

- NOTES:
- 1. SEE ITEM S09 FOR ASSEMBLY AND MANUFACTURING INSTRUCTIONS.
 - 2. HIGHEST COMPONENT IS 08. MAXIMUM HEIGHT .38.
 - 3. MASK COMPONENTS DS1, R20 AND HERTSOWS ON .03 U.S. MIL.
 - 4. 0 DENOTES PIN 1.
 - 5. APPLY ITEM 72 TO R20 AFTER ELECTRICAL TEST.

UNLESS OTHERWISE SPECIFIED
USE STANDARD VALUES

INTERPRET DRAWING PER DOD-STD-100



PART NO. SEE PL

SEE SEPARATE PART'S LIST

UNISYS NO. 978601		REV. 1		1	
DESCRIPTION		DATE		APPROVED	
INITIAL RELEASE		9-07-12		L.D.M.	
UNISYS CORPORATION		CIRCUIT CARD ASSEMBLY -		DIGITAL DATA REGULATOR	
CONTRACT NO. F. 19628-B7-C-0092		DRAWN		90-09-10	
UNLESS OTHERWISE SPECIFIED		DIMENSIONS ARE IN INCHES		90-09-24	
INTER PER ANSI Y14.9M-1983		CHECKED BY		90-09-24	
THREADS EXT CL 2R. INT CL 2B		ENG'G		90-09-24	
DIMENSIONS ARE IN INCHES		W. D. WESTERGAARD		90-09-24	
2 PLACE 3 PLACE		DEC. TOL. DEC. TOL.		90-09-24	
978635		90-09-10		90-09-24	
NEXT ASSY USED ON		D. E. LARKES		90-09-24	
APPLICATION		K. H. CHAN		90-09-24	
UNISYS CORPORATION		CIRCUIT CARD ASSEMBLY -		DIGITAL DATA REGULATOR	
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DIMENSIONS ARE IN INCHES		W. D. WESTERGAARD		90-09-24	
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UNISYS DEFENSE SYSTEMS

TITLE: CIRCUIT CARD ASSEMBLY-
DIGITAL DATA REGENERATOR
CONTRACT: F19628-87-C-0092PARTS LIST
CAGEC: 06401PL: 978601
DASH RANGE: 01 -01
REL REV: - 910109
SHEET: 1 OF 5

ITEM	DASH RANGE	QTY	UM	CURR CAGEC	CODES	DOCUMENT/PART NUMBER	TITLE/NOTES/REF DESIGNATORS
1	ALL	1	EA			978602-01	PWB, DIGITAL DATA REGENERATOR
2	ALL	1	EA			735763-01	CONNECTOR PLUG, ELEC P1
3	ALL	2	EA			MS16535-35	P1 RIVET-TUBULAR, OVAL HEAD
4	ALL	2	EA	80063		SM-B-876188	.061 DIA. X .219LG, NI-CU ALLOY PIN, KEYING
5	ALL	2	EA	80063		SM-A-876029-01	EXTRACTOR, PRINTED
12	ALL	AR	QT			MIL-I-46058	NATURAL INSULATING COMPOUND, ELECTRICAL (FOR COATING PRINTED CIRCUITS) TYPE UR
14	ALL	1	EA			M38510/305018CX	IC, GATE, OR, 2-IN, QUAD, 54LS32
15	ALL	1	EA			M38510/063018EX	U23 MICROCIRCUIT, DIGITAL QUAD TTL-TO-ECL TRANSLATOR
16	ALL	2	EA			1051952-01	U2 IC, DIG, SCHOTTKY, FOUR BIT CNTR
17	ALL	2	EA			M38510/063028EX	U3 MICROCIRCUIT, DIGITAL QUAD ECL-TO-TTL TRANSLATOR
18	ALL	2	EA			M38510/302028CX	U4 IC, BUFFER, NAND, QUAD-2 54LS37
19	ALL	1	EA			M38510/070038CX	U7 IC, INVERTER, HEX, 54S04
20	ALL	1	EA			M38510/102018CX	U8 INTEGRATED CIRCUIT, LINEAR VOLTAGE REGULATOR (LM723)
21	ALL	3	EA			M38510/309038EX	U9 IC, QUAD 2-1 MUX, 54LS157
22	ALL	1	EA			M38510/077018EX	U10 IC, DECODER, 3-TD-8, 54S138
23	ALL	1	EA			M38510/071068EX	U11 IC, DIGITAL QUAD D FLIP-FLOP
24	ALL	4	EA			M38510/300038CX	U12 IC, INVERTER, HEX, 54LS04

DISTRIBUTION C:
Distribution authorized to US Government agencies and their contractors
WARNING: EXPORT-CONTROLLED
WR-ALC/ROBINS AFB, GA 31098

UNISYS DEFENSE SYSTEMS

TITLE: CIRCUIT CARD ASSEMBLY-
DIGITAL DATA REGENERATOR
CONTRACT: F19628-87-C-0092

CAGEC: 06401

PL: 978601

DASH RANGE: 01 -01

REL REV: - 910109
SHEET: 2 OF 5

ITEM	DASH RANGE	QTY	UM	CURR CAGEC	CODES	DOCUMENT/PART NUMBER	TITLE/NOTES/REF DESIGNATORS
25	ALL	3	EA			M38510/30106BEX	U43 IC, FLIP FLOP, D, HEX, 54LS174
26	ALL	2	EA			M38510/07102BEX	U14 U15 U31 MICROCIRCUIT, DIGITAL, SCHOTTKY TTL, DUAL, FLIP-FLOP
27	ALL	2	EA			M38510/30902BEX	U18 U22 IC, MUX, 4-TO-1, DUAL, 54LS153
28	ALL	5	EA			M38510/30102BCX	U19 U20 IC, FLIP-FLOP, D, DUAL, 54LS74
29	ALL	1	EA			954373-104	U21 U24 U25 U34 U45 MICROCIRCUIT, DIG. 256 BIT ROM
30	ALL	1	EA			M38510/30301BCX	U27 IC, GATE, NOR, QUAD 2, 54LS02
31	ALL	1	EA			M38510/30107BEX	U28 IC, FLIP FLOP, D, QUAD, 54LS175
32	ALL	2	EA	E0		M38510/30901BEX	U30 IC, DIG, 8-INPUT MUX W/ENABLE (54LS151)
33	ALL	1	EA			G225331-01	U32 U33 MICROCIRCUIT, LINEAR-DUAL LINE DRIVER
34	ALL	1	EA			M38510/00805BCX	U35 IC, GATE, QUAD NAND, 30V, 5426
35	ALL	4	EA			M38510/30203BCX	U36 IC, GATE, QUAD-2, BFR, 54LS38
36	ALL	1	EA			M38510/30401BCX	U37 U38 U39 U40 IC, GATE, AOI, DUAL, 54LS51
38	ALL	1	EA	E2		M38510/10102BCX 747A	U44 MICROCIRCUIT, LINEAR-- OPERATIONAL AMPLIFIER, GENERAL
39	ALL	5	EA	E3		JANTX1N4148-1 JAN	U46 SEMICONDUCTOR DEVICE, DIODE-- SILICON, SWITCHING, 100 V, 150 MA CR1 CR2 CR3
40	ALL	1	EA			G341046-01	CR4 CR5 LIGHT, INDICATOR, SOLID STATE.

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

UNISYS DEFENSE SYSTEMS
PARIS LIST

TITLE: CIRCUIT CARD ASSEMBLY-
DIGITAL DATA REGENERATOR
CONTRACT: F19628-87-C-0092

CAGEC: 06401

PL: 978601
DASH RANGE: 01 -01

REL REV: - 910109
SHEET: 3 OF 5

ITEM	DASH RANGE	QTY	UM	CURR CAGEC	CODES	DOCUMENT/PART NUMBER	TITLE/NOTES/REF DESIGNATORS
41	ALL	4	EA	E2		JANTX2N2222A	DS1 TRANSISTOR-- NPN, SILICON, SWITCHING, 1.8 W, 75 V, 800 MA Q1 Q3 Q5
42	ALL	3	EA	E3		JANTX2N2907A	Q9 TRANSISTOR-- PNP, SILICON SWITCHING, 0.4W, 60V
43	ALL	2	EA			JANTX2N3735	Q2 Q4 Q6 SEMICONDUCTOR DEVICE, TRANSISTOR NPN, 50V, 1.5A, 1W
44	ALL	5	EA	80063		SM-A-876255	Q7 Q8 COIL, RADIO FREQ. FXD 1UH
45	ALL	2	EA			M39003/01-2546	L1 L2 L3 L4 L5 CAPACITOR, FIXED, ELECTROLYTIC 35V, 10 PCT, 22 UF
46	ALL	4	EA			M39003/01-2497	C1 C6 CAPACITOR, FIXED, ELECTROLYTIC 10 V, 10 PCT, 33 UF
47	ALL	20	EA			M39014/02-1310	C9 C12 C26 C27 CAPACITOR, FIXED, CERAMIC DIEI 0.10UF, 10PCT, 100VDC
47A	ALL	20	EA	EN		M39014/02-1270	C2 C3 C4 C5 C7 C8 C10 C11 C13 C14 C15 C16 C17 C18 C19 C20 C22 C23 C24 C25 CAPACITOR, FIXED, CERAMIC-- 100 VOLT, 10000 PF, +-10% A = ALTERNATE ITEM
48	ALL	4	EA			RLR07C1801GR	RESISTOR, FIXED, FILM-- 1/4W, 1800 OHM, +-2% R1 R2 R3
49	ALL	7	EA			KLR07C1002GR	R26 RESISTOR, FIXED, FILM-- 1/4W, 10000 OHM, +-2% R4 R5 R6 R7 R8 R9
50	ALL	6	EA			RLR07C1000GR	F43 RESISTOR, FIXED, FILM-- 1/4W, 100 OHM, +-2% R14 R10 R13
51	ALL	1	EA			RLR07C1800GR	R15 R16 R17 RESISTOR, FIXED, FILM-- 1/4W, 180 OHM, +-2%

UNITSYS DEFENSE SYSTEMS
PARTS LIST

TITLE: CIRCUIT CARD ASSEMBLY-
DIGITAL DATA REGENERATOR
CONTRACT: F19628-87-C-0092

CAGEC: 06401

PL: 978601
DASH RANGE: 01 -01
REL REV: - 910109
SHEET: 4 OF 5

ITEM	DASH RANGE	QTY	UM	CURR CAGEC	CODES	DOCUMENT/PART NUMBER	TITLE/NOTES/REF DESIGNATORS
51A	ALL	1	EA		EN	RLR07C1800GM	R11 RESISTOR, FIXED, FILM-- 1/4 WATT, 180 OHM, +-2% A - ALTERNATE ITEM
52	ALL	2	EA			RLR07C2700GR	RESISTOR, FIXED, FILM-- 1/4W, 270 OHM, +-2% R27
53	ALL	2	EA			RLR07C1802GR	RESISTOR, FIXED, FILM-- 1/4W, 18000 OHM, +-2% R18 R19
54	ALL	1	EA			RJR26FW103M	RESISTOR, VARIABLE 10.0K, 10.00PCT, 0.250W R20
55	ALL	1	EA			RLR07C2202GR	RESISTOR, FIXED, FILM-- 1/4W, 22000 OHM, +-2% R21
56	ALL	1	EA			RLR07C2702GR	RESISTOR, FIXED, FILM-- 1/4W, 27000 OHM, +-2% R22
57	ALL	3	EA			RLR07C2200GR	RESISTOR, FIXED, FILM-- 1/4W, 220 OHM, +-2% R23 R34
58	ALL	8	EA			RLR07C1001GR	RESISTOR, FIXED, FILM-- 1/4W, 1000 OHM, +-2% R28 R31 R41 R44 R33 R51
59	ALL	7	EA			RLR07C3901GR	RESISTOR, FIXED, FILM-- 1/4W, 3900 OHM, +-2% R29 R30 R36 R37 R38 R39 R40
60	ALL	1	EA			RLR07C3000GR	RESISTOR, FIXED, FILM-- 1/4W, 300 OHM, +-2% R42
61	ALL	2	EA		EN	RWR89S10R0FM	RESISTOR, FIXED, WIREWOUND-- 3 WATT, 10.0 OHM, +-1% R24 R25
62	ALL	3	EA	80063		SM-A-876354-01	HEATSINK
63	ALL	3	EA	80063		SM-A-876354-03	HEATSINK
64	ALL	6	EA	80063		SM-A-884442	INSULATOR, WASHER
65	ALL	6	EA		EN	MS16535-79	RIVET, TUBULAR-- OVAL HEAD, ANODIZED AL, 0.089 DIA, 0.219 L
68	ALL	3	EA			RLR20C75R0GR	RESISTOR, FIXED, FILM 75 OHMS, 2PCT, 0.5W R46 R47 R48

UNISYS DEFENSE SYSTEMS

TITLE: CIRCUIT CARD ASSEMBLY-
DIGITAL DATA REGENERATOR
CONTRACT: F19628-87-C-0092

PARTS LIST

PL: 978601
DASH RANGE: 01 -01

CAGEC: 06401

REL REV: - 910109
SHEET: 5 OF 5

ITEM	DASH RANGE	QTY	UM	CURR CAGEC	CODES	DOCUMENT/PART NUMBER	TITLE/NOTES/REF DESIGNATORS
69	ALL	2	EA			RLR07C33R0GR	RESISTOR, FIXED, FILM-- 1/4W, 33 OHM, +-2% R49
72	ALL	AR	QT			MIL-E-22118	ENAMEL, ELECTRICAL R50
73	ALL	1	EA			M39014/01-1281	INSULATING CAPACITOR, FIXED, CERAMIC DIEL 10PF, 10PCT, 200VDC C21
73A	ALL	1	EA	EN		M39014/01-1241	CAPACITOR, FIXED, CERAMIC-- 200 VOLT, 10 PF, +-10% IC.GATE,OR,2-INPUT,54F32
74	ALL	2	EA			M38510/33501BCX	

U1 U6

===== THE FOLLOWING R ITEM NUMBERS IDENTIFY REFERENCE DOCUMENTS =====

R07	ALL	EA		SD978601	SCHEMATIC, CCA,DIGITAL DATA REGENERATOR
R08	ALL	EA		TR978601	TEST REQ, CCA,DIGITAL DATA REGENERATOR

===== THE FOLLOWING S ITEM NUMBERS IDENTIFY SPECIFICATION/ACCEPTANCE DOCUMENTS =====

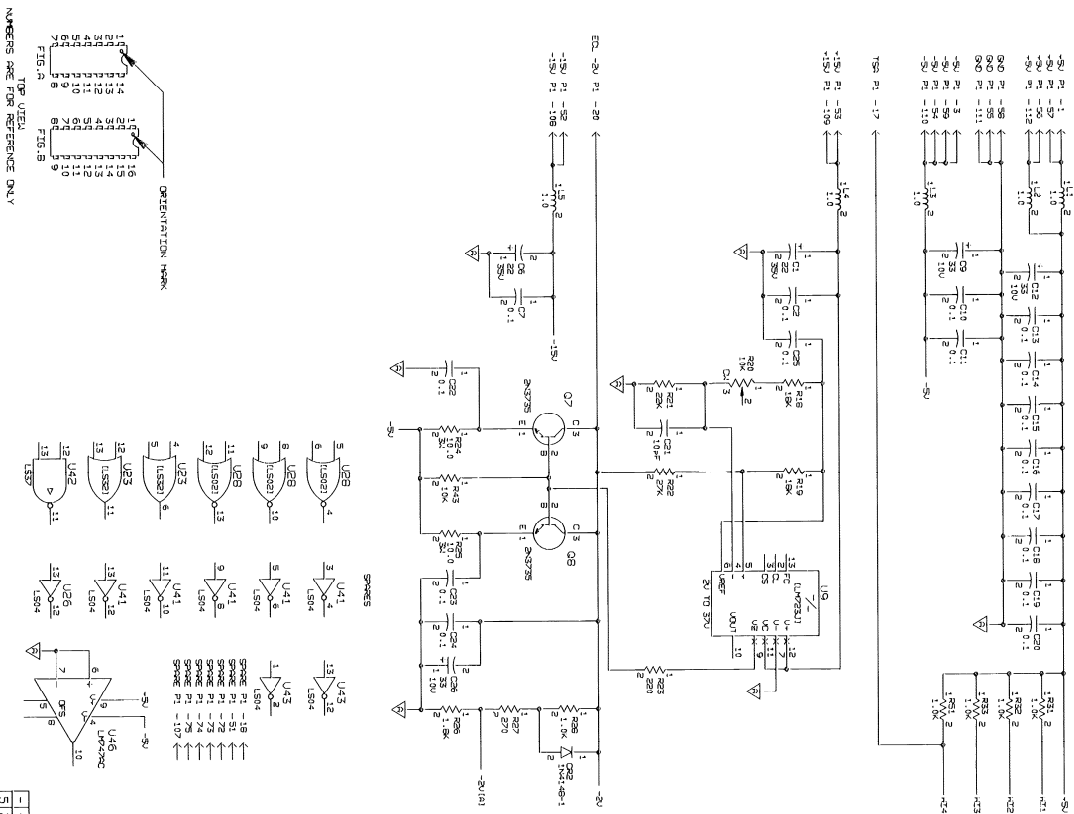
S06	ALL	EA		MIL-P-28809	PRINTED WIRING ASSEMBLIES
S09	ALL	EA		951249	STANDARD NOTES CCA
S10	ALL	EA		951265	CHART,KEYING POLARIZATION
S11	ALL	EA		MIL-M-13231	MARKING OF ELECTRONIC ITEMS--
S13	ALL	EA		MIL-P-55110	GROUP I1 PRINTED WIRING BOARDS

TABLE 1						
GENERIC NO.	REF DES	PART NO.	PRESS RMS			
			-SU	END	-SU	LTR
54E432	U23	M4551/030010EX	14	7	-	A
11N54	U2	M4551/046501EX	4	16	B	B
935161	U3,16	10519352-1	16	B	-	B
11N55	U4,5	M4551/046502EX	9	16	B	B
54L537	U7,42	M4551/030202EX	14	7	-	A
U453	U8	M4551/070303EX	14	7	-	A
L4753	U9	5167955-1	-	-	-	A
54E5157	U10,17,29	M4551/030903EX	16	B	-	B
54E5158	U11	M4551/022013EX	14	7	-	A
54E5159	U12	M4551/072106EX	16	B	-	B
54L504	U13,28,31,43	M4551/030106EX	14	7	-	B
54L5174	U4,15,31	M4551/030108EX	16	B	-	B
54E112	U16,22	M4551/071025EX	16	B	-	B
54L5155	U19,20	M4551/030902EX	16	B	-	B
54L5174	U21,24,27,34,45	M4551/030103EX	14	7	-	A
PH8556	U27	9643235-104	16	8	-	A
54E5175	U30	M4551/030913EX	14	7	-	B
54E5191	U32,35	M4551/030910EX	16	B	-	B
551509	U32	G252535-1	14	7	11	A
54E6	U36	M4551/030905EX	14	7	-	A
54L535	U37,40	M4551/030102EX	14	7	-	A
54L551	U44	M4551/030401EX	14	7	-	A
U4747	U46	M4551/010106EX	9,13	-	4	A
U4742	U46	M4551/035010EX	14	7	-	A

NOTES:

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN FOR COMPLETE DESIGNATION, PREFIX WITH UNIT NUMBER AND SUBASSEMBLY DESIGNATION.
2. UNLESS OTHERWISE SPECIFIED, RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, INDUCTANCE VALUES ARE IN MICROHENRIES. ALL VOLTAGES ARE DC.

TABLE 2	
REF DES	
HIT-GEST	NOT USED
G27	
DES	
DS1	
LS	
Q9	
RS1	
U46	
P1	



UNISYS CORPORATION		CONTRACT NO.	
1000 N. ZEEB RD., SUITE 200 ANN ARBOR, MI 48106-1000		P19008-B7-C-0092	
TITLE		DRAWING SPECIFICATION	
CIRCUIT CARD SCHEMATIC-DIGITAL		90-09-04	
DATA REGGENERATOR		90-09-24	
DESIGNED BY		CHECKED BY	
H. D. LESTER		H. D. LESTER	
90-09-24		90-09-24	
DRAWN BY		CHECKED BY	
K. H. DORN		K. H. DORN	
90-09-24		90-09-24	
SCALE		SHEET	
1		OF 5	
UNISYS CORPORATION		UNISYS CORPORATION	
1000 N. ZEEB RD., SUITE 200 ANN ARBOR, MI 48106-1000		1000 N. ZEEB RD., SUITE 200 ANN ARBOR, MI 48106-1000	
TITLE		DRAWING SPECIFICATION	
CIRCUIT CARD SCHEMATIC-DIGITAL		90-09-04	
DATA REGGENERATOR		90-09-24	
DESIGNED BY		CHECKED BY	
H. D. LESTER		H. D. LESTER	
90-09-24		90-09-24	
DRAWN BY		CHECKED BY	
K. H. DORN		K. H. DORN	
90-09-24		90-09-24	
SCALE		SHEET	
1		OF 5	
UNISYS CORPORATION		UNISYS CORPORATION	
1000 N. ZEEB RD., SUITE 200 ANN ARBOR, MI 48106-1000		1000 N. ZEEB RD., SUITE 200 ANN ARBOR, MI 48106-1000	

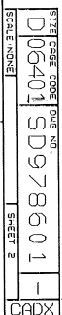
INTERPRET DRAWINGS PER DCD-STD-103

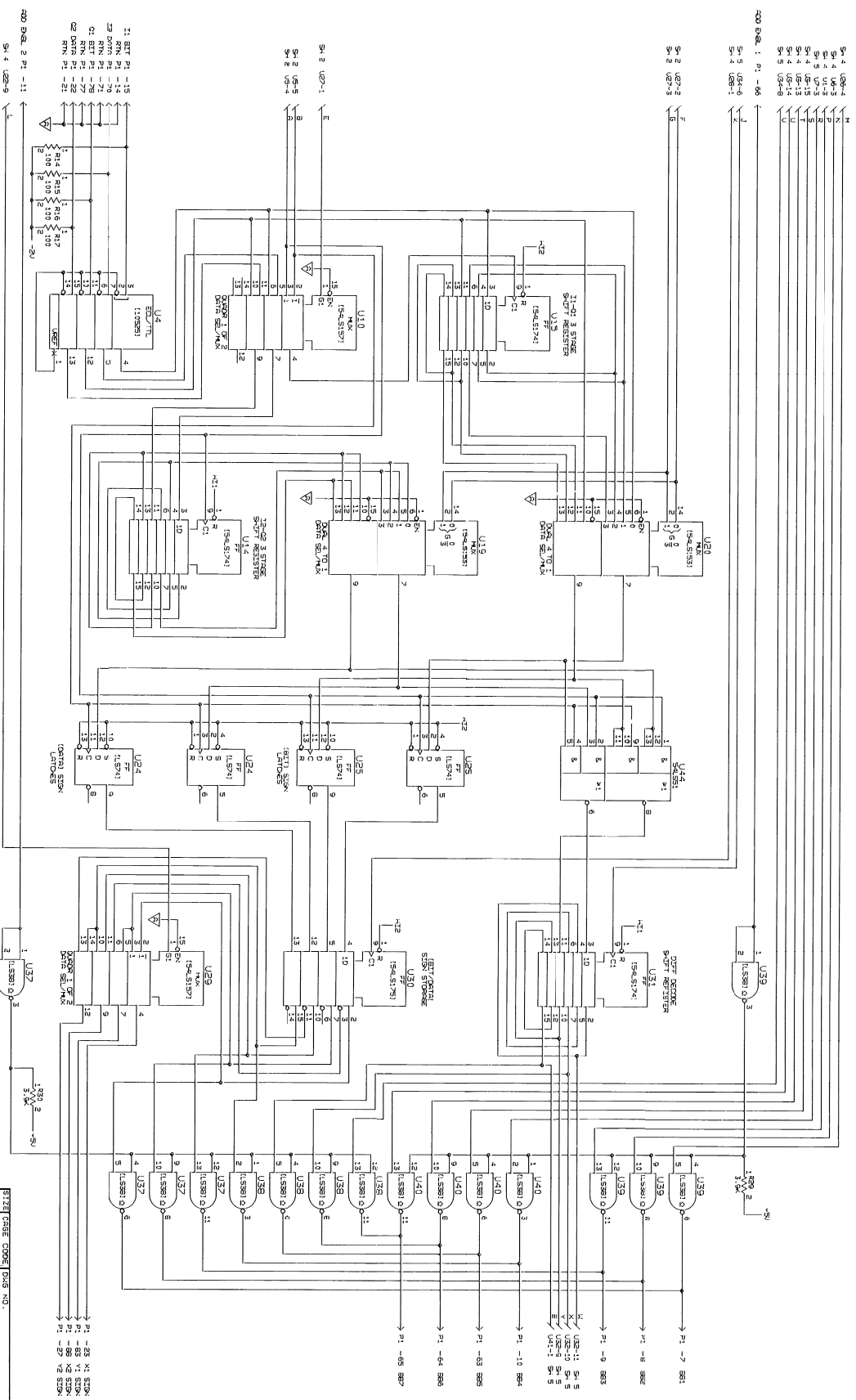
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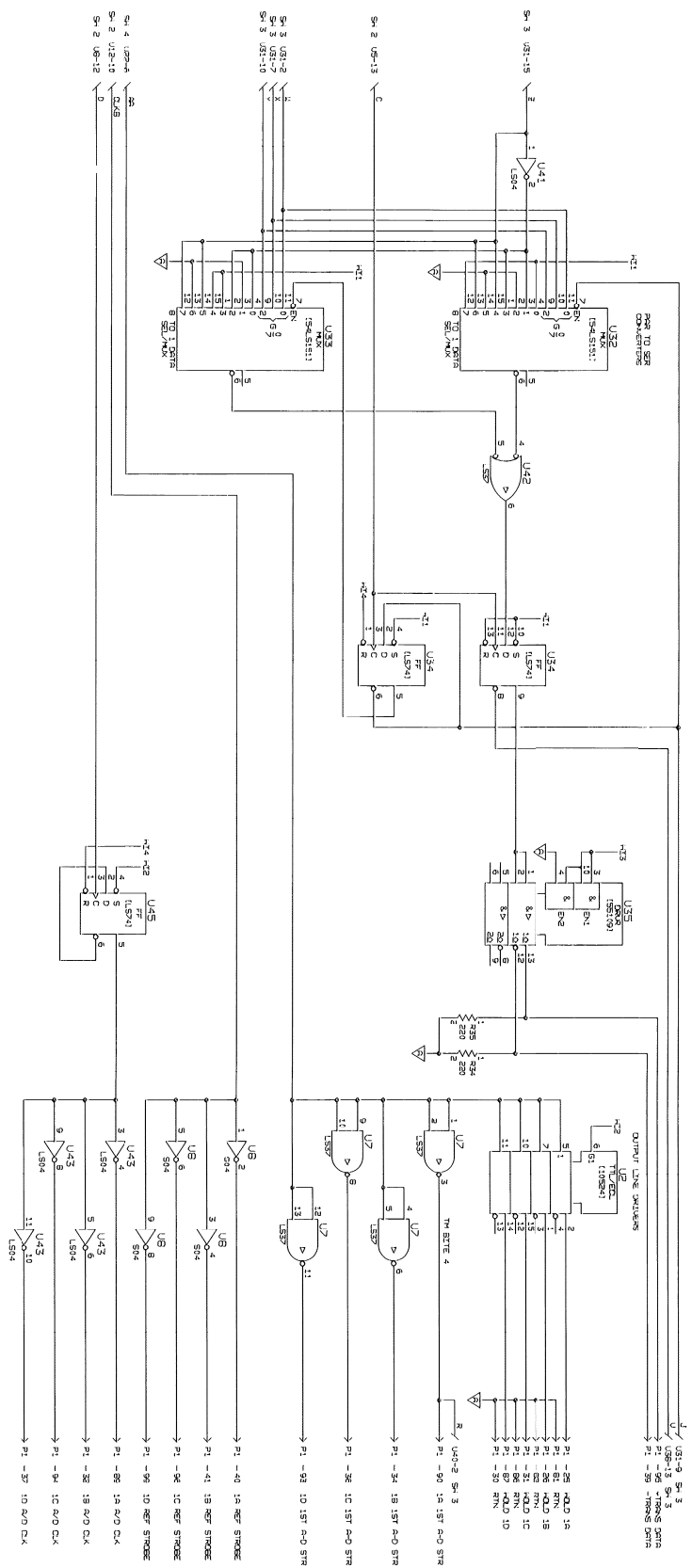
IDENT NO. SD978601

Unisys Corporation

TYPE	CARD	SCHEMATIC-
CIRCUIT		
DIGITAL	DATA	REGENERATOR







WARNING: EXPORT-CONTROLLED

WR-ALC/ROBINS AFB, GA 31098

TITLE

TEST REQUIREMENTS SPECIFICATION FOR
CIRCUIT CARD ASSEMBLY, DIGITAL DATA REGENERATOR

DISTRIBUTION STATEMENT C; DISTRIBUTION AUTHORIZED TO U.S. GOVERNMENT AGENCIES AND THEIR CONTRACTORS; CRITICAL TECHNOLOGY; 30 AUGUST 1991. OTHER REQUESTS FOR THIS DOCUMENT SHALL BE REFERRED TO SM-ALC/LH1T.

F19628-87-C-0092

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THE AUTHORIZED ISSUE OF THIS SPECIFICATION CONSISTS OF THE SHEET REVISIONS (-) IN REVISION SPACE DENOTES ORIGINAL ISSUE) SHOWN IN THE SHEET INDEX SECTION ON THE LATEST ISSUE OF THIS APPROVAL SHEET THE DATE OF THE LATEST ISSUE IS SHOWN ON THE REVISION RECORD SHEET

ORIGINAL ISSUE		MONTH	DAY	YEAR	Unisys Corporation 640 North 2200 West, Salt Lake City, Utah 84116	
WRITTEN BY	<i>E.A. FLINKE</i>	3	8	91		
APPROVAL	<i>[Signature]</i>	3	11	91	FSCM NO. 06401	
APPROVAL	D. E. HANDES	01	14	91		
APPROVAL	K. H. OHRN	01	14	91	SPECIFICATION NUMBER	SPEC REV
APPROVAL	W. O. WESTERGARD	01	14	91		
					TR978601	-

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1.0 SCOPE

This document provides the testing requirements for the Data Regenerator module which provides the interface between the Combiner/Integrator, Analog Processor and Demodulator modules in the Tropo Modem receiver assembly. It also supplies the Demodulators with appropriate decision feedback for inverse modulation.

2.0 APPLICABLE DOCUMENTS

SD978601	- - - -	Schematic Drawing
978601	- - - -	Assembly Drawing
SD997838	- - - -	Schematic Drawing (Demod/Data Regen Erator Test Fixture)
MIL-STD-45662	- - - -	Systems Calibration Requirements

3.0 REQUIREMENTS

3.1 TEST EQUIPMENT

The following items or their equivalents are required for the performance of the test described herein.

EQUIPMENT ITEM	VOLTAGE	CURRENT DRAIN	REGULATION	RIPPLE
1	+5 Vdc	4 Amp	5%	0.1%
2	-5 Vdc	2 Amp	5%	0.1%
3	+15 Vdc	1 Amp	5%	0.1%
4	-15 Vdc	1 Amp	5%	0.1%
5	(2 each) Synthesizer - Hewlett Packard Model 8660A (70 MHz Sinewave output)			
6	Digital multimeter - Hewlett Packard Model 3465A			
7	Oscilloscope - Tektronix Model 465 with (2 ea) Model P6106 X10 probes			
8	Attenuator - Kay Model 1/439-01 (step type)			
9	Digital Demodulator Circuit Card Assembly, 978603			
10	Data Regenerator Circuit Card Assembly, 978601 (UUT)			
11	Test Fixture - TF997838			
12	Coaxial Cables - (5 ea) RG58/u (50 ohm Zo)			

3.1.1 TEST EQUIPMENT CALIBRATION

Test and measurement equipment/instruments shall be of sufficient accuracy, quality and quantity to perform required electrical measurements. Test equipment shall be maintained and calibrated IAW supplier's quality control procedures, conforming to the requirements of MIL-STD-45662.

3.2 LEGEND

The terms used to describe the test parameters are defined within the legend.

LEGEND:

A	Ampere.
BIAS	Apply power.
DCMEASURE	D.C. Measurement, current or volts.
EH	Expect high TTL logic.
LL	Expect low TTL logic.
HI	Apply high TTL logic.
IMAX	Current value, maximum tolerance.
IMIN	Current value, minimum tolerance.
LO	Apply low TTL logic.
MA	Milli-ampere.
MS	Milli-second.
NR	Non-Relevant, pins that are not examined.
PULSE	Two TTL logic transitions from current state.
RIPPLE	Move a TTL logic 1 through a group of pins.
S	Supply.
TMAX	Time value, maximum tolerance.
TMEASURE	Time Measurement.
TMIN	Time value, minimum tolerance.
US	Micro-second.
V	Volts.
VMAX	Voltage value, maximum tolerance.
VMIN	Voltage value, minimum tolerance.

NOTES:

- 1) Use standard TTL levels unless listed differently.
- 2) Pin states remain in designated state until driven, expected, or made non-relevant.

3.3 TEST CONDITIONS - POWER SUPPLIES

BIAS Supply 5.0 V \pm 1% 3.00 A

BIAS Supply -5.0 V \pm 1% -500 MA

BIAS Supply 15.0 V \pm 1% 500 MA

BIAS Supply -15.0 V \pm 1% -500 MA

3.3.1 INITIAL TEST CONDITIONS

ADJUST R20 SO THAT PIN 20 VOLTAGE $>-2.02V$ AND $<-1.98V$

CONNECT THE FOLLOWING TEST POINT CHANNELS:

121 TO U27-1, 119 TO U27-2
123 TO U27-3, 129 TO U27-4
125 TO U27-5, 131 TO U27-6
127 TO U27-7, 133 TO U27-9
141 TO U18-7, 143 TO U18-15

AON 67
LO 67

VERIFY THAT DS1 IS ILLUMINATED.

PUT 10K OHM PULL UPS (+5V) ON PINS 7,8,9,10,63,64,65,23,83,88,27,
61,76,13,79

SET ALEVELS ALO = 0.00V AHI = 5.00V THRESHOLD 1.50V
SET BLEVELS BLO = -1.9V BHI = -.9V

USE ALEVELS ON 7 8 9 10 63 64 65 23 83 88 27 61
USE BLEVELS ON 15 70 78 22

3.3.2 SIGNATURE LEVEL TEST 1

HI 7 8 9 10 63 64 65 23 83 88 27 61

HI 17 97 33 92 35 91 38
NR 7 8 9 10 63 64 65 23 83 88 27 42 12 43 98 68 45
NR 301 302 303 304 305 306 307 308
EL 304 302 303 305 307 308 76
EH 61 301 306 13 79
! end of TEST_1

RECORD

3.3.3 DC MEASUREMENT TESTS 1 THROUGH 3**3.3.3.1**

DCMEASURE IMIN -5MA IMAX 5MA AT 5V ON 4
! end D.C. TEST_1

RECORD

3.3.3.2

DCMEASURE IMIN -5MA IMAX 5MA AT 5V ON 5
! end D.C. TEST_2

RECORD

3.3.3.3

DCMEASURE IMIN -5MA IMAX 5MA AT 5V ON 60
! end D.C. TEST_3

RECORD

3.3.4 SIGNATURE LEVEL TESTS 2 THROUGH 4

3.3.4.1

HI 80 29 28 15 70 78 22
! end of TEST_2

RECORD

3.3.4.2

LO 201 66 11
! end of TEST_3

RECORD

3.3.4.3

LO 97
EL 61
! end of TEST_4

RECORD

3.3.5 DC MEASUREMENT TESTS 4 THROUGH 6

3.3.5.1

DCMEASURE IMIN 50MA IMAX 70MA AT 5V ON 4
! end D.C. TEST_4

RECORD

3.3.5.2

DCMEASURE IMIN 50MA IMAX 70MA AT 5V ON 5
! end D.C. TEST_5

RECORD

3.3.5.3

DCMEASURE IMIN 50MA IMAX 70MA AT 5V ON 60
! end D.C. TEST_6

RECORD

3.3.6 SIGNATURE LEVEL TESTS 5 THROUGH 123

3.3.6.1

HI 97
LO 28
EH 4 60 5 61
! end of TEST_5

RECORD

3.3.6.2

EL 61

! end of TEST_6

RECORD**3.3.6.3**

LO 80 29 15 70 78 22

! end of TEST_7

RECORD**3.3.6.4**

HI 80 29 28 15 70 78 22

! end of TEST_8

RECORD**3.3.6.5**

LO 33 92 35 91 38

EL 306

EH 76

! end of TEST_9

RECORD**3.3.6.6**

HI 38

! end of TEST_10

RECORD**3.3.6.7**

LO 38

HI 91

EL 301

EH 303

! end of TEST_11

RECORD**3.3.6.8**

HI 38

EL 76 79

EH 304 305 306 308

! end of TEST_12

RECORD**3.3.6.9**

LO 91 38

HI 35

EL 304 308 13

EH 307 79

! end of TEST_13

RECORD

3.3.6.10

HI 38
EL 303 305 306 307
EH 76 13
! end of TEST_14

RECORD**3.3.6.11**

LO 38
HI 91
! end of TEST_15

RECORD**3.3.6.12**

HI 38
EL 303 305 306 307
EH 301 76 13
! end of TEST_16

RECORD**3.3.6.13**

LO 38 91 35
HI 92
! end of TEST_17

RECORD**3.3.6.14**

HI 38
! end of TEST_18

RECORD**3.3.6.15**

LO 38
HI 91
EL 76 13
EH 305 306 307
! end of TEST_19

RECORD**3.3.6.16**

HI 38
EL 306 79
EH 304 302 308 76
! end of TEST_20

RECORD**3.3.6.17**

LO 38 91
HI 35
EL 304 76
EH 306
! end of TEST_21

RECORD

3.3.6.18

HI 38
EL 301
EH 303
! end of TEST_22

RECORD**3.3.6.19**

LO 38
HI 91
EL 302 303 305 306 307 308
EH 76 13 79
! end of TEST_23

RECORD**3.3.6.20**

HI 38
EL 302 303 305 306 307 308
EH 301 76 13 79
! end of TEST_24

RECORD**3.3.6.21**

LO 38 91 35 92
HI 33
EL 76
EH 306
! end of TEST_25

RECORD**3.3.6.22**

HI 38
EL 306
EH 76
! end of TEST_26

RECORD**3.3.6.23**

LO 38
HI 91
EL 301
EH 303
! end of TEST_27

RECORD**3.3.6.24**

HI 38
EL 303
! end of TEST_28

RECORD

3.3.6.25

LO 38 91
HI 35
EL 76 13
EH 306 303 305 307
! end of TEST_29

RECORD**3.3.6.26**

HI 38
EL 306 303 305 307
EH 76 13
! end of TEST_30

RECORD**3.3.6.27**

LO 38
HI 91
! end of TEST_31

RECORD**3.3.6.28**

HI 38
EL 76
EH 301 306
! end of TEST_32

RECORD**3.3.6.29**

LO 38 91 35
HI 92
! end of TEST_33

RECORD**3.3.6.30**

HI 38
EL 306
EH 76
! end of TEST_34

RECORD**3.3.6.31**

LO 38
HI 91
EL 76 13
EH 305 306 307
! end of TEST_35

RECORD

3.3.6.32

HI 38
EL 301 305 306 307
EH 76 13
! end of TEST_36

RECORD**3.3.6.33**

LO 91 38
HI 35
EL 76 13 79
EH 301 302 305 306 307 308
! end of TEST_37

RECORD**3.3.6.34**

HI 38
EL 301 76 13 79
EH 302 303 305 306 307 308
! end of TEST_38

RECORD**3.3.6.35**

LO 38
HI 91
EL 302 303 305 306 307 308
EH 76 13 79
! end of TEST_39

RECORD**3.3.6.36**

HI 38
EL 76
EH 301 306
! end of TEST_40

RECORD**3.3.6.37**

LO 33 92 35 91 38 80
EL 306
EH 76
! end of TEST_41

RECORD**3.3.6.38**

HI 80
! end of TEST_42

RECORD

3.3.6.39

PULSE 1 TIMES PIN 28

LO 29

HI 29

PULSE 3 TIMES PIN 28

LO 17

EL 8 9 42 12 43 98

EH 68 45 102 46 69 48 106 50 40 41 96 99 89 32 94

! end of TEST_43

RECORD

3.3.6.40

HI 17

LO 80

! end of TEST_44

RECORD

3.3.6.41

LO 28

! end of TEST_45

RECORD

3.3.6.42

HI 28

EL 89 32 94 37

! end of TEST_46

RECORD

3.3.6.43

LO 28

! end of TEST_47

RECORD

3.3.6.44

HI 28

EH 89 32 94 37

! end of TEST_48

RECORD

3.3.6.45

LO 28

EL 65

EH 42

! end of TEST_49

RECORD

3.3.6.46

PULSE 1 TIMES PIN 17

HI 80

NR 65

EL 42

! end of TEST_50

RECORD

3.3.6.47

LO 80

HI 80

! end of TEST_51

RECORD**3.3.6.48**

PULSE 2 TIMES PIN 28

HI 28

LO 28

EL 65 89 32 94 37

EH 42

! end of TEST_52

RECORD**3.3.6.49**

HI 28

LO 28

EI 40 41 96 99

EH 89 32 94 37

! end of TEST_53

RECORD**3.3.6.50**

HI 28

LO 28

EL 16 89 32 94 37

EH 40 41 96 99

! end of TEST_54

RECORD**3.3.6.51**

HI 28

LO 28

NR 65

EL 64 42

EH 12 89 32 94 37

! end of TEST_55

RECORD**3.3.6.52**

PULSE 2 TIMES PIN 28

HI 28

LO 28

EL 65 89 32 94 37

EH 42

! end of TEST_56

RECORD

3.3.6.53

PULSE 2 TIMES PIN 28

HI 28

LO 28

NR 64 65

EL 42 12

EH 43 89 32 94 37

! end of TEST_57

RECORD

3.3.6.54

PULSE 1 TIMES PIN 28

HI 28

LO 28

EH 40 41 96 99 89 32 94 37

! end of TEST_58

RECORD

3.3.6.55

HI 28

LO 28

EL 65 89 32 94 37

EH 42

! end of TEST_59

RECORD

3.3.6.56

PULSE 2 TIMES PIN 28

HI 28

LO 28

NR 65

EL 64 42

EH 12 89 32 94 37

! end of TEST_60

RECORD

3.3.6.57

HI 28

LO 28

EL 40 41 96 99 89 32 94 37

! end of TEST_61

RECORD

3.3.6.58

PULSE 1 TIMES PIN 28

HI 28

LO 28

EL 65 89 32 94 37

EH 42 40 41 96 99

! end of TEST_62

RECORD

3.3.6.59

HI 28
LO 28
EL 40 41 96 99
EH 89 32 94 37
! end of TEST_63

RECORD**3.3.6.60**

PULSE 1 TIMES PIN 28
HI 28
LO 28
NR 64 65
EL 42 12 43
EH 98 89 32 94 37 40 41 96 99
! end of TEST_64

RECORD**3.3.6.61**

PULSE 1 TIMES PIN 28
HI 28
LO 28
EH 40 41 96 99 89 32 94 37
! end of TEST_65

RECORD**3.3.6.62**

HI 28
LO 28
EL 65 47 104 105 49 89 32 94 37
EH 42 100 44 101 103
! end of TEST_66

RECORD**3.3.6.63**

PULSE 2 TIMES PIN 28
HI 28
LO 28
NR 65
EL 64 42
EH 12 89 32 94 37
! end of TEST_67

RECORD**3.3.6.64**

PULSE 2 TIMES PIN 28
HI 28
LO 28
EL 65 89 32 94 37
EH 42
! end of TEST_68

RECORD

3.3.6.65

PULSE 2 TIMES PIN 28

HI 28

LO 28

NR 64 65

EL 42 12

EH 43 89 32 94 37

! end of TEST_69

RECORD**3.3.6.66**

PULSE 1 TIMES PIN 28

HI 28

LO 28

NR 9

EL 68 45 102 46

EH 40 41 96 99 89 32 94 37

! end of TEST_70

RECORD**3.3.6.67**

HI 28

LO 28

EL 9 65 89 32 94 37

EH 42 68 45 102 46

! end of TEST_71

RECORD**3.3.6.68**

HI 28

LO 28

NR 8

EL 69 48 106 50 40 41 96 99

EH 89 32 94 37

! end of TEST_72

RECORD**3.3.6.69**

PULSE 1 TIMES PIN 28

HI 28

LO 28

NR 65

EL 7 64 42 100 44 101 103 8

EH 12 47 104 105 49 69 48 106 50 40 41 96 99

! end of TEST_73

RECORD

3.3.6.70

HI 28
LO 28
EL 90 34 36 93 40 41 96 99 89 32 94 37
EH 25 26 31 87
! end of TEST_74

RECORD**3.3.6.71**

EL 90
! end of TEST_75

RECORD**3.3.6.72**

PULSE 1 TIMES PIN 28
HI 28
LO 28
EL 63 65 89 32 94 37
EH 42 40 41 96 99
! end of TEST_76

RECORD**3.3.6.73**

HI 28
LO 28
EL 10 83 27 40 41 96 99
EH 23 88 89 32 94 37
! end of TEST_77

RECORD**3.3.6.74**

PULSE 1 TIMES PIN 28
LO 29
HI 29
EL 89 32 94 37
EH 40 41 96 99
! end of TEST_78

RECORD**3.3.6.75**

LO 29
HI 29
! end of TEST_79

RECORD**3.3.6.76**

PULSE 1 TIMES PIN 29
LO 29
HI 29
! end of TEST_80

RECORD

3.3.6.77

PULSE 1 TIMES PIN 29

LO 29

HI 29

! end of TEST_81

RECORD**3.3.6.78**

LO 29

HI 29

EH 95

EL 39

! end of TEST_82

RECORD**3.3.6.79**

LO 29

HI 29

! end of TEST_83

RECORD**3.3.6.80**

HI 66 11

EH 7 8 9 10 63 64 65

! end of TEST_84

RECORD**3.3.6.81**

LO 97 66 11

LO 15

LO 78

LO 80

HI 80

EL 61 7 8 9 10 63 64 65

! end of TEST_85

RECORD**3.3.6.82**

LO 80

HI 80

! end of TEST_86

RECORD**3.3.6.83**

LO 80

HI 80

! end of TEST_87

RECORD

3.3.6.84

HI 28
LO 28
EL 42 12 43 98
EH 63 64 65 89 32 94 37
! end of TEST_88

RECORD**3.3.6.85**

PULSE 1 TIMES PIN 28
HI 28
LO 28
EL 65
EH 42 89 32 94 37
! end of TEST_89

RECORD**3.3.6.86**

HI 28
LO 28
EL 40 41 96 99 89 32 94 37
! end of TEST_90

RECORD**3.3.6.87**

PULSE 1 TIMES PIN 28
HI 28
LO 28
EL 64 42 89 32 94 37
EH 65 12 40 41 96 99
! end of TEST_91

RECORD**3.3.6.88**

PULSE 5 TIMES PIN 28
HI 28
LO 28
EL 42 12 89 32 94 37
EH 64 65 43
! end of TEST_92

RECORD

3.3.6.89

PULSE 8 TIMES PIN 28
LO 70
PULSE 20 TIMES PIN 80
HI 28
LO 28
PULSE 2 TIMES PIN 28
HI 28
LO 28
EL 12 43
EH 64 98
! end of TEST_93

RECORD**3.3.6.90**

PULSE 2 TIMES PIN 28
HI 28
LO 28
EL 65
EH 42 89 32 94 37
! end of TEST_94

RECORD**3.3.6.91**

PULSE 2 TIMES PIN 28
HI 28
LO 28
EL 64 42 47 104 105 49 89 32 94 37
EH 65 83 27 12 100 44 101 103
! end of TEST_95

RECORD**3.3.6.92**

PULSE 10 TIMES PIN 28
LO 29
HI 29
LO 29
HI 29
EL 65 12 40 41 96 99
EH 64 42 43
! end of TEST_96

RECORD**3.3.6.93**

LO 29
HI 29
EH 39
EL 96
! end of TEST_97

RECORD

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3.3.6.94

LO 29

HI 29

! end of TEST_98

RECORD**3.3.6.95**

PULSE 1 TIMES PIN 29

LO 29

HI 29

EL 63 64

! end of TEST_99

RECORD**3.3.6.96**

PULSE 14 TIMES PIN 29

HI 28

LO 28

EL 68 45 102 46 39

EH 40 41 96 99 89 32 94 37 95

! end of TEST_100

RECORD**3.3.6.97**

PULSE 1 TIMES PIN 28

HI 28

LO 28

EL 69 48 106 50 40 41 96 99 42

EH 89 32 94 37 65 12 68 45 102 46

! end of TEST_101

RECORD**3.3.6.98**

PULSE 5 TIMES PIN 28

HI 28

LO 28

EL 23 88 40 41 96 99 12 43 98 100 44 101 103

EH 10 83 27 89 32 94 37 69 48 106 50 47 104 105 49

! end of TEST_102

RECORD**3.3.6.99**

PULSE 2 TIMES PIN 28

HI 28

LO 28

EL 10 25 26 31 87 40 41 96 99 89 32 94 37 65

EH 90 34 36 93 42

! end of TEST_103

RECORD

3.3.6.100

EH 90

! end of TEST_104

RECORD

3.3.6.101

HI 15 70 78

PULSE 3 TIMES PIN 80

HI 28

LO 28

EH 16 40 41 96 99 89 32 94 37

! end of TEST_105

RECORD

3.3.6.102

PULSE 2 TIMES PIN 28

HI 28

LO 28

EL 40 41 96 99 89 32 94 37 42

EH 65 12

! end of TEST_106

RECORD

3.3.6.103

PULSE 25 TIMES PIN 28

HI 28

LO 28

EL 65 83 27 47 104 105 49 89 32 94 37 16

EH 7 42 100 44 101 103 98 40 41 96 99

! end of TEST_107

RECORD

3.3.6.104

PULSE 30 TIMES PIN 28

LO 15 70 78 22

LO 80

PULSE 2 TIMES PIN 80

HI 80

HI 92 35 38

EL 301 76 13 79 7 12 98 100 44 101 103

EH 302 303 305 306 307 308 23 88 43 47 104 105 49

! end of TEST_108

RECORD

3.3.6.105

LO 80

! end of TEST_109

RECORD

3.3.6.106

HI 80

! end of TEST_110

RECORD**3.3.6.107**

PULSE 32 TIMES PIN 28

HI 28

LO 28

EL 42 12 47 104 105 49

EH 65 68 45 102 46 89 32 94 37 83 27 98 100 44 101 103

! end of TEST_111

RECORD**3.3.6.108**

PULSE 6 TIMES PIN 28

HI 28

LO 28

EL 23 88 40 41 96 99 89 32 94 37 100 44 101 103 90 34 36 93

EH 10 83 27 12 47 104 105 49 25 26 31 87

! end of TEST_112

RECORD**3.3.6.109**

EL 23

! end of TEST_113

RECORD**3.3.6.110**

PULSE 7 TIMES PIN 28

HI 28

LO 28

EL 65 83 27 47 104 105 49 89 32 94 37 10 12 25 26 31 87

EH 7 42 100 44 101 103 90 34 36 93 40 41 96 99

! end of TEST_114

RECORD**3.3.6.111**

EL 65

! end of TEST_115

RECORD**3.3.6.112**

PULSE 7 TIMES PIN 28

HI 15 70 78 22

LO 80

EL 40 41 96 99

EH 12 89 32 94 37

! end of TEST_116

RECORD

3.3.6.113

HI 80

! end of TEST_117

RECORD**3.3.6.114**

LO 80

! end of TEST_118

RECORD**3.3.6.115**

HI 80

! end of TEST_119

RECORD**3.3.6.116**

LO 80

! end of TEST_120

RECORD**3.3.6.117**

HI 80

! end of TEST_121

RECORD**3.3.6.118**

PULSE 6 TIMES PIN 28

HI 28

LO 28

EL 69 48 106 50 40 41 96 99 89 32 94 37 12

EH 8

! end of TEST_122

RECORD**3.3.6.119**

PULSE 5 TIMES PIN 28

HI 28

LO 28

EL 83 40 41 96 99 89 32 94 37 7 8 100 44 101 103 90 34 36 93

EH 23 10 27 12 69 48 106 50 47 104 105 49 25 26 31 87

! end of TEST_123

RECORD

! END OF TEST

4.0 QUALITY ASSURANCE PROVISIONS

Not applicable.

5.0 PREPARATION FOR DELIVERY

Not applicable.

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6.0 NOTES

None.

TEST DATA SHEET

PART NUMBER 978601	REV NUMBER	UNIT NAME CCA Data Regenerator	SERIAL NUMBER	STATION NO.	PAGE 1 OF 5	
PROGRAM	PROCEDURE NUMBER	REV.	OPER NO.	CUST REP	ACCEPT REJECT	
TRC-170	TR978601				DATE	
PARA NO.	FUNCTION	PARAMETER	ACCEPT VALUE	MEASURED VALUE	RETEST DATA	AUDIT
3.3.2	Signature Level Test 1	-	verify			
3.3.3.1	DC Measurement Test 1	-				
3.3.3.2	└┐	-				
3.3.3.3	└┐	-				
3.3.4.1	Signature Level Test 2	-				
3.3.4.2	└┐	-				
3.3.4.3	└┐	-				
3.3.5.1	DC Measurement Test 4	-				
3.3.5.2	└┐	-				
3.3.5.3	└┐	-				
3.3.6.1	Signature Level Test 5	-				
3.3.6.2	└┐	-				
3.3.6.3	└┐	-				
3.3.6.4	└┐	-				
3.3.6.5	└┐	-				
3.3.6.6	└┐	-				
3.3.6.7	└┐	-				
3.3.6.8	└┐	-				
3.3.6.9	└┐	-				
3.3.6.10	└┐	-				
3.3.6.11	└┐	-				
3.3.6.12	└┐	-				
3.3.6.13	└┐	-				

TEST DATA SHEET

PART NUMBER 978601	REV NUMBER	UNIT NAME CCA Data Regenerator	SERIAL NUMBER	STATION NO.	PAGE 2 OF 5		
PROGRAM	PROCEDURE NUMBER	REV.	OPER NO.	TEST LEVEL	CUST REP	ACCEPT	REJECT
TRC-170	TR978601					DATE	
PARA NO.	FUNCTION	PARAMETER	ACCEPT VALUE	MEASURED VALUE	A _C	R _E	AUDIT
3.3.6.14	Signature Level Test 18	-					
3.3.6.15	19	-					
3.3.6.16	20	-					
3.3.6.17	21	-					
3.3.6.18	22	-					
3.3.6.19	23	-					
3.3.6.20	24	-					
3.3.6.21	25	-					
3.3.6.22	26	-					
3.3.6.23	27	-					
3.3.6.24	28	-					
3.3.6.25	29	-					
3.3.6.26	30	-					
3.3.6.27	31	-					
3.3.6.28	32	-					
3.3.6.29	33	-					
3.3.6.30	34	-					
3.3.6.31	35	-					
3.3.6.32	36	-					
3.3.6.33	37	-					
3.3.6.34	38	-					
3.3.6.35	39	-					
3.3.6.36	40	-					
3.3.6.37	41	-					
3.3.6.38	42	-					
3.3.6.39	43	-					
3.3.6.40	44	-					

TEST DATA SHEET

PART NUMBER 978601	REV NUMBER	UNIT NAME CCA Data Regenerator	SERIAL NUMBER	STATION NO.	PAGE 3 OF 5			
PROGRAM	PROCEDURE NUMBER	REV.	TEST LEVEL	CUST REP	ACCEPT REJECT			
TRC-170	TR978601							
DATE								
PARA NO.	FUNCTION	PARAMETER	ACCEPT VALUE	MEASURED VALUE	A _C	P _E	RETEST DATA	AUDIT
3.3.6.41	Signature Level	Test 45						
3.3.6.42		46						
3.3.6.43		47						
3.3.6.44		48						
3.3.6.45		49						
3.3.6.46		50						
3.3.6.47		51						
3.3.6.48		52						
3.3.6.49		53						
3.3.6.50		54						
3.3.6.51		55						
3.3.6.52		56						
3.3.6.53		57						
3.3.6.54		58						
3.3.6.55		59						
3.3.6.56		60						
3.3.6.57		61						
3.3.6.58		62						
3.3.6.59		63						
3.3.6.60		64						
3.3.6.61		65						
3.3.6.62		66						
3.3.6.63		67						
3.3.6.64		68						
3.3.6.65		69						
3.3.6.66		70						
3.3.6.67		71						

TEST DATA SHEET

PART NUMBER 978601	REV NUMBER	UNIT NAME CCA Data Regenerator	SERIAL NUMBER	STATION NO.	PAGE 4 OF 5	
PROGRAM	PROCEDURE NUMBER	REV.	OPER NO.	CUST REP	ACCEPT REJECT	
TRC-170	TR978601				DATE	
PARA NO.	FUNCTION	PARAMETER	ACCEPT VALUE	MEASURED VALUE	RETEST DATA	AUDIT
3.3.6.68	Signature Level Test 72	-				
3.3.6.69	73	-				
3.3.6.70	74	-				
3.3.6.71	75	-				
3.3.6.72	76	-				
3.3.6.73	77	-				
3.3.6.74	78	-				
3.3.6.75	79	-				
3.3.6.76	80	-				
3.3.6.77	81	-				
3.3.6.78	82	-				
3.3.6.79	83	-				
3.3.6.80	84	-				
3.3.6.81	85	-				
3.3.6.82	86	-				
3.3.6.83	87	-				
3.3.6.84	88	-				
3.3.6.85	89	-				
3.3.6.86	90	-				
3.3.6.87	91	-				
3.3.6.88	92	-				
3.3.6.89	93	-				
3.3.6.90	94	-				
3.3.6.91	95	-				
3.3.6.92	96	-				
3.3.6.93	97	-				
3.3.6.94	98	-				

TEST DATA SHEET

PART NUMBER 978601	REV NUMBER	UNIT NAME CCA Data Regenerator	SERIAL NUMBER	STATION NO.	PAGE 5 OF 5		
PROGRAM	PROCEDURE NUMBER	REV.	OPER NO.	TEST LEVEL	CUST REP		
TRC-170	TR978601						
PARA NO.	FUNCTION	PARAMETER	ACCEPT VALUE	MEASURED VALUE	A _C R _E J	RETEST DATA	AUDIT
3.3.6.95	Signature Level 1 Test	99					
3.3.6.96		100					
3.3.6.97		101					
3.3.6.98		102					
3.3.6.99		103					
3.3.6.100		104					
3.3.6.101		105					
3.3.6.102		106					
3.3.6.103		107					
3.3.6.104		108					
3.3.6.105		109					
3.3.6.106		110					
3.3.6.107		111					
3.3.6.108		112					
3.3.6.109		113					
3.3.6.110		114					
3.3.6.111		115					
3.3.6.112		116					
3.3.6.113		117					
3.3.6.114		118					
3.3.6.115		119					
3.3.6.116		120					
3.3.6.117		121					
3.3.6.118		122					
3.3.6.119		123					

SPECIFICATION NO.

SHEET

REVISION

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UC-590 (SLC 12/87)