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REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
	—	INITIAL RELEASE	10MAR93	T. SCHAFER
A	SH 10X REV. PL AFFECTED.	62698(U) USE ALL PARTS IN-HOUSE. IN STOCK AND CURRENTLY ON ORDER (EFFECTIVITY IS NEXT BUY).	16DEC93	J. THOMEL T.M.N. DA
B	SH 10X REV. PL AFFECTED.	89221(M) AFFECTS PARTS IN-HOUSE, IN STOCK AND IN KITS NOT YET IN-BUILD.	20JUN95	M. HOWK M. BROWN M. MOREAU
C	SH 10X REV. PL AFFECTED.	89413(U) USE ALL PARTS IN-HOUSE. IN STOCK AND CURRENTLY ON ORDER (EFFECTIVITY IS NEXT BUY).	8JUL98	M. HOWK R. RICHARDS L. WHISLER
D	NOTES: NOTE B WAS SECURE C91 TO --- EDGE. SH 10X REV. PL AFFECTED.	78202(U) USE ALL PARTS IN-HOUSE AND IN STOCK (EFFECTIVITY IS ALL OPEN P.O.'S).	6AUG98	M. HOWK R. RICHARDS L. WHISLER
E	SH 10X REV. PL AFFECTED.	101867(U) USE ALL PARTS IN-HOUSE. IN STOCK AND CURRENTLY ON ORDER (EFFECTIVITY IS NEXT BUY).	4NOV98	M. HOWK M. BROWN R. RICHARDS
F	NOTES: NOTE B WAS SECURE ---C91--- EDGE. SH 10X REV. PL NOT AFFECTED.	81280(U) USE ALL PARTS IN-HOUSE AND IN STOCK (EFFECTIVITY IS ALL OPEN P.O.'S).	1FEB99	J. ELLER M. CARSON R. RICHARDS
G	SH 10X REV. PL AFFECTED.	104112(U) USE ALL PARTS IN-HOUSE. IN STOCK AND CURRENTLY ON ORDER (EFFECTIVITY IS NEXT BUY).	08NOV99	M. HOWK L. WHISLER J. OLSON
H	NOTES: NOTE B WAS SECURE ---C34, C48, --- EDGE. SH 10X REV. PL NOT AFFECTED.	24341(U) USE ALL PARTS IN-HOUSE. IN STOCK AND CURRENTLY ON ORDER (EFFECTIVITY IS NEXT BUY).	06FEB01	M. PORTS R. RICHARDS J. OLSON
J	NOTES: ADD NOTED 12. SH 10X REV. PL NOT AFFECTED.	26887(M) AFFECTS ONLY ASSEMBLIES NOT YET IN BUILD AS SOON AS MANUFACTURING DOCUMENTATION IS AVAILABLE.	25 JUL 01	M. P. 25 R. RICHARDS

NOTES:

1. ASSEMBLE AND SOLDER PER ITEM 701.

2. 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.

CAUTION

ASSEMBLY SENSITIVE TO ELECTROSTATIC DISCHARGE

3. MAXIMUM COMPONENT HEIGHT SIDE B SHALL BE:

	AREA A AND D	AREA B	AREA C	ALL OTHER AREAS
CONDUCTIVE CASE	.200	.065	.300	.480
NONCONDUCTIVE OR GROUND CASE	.200	.115	.300	.530

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. COAT CCA USING ITEM 702 (CONFORMAL COAT) PER M7010975, EXCEPT J2 AND J3 SOCKETS, PINS OF J1 AND J1 PIN CAVITY (ON SIDE B) MOUNTING HOLES OF Q17, Q18, Q19, AND MOUNTING HOLE METALIZATION OF PWB SIDE A AND B (7 PLACES). COATING ON C90 AND C91 IS OPTIONAL.

7. SOME COMPONENTS ARE SHOWN OVERSIZED TO PROVIDE SPACE FOR REFERENCE DESIGNATORS.

8. SECURE C24, C25, C34, C47, C48, C60, C62, C66, C70, C90, AND C91, TO ITEM 1 (PWB) USING ITEM 703 (RTV). ITEM 703 NOT TO EXTEND PAST PWB EDGE.

9. BEFORE CLEANING CAPACITORS 7000041-XXX (C90 AND C91) REFER TO COMPONENT SPEC FOR ACCEPTABLE CLEANING SOLVENTS.

10. SHADED COMPONENTS NOT INSTALLED.

11. C91 AND C90 MAY BE INSTALLED AT NEXT HIGHER ASSEMBLY FOR EASE OF TESTING.

12. NOTE TO MANUFACTURING: COMPONENT U9 SHOULD BE HAND SOLDERED. IT SHOULD NOT BE CLEANED IN AN AQUEOUS WASH.

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

FOR HONEYWELL REFERENCE		MATERIAL-PROCESS-FINISH		MILITARY DESIGNATION		PROCESS, FINISH, SEE QQ. 40.		ITEM CODE (PER 88699384)	
MFG REF NO.	OPA NO. A-13455	MATL							
PRODUCT LINE NO 3834	AW/PS ANALYSIS EB 7510800								
REF DWG	REF SPEC								
7517400	7517400								
NEXT ASSY	USED ON (SYS)								

THIRD ANGLE PROJECTION		DWG CLASS		FIRST USED ON	
		A		7517400	

CONTRACT		OPERATIONAL NOTE	
XS-852		SIMILAR ASSEMBLY	
DRAWN BY E. THIESSEN	DATE 17FEB93	Honeywell COMMERCIAL FLIGHT SYSTEMS GROUP PHOENIX, ARIZONA	
DESIGNED BY	DATE	TITLE	
CHECKED BY E. THIESSEN	DATE 17FEB93	CIRCUIT CARD ASSEMBLY-PWR SPLY/MODULATOR, A6	
APVD FOR MFG	DATE	SIZE/CAGE CODE	
APVD FOR GE	DATE	E 155939	
APVD FOR ENGRG	DATE	DRAWING NO.	
APVD FOR ENGRG	DATE	7517470-903	
APVD FOR	DATE	SCALE/UNIT	
		SHEET 1 OF 15	

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5231-040 (ASME Y14.5M-1994) HONEYWELL INC. (REV 3-87)

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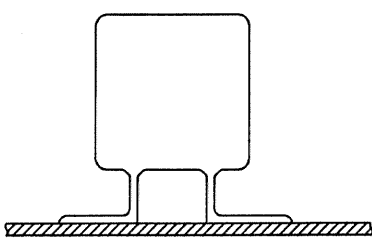
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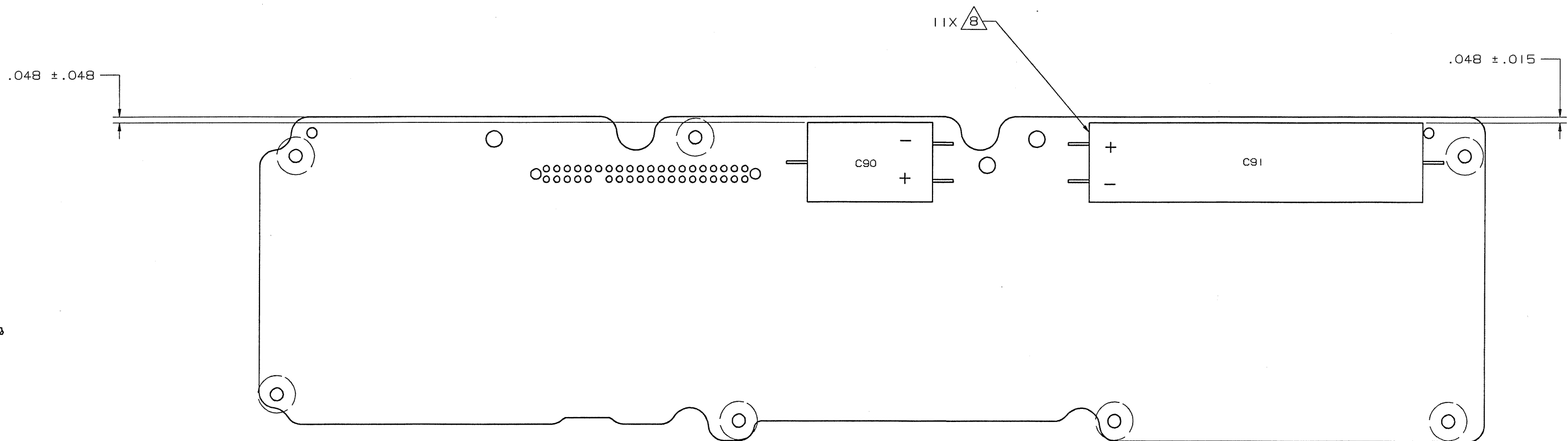
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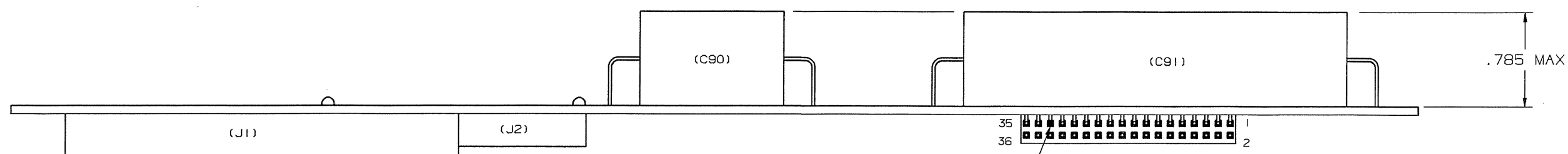
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
A	A	UDTD VIEW. ADDED COMPONENTS R173, VR4, AND C501. REMOVED SHADING FROM C86.	16DEC93	J. TROXEL
		SEE SHEET 1.		ECT DA
D	D	UDTD VIEW. ADDED VIEW A-A. RELOCATED DIM. 1.000.	6AUG98	M. HOWK
		SEE SHEET 1.		R. RICHARDS
E	E	UDTD VIEW. CHANGE CASE SIZE OF C47.	4NOV98	M. HOWK
		SEE SHEET 1.		L. WHISLER
F	F	UDTD VIEW. ADD 10X TO NOTE B CALLOUT.	01FEB99	J. ELLER
		SEE SHEET 1.		M. CARSON
H	H	UDTD VIEW. NOTE B CALLOUT WAS 10X. UDTD TEXT ON VIEW A-A.	24JAN01	M. CARSON
		SEE SHEET 1.		R. RICHARDS



VIEW A-A
3X
(C47, C60 AND C66)



VIEWING SIDE A



J3-31 (2)

IDENTIFICATION LABEL
SIDE B

ORIENT POLARITY SLOT AS SHOWN

REMOVE PIN 31

PROBE INSERTION
DIRECTION

AREA B

AREA C

AREA D

AREA A

AREAS
C AND D

1.000

1.200

THIS SURFACE OF J1 & J2 SHALL BE FLUSH
TO WITHIN .015 TO SIDE B OF ITEM 1

90° ± 2°

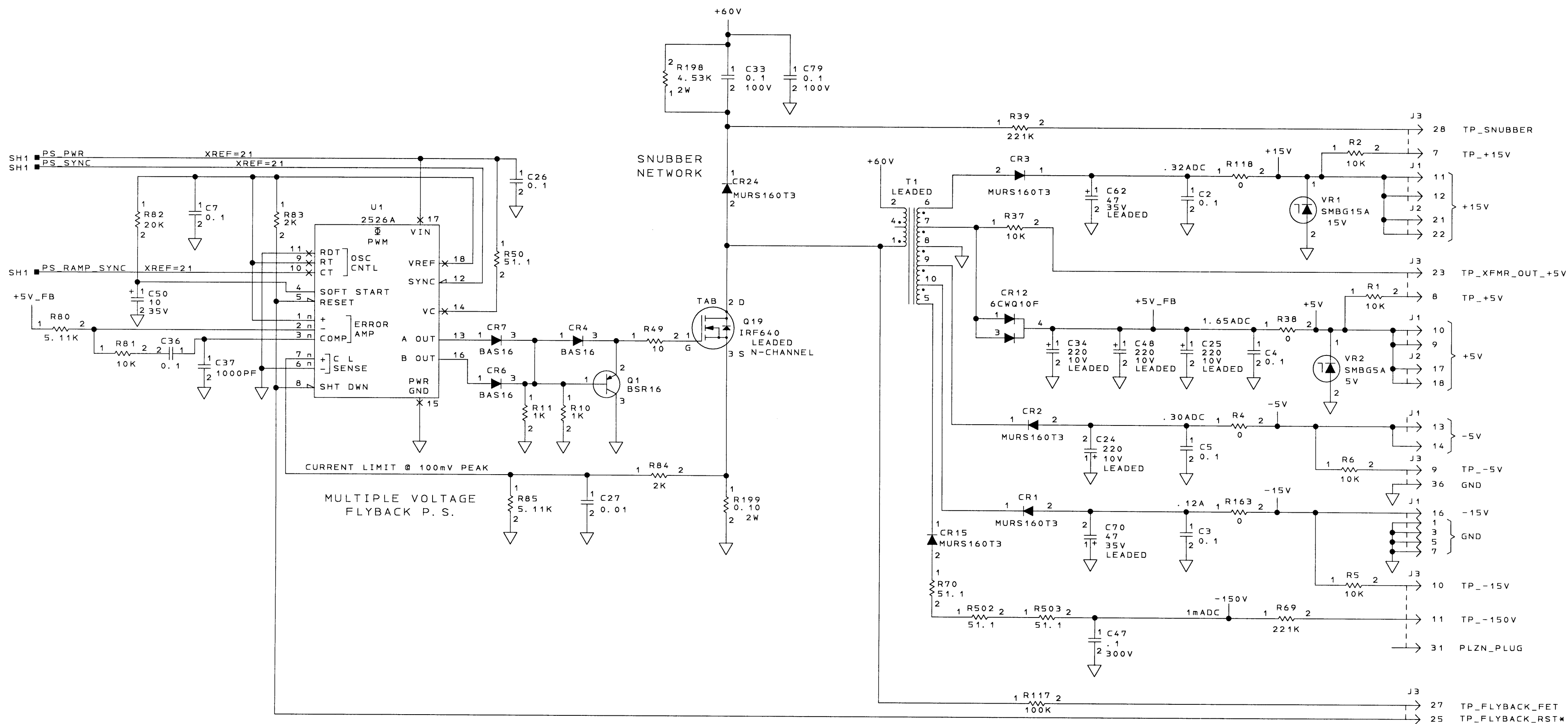
J2-29 (2)

10 3 PL

Ø .139 MIN THRU Q17, Q18 AND Q19 MOUNTING
HOLE AND ITEM 1 AFTER ASSEMBLY

VIEWING SIDE B

REV		REVISIONS	DATE	APPROVED
B	1	PARTS LIST DATA BASE CHANGE ONLY.	20 JUN 95	M. HOWK
	2	89221 (M)		M. BROWN
C	1	PARTS LIST DATA BASE CHANGE ONLY.	08 JUL 98	M. HOWK
	2	99413 (M)		R. RICHARDS
C3	1	UDTD PICTORIAL OF REF DES C47.	04 NOV 98	M. HOWK
	2	101867 (U)		M. BROWN
G	1	PARTS LIST DATA BASE CHANGE ONLY.	09 NOV 98	M. HOWK
	2	104112 (U)		R. RICHARDS



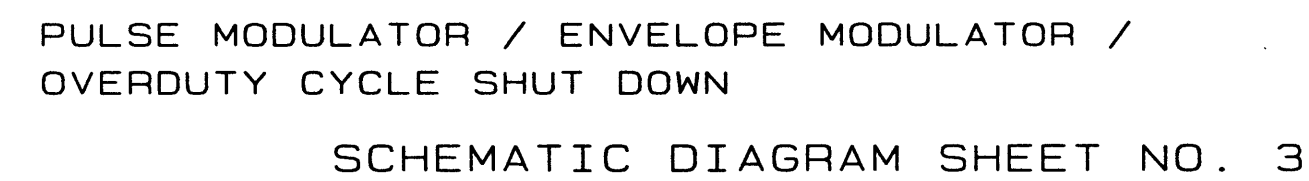
FLYBACK SUPPLY: +15V, +5V, -5V, -15V, -150V

SCHEMATIC DIAGRAM SHEET NO. 2

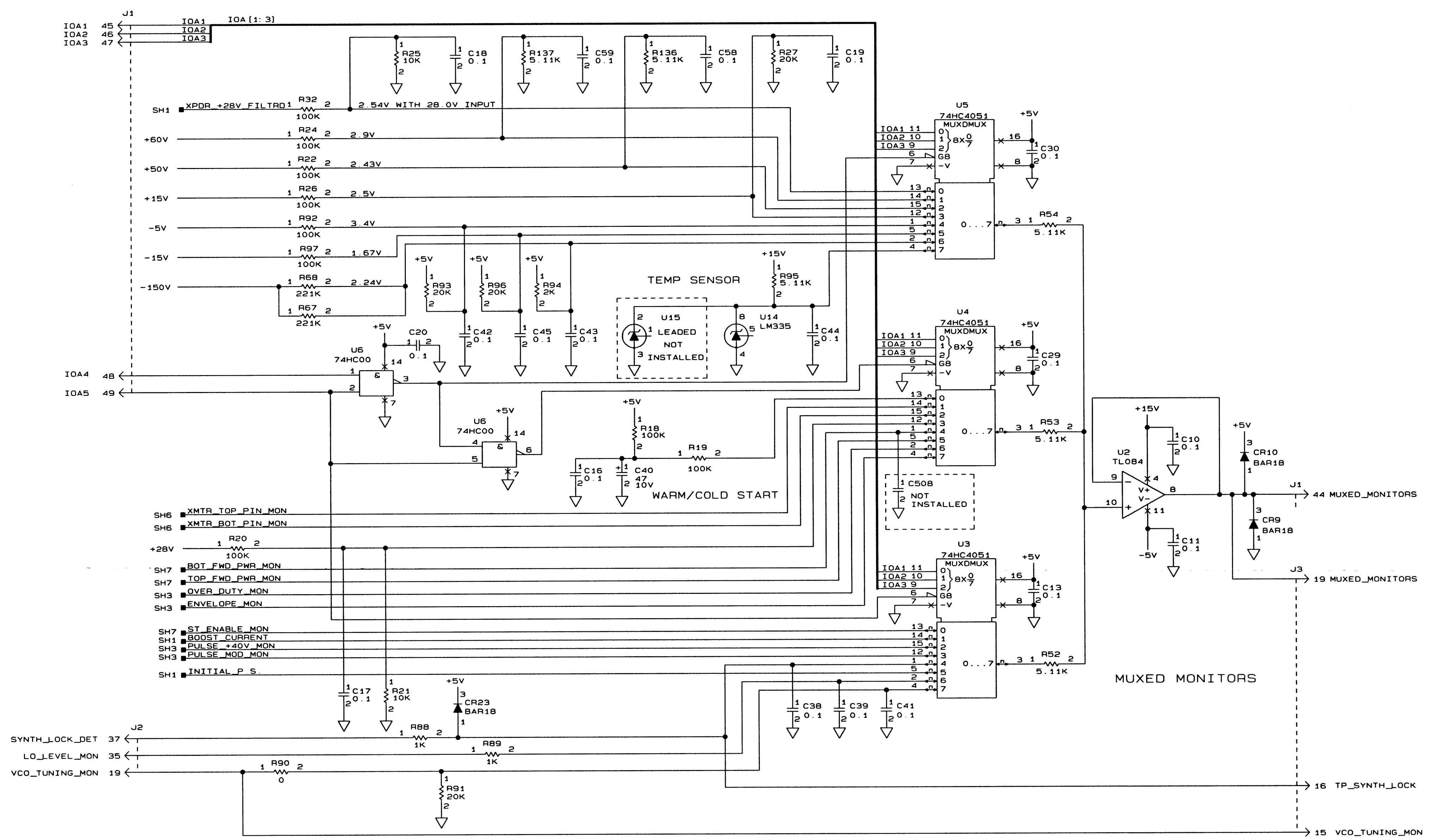
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Honeywell		SEE FIRST SHEET FOR CONTRACT NUMBER. USE OR DISCLOSURE OF INFORMATION ON THIS SHEET IS SUBJECT TO THE RESTRICTIONS ON THE FIRST SHEET OF THIS DOCUMENT.	SIZE E	CAGE CODE 55939	DRAWING NO. 7517470-903	REV G
SCALE			SHEET 4		DATE 11/98	

DATE 7517470-903 SH 5



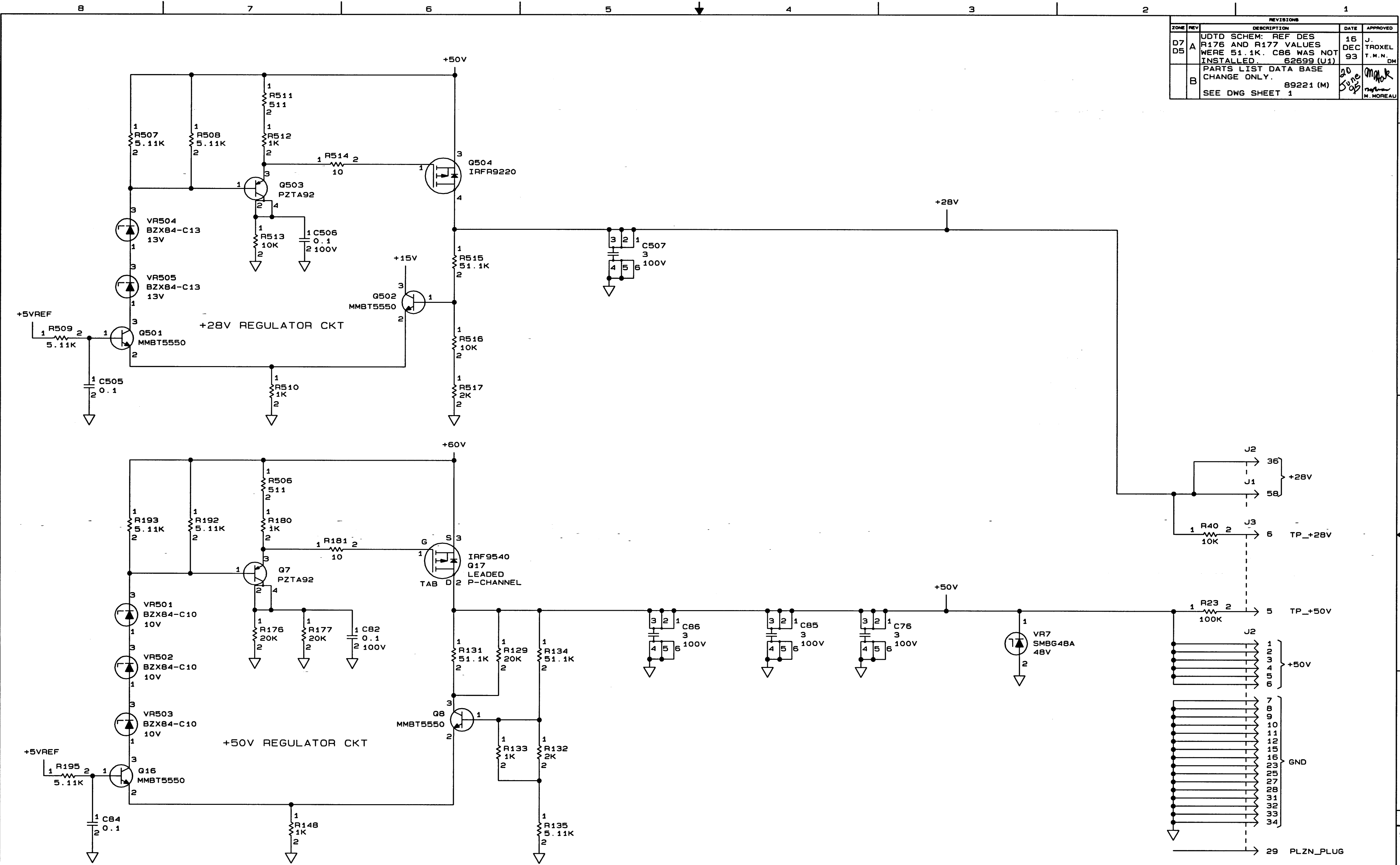
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		E	55939	7517470-903	A



TEMP SENSOR / WARM-COLD START / MUXED MONITORS
SCHEMATIC DIAGRAM SHEET NO. 4

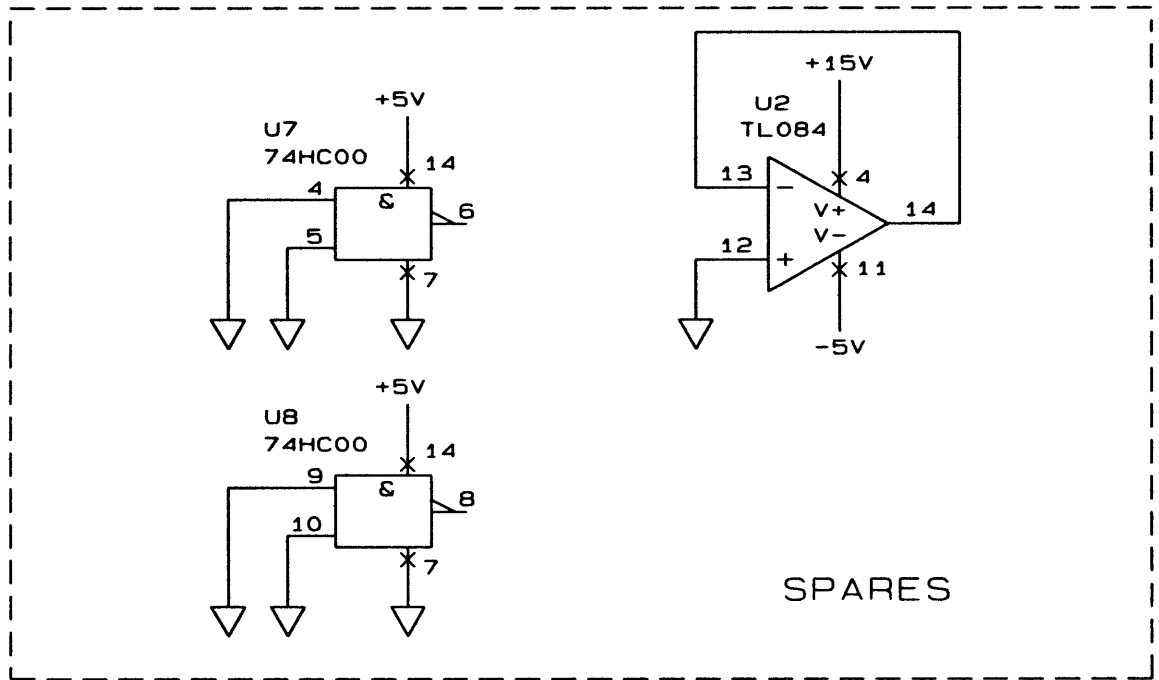
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ZONE		REV		DESCRIPTION	DATE	APPROVED
D7	D5	A	B	UDTD SCHEM: REF DES R176 AND R177 VALUES WERE 51.1K. C86 WAS NOT INSTALLED.	16 DEC 93	J. TROXEL T.M.N. DM
				PARTS LIST DATA BASE CHANGE ONLY. 89221 (M) SEE DWG SHEET 1		<i>20 June 93</i> M. MOREAU

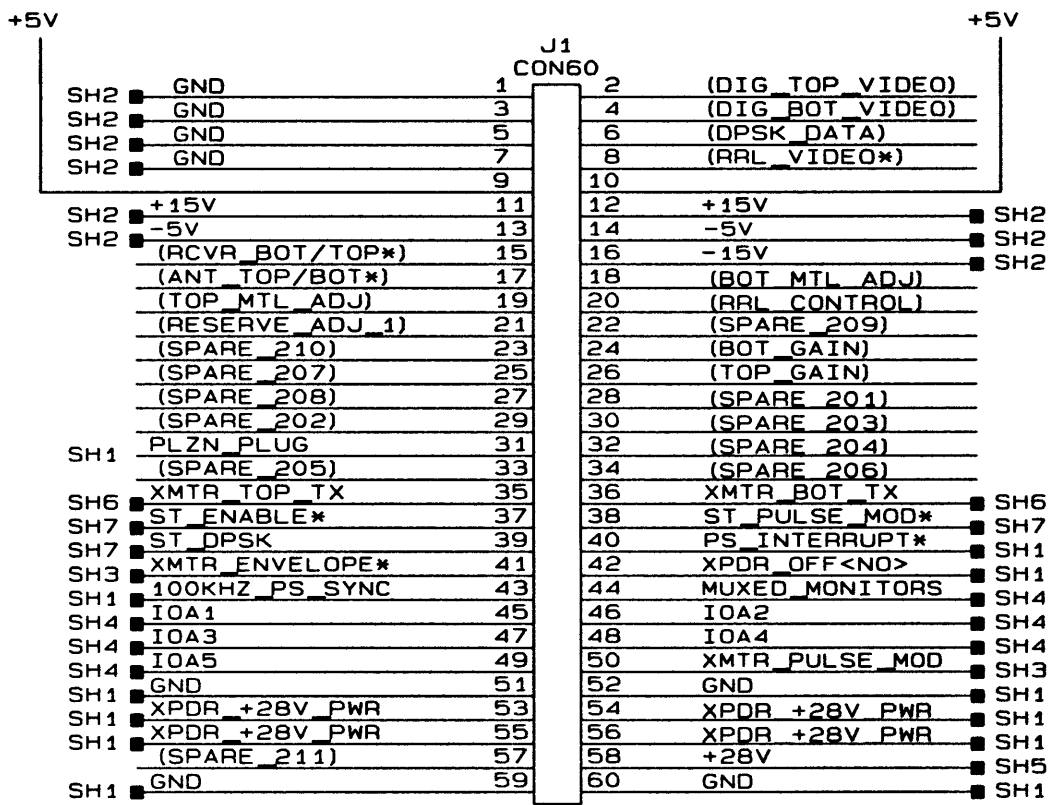


+50V REGULATOR / +28V REGULATOR
SCHEMATIC DIAGRAM SHEET NO. 5

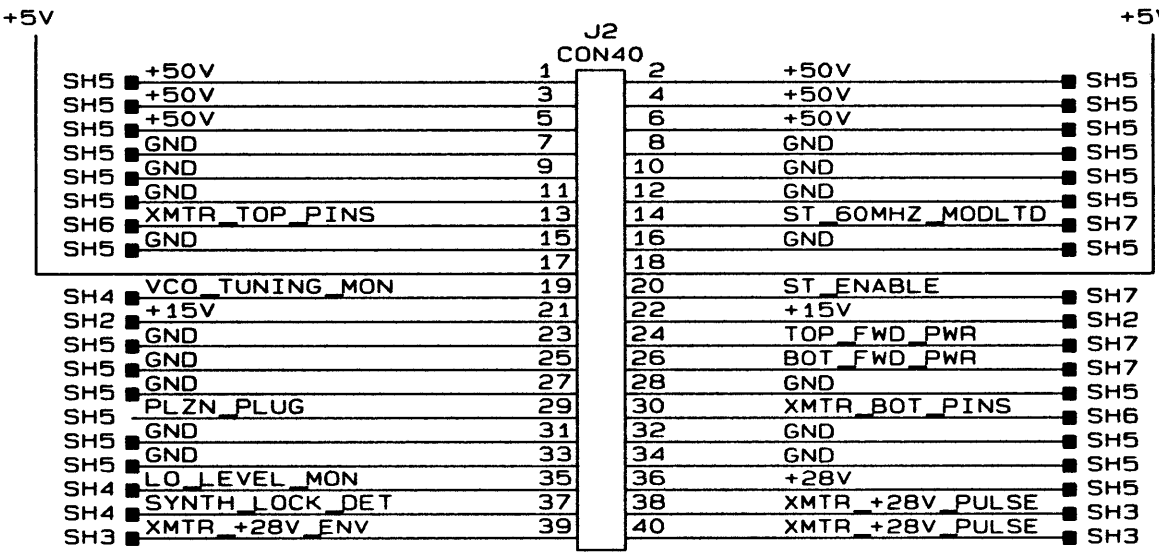
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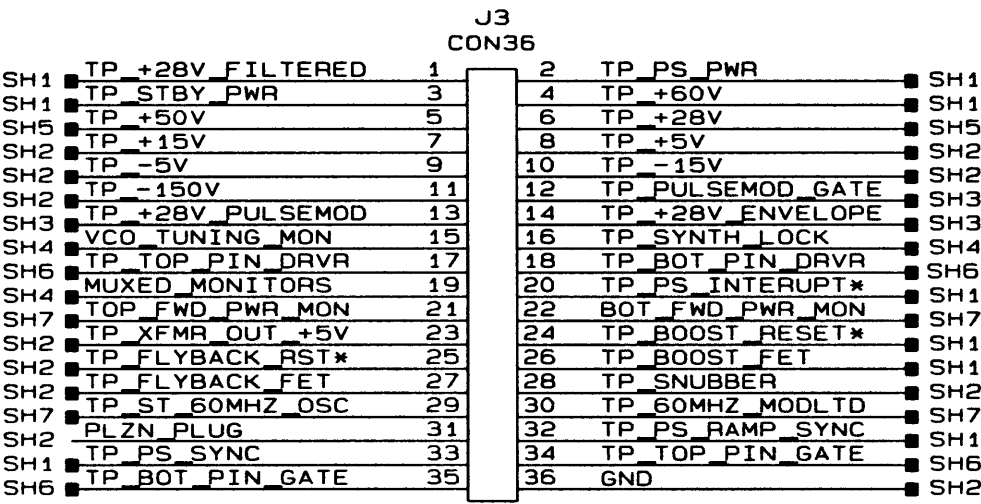
CONNECTOR BETWEEN PROC. & P.S./MOD. & RCVR.
NOTE: " () " INDICATES NOT USED ON THIS P.S./MOD CCA



CONNECTOR BETWEEN P.S./MOD. & XMTR



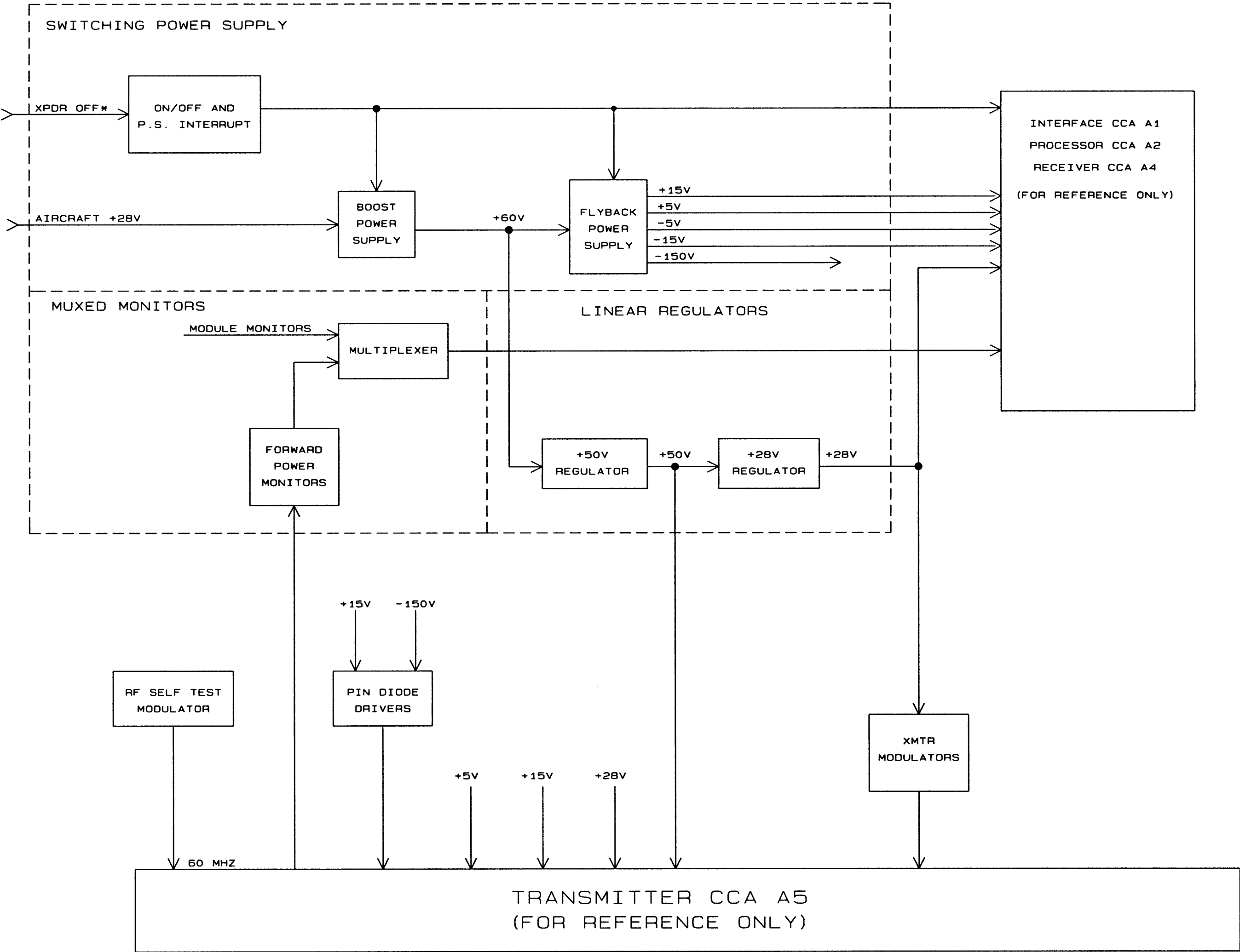
TEST CONNECTOR



CONNECTOR PIN SUMMARY
AND SPARE COMPONENTS
CAD REFERENCE/REQUIREMENT
SCHEMATIC DIAGRAM SHEET NO. 8

COMPUTER GENERATED

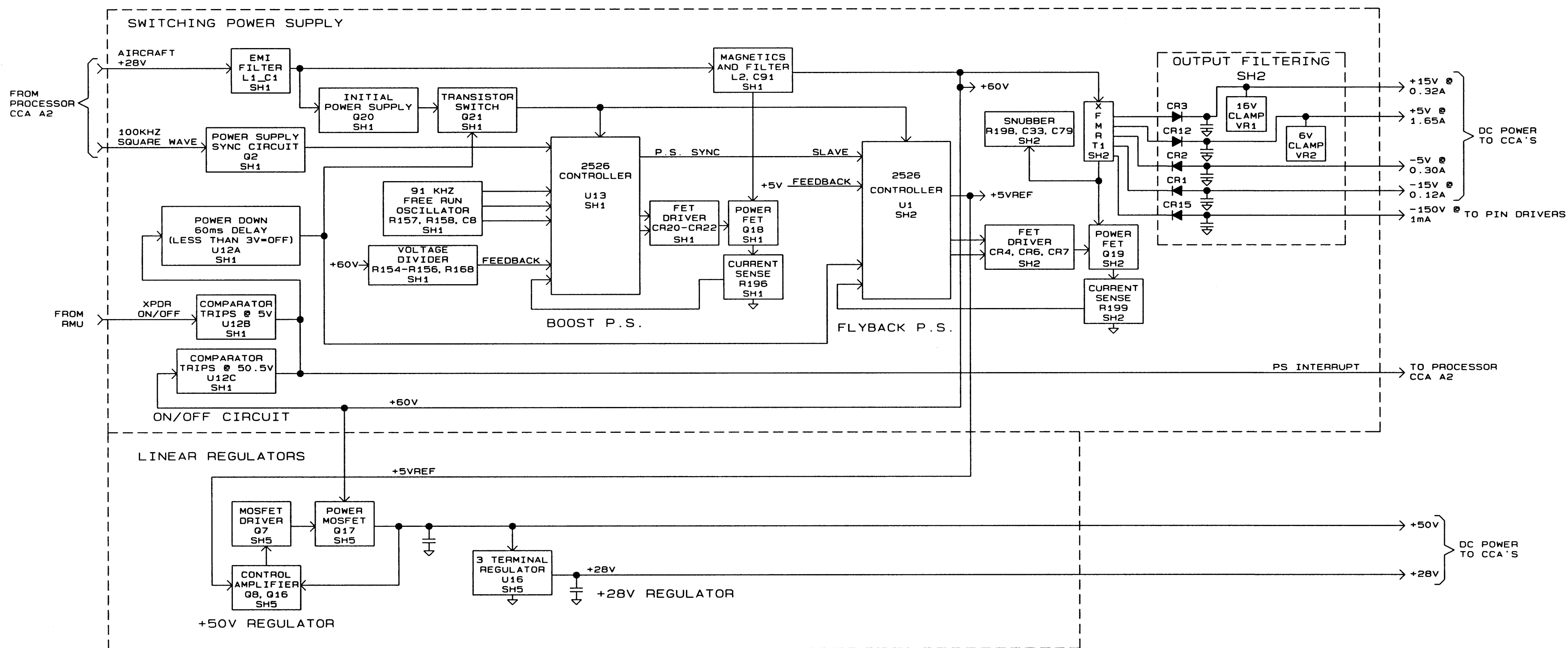
REVISIONS			
ZONE	REV	DESCRIPTION	DATE



SIMPLIFIED BLOCK DIAGRAM
SCHEMATIC DIAGRAM SHEET NO. 9

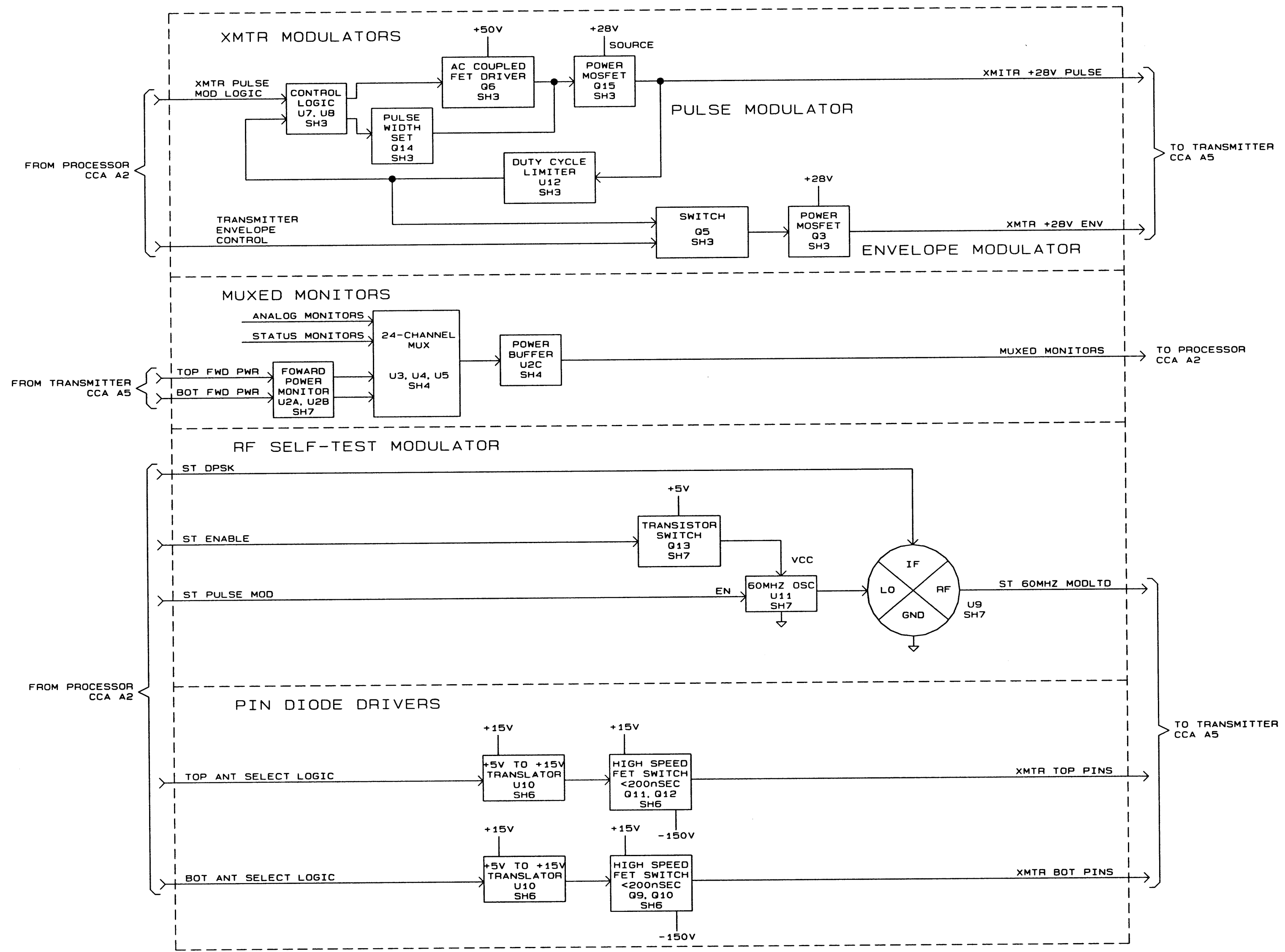
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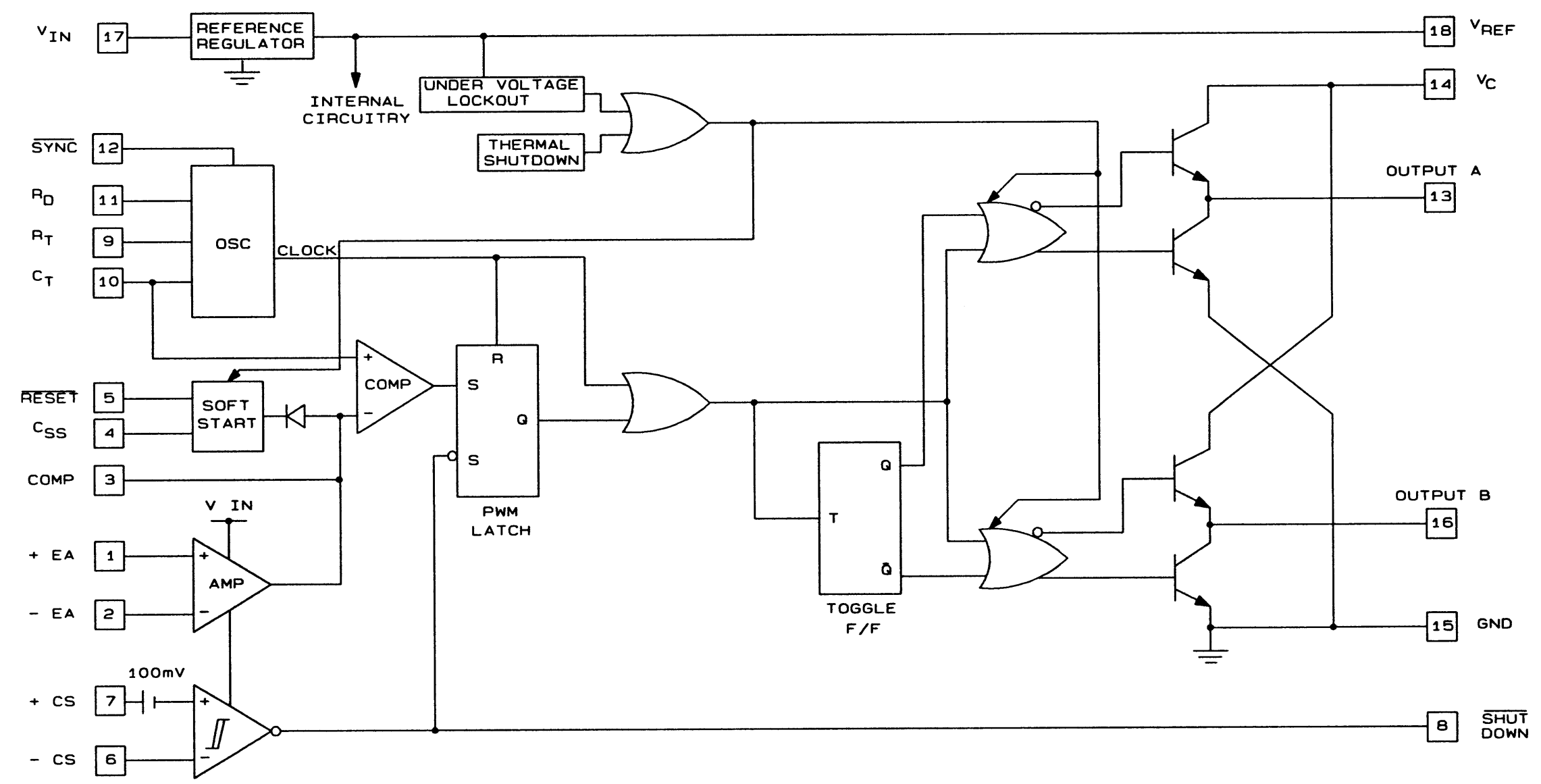
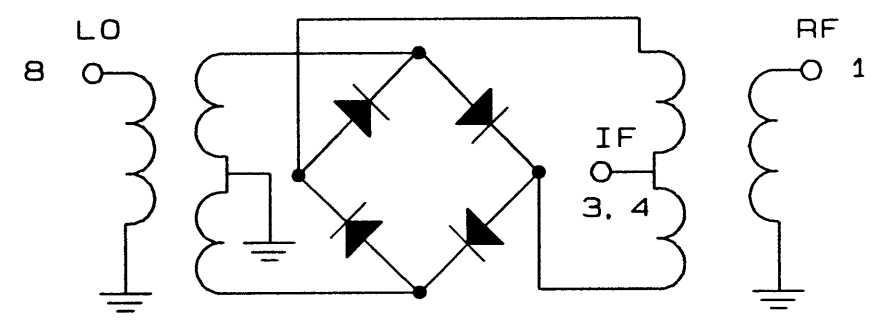
Honeywell	SEE FIRST SHEET FOR CONTRACT NUMBER. USE OR DISCLOSURE OF INFORMATION ON THIS SHEET IS SUBJECT TO THE RESTRICTIONS ON THE FIRST SHEET OF THIS DOCUMENT.	SIZE	CAGE CODE	DRAWING NO.	REV
		E	55939	7517470-903	1.1



DETAILED BLOCK DIAGRAM A
SCHEMATIC DIAGRAM SHEET NO. 10

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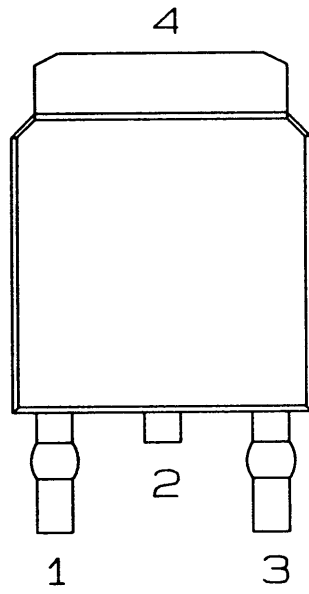


FOR REFERENCE ONLY

COMPONENT BLOCK DIAGRAM
SCHEMATIC DIAGRAM SHEET NO. 12

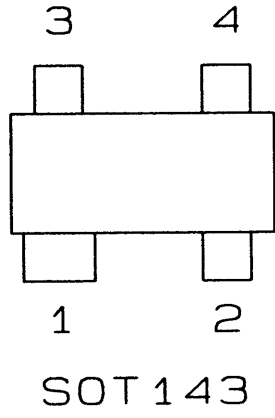
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PINOUTS OF SMT DEVICES

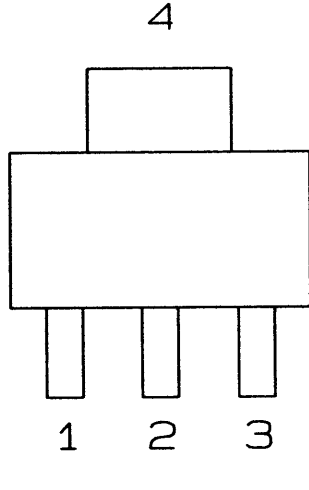


DPAK

NOTE: PIN 2 IS CONNECTED
TO PIN 4 AND ALSO PIN 2
DOES NOT MOUNT TO PWB

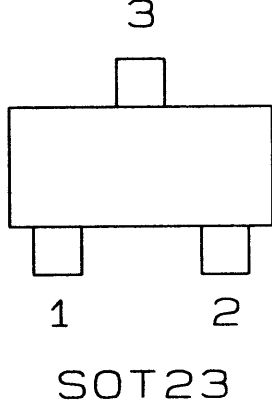


SOT143

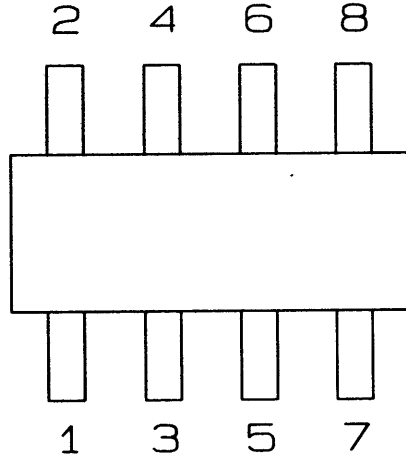


SOT223

NOTE: PIN 2 IS
CONNECTED TO
PIN 4



SOT23



SSM-2-01
MIXER

COMMON LABELS
ON TOP OF SMT DEVICES

PART NAME	LABEL
BAS16	A6
BAR18	5F, D76
BZX84-C13	Y3
BSR14	U8
MMBT5550	1F
BSR16	T8
SMBG15A	LM
SMBG5A	KE
MURS160T3	U1J
MMBT5401	2L
BZX84-C10	6Z
SMBG48A	MX
PZTA92	ZTA92
CGY50	G2
MSA0686	A06
MSA0386	A03
HSMP3800	D0
NE02135	Bq
HSMP3820	F0

TEST POINT DESCRIPTIONS

TEST POINT	NAME	DESCRIPTION	VOLTAGE RANGE	NOMINAL VOLTAGE	SCHEMATIC LOCATION	WAVEFORM NUMBER
J3-1	TP_+28V_FILTERED	XPDR +28V AFTER EMI FILTER.	17-32 VDC			
J3-2	TP_PS_PWR	POWER CONTROLLER IC'S POWER SUPPLY.	13-15 VDC			
J3-3	TP_STBY_PWR	POWER SUPPLY USED FOR ON THE ON/OFF CIRCUIT.	13-15 VDC			
J3-4	TP_+60V	+60V DC POWER SUPPLY.	60 +/- 6 VDC			
J3-5	TP_+50V	+50V DC POWER SUPPLY.	50 +/- 5 VDC			
J3-6	TP_+28V	+28V DC POWER SUPPLY.	28 +/- 2.8 VDC			
J3-7	TP_+15V	+15V DC POWER SUPPLY.	15 +/- 1.5 VDC			
J3-8	TP_+5V	+5V DC POWER SUPPLY.	5 +/- .25 VDC			
J3-9	TP_-5V	-5V DC POWER SUPPLY.	-5 +/- .5 VDC			
J3-10	TP_-15V	-15V DC POWER SUPPLY.	-15 +/-1.5 VDC			
J3-11	TP_-150V	150V DC POWER SUPPLY.	-150 +/-15 VDC			
J3-12	TP_PULSEMOD_GATE	GATE OF POWER MOSFET FOR PULSE MOD. +40V WHEN PULSE MOD OUT.	0-40 VDC			
J3-13	TP_+28V_PULSEMOD	PULSE MOD TO TRANSMITTER. +28V WHEN TRANSMITTING.	0-28 VDC			
J3-14	TP_+28V_ENVELOPE	ENVELOPE SIGNAL TO TRANSMITTER. +28V WHEN TRANSMITTING.	0-28 VDC			
J3-15	TP_VCO_TUNING	VCO TUNING VOLTAGE FROM TRANSMITTER.	0-15 VDC			
J3-16	TP_SYNTH_LOCK	DIGITAL SIGNAL. SYNTHSIZER LOCK DETECT FROM TRANSMITTER.	0-5 VDC			
J3-17	TP_TOP_PIN_DRV	VOLTAGE ON TOP PINS ON XMTR. 1V=RX; -150V=TX.	15 TO -150 VDC			
J3-18	TP_BOT_PIN_DRV	VOLTAGE ON BOT PINS ON XMTR. 1V=RX; -150V=TX.	15 TO -150 VDC			
J3-19	MUXED_MONITORS	24 MUXED MONITORS TO PROCESSOR.	0-5 VDC			
J3-20	TP_PS_INTERRUPT*	DIGITAL SIGNAL. EARLY WARNING TO PROCESSOR WHEN LOSING POWER.	0-5 VDC			
J3-21	TOP_FWD_PWR_MON	TOP FORWARD POWER MONITOR. ONLY VALID 50uS AFTER XMIT.	0-15 VDC			
J3-22	BOT_FWD_PWR_MON	BOT FORWARD POWER MONITOR. ONLY VALID 50uS AFTER XMIT.	0-15 VDC			
J3-23	TP_XFMR_OUT_+5V	TRANSFORMER OUTPUT OF THE +5V LINE. 100KHZ.	-5 TO +5 VDC			
J3-24	TP_BOOST_RESET*	RESET OUT OF BOOST SUPPLY. GOES LOW DURING CURRENT LIMIT.	0-5 VDC			
J3-25	TP_FLYBACK_RST*	RESET OUT OF FLYBACK SUPPLY. GOES LOW DURING CURRENT LIMIT.	0-5 VDC			
J3-26	TP_BOOST_FET	DRAIN OF SWITCHING FET IN BOOST SUPPLY.	0-60 VDC			
J3-27	TP_FLYBACK_FET	DRAIN OF SWITCHING FET IN FLYBACK SUPPLY.	0-120 VDC			
J3-28	TP_SNUBBER	SNUBBER DC VOLTAGE IN FLYBACK SUPPLY.	111 VDC			
J3-29	TP_60MHZ_OSC	60MHZ OSCILLATOR ON ONLY DURING SELF TEST.	0-5 VDC			
J3-30	TP_60MHZ_MODLTD	60MHZ MODALTED PAM OR DPSK ONLY DURING SELF TEST.	50 mV p+p			
J3-31	PLZN_PLUG	POLARIZING PLUG.	NA			
J3-32	TP_PS_RAMP_SYNC	FREE RUNNING PS OSCILLATOR RAMP FROM BOOST SUPPLY.	0-5 VDC			
J3-33	TP_PS_SYNC	BOOST AND FLYBACK SYNC LINE FROM PROCESSOR.	0-5 VDC			
J3-34	TP_BOT_PIN_GATE	BOT PIN DRIVER GATE OF THE XMIT SIDE OF THE DRIVER.	-135 TO -150 VDC			
J3-35	TP_TOP_PIN_GATE	TOP PIN DRIVER GATE OF THE XMIT SIDE OF THE DRIVER.	-135 TO -150 VDC			
J3-36	GND	GND.	0 VDC			

FOR REFERENCE ONLY

SMT COMPONENT PINOUT / SMT COMPONENT MARKINGS
/ TEST POINT INFORMATION TABLE

SCHEMATIC DIAGRAM SHEET NO. 13

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