

CONCLUDING MATERIAL

Custodians: Army - CR Navy - EC Air Force - 11 DLA - CC Preparing activity: DLA - CC

(Project 5962-1997)

Review activities: Army - MI, SM Navy - AS, CG, MC, SH, TD Air Force - 03, 19, 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <u>www.dodssp.daps.mil</u>.