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DISCLOSURE OF CONFIDENTIAL INFORMATION GENERALLY
(18 USC 1905)
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REVISIONS			
ZONE	REV	DESCRIPTION	DATE
	—	INITIAL RELEASE	16OCT95
	A	SH IDA REV. PL. AFFECTED. USE ALL PARTS IN-HOUSE. IN STOCK AND CURRENTLY ON ORDER. EFFECTIVITY IS NEXT BUY.	02O411U1 3MAY96
	B	SH IDA REV. PL. AFFECTED. USE ALL PARTS IN-HOUSE. IN STOCK AND CURRENTLY ON ORDER. EFFECTIVITY IS NEXT BUY.	1041021U1 30 SEP 96

NOTES:

1. ASSEMBLE PER ITEM 701.
2.

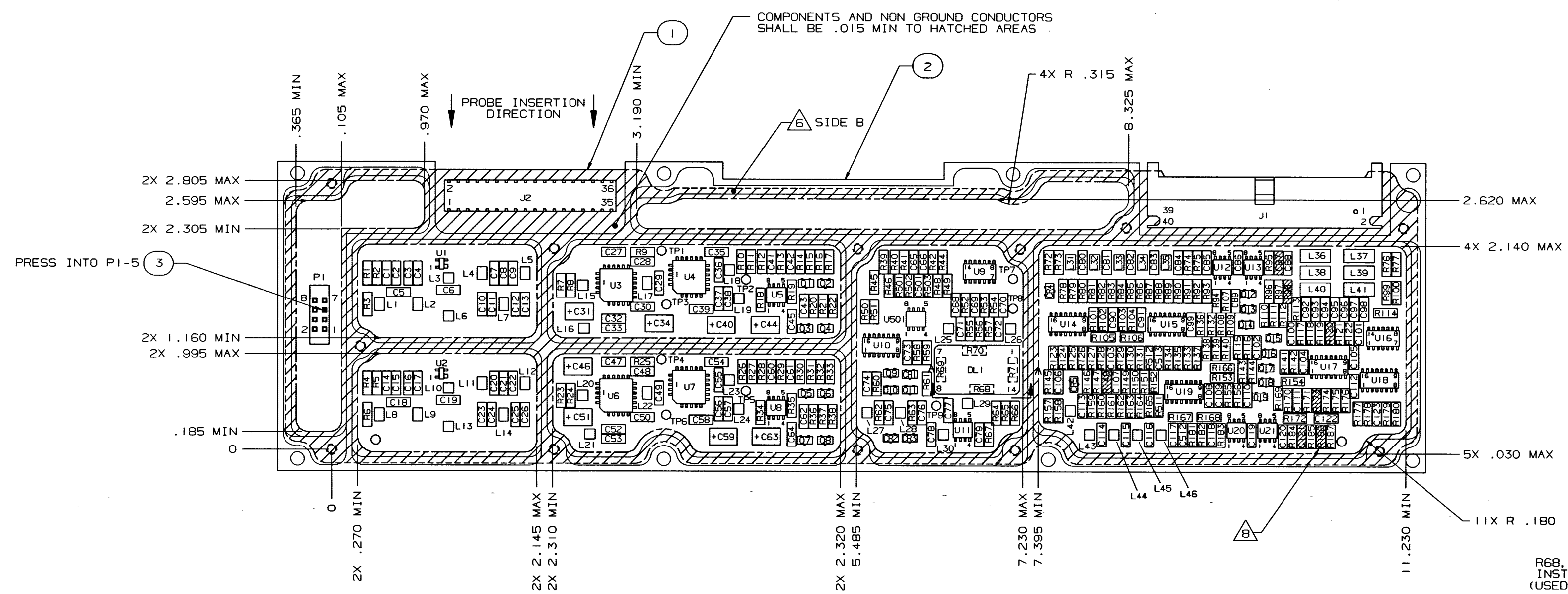
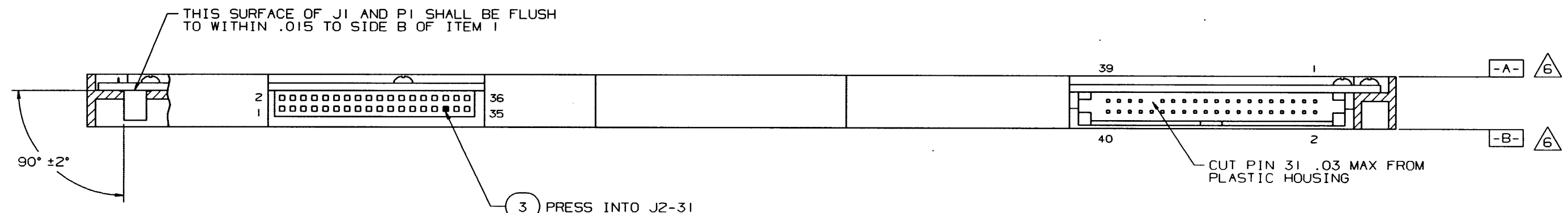
CAUTION
ELECTROSTATIC SENSITIVE COMPONENT
SPECIAL HANDLING REQUIRED

THIS ASSEMBLY INCLUDES COMPONENTS WHICH ARE SUBJECT TO DAMAGE BY ELECTROSTATIC CHARGES; THEREFORE, ALL COMPONENTS SHALL BE HANDLED IN ACCORDANCE WITH GUIDELINES FOR ELECTROSTATIC DISCHARGE CONTROL.
3. MAXIMUM COMPONENT HEIGHT SIDE B SHALL BE:
CONDUCTIVE CASE .230
NONCONDUCTIVE OR GROUNDED CASE .280 (EXCEPT J1 MAY BE .320 MAX).
4. COMPONENT LEAD PROTRUSION SHALL BE .060 MAXIMUM:
BARE COPPER PERMISSIBLE ON COMPONENT LEADS AT TRIMMED SURFACES.
5. SQUARE PADS ON PRINTED WIRING BOARD INDICATE PIN 1.
6. CONFORMAL COAT CCA PER ITEM 702, EXCEPT SURFACES A AND B OF THE HOUSING (ITEM 2), J1 (PINS AND CAVITY), J2, AND P1. COATING ON THE HOUSING IS NOT REQUIRED.
7. SOME COMPONENTS SHOWN OVERSIZE TO PROVIDE SPACE FOR DESIGNATORS.
8. SHADED COMPONENTS ARE NOT INSTALLED.

REV STATUS OF PARTS LIST SHALL BE SAME AS
BASIC DRAWING NUMBER
SEE SEPARATE PARTS LIST

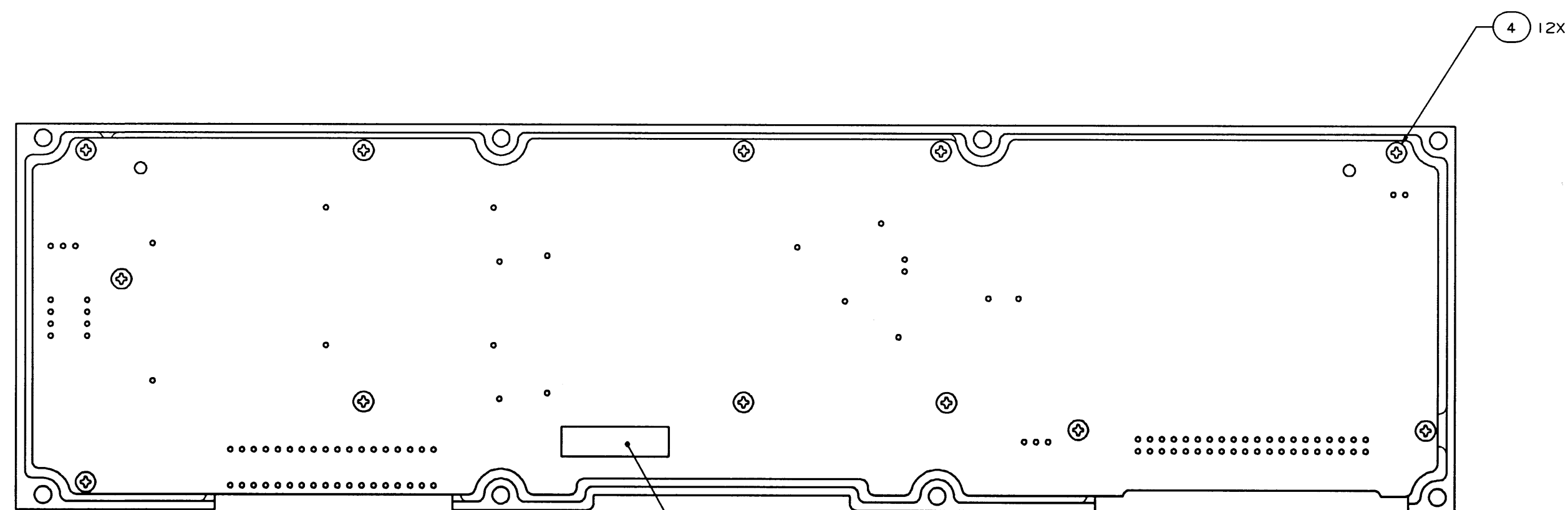
45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1										A B		REV		SHEET		INDEX		CONTRACT XS-852		OPERATIONAL NOTE																															
FOR HONEYWELL REFERENCE										INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1982										UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES: TOLERANCES: 2 PL DEC ± .01 3 PL DEC ± .005										DRAWN BY R. RICHARDS DATE 06SEP95		DATE 06SEP95		SIMILAR ASSEMBLY																	
MFG REF NO										MATERIAL-PROCESS-FINISH										MILITARY DESIGNATION										PROCESS, FINISH, SEE 00 40.										ITEM CODE 1PER EB6993841 3		CHECKED BY R. PINGEL DATE 06SEP95		DATE 06SEP95		Honeywell		COMMERCIAL FLIGHT SYSTEMS GROUP PHOENIX, ARIZONA			
DPA NO. A-16428										MATERIAL										PROCESS, FINISH, SEE 00 40.										THIRD ANGLE PROJECTION		APVD FOR MFG S. YATEEM DATE 06OCT95		DATE 06OCT95		TITLE		CIRCUIT CARD ASSEMBLY-RECEIVER, A4													
PRODUCT LINE NO. 3834										MATERIAL										PROCESS, FINISH, SEE 00 40.										THIRD ANGLE PROJECTION		APVD FOR DE O. MULLEN DATE 06OCT95		DATE 06OCT95		SIZE/SCALE CODE		DRAWING NO		REV											
AW/PS ANALYSIS EB 7510800										MATERIAL										PROCESS, FINISH, SEE 00 40.										THIRD ANGLE PROJECTION		APVD FOR ENGRG M. HOWK DATE 06OCT95		DATE 06OCT95		SCALE NONE		UNIT WT		SHEET 1 OF 14											
REF DWG										REF SPEC										MATERIAL										PROCESS, FINISH, SEE 00 40.										THIRD ANGLE PROJECTION		APVD FOR ENGRG M. HOWK DATE 06OCT95		DATE 06OCT95		SCALE NONE		UNIT WT		SHEET 1 OF 14	
7517400										7510700										MATERIAL										PROCESS, FINISH, SEE 00 40.										THIRD ANGLE PROJECTION		APVD FOR ENGRG M. HOWK DATE 06OCT95		DATE 06OCT95		SCALE NONE		UNIT WT		SHEET 1 OF 14	
NEXT ASSY										USED ON (SYS)										MATERIAL										PROCESS, FINISH, SEE 00 40.										THIRD ANGLE PROJECTION		APVD FOR ENGRG M. HOWK DATE 06OCT95		DATE 06OCT95		SCALE NONE		UNIT WT		SHEET 1 OF 14	
APPLICATION										MATERIAL										PROCESS, FINISH, SEE 00 40.										THIRD ANGLE PROJECTION										APVD FOR ENGRG M. HOWK DATE 06OCT95		DATE 06OCT95		SCALE NONE		UNIT WT		SHEET 1 OF 14			

REVISIONS			
ZONE	REV	DESCRIPTION	DATE
			APPROVED



VIEWING SIDE B
COVER NOT SHOWN FOR CLARITY

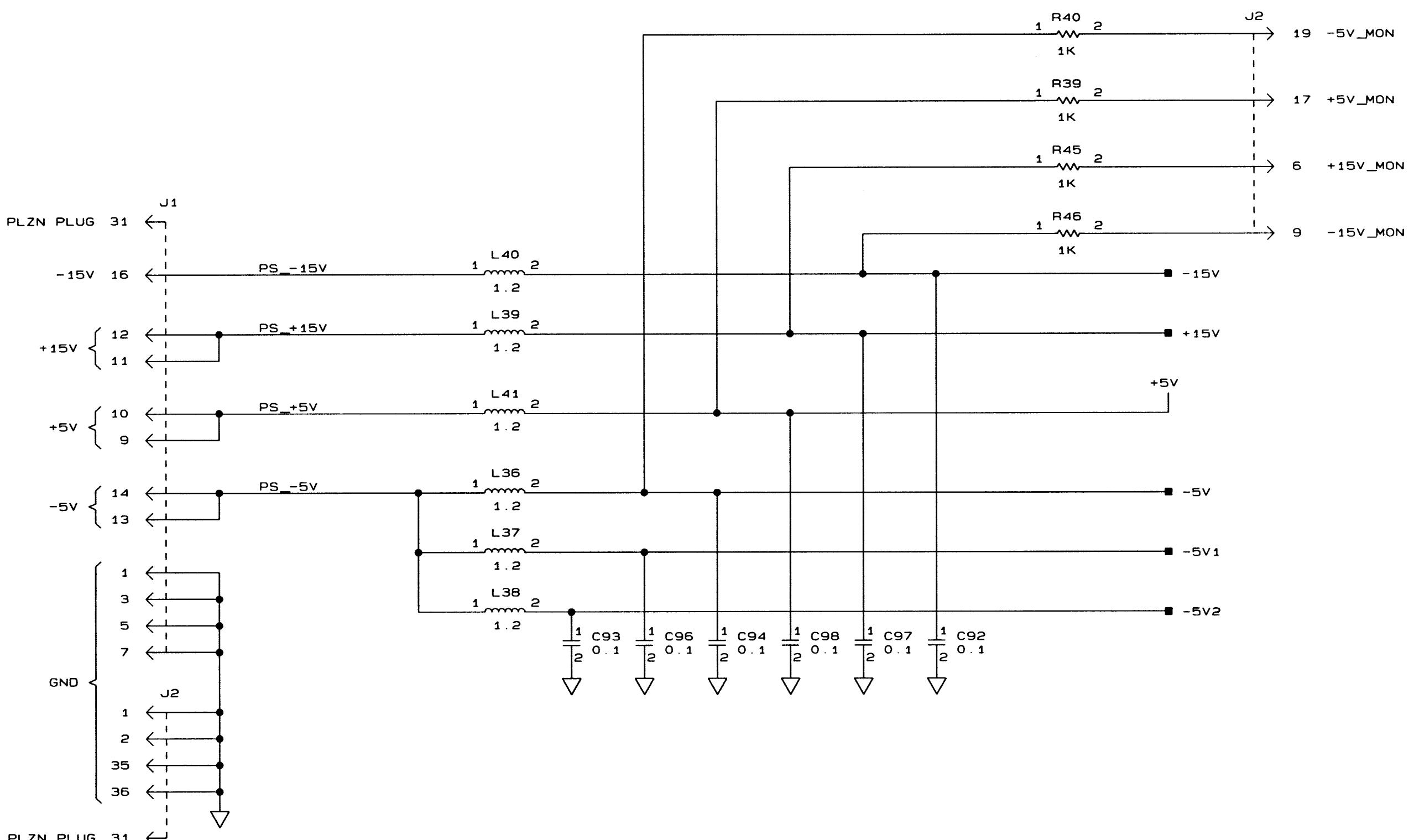
SECTION A-A
SCALE: NONE



VIEWING SIDE A

7517440-904 2

REVISIONS			
ZONE	REV	DESCRIPTION	DATE

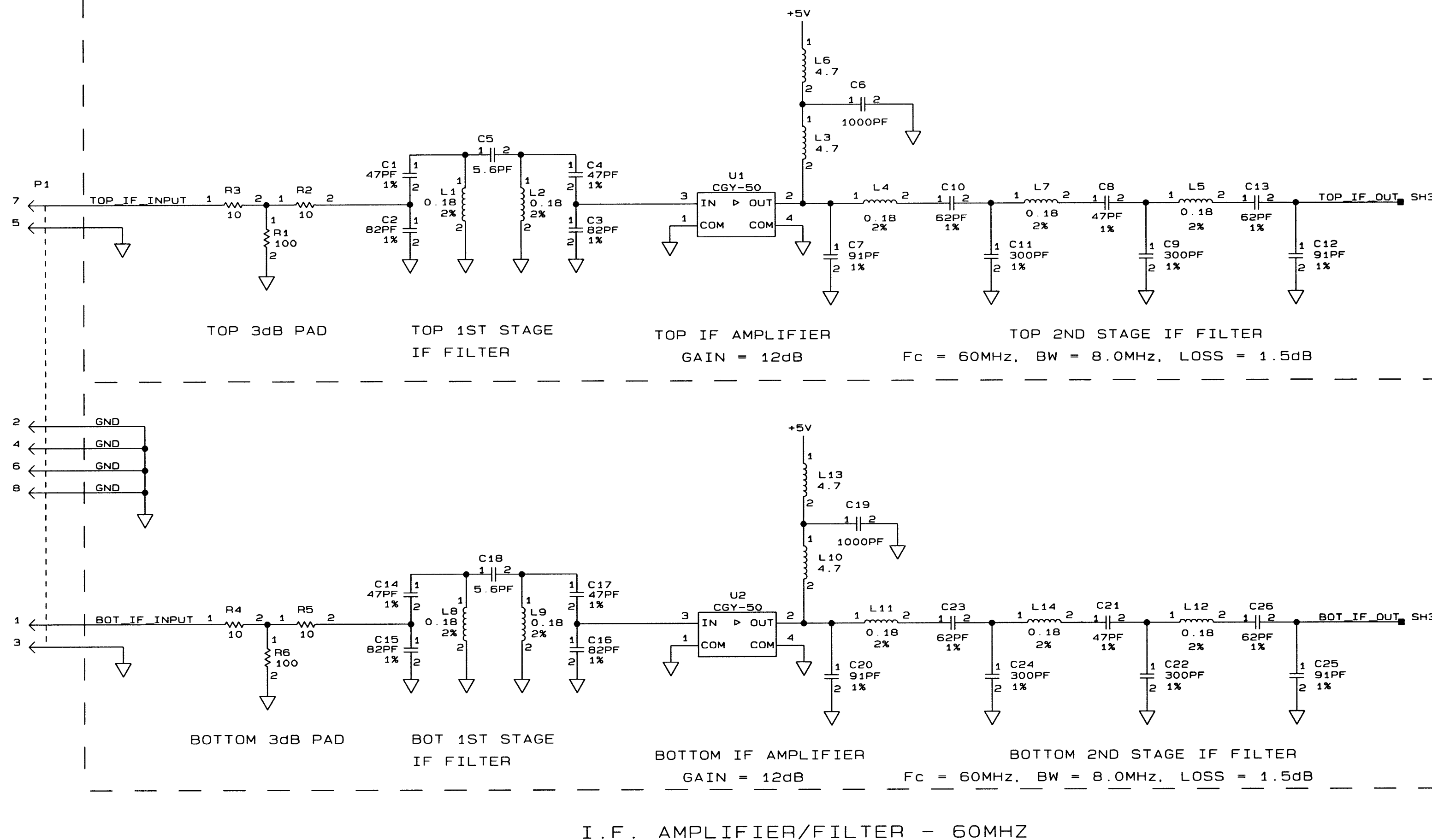


NOTES:
 UNLESS OTHERWISE SPECIFIED:
 1. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
 2. ALL RESISTANCE VALUES ARE IN OHMS.
 3. ALL INDUCTANCE VALUES ARE IN MICROHENRIES.
 4. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN;
 FOR COMPLETE DESIGNATIONS PREFIX PART
 DESIGNATION WITH SUBASSEMBLY DESIGNATION.
 5. INTERPRET DRAWING PER ANSI Y32.2-1975 AND
 ANSI/IEEE STD 991-1986. LOGIC SYMBOLS
 CONFORM TO ANSI/IEEE STD 91-1984.
 6. RESISTORS R68-R71 ARE USED ONLY TO SPACE DL1
 OFF OF THE PWB. ELECTRICAL CONTACT BETWEEN
 ANY OF THESE RESISTORS AND DL1 IS PERMISSIBLE.

POWER LINE FILTERS
 SCHEMATIC DIAGRAM SHEET NO. 1 OF 12

COMPUTER GENERATED

Honeywell	SEE FIRST SHEET FOR CONTRACT NUMBER. USE OR DISCLOSURE OF INFORMATION ON THIS SHEET IS SUBJECT TO THE RESTRICTIONS ON THE FIRST SHEET OF THIS DOCUMENT.	SIZE	CAGE CODE	DRAWING NO.	REV
		E	55939	7517440-904	-
		SCALE —		SHEET 3	

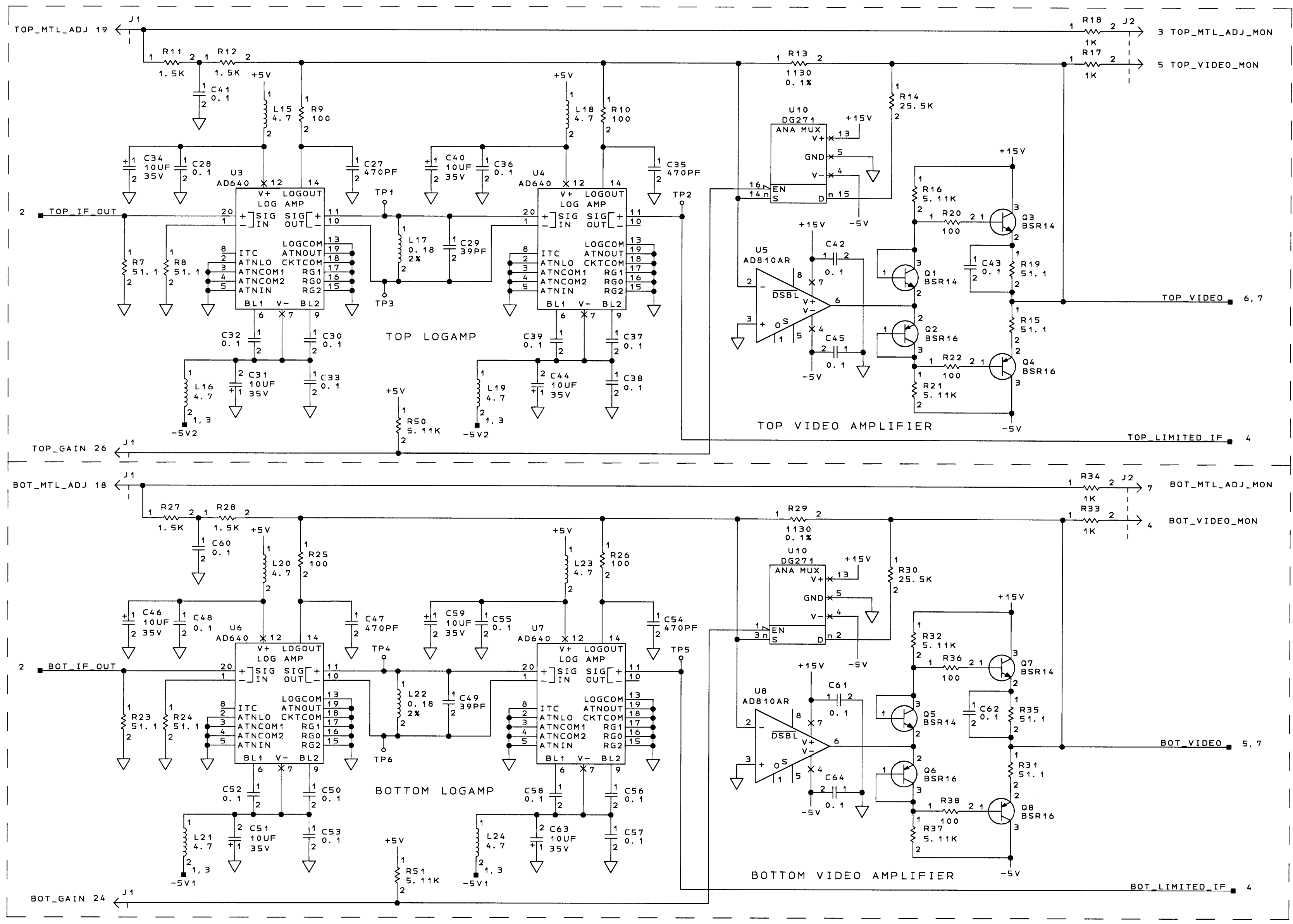


TOP AND BOT IF AMPLIFIER AND
IF FILTER

SCHEMATIC DIAGRAM SHEET NO. 2

COMPUTER GENERATED

REVISIONS			
ZONE	REV	DESCRIPTION	DATE
C4	F4	U5 AND U8 WERE OP-160.	20 July 99
		SEE DWG SH 1.	104102 (U)



LOG AMPLIFIERS

TOP AND BOT LOG AMPS
TOP AND BOT VIDEO AMPS

SCHEMATIC DIAGRAM SHEET NO. 3

COMPUTER GENERATED

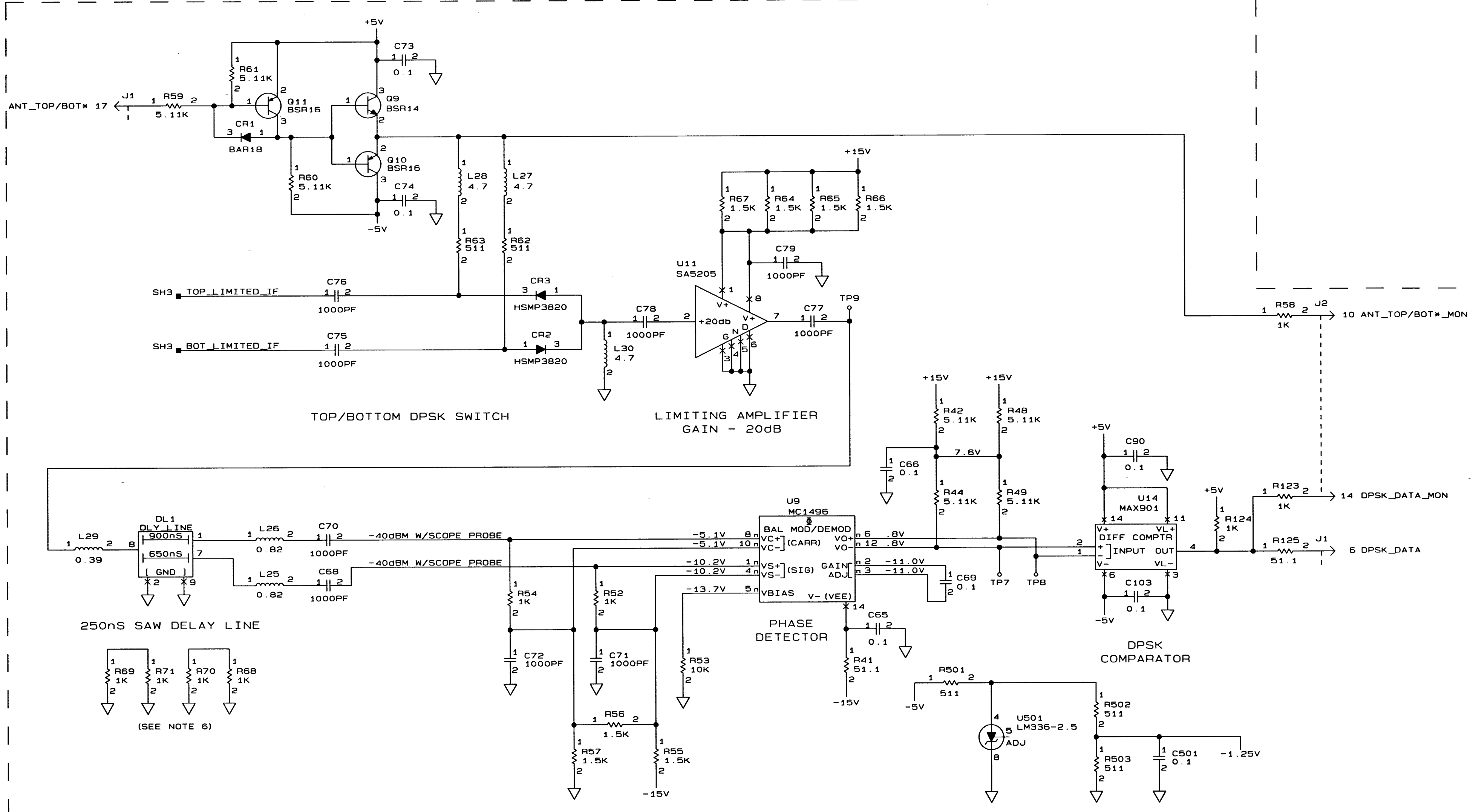
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		E	55939	7517440-904	B
		SCALE —			

2

1

REVISIONS		DATE	APPROVED
ZONE	REV		
A			

PARTS LIST DATA BASE
CHANGE ONLY
92041 (U)
SEE DWG SHEET 1



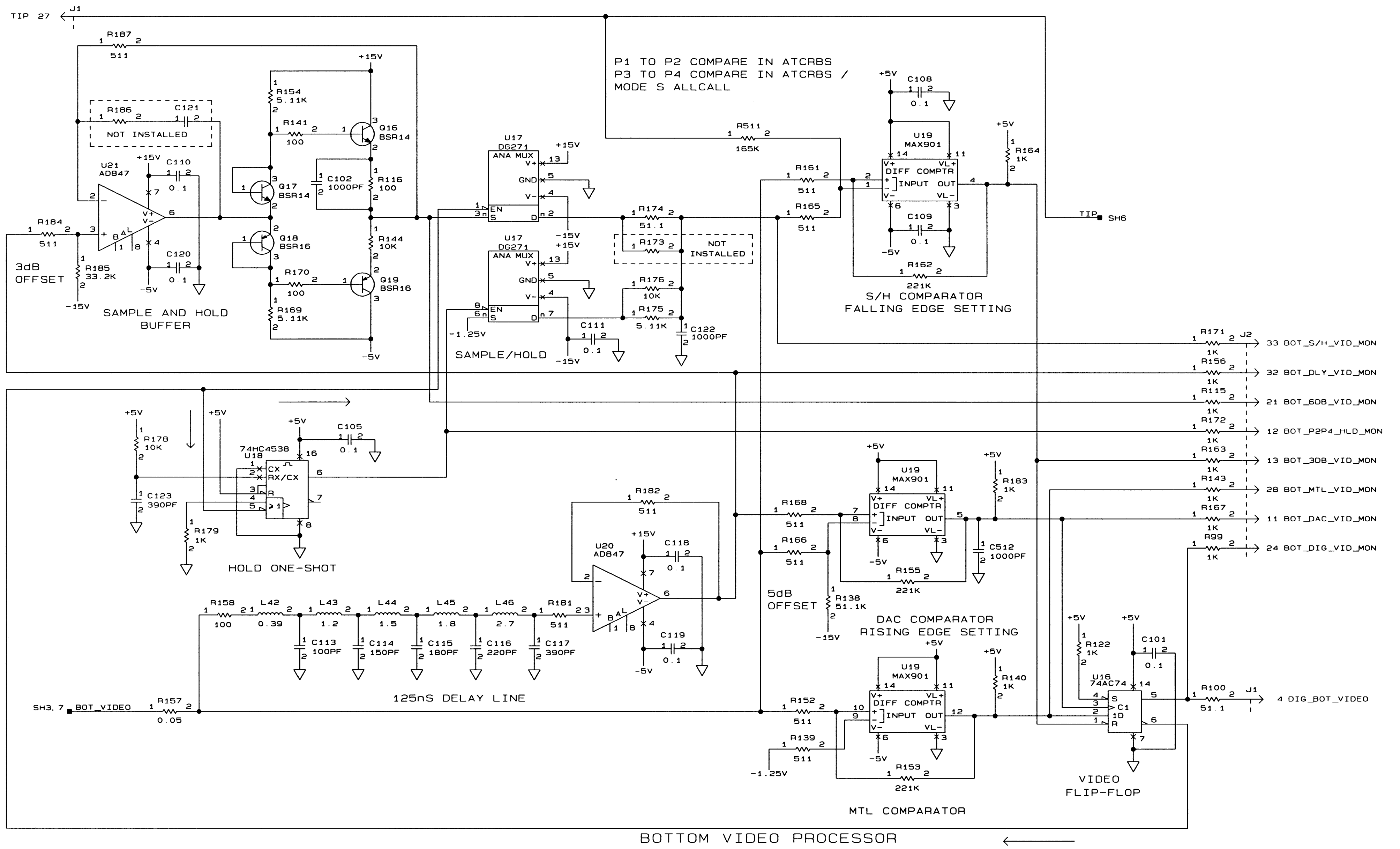
DPSK DEMODULATOR

TOP AND BOT
DPSK SWITCH/DPSK DEMODULATOR

SCHEMATIC DIAGRAM SHEET NO. 4

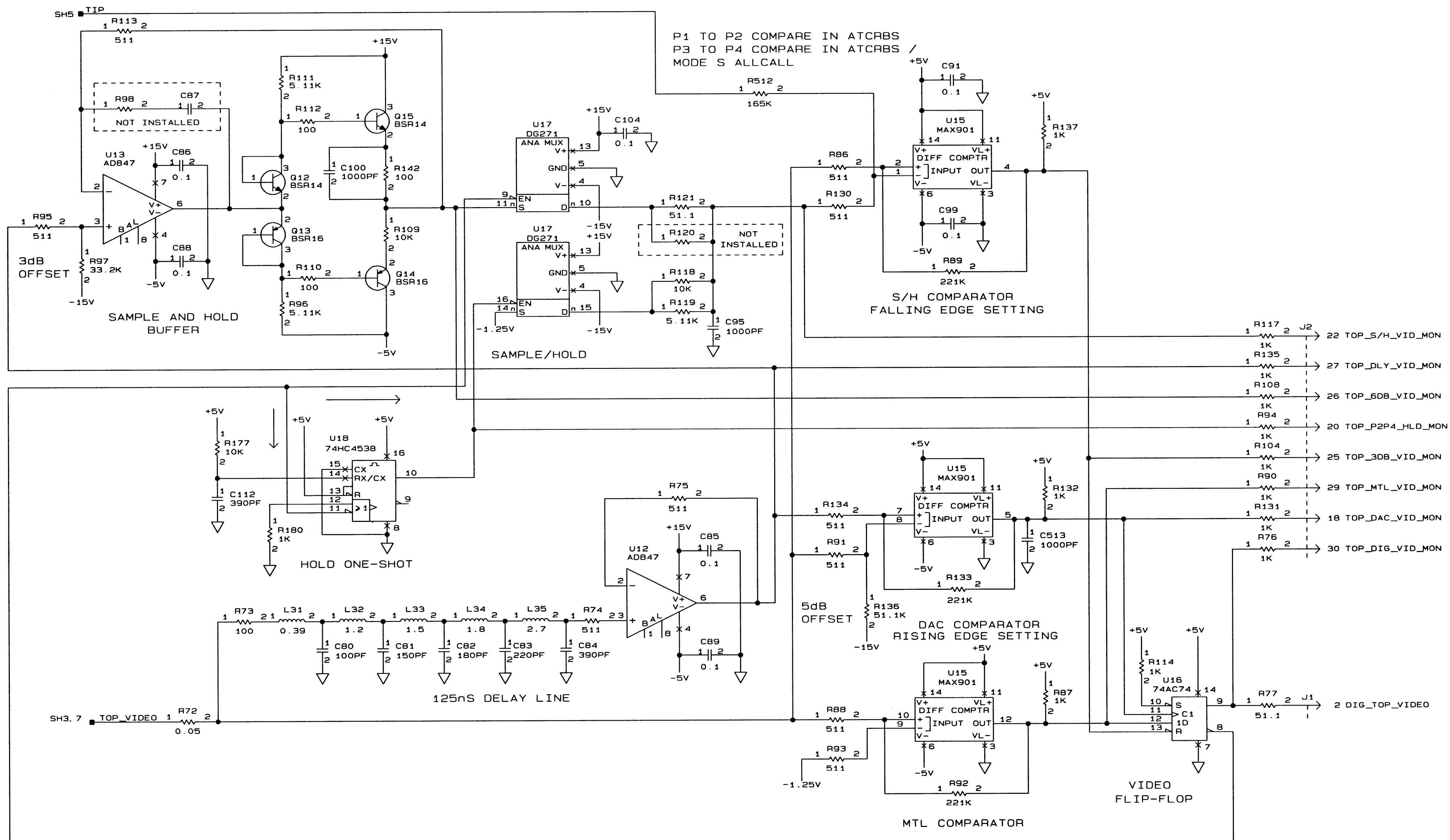
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Honeywell	SEE FIRST SHEET FOR CONTRACT NUMBER. USE OR DISCLOSURE OF INFORMATION ON THIS SHEET IS SUBJECT TO THE RESTRICTIONS ON THE FIRST SHEET OF THIS DOCUMENT.	SIZE E	CAGE CODE 55939	DRAWING NO. 7517440-904	REV A
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BOT VIDEO PROCESSOR
SCHEMATIC DIAGRAM SHEET NO. 5

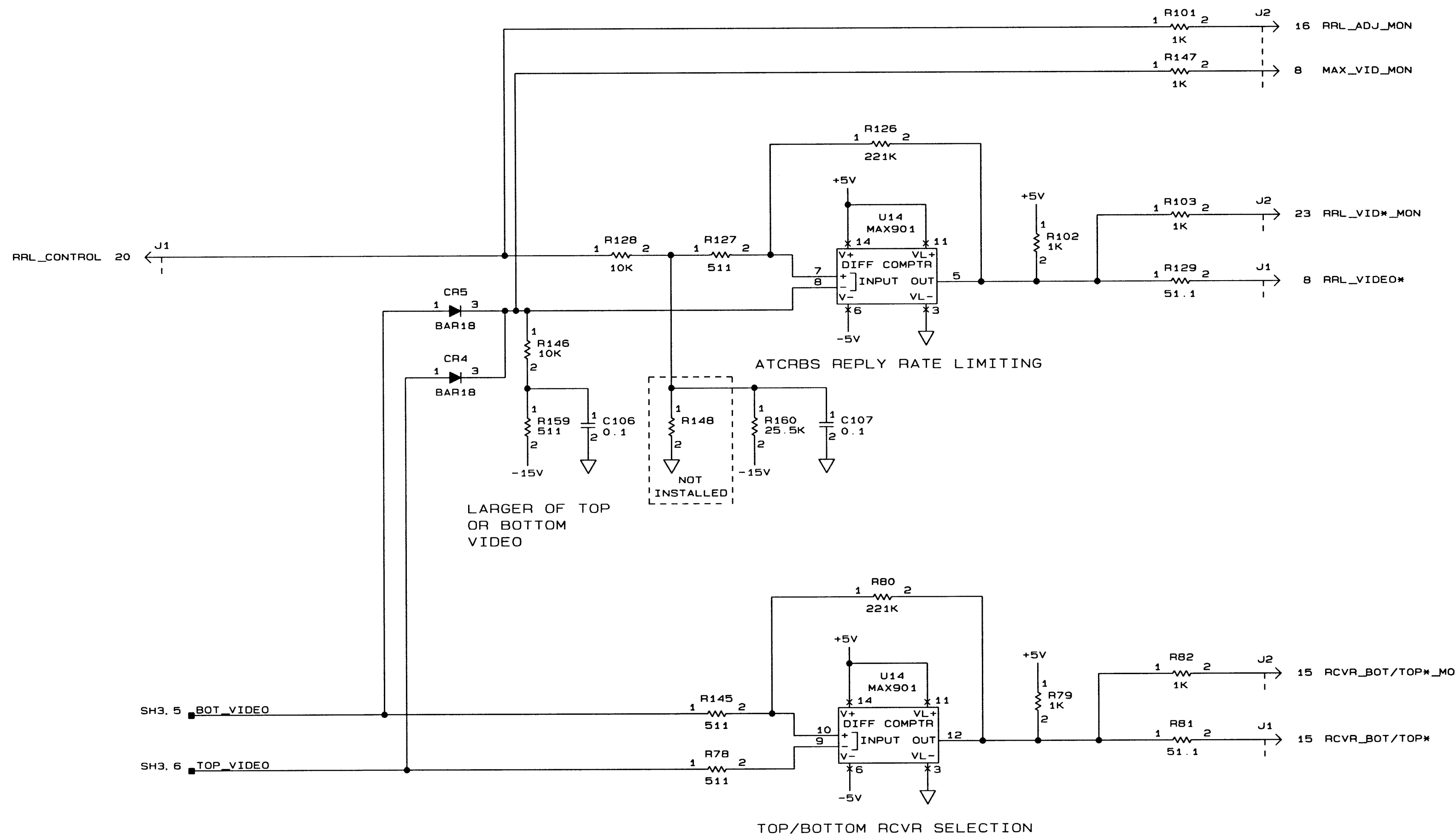
COMPUTER GENERATED



TOP VIDEO PROCESSOR

TOP VIDEO PROCESSOR
SCHEMATIC DIAGRAM SHEET NO. 6

COMPUTER GENERATED



ATCRBS REPLY RATE LIMITING/TOP & BOT RCVR SELECTION

SCHEMATIC DIAGRAM SHEET NO. 7

COMPUTER GENERATED

RCVR TO PROC TO PS/MOD

J1 CON40			
SH1	GND	1	DIG TOP VIDEO
SH1	GND	3	DIG BOT VIDEO
SH1	GND	5	DPSK DATA
SH1	GND	7	RRL VIDEO*
SH1	PS +5V	9	PS +5V
SH1	PS +15V	11	PS +15V
SH1	PS -5V	13	PS -5V
SH7	RCVR BOT/TOP*	15	PS -15V
SH4	ANT TOP/BOT*	17	BOT MTL ADJ
SH3	TOP MTL ADJ	19	RRL CONTROL
	(RESERVE ADJ 1)	21	(SPARE 207)
	(SPARE 210)	23	BOT GAIN
	(SPARE 207)	25	TOP GAIN
	TIP	27	(SPARE 201)
SH5, 6	(SPARE 202)	29	(SPARE 203)
	PLZN PLUG	31	(SPARE 204)
	(SPARE 205)	33	(SPARE 206)
	(XMTR BOT TX)	35	(XMTR TOP TX)
	(ST_ENABLE*)	37	(ST_PULSE_MOD*)
	(ST_DPSK)	39	(PS_INTERRUPT*)

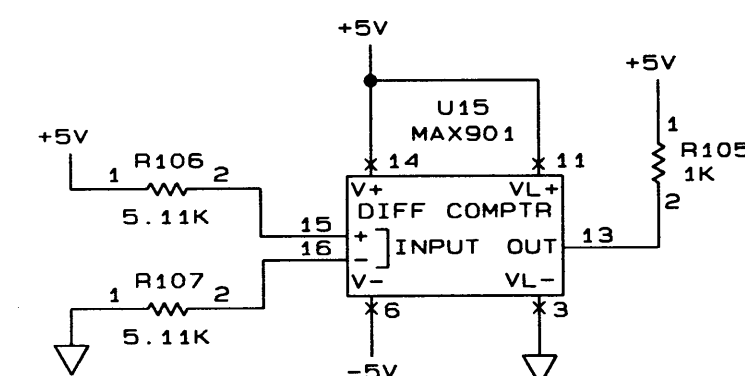
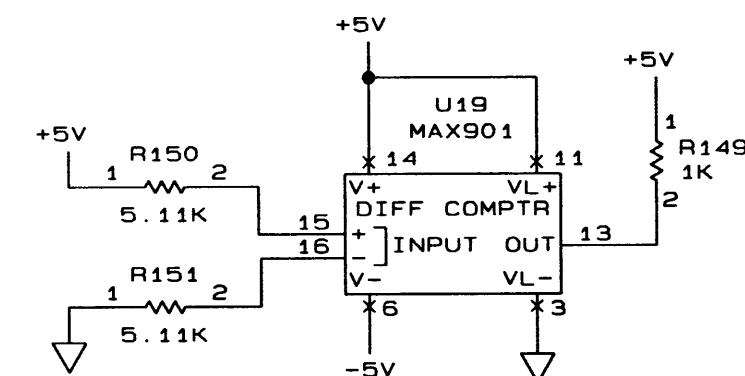
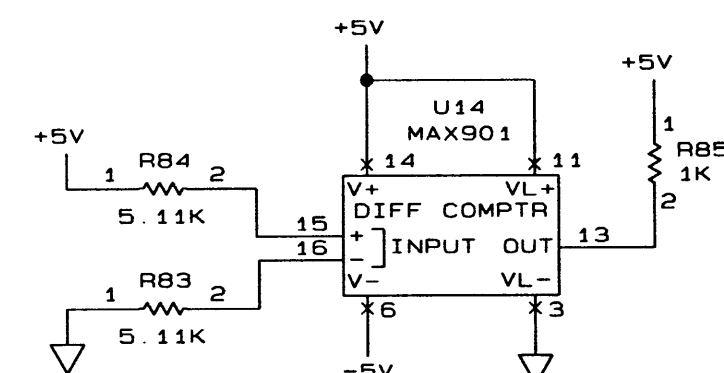
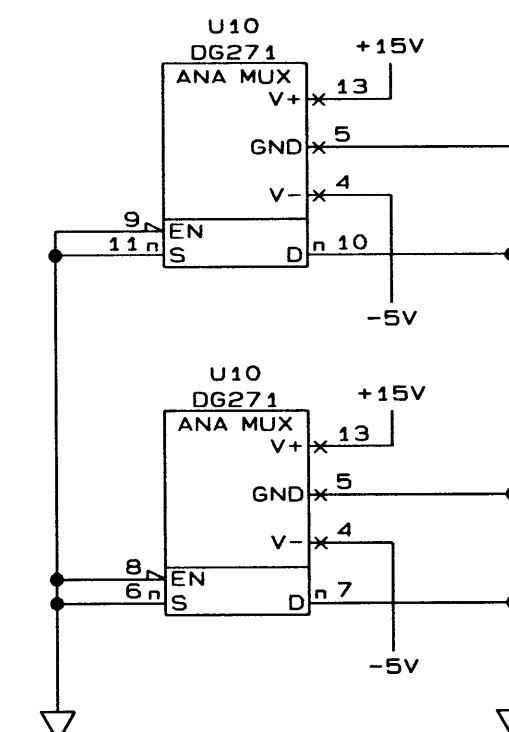
TEST POINT CONNECTOR

J2 CON36			
SH1	GND	1	GND
SH3	TOP MTL ADJ MON	3	BOT VIDEO MON
SH3	TOP VIDEO MON	5	+15V MON
SH3	BOT MTL ADJ MON	7	MAX VID MON
SH1	-15V MON	9	ANT TOP/BOT* MON
SH5	BOT DAC VID MON	11	BOT P2P4 HLD MON
SH5	BOT 3DB VID MON	13	DPSK DATA MON
SH7	RCVR BOT/TOP* MO	15	RRL ADJ MON
SH1	+5V MON	17	TOP DAC VID MON
SH1	-5V MON	19	TOP P2P4 HLD MON
SH5	BOT 6DB VID MON	21	TOP S/H VID MON
SH7	RRL VID* MON	23	BOT DIG VID MON
SH6	TOP 3DB VID MON	25	TOP 6DB VID MON
SH6	TOP DLY VID MON	27	BOT MTL VID MON
SH6	TOP MTL VID MON	29	TOP DIG VID MON
SH1	PLZN PLUG	31	BOT DLY VID MON
SH5	BOT S/H VID MON	33	(SPARE)
SH1	GND	35	GND

XMTR TO RCVR

P1 CON8			
SH2	BOT IF INPUT	1	GND
SH2	GND	3	GND
SH2	GND (PLZN)	5	GND
SH2	TOP IF INPUT	7	GND

INTERCONNECT



SPARES

CONNECTOR PIN SUMMARY
AND SPARE COMPONENTS
CAD REFERENCE/REQUIREMENT

SCHEMATIC DIAGRAM SHEET NO. 8

COMPUTER GENERATED

RCVR TO PROC TO PS/MOD

J1 CON40			
SH1	GND	1	DIG TOP VIDEO
SH1	GND	3	DIG BOT VIDEO
SH1	GND	5	DPSK DATA
SH1	GND	7	RRL VIDEO*
SH1	PS +5V	9	PS +5V
SH1	PS +15V	11	PS +15V
SH1	PS -5V	13	PS -5V
SH7	RCVR BOT/TOP*	15	PS -15V
SH4	ANT TOP/BOT*	17	BOT MTL ADJ
SH3	TOP MTL ADJ	19	RRL CONTROL
	(RESERVE ADJ 1)	21	(SPARE 207)
	(SPARE 210)	23	BOT GAIN
	(SPARE 207)	25	TOP GAIN
SH5, 6	TIP	27	(SPARE 201)
	(SPARE 202)	29	(SPARE 203)
	PLZN PLUG	31	(SPARE 204)
	(SPARE 205)	33	(SPARE 206)
	(XMTR BOT TX)	35	(XMTR TOP TX)
	(ST_ENABLE*)	37	(ST_PULSE_MOD*)
	(ST_DPSK)	39	(PS_INTERRUPT*)

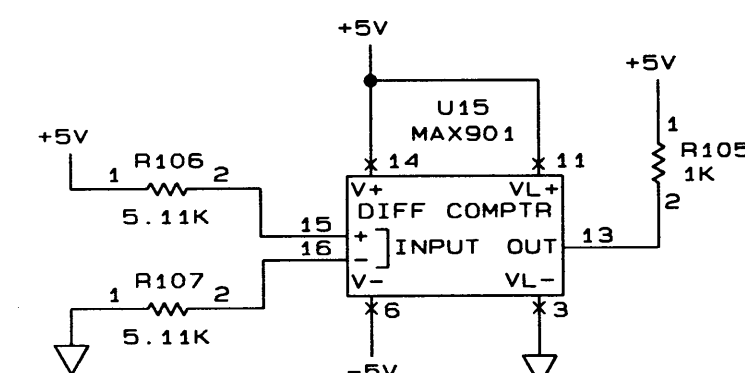
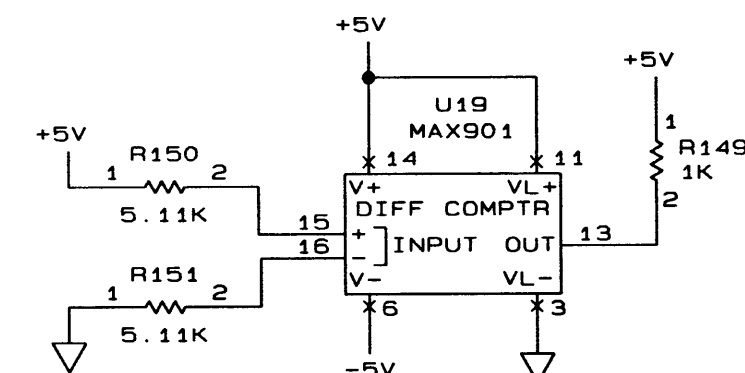
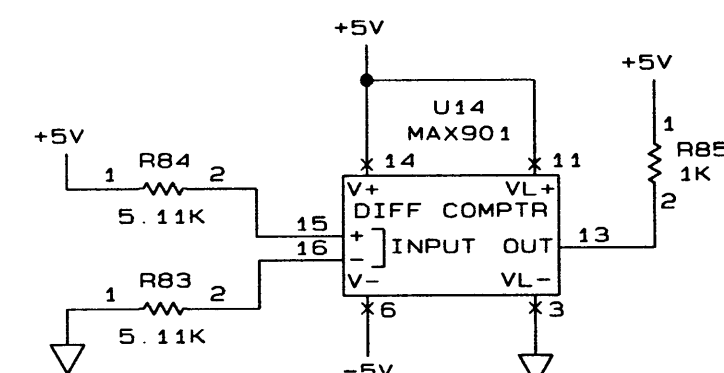
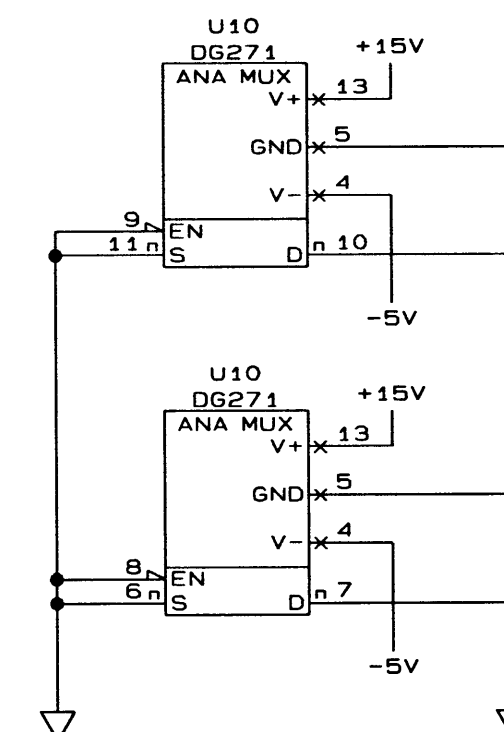
TEST POINT CONNECTOR

J2 CON36			
SH1	GND	1	GND
SH3	TOP MTL ADJ MON	3	BOT VIDEO MON
SH3	TOP VIDEO MON	5	+15V MON
SH3	BOT MTL ADJ MON	7	MAX VID MON
SH1	-15V MON	9	ANT TOP/BOT* MON
SH5	BOT DAC VID MON	11	BOT P2P4 HLD MON
SH5	BOT 3DB VID MON	13	DPSK DATA MON
SH7	RCVR BOT/TOP* MO	15	RRL ADJ MON
SH1	+5V MON	17	TOP DAC VID MON
SH1	-5V MON	19	TOP P2P4 HLD MON
SH5	BOT 6DB VID MON	21	TOP S/H VID MON
SH7	RRL VID* MON	23	BOT DIG VID MON
SH6	TOP 3DB VID MON	25	TOP 6DB VID MON
SH6	TOP DLY VID MON	27	BOT MTL VID MON
SH6	TOP MTL VID MON	29	TOP DIG VID MON
SH1	PLZN PLUG	31	BOT DLY VID MON
SH5	BOT S/H VID MON	33	(SPARE)
SH1	GND	35	GND

XMTR TO RCVR

P1 CON8			
SH2	BOT IF INPUT	1	GND
SH2	GND	3	GND
SH2	GND (PLZN)	5	GND
SH2	TOP IF INPUT	7	GND

INTERCONNECT



SPARES

CONNECTOR PIN SUMMARY
AND SPARE COMPONENTS
CAD REFERENCE/REQUIREMENT

SCHEMATIC DIAGRAM SHEET NO. 8

COMPUTER GENERATED

COMPUTER GENERATED

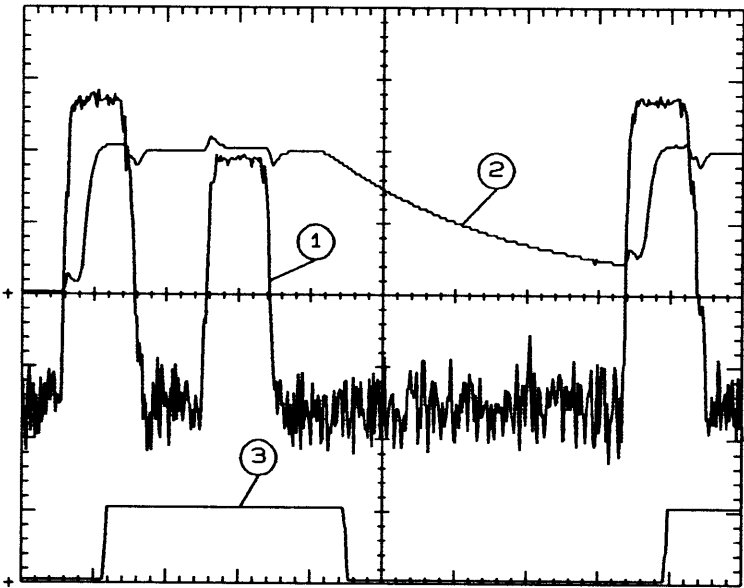
Honeywell	SEE FIRST SHEET FOR CONTRACT NUMBER. USE OR DISCLOSURE OF INFORMATION ON THIS SHEET IS SUBJECT TO THE RESTRICTIONS ON THE FIRST SHEET OF THIS DOCUMENT.	SIZE	CAGE CODE	DRAWING NO.	REV.
		E	55939	7517440-904	-
		SCALE	SHEET		12

TEST POINT TABLE

SCHEMATIC DIAGRAM SHEET NO. 10

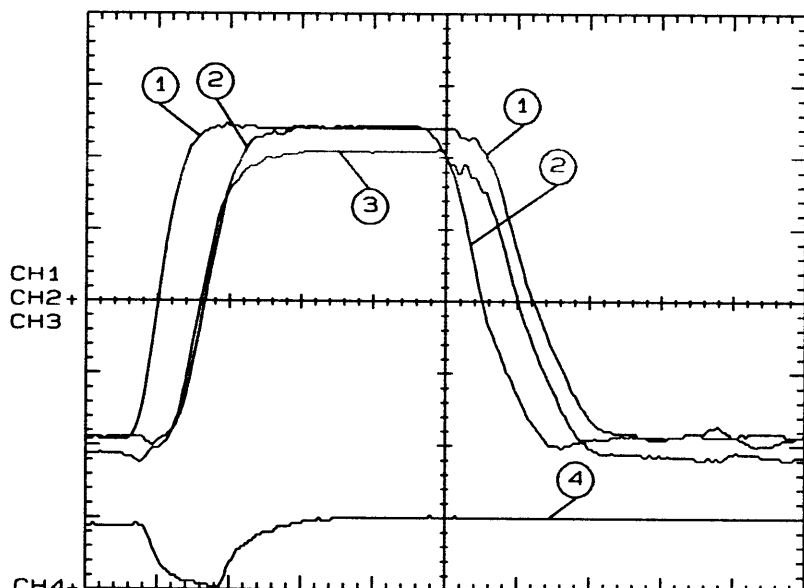
COMPUTER GENERATED

WAVEFORM 1



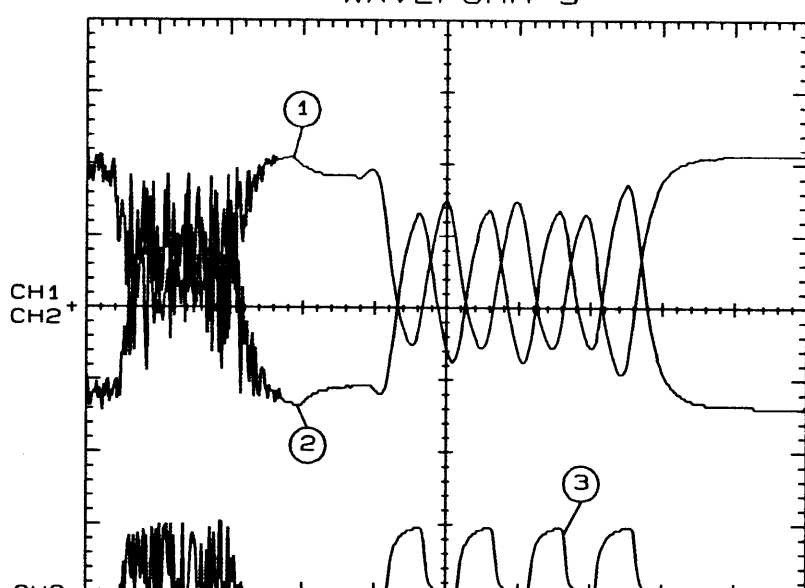
CH1, J2-05/J2-04, 0.5V/DIV, TOP/BOT VIDEO
CH2, J2-22/J2-33, 0.5V/DIV, TOP/BOT S/H VIDEO
CH3, J2-20/J2-33, 5.0V/DIV, TOP/BOT P2/P4 HOLD
TIMEBASE : 1μS/DIV

WAVEFORM 2



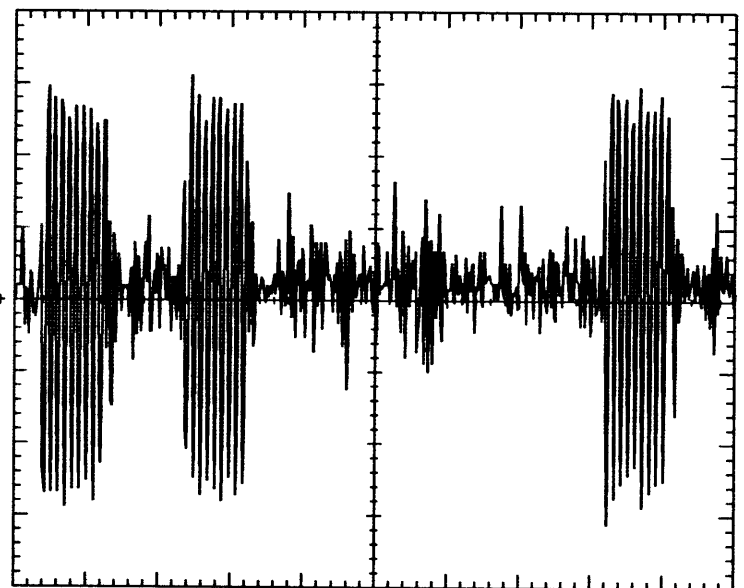
CH1, J2-05/J2-04, 0.5V/DIV, TOP/BOT VIDEO
CH2, J2-27/J2-32, 0.5V/DIV, TOP/BOT DLY VIDEO
CH3, J2-26/J2-21, 5.0V/DIV, TOP/BOT 60B VIDEO
CH4, J2-18/J2-11, 5.0V/DIV, TOP/BOT DAC VIDEO
TIMEBASE : 200ns/DIV

WAVEFORM 3



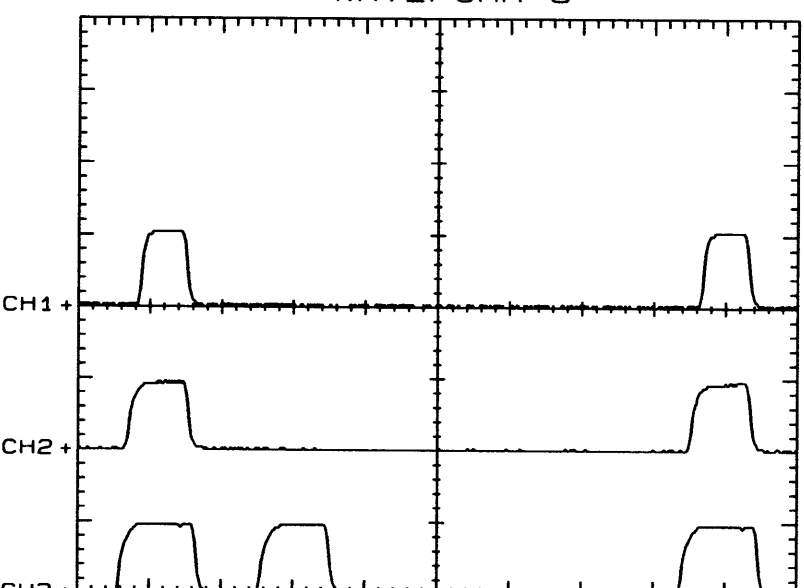
CH1, TP8, 1.0V/DIV, PHASE DET (+)
CH2, TP7, 1.0V/DIV, PHASE DET (-)
CH3, J2-14, 5.0V/DIV, DPSK DATA
TIMEBASE : 500ns/DIV

WAVEFORM 4



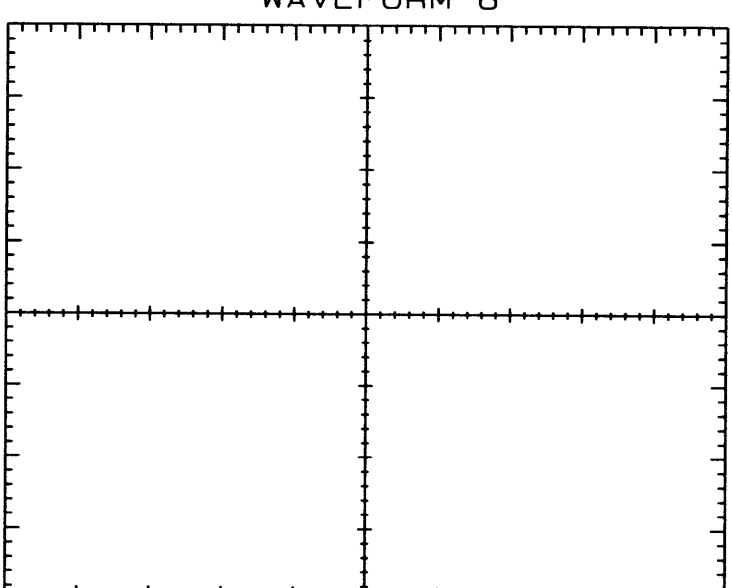
CH1, TP1/ETC, 20mV/DIV, LOGAMP INTERSTAGE
SAME AS TP7, TP8, TP10
TIMEBASE : 1μS/DIV
SIGNAL LEVEL : -32dBm

WAVEFORM 5

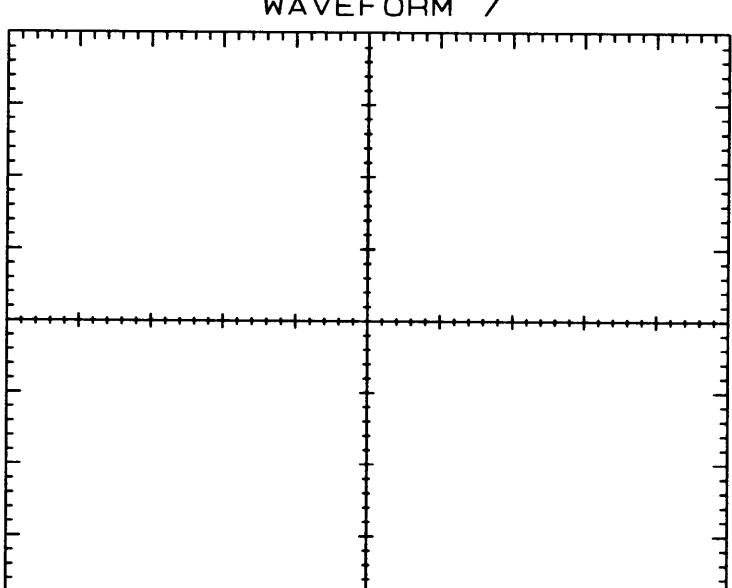


CH1, J2-30/J2-24, 5.0V/DIV, TOP/BOT DIG VIDEO
CH2, J2-25/J2-13, 5.0V/DIV, TOP/BOT 30B VIDEO
CH3, J2-28/J2-07, 5.0V/DIV, TOP/BOT MTL VIDEO
TIMEBASE : 1μS/DIV

WAVEFORM 6

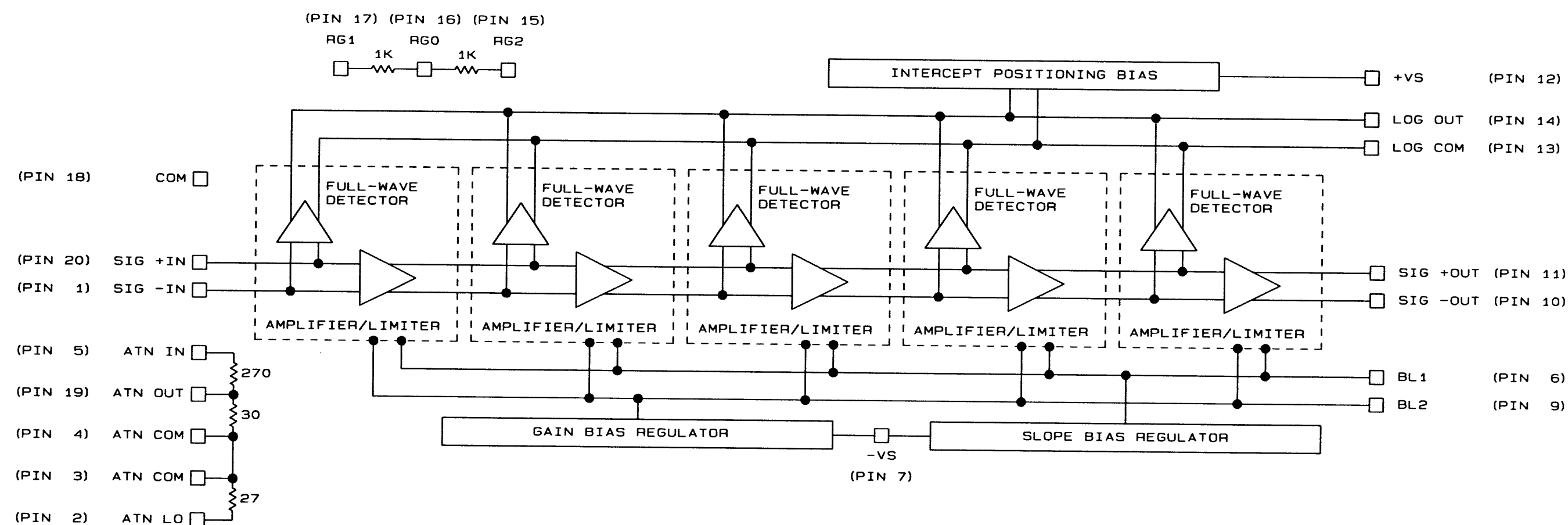


WAVEFORM 7



TEST POINT WAVEFORMS
SCHEMATIC DIAGRAM SHEET NO. 11

COMPUTER GENERATED



AD640 LOGAMP BLOCK DIAGRAM
SCHEMATIC DIAGRAM SHEET NO. 12

COMPUTER GENERATED