NOTICE OF REVISION (NOR)

(See MIL-STD-480 for instructions)
This revision described below has been authorized for the document listed.

DATE (YYMMDD)	Form Approved OMB No. 0704-0188
91-11-26	

Public reporting burden for this collection is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

1. ORIGINATOR NAME AND ADDRESS	2. CAGE CODE	3. NOR NO.
Defense Electronics Supply Center Dayton, Ohio 45444-5277	67268	5962-R038-92
	4. CAGE CODE	**5. DOCUMENT NO.**
	67268	**5962-87001**

6. TITLE OF DOCUMENT	7. REVISION LETTER	
MICROCIRCUIT, DIGITAL, ECL, UNIVERSAL COUNTER, MONOLITHIC SILICON	A (Current)	B (New)
	8. ECP NO.	
	N/A	

9. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES

All

10. DESCRIPTION OF REVISION

Sheet 1: Revisions ltr column; add "B"
Revisions description column; add "Changes in accordance with NOR 5962-R038-92".
Revisions date column; add "91-11-26".

Sheet 4: Table I; Subgroup 2; Change I_{IH} max limits from "240 µA" to "380 µA" for Carry in, from "275 µA" to "430 µA" for D_0, D_1, D_2, D_3, and Clock, from "335 µA" to "535 µA" for S_2, and from "420 µA" to "670 µA" for S_1.

Sheets 5 and 6: Table I; Subgroup 2; Change I_{IH} max limits from "225 µA" to "365 µA" for Carry in, from "260 µA" to "415 µA" for D_0, D_1, D_2, D_3, and Clock, from "320 µA" to "520 µA" for S_2, and from "405 µA" to "655 µA" for S_1.

Sheet 8: Table I; Footnote 2/; Change the formulas from "$I_{OH} = (V_{OH} - 2\ V)/100\Omega$ and $I_{OL} = (V_{OL} - 2\ V)/100\Omega$" to "$I_{OH} = (-2\ V - V_{OH})/100\Omega$ and $I_{OL} = (-2\ V - V_{OL})/100\Omega$".

Footnote 3/; Delete "and I_{IL}".

Sheet 12: Figure 4; Change V_{EE} from "-3.2 V" to "-2.94 V".

11. THIS SECTION FOR GOVERNMENT USE ONLY

a. CHECK ONE

[X] EXISTING DOCUMENT SUPPLEMENTED BY THIS NOR MAY BE USED IN MANUFACTURE.

[ ] REVISED DOCUMENT MUST BE RECEIVED BEFORE MANUFACTURER MAY INCORPORATE THIS CHANGE.

[ ] CUSTODIAN OF MASTER DOCUMENT SHALL MAKE ABOVE REVISION AND FURNISH REVISED DOCUMENT TO:

b. ACTIVITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT	SIGNATURE AND TITLE	DATE (YYMMDD)
DESC-ECC	Monica L. Poelking Chief, Custom Microelectronics	91-11-26
12. ACTIVITY ACCOMPLISHING REVISION	REVISION COMPLETED (Signature)	DATE (YYMMDD)
DESC-ECC	Thanh V. Nguyen	91-11-26

REVISIONS			
LTR	DESCRIPTION	DATE (YR-MO-DA)	APPROVED
A	Add case outline 2, and data that applies. Add figure 4. Add footnote 2/ to table I. Change t_{H3} and testing conditions for ac parameters. Change terminal connections. Add VSPN for case outline 2. Editorial changes throughout. Add subgroup 8 to table II. Technical changes to table I and 1.4. Add 3/ to table I.	89 FEB 24	M. A. Frye

REV																			
SHEET																			
REV																			
SHEET																			

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

PMIC N/A

STANDARDIZED MILITARY DRAWING

THIS DRAWING IS AVAILABLE FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE

AMSC N/A

PREPARED BY
Monica L. Poelking

CHECKED BY
Ray Monnin

APPROVED BY
Michael A. Frye

DRAWING APPROVAL DATE
12 JUNE 1987

REVISION LEVEL
A

DEFENSE ELECTRONICS SUPPLY CENTER
DAYTON, OHIO 45444

MICROCIRCUIT, DIGITAL, ECL, UNIVERSAL COUNTER, MONOLITHIC SILICON

SIZE	CAGE CODE	
A	**67268**	**5962-87001**

SHEET 1 OF 14

DESC FORM 193
SEP 87

5962-E1098-1

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

1. SCOPE

1.1 Scope. This drawing describes device requirements for class B microcircuits in accordance with 1.2.1 of MIL-STD-883, "Provisions for the use of MIL-STD-883 in conjunction with compliant non-JAN devices".

1.2 Part number. The complete part number shall be as shown in the following example:

5962-87001	01	E	X
Drawing number	Device type (1.2.1)	Case outline (1.2.2)	Lead finish per MIL-M-38510

1.2.1 Device type. The device type shall identify the circuit function as follows:

Device type	Generic number	Circuit function
01	10H536	Universal counter

1.2.2 Case outlines. The case outlines shall be as designated in appendix C of MIL-M-38510, and as follows:

Outline letter	Case outline
E	D-2 (16-lead, .840" x .310" x .200"), dual-in-line package
F	F-5 (16-lead, .440" x .285" x .085"), flat package
2	C-2 (20-terminal, .358" x .358" x .100"), square chip carrier package

1.3 Absolute maximum ratings.

Supply voltage range (V_{EE}) . . . . . -8.0 V dc to 0.0 V dc
Input voltage range . . . . . -5.2 V dc to 0.0 V dc
Storage temperature range . . . . . -65°C to +165°C
Lead temperature (soldering, 10 seconds) . . . . . +300°C
Junction temperature (T_J) . . . . . +165°C
Maximum power dissipation (P_D) . . . . . 940 mW
Thermal resistance, junction-to-case (Θ_{JC}) . . . . . See MIL-M-38510, appendix C

1.4 Recommended operating conditions.

Supply voltage range (V_{EE}) . . . . . -5.46 V dc minimum to -4.94 V dc maximum
Ambient operating temperature range (T_A) . . . . . -55°C to +125°C
Minimum high level input voltage (V_{IH}):
T_A = +25°C . . . . . -0.780 V dc
T_A = +125°C . . . . . -0.650 V dc
T_A = -55°C . . . . . -0.840 V dc
Maximum low level input voltage (V_{IL}) . . . . . -1.950 V dc
Supply voltage range (V_{CC}) . . . . . -0.02 V to 0.02 V or 1.98 V to 2.02 V

2. APPLICABLE DOCUMENTS

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

SPECIFICATION

MILITARY

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

STANDARD

MILITARY

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

(Copies of the specification and standard required by manufacturers in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

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

3. REQUIREMENTS

3.1 Item requirements. The individual item requirements shall be in accordance with 1.2.1 of MIL-STD-883, "Provisions for the use of MIL-STD-883 in conjunction with compliant non-JAN devices" and as specified herein.

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

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

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

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

3.2.4 Test circuit and switching waveforms. The test circuit and switching waveforms shall be as specified on figure 4.

3.2.5 Case outlines. The case outlines shall be in accordance with 1.2.2 herein.

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

3.4 Marking. Marking shall be in accordance with MIL-STD-883 (see 3.1 herein). The part shall be marked with the part number listed in 1.2 herein. In addition, the manufacturer's part number may also be marked as listed in 6.4 herein.

3.5 Certificate of compliance. A certificate of compliance shall be required from a manufacturer in order to be listed as an approved source of supply in 6.4. The certificate of compliance submitted to DESC-ECS prior to listing as an approved source of supply shall state that the manufacturer's product meets the requirements of MIL-STD-883 (see 3.1 herein) and the requirements herein.

TABLE I. Electrical performance characteristics.

Test	Symbol	Conditions $-55°C \le T_A \le +125°C$ unless otherwise specified			Group A subgroups	Limits		Unit
						Min	Max	
Cases E, F, and 2		Quiescent tests 1/						
			V_{IH}	V_{IL}				
High level output voltage	V_{OH}	Outputs terminated through 100Ω to -2.0 V V_{EE} = -5.2 V V_{CC} = 0.0 V 2/	-0.780 -0.650 -0.840	-1.950 -1.950 -1.950	1 2 3	-1.010 -0.860 -1.060	-0.780 -0.650 -0.840	V
Low level output voltage	V_{OL}		-0.780 -0.650 -0.840	-1.950 -1.950 -1.950	1 2 3	-1.950 -1.950 -1.950	-1.580 -1.565 -1.610	V
High level threshold output voltage	V_{OHA}		-1.110 -0.960 -1.160	-1.480 -1.465 -1.510	1 2 3	-1.010 -0.860 -1.060	-0.780 -0.650 -0.840	V
Low level threshold output voltage	V_{OLA}		-1.110 -0.960 -1.160	-1.480 -1.465 -1.510	1 2 3	-1.950 -1.950 -1.950	-1.580 -1.565 -1.610	V
Power supply drain current 3/	I_{EE}	V_{EE} = -5.46 V V_{CC} = 0.0 V V_{IH} = -0.780 V at +25°C -0.650 V at +125°C 0.840 V at -55°C			1 2, 3	-150 -165		mA
High level input current	I_{IH}		Carry in		1, 2 3		240 380	µA
			D_0, D_1, D_2, D_3, Clock		1, 2 3		275 430	µA
			S_2		1, 2 3		335 535	µA
			S_1		1, 2 3		420 670	µA
Low level input current	I_{IL}	V_{EE} = -4.94 V V_{IL} = -1.950 V 3/ V_{CC} = 0.0 V			1, 3 2	0.5 0.3		µA
Functional tests		See 4.3.1c			7, 8			

See footnotes at end of table.

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions $-55°C \le T_A \le +125°C$ unless otherwise specified			Group A subgroups	Limits		Unit
						Min	Max	
Cases E and F		DC rapid tests 4/						
			V_{IH}	V_{IL}				
High level output voltage	V_{OH}	Outputs terminated through 100Ω to -2.0 V V_{CC} = 0.0 V V_{EE} = -5.2 V 2/	-0.819 -0.692 -0.882	-1.950 -1.950 -1.950	1 2 3	-1.046 -0.899 -1.099	-0.819 -0.692 -0.882	V
Low level output voltage	V_{OL}		-0.819 -0.692 -0.882	-1.950 -1.950 -1.950	1 2 3	-1.950 -1.950 -1.950	-1.592 -1.578 -1.623	V
High level threshold output voltage	V_{OHA}		-1.146 -0.999 -1.199	-1.492 -1.478 -1.523	1 2 3	-1.046 -0.899 -1.099	-0.819 -0.692 -0.882	V
Low level threshold output voltage	V_{OLA}		-1.146 -0.999 -1.199	-1.492 -1.478 -1.523	1 2 3	-1.950 -1.950 -1.950	-1.592 -1.578 -1.623	V
Power supply drain current 3/	I_{EE}	V_{EE} = -5.46 V V_{CC} = 0.0 V V_{IH} = -0.780 V at +25°C -0.650 V at +125°C -0.840 V at -55°C			1 2, 3	-149 -164		mA
High level input current	I_{IH}		Carry in		1, 2 3		225 365	µA
			D_0, D_1, D_2, D_3, Clock		1, 2 3		260 415	µA
			S_2		1, 2 3		320 520	µA
			S_1		1, 2 3		405 655	µA
Low level input current	I_{IL}	V_{EE} = -4.94 V V_{IL} = -1.950 V 3/ V_{CC} = 0.0 V			1, 3 2	0.5 0.3		µA
Functional tests		See 4.3.1c			7, 8			

See footnotes at end of table.

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions $-55°C \le T_A \le +125°C$ unless otherwise specified			Group A subgroups	Limits		Unit
						Min	Max	
Cases 2		DC rapid tests 4/						
			V_{IH}	V_{IL}				
High level output voltage	V_{OH}	Outputs terminated through 100Ω to -2.0 V V_{CC} = 0.0 V V_{EE} = -5.2 V 2/	-0.818 -0.692 -0.882	-1.950 -1.950 -1.950	1 2 3	-1.045 -0.898 -1.098	-0.818 -0.692 -0.882	V
Low level output voltage	V_{OL}		-0.818 -0.692 -0.882	-1.950 -1.950 -1.950	1 2 3	-1.950 -1.950 -1.950	-1.592 -1.578 -1.623	V
High level threshold output voltage	V_{OHA}		-1.145 -0.998 -1.198	-1.492 -1.478 -1.523	1 2 3	-1.045 -0.898 -1.098	-0.818 -0.692 -0.882	V
Low level threshold output voltage	V_{OLA}		-1.145 -0.998 -1.199	-1.492 -1.478 -1.523	1 2 3	-1.950 -1.950 -1.950	-1.592 -1.578 -1.623	V
Power supply drain current 3/	I_{EE}	V_{EE} = -5.46 V V_{CC} = 0.0 V V_{IH} = -0.780 V at +25°C -0.650 V at +125°C -0.840 V at -55°C			1 2, 3	-149 -164		mA
High level input current	I_{IH}		Carry in		1, 2 3		225 365	µA
			D_0, D_1, D_2, D_3, Clock		1, 2 3		260 415	µA
			S_2		1, 2 3		320 520	µA
			S_1		1, 2 3		405 655	µA
Low level input current	I_{IL}	V_{EE} = -4.94 V V_{IL} = -1.950 V 3/ V_{CC} = 0.0 V			1, 3 2	0.5 0.3		µA
Functional tests		See 4.3.1c			7, 8			

See footnotes at end of table.

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions $-55°C \le T_A \le +125°C$ unless otherwise specified	Group A subgroups	Limits		Unit
				Min	Max	
Cases E, F, and 2		AC tests				
Transition time low to high or high to low	t_{TLH}, t_{THL}	V_{EE} = -2.94 V V_{CC} = 2.0 V $C_L \le 5$ pF Load all outputs through 100Ω to ground See figure 4	9 10, 11	0.7 0.7	2.1 2.3	ns
Propagation delay time, CLOCK high to Q_0 high or low	t_{PHH1}, t_{PHL1}		9 10, 11	0.7 0.7	3.2 3.5	ns
Propagation delay time, CLOCK high to CARRY OUT high or low	t_{PHH2}, t_{PHL2}		9 10, 11	0.7 0.7	7.0 7.7	ns
Propagation delay time, CARRY IN high to CARRY OUT high	t_{PHH3}		9 10, 11	0.7 0.7	3.0 3.5	ns
Propagation delay time, CARRY IN low to CARRY OUT low	t_{PLL}		9 10, 11	0.7 0.7	3.0 3.5	ns
Maximum count frequency	f_{MAX}		9, 10, 11	250		MHz
Setup time, D_0 high or low to CLOCK high	t_{S1}		9, 10, 11	2.0		ns
Setup time, S_1 or S_2 high to CLOCK high	t_{S2}		9, 10, 11	3.5		ns
Setup time, CARRY IN low to CLOCK high	t_{S3}		9, 10, 11	2.0		ns
Setup time, CLOCK high to CARRY IN high	t_{S4}		9, 10, 11	0.0		ns
Hold time, CLOCK high to D_0 high or low	t_{H1}		9, 10, 11	0.0		ns
Hold time, CLOCK high to S_1 or S_2 high	t_{H2}		9, 10, 11	-0.5		ns
Hold time, CLOCK high CARRY IN low	t_{H3}		9, 10, 11	150		ps
Hold time, $\overline{\text{CARRY IN}}$ high to CLOCK high	t_{H4}		9 10, 11	2.0 2.2		ns

See footnotes on next page.

1/ The quiescent limits are determined after a device has reached thermal equilibrium. This is defined as the reading taken with the device in a socket with ≥ 500 LFPM of +25°C, +125°C or -55°C (as applicable) air blowing on the unit in a transverse direction with power applied for at least four (4) minutes before the reading is taken. This method was used for theoretical limit establishment only. All devices shall be tested to the delta V (rapid test) conditions specified herein. The rapid test method is an equivalent method of testing quiescent conditions.

2/ The high and low level output current varies with temperature, and shall be calculated using the following formulas:

$I_{OH} = (V_{OH} - 2\ V)/100\Omega$
$I_{OL} = (V_{OL} - 2\ V)/100\Omega$

3/ The I_{EE} and I_{IL} limits, although specified in the minimum column, shall not be exceeded in magnitude, as a maximum value.

4/ The dc rapid test forcing functions and limits are used for all dc testing. These limits are determined for each device type based on the power dissipation and package type. The rapid test (delta V) limits and forcing functions are skewed allowing rapid testing to be performed at standard temperatures without the addition of delta T's.

3.6 Certificate of conformance. A certificate of conformance as required in MIL-STD-883 (see 3.1 herein) shall be provided with each lot of microcircuits delivered to this drawing.

3.7 Notification of change. Notification of change to DESC-ECS shall be required in accordance with MIL-STD-883 (see 3.1 herein).

3.8 Verification and review. DESC, DESC's agent, and the acquiring activity retain the option to review the manufacturer's facility and applicable required documentation. Offshore documentation shall be made available onshore at the option of the reviewer.

4. QUALITY ASSURANCE PROVISIONS

4.1 Sampling and inspection. Sampling and inspection procedures shall be in accordance with section 4 of MIL-M-38510 to the extent specified in MIL-STD-883 (see 3.1 herein).

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

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

(1) Test condition A, B, C, or D using the circuit submitted with the certificate of compliance (see 3.5 herein).

(2) T_A = +125°C, minimum.

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

4.3 Quality conformance inspection. Quality conformance inspection shall be in accordance with method 5005 of MIL-STD-883 including groups A, B, C, and D inspections. The following additional criteria shall apply.

Case outlines	E	F	2
Terminal number	Terminal symbol		
1	V_{CC1}	CLOCK	NC
2	Q2	Q0	V_{CC1}
3	Q3	Q1	Q2
4	$\overline{\text{CARRY OUT}}$	V_{CC2}	Q3
5	D3	V_{CC1}	$\overline{\text{CARRY OUT}}$
6	D2	Q2	NC
7	S2	Q3	D3
8	V_{EE}	$\overline{\text{CARRY OUT}}$	D2
9	S1	D3	S2
10	$\overline{\text{CARRY IN}}$	D2	V_{EE}
11	D1	S2	NC
12	D0	V_{EE}	S1
13	CLOCK	S1	$\overline{\text{CARRY IN}}$
14	Q0	$\overline{\text{CARRY IN}}$	D1
15	Q1	D1	D0
16	V_{CC2}	D0	NC
17	---	---	CLOCK
18	---	---	Q0
19	---	---	Q1
20	---	---	V_{CC2}

NC = No connection

FIGURE 1. Terminal connections.

$\overline{\text{CARRY IN}}$	S_1	S_2	Operating mode
X	L	L	Preset (program)
L	L	H	Count up
H	L	H	Hold count
L	H	L	Count down
H	H	L	Hold count
X	H	H	Stop count

Inputs								Outputs				
S_1	S_2	D_0	D_1	D_2	D_3	$\overline{\text{CARRY IN}}$	CLOCK *	Q_0	Q_1	Q_2	Q_3	$\overline{\text{CARRY OUT}}$
L	L	L	L	H	H	X	H	L	L	H	H	L
L	H	X	X	X	X	L	H	H	L	H	H	H
L	H	X	X	X	X	L	H	L	H	H	H	H
L	H	X	X	X	X	L	H	H	H	H	H	L
L	H	X	X	X	X	H	L	H	H	H	H	H
L	H	X	X	X	X	H	H	H	H	H	H	H
H	H	X	X	X	X	X	H	H	H	H	H	H
L	L	H	H	L	L	X	H	H	H	L	L	L
H	L	X	X	X	X	L	H	L	H	L	L	H
H	L	X	X	X	X	L	H	H	L	L	L	H
H	L	X	X	X	X	L	H	L	L	L	L	L
H	L	X	X	X	X	L	H	H	H	H	H	H

H = High level
L = Low level
X = Irrelevant
* = A clock H is defined as a clock input from a low to a high logic level.

FIGURE 2. Truth tables.

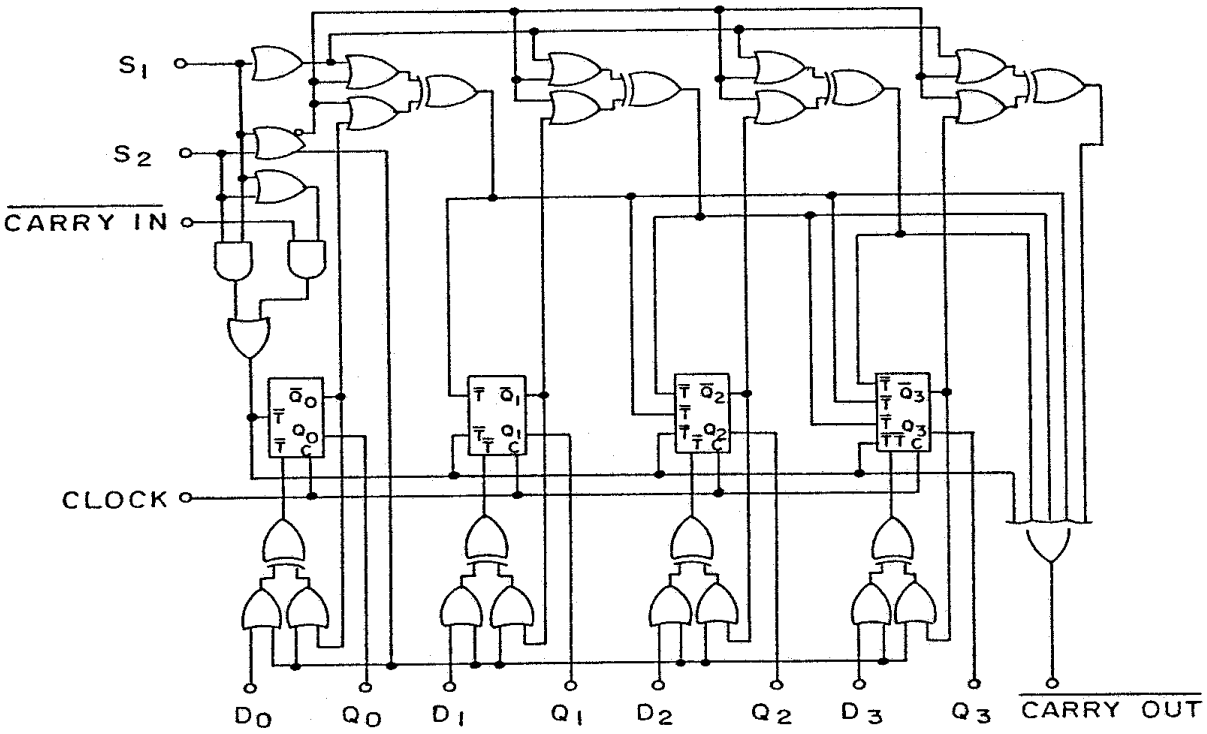
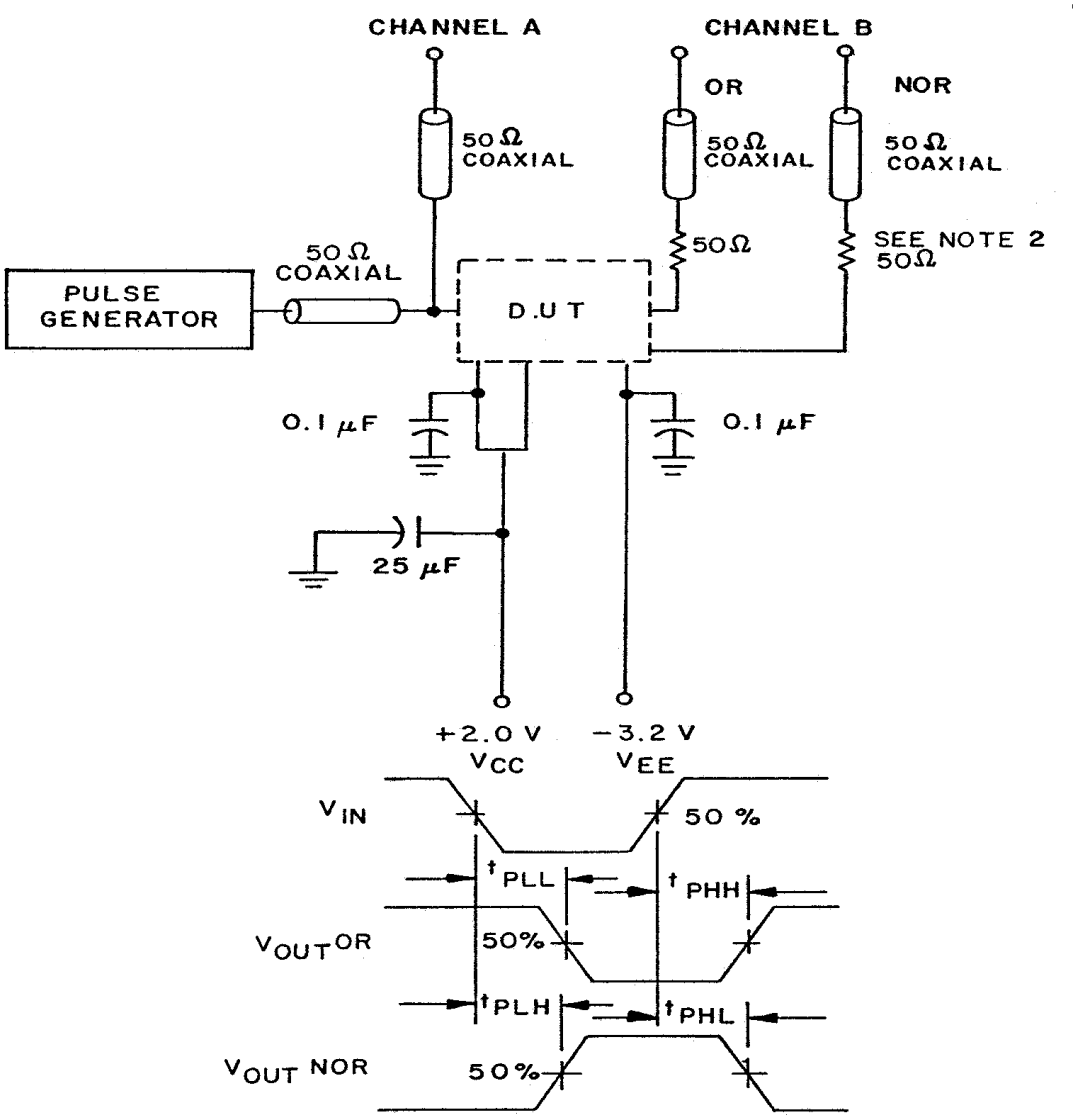


FIGURE 3. Logic diagram.



NOTES:
1. Pulse generator characteristics:
   PRR = 1 MHz, $t_{THL} = t_{TLH}$ = 1.0 ±0.2 ns (20% to 80%), duty cycle = 50%.
2. The 50Ω resistor in series with the 50Ω coaxial constitutes the 100Ω load.

FIGURE 4. Test circuit and switching waveforms.

TABLE II. Electrical test requirements.

MIL-STD-883 test requirements	Subgroups (per method 5005, table I)
Interim electrical parameters (method 5004)	1
Final electrical test parameters (method 5004)	1*, 2, 3, 7*, 8, 9
Group A test requirements (method 5005)	1, 2, 3, 7, 8, 9, 10, 11
Groups C and D end-point electrical parameters (method 5005)	1, 2, 3

* PDA applies to subgroups 1 and 7.

4.3.1 Group A inspection.

a. Tests shall be as specified in table II herein.

b. Subgroups 4, 5, and 6 in table I, method 5005 of MIL-STD-883 shall be omitted.

c. Subgroups 7 and 8 tests shall verify the truth tables as specified on figure 2 herein.

4.3.2 Groups C and D inspections.

a. End-point electrical parameters shall be as specified in table II herein.

b. Steady-state life test conditions, method 1005 of MIL-STD-883:

(1) Test condition A, B, C, or D using the circuit submitted with the certificate of compliance (see 3.5 herein).

(2) T_A = +125°C, minimum.

(3) Test duration: 1,000 hours, except as permitted by method 1005 of MIL-STD-883.

5. PACKAGING

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

6. NOTES

6.1 Intended use. Microcircuits conforming to this drawing are intended for use when military specifications do not exist and qualified military devices that will perform the required function are not available for OEM application. When a military specification exists and the product covered by this drawing has been qualified for listing on QPL-38510, the device specified herein will be inactivated and will not be used for new design. The QPL-38510 product shall be the preferred item for all applications.

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

6.3 Comments. Comments on this drawing should be directed to DESC-ECS, Dayton, Ohio 45444, or telephone 513-296-5375.

6.4 Approved source of supply. An approved source of supply is listed herein. Additional sources will be added as they become available. The vendor listed herein has agreed to this drawing and a certificate of compliance (see 3.5 herein) has been submitted to DESC-ECS.

Military drawing part number	Vendor CAGE number	Vendor similar part number 1/
5962-8700101EX	04713	10H536/BEAJC
5962-8700101FX	04713	10H536/BFAJC
5962-87001012X	04713	10H536M/B2AJC

1/ Caution. Do not use this number for item acquisition. Items acquired to this number may not satisfy the performance requirements of this drawing.

Vendor CAGE number	Vendor name and address
04713	Motorola, Incorporated 7402 S. Price Road Tempe, AZ 85283