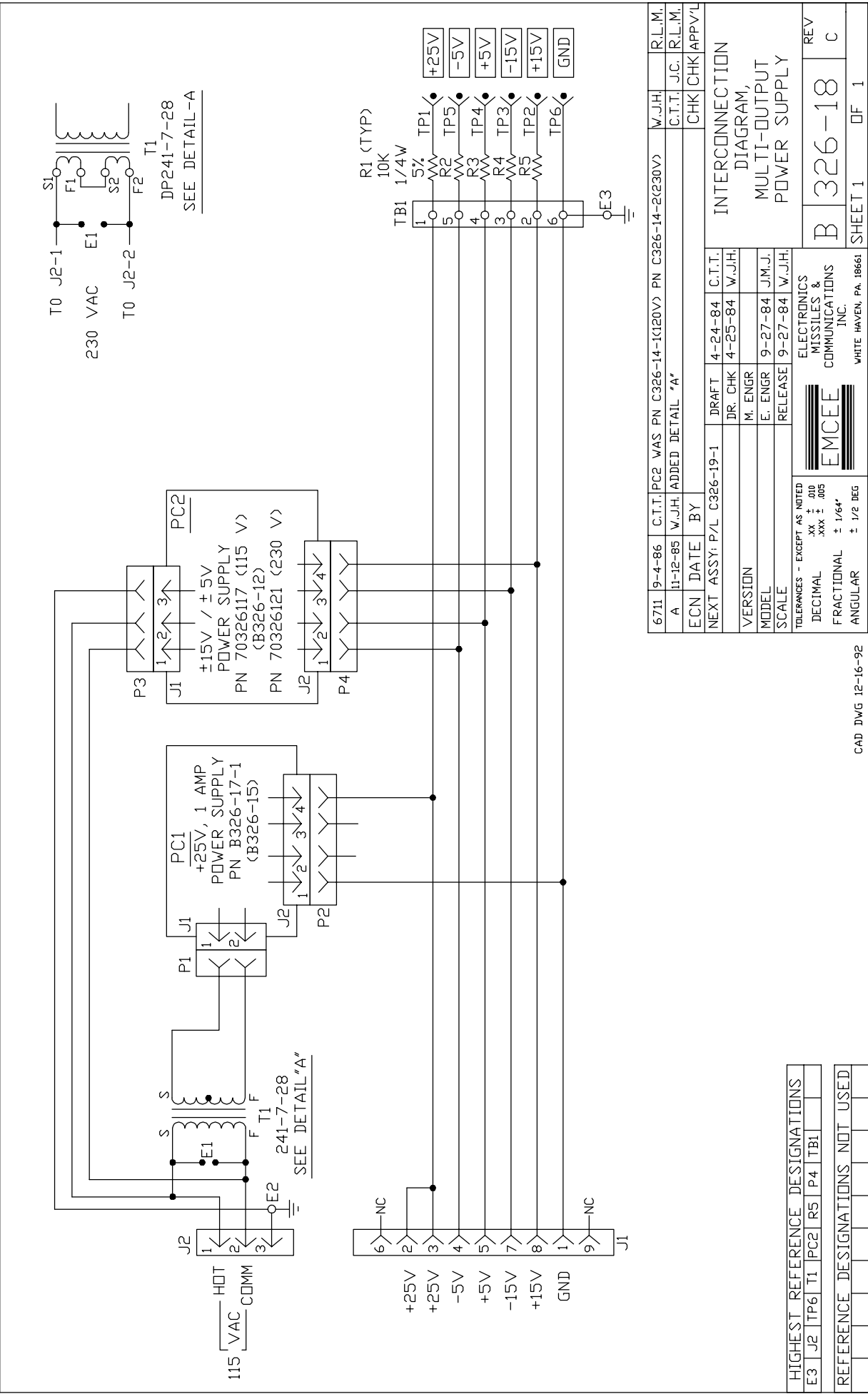


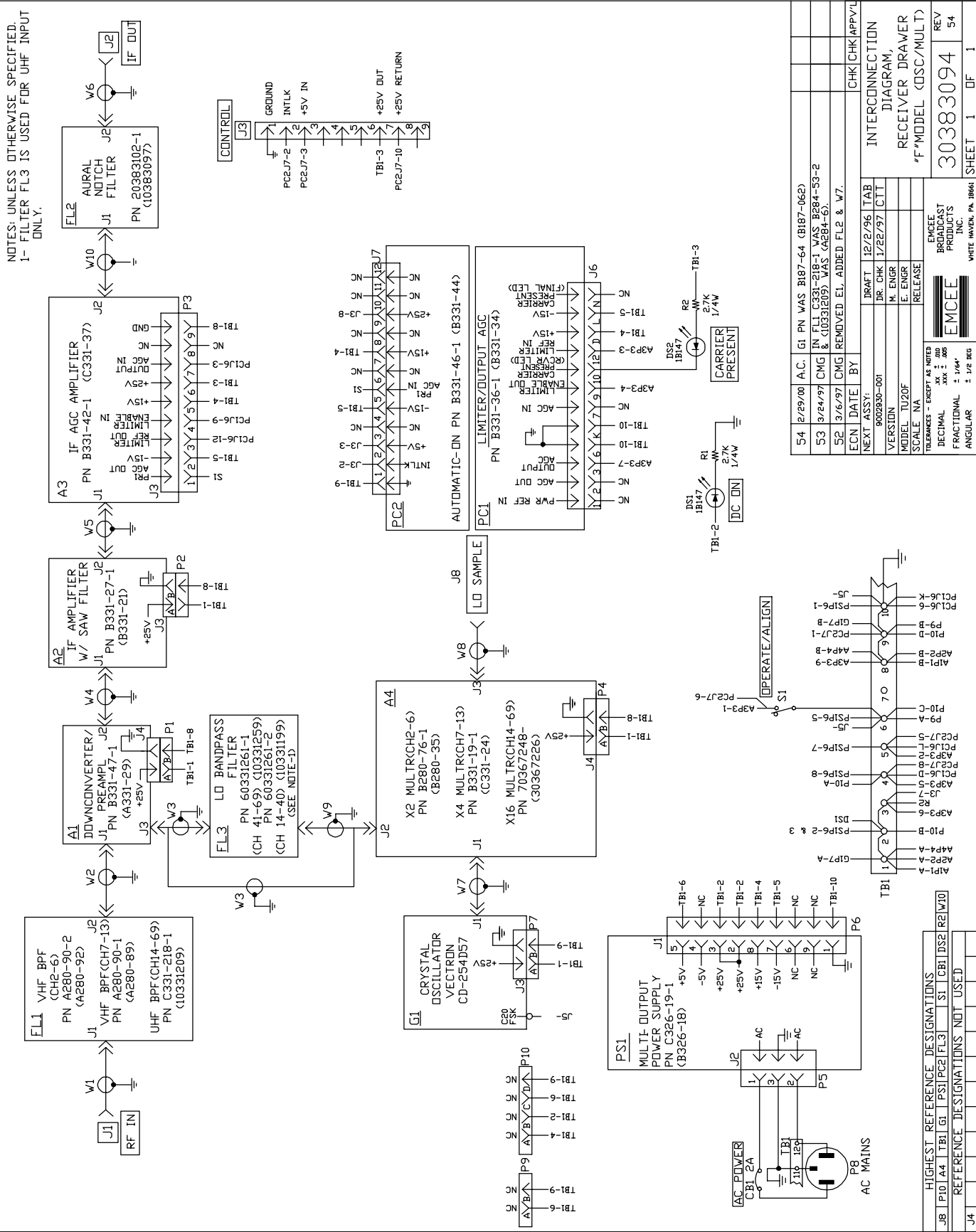
## **SECTION V**

### **SCHEMATIC DIAGRAMS**

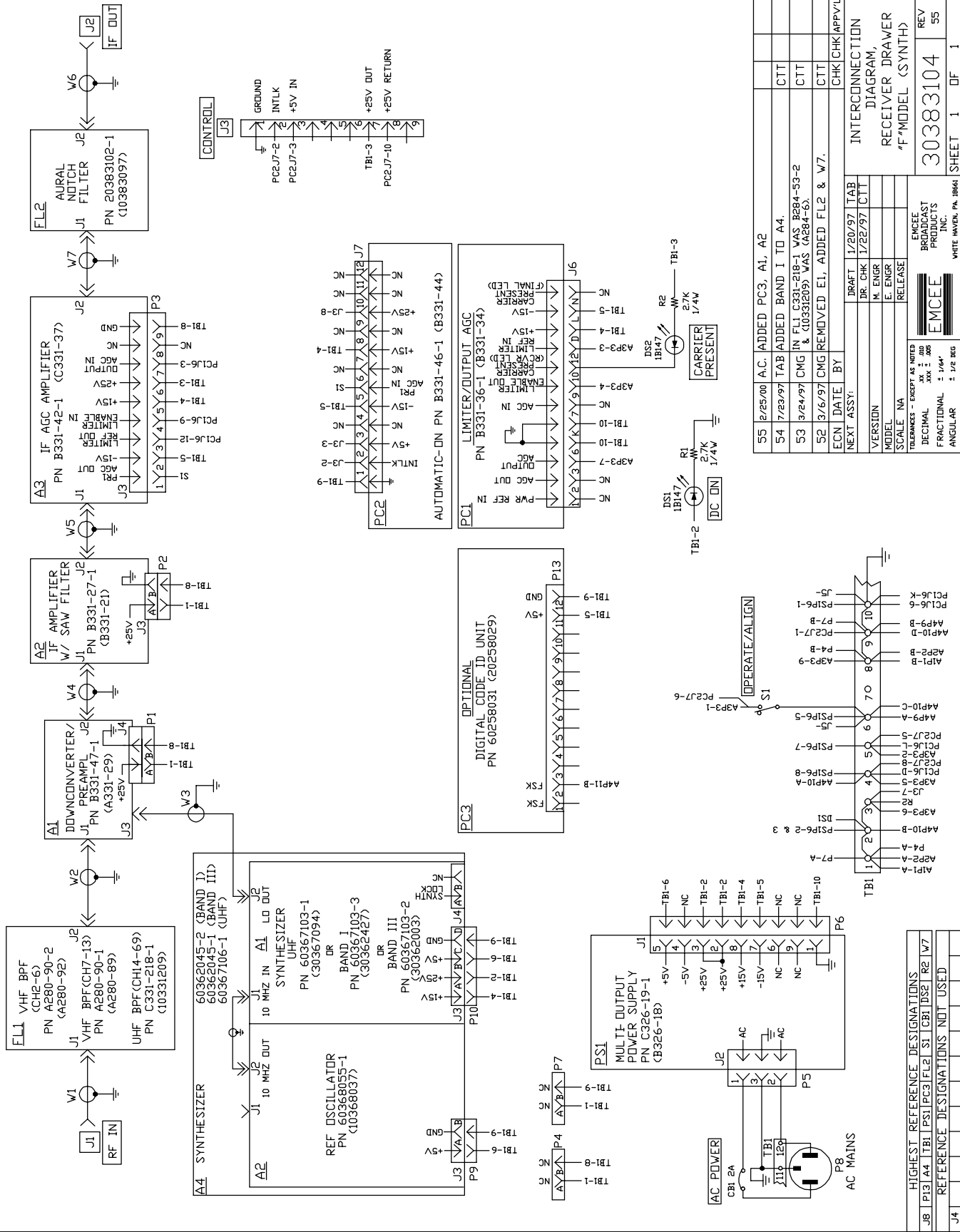
**MODULE SCHEMATICS  
ARE LISTED IN  
ALPHANUMERICAL SEQUENCE**

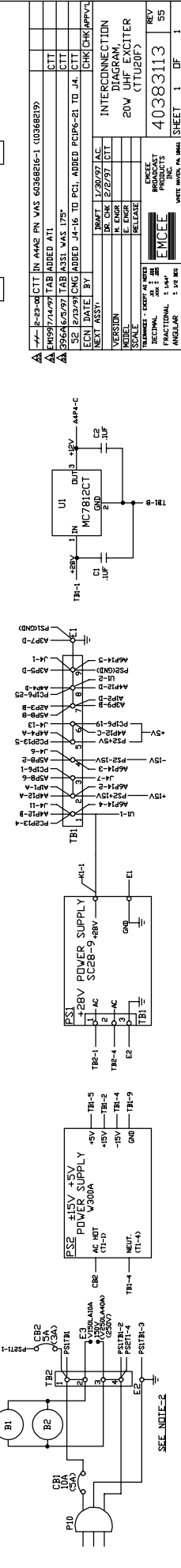
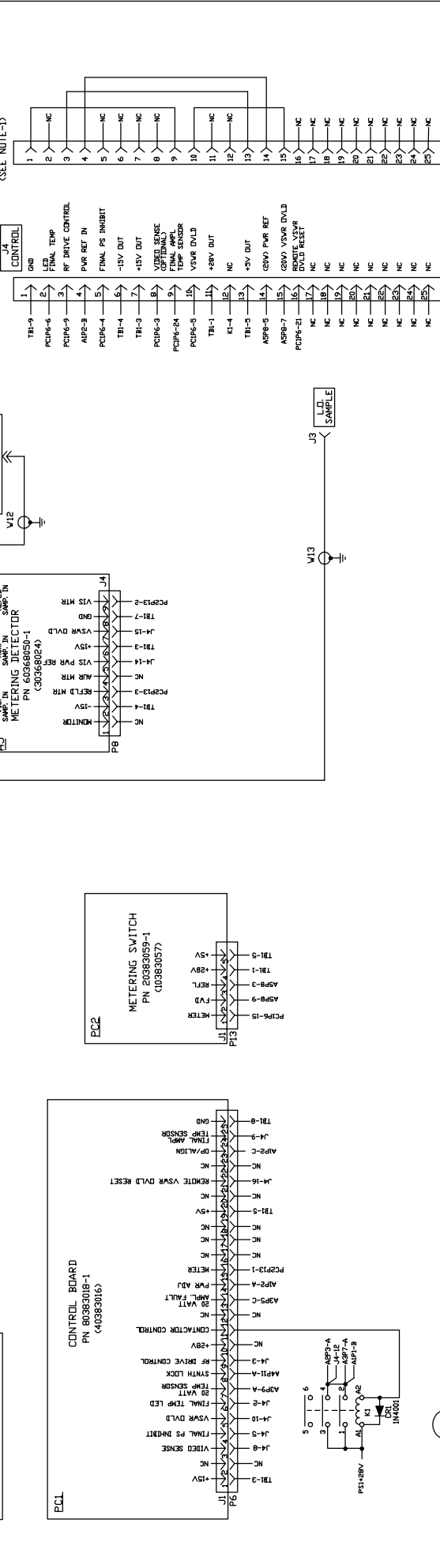
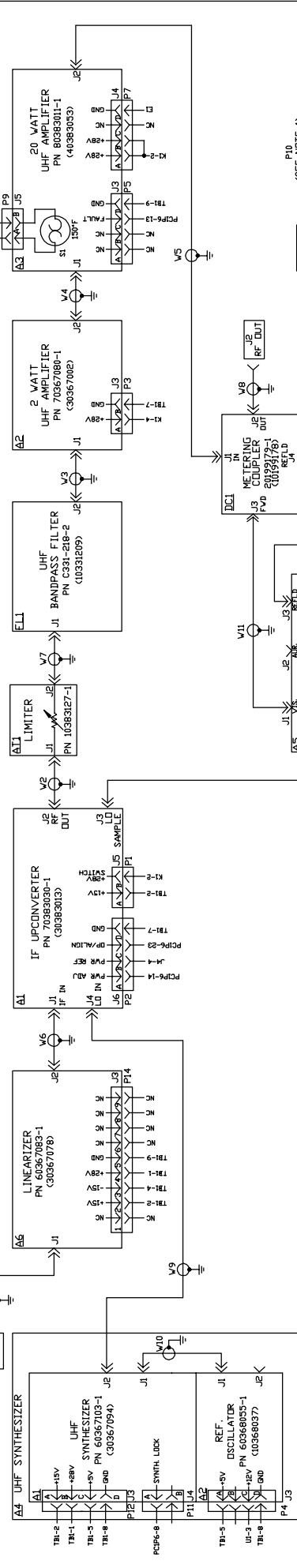


6711	9-4-86	C.T.I.	PC2	WAS	PN C326-14-1(120V)	PN C326-14-2(230V)	W.J.H.	R.L.M.
A	11-12-85	W.J.H.	ADDED	DETAIL	"A"		C.T.I.	J.C. R.L.M.
ECN	DATE	BY					CHK	CHK APPV'L
NEXT ASSY: P/L C326-19-1		DRAFT	4-24-84	C.T.I.	INTERCONNECTION DIAGRAM, MULTI-OUTPUT POWER SUPPLY			
VERSION		DR. CHK	4-25-84	W.J.H.				
MODEL		M. ENGR						
SCALE		E. ENGR	9-27-84	J.M.J.				
TOLERANCES - EXCEPT AS NOTED		RELEASE	9-27-84	W.J.H.				
DECIMAL	.XX ± .010							
FRACTIONAL	± 1/64"							
ANGULAR	± 1/2 DEG							

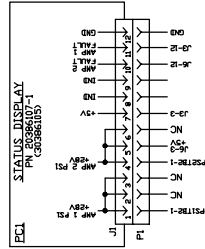
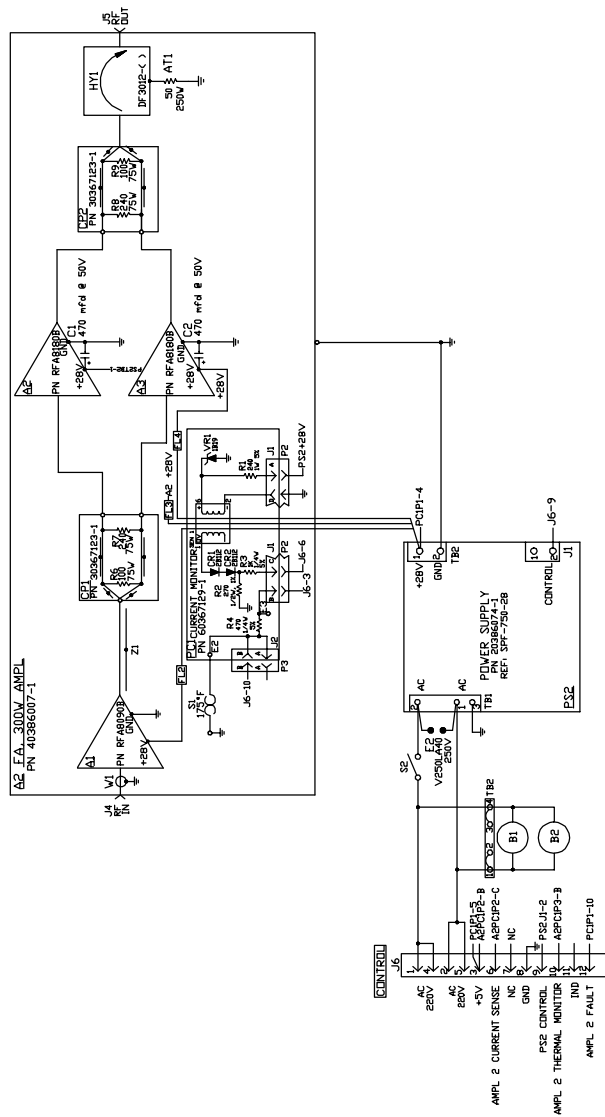
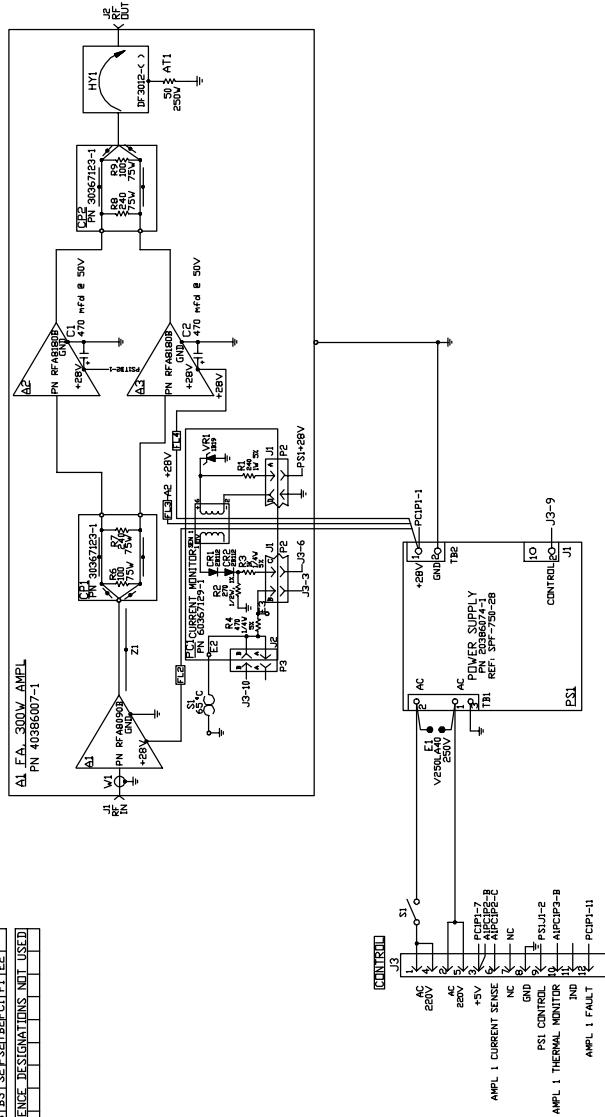


54	E/09/00	A.C.	G.I PN WAS B187-64 (B187-062)
53	3/24/97	CMG	IN FLI C331-218-1 WAS B284-S3-2 & (C033205) WAS (A284-6)
52	3/6/97	CMG	REMOVED E1, ADDED FL2 & W7.
ECN	DATE	BY	
NEXT ASSY:			
VERSION	MODEL	TU20F	
SCALE	NA		
TOLERANCES - EXCEPT AS NOTED			
DIMENAL	.xxx ± .005		
FRACTIONAL	1/64"		
ANGULAR	± 1/8 DEG		
REV	54		
SHEET	1 OF 1		



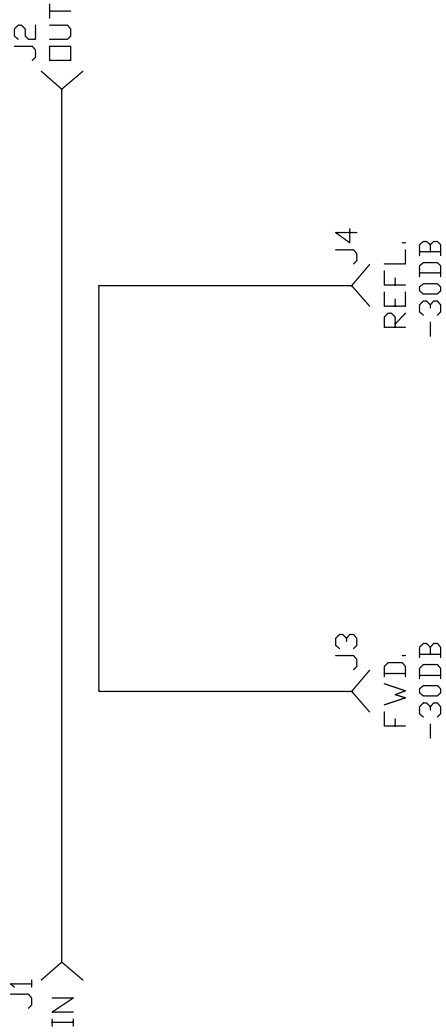
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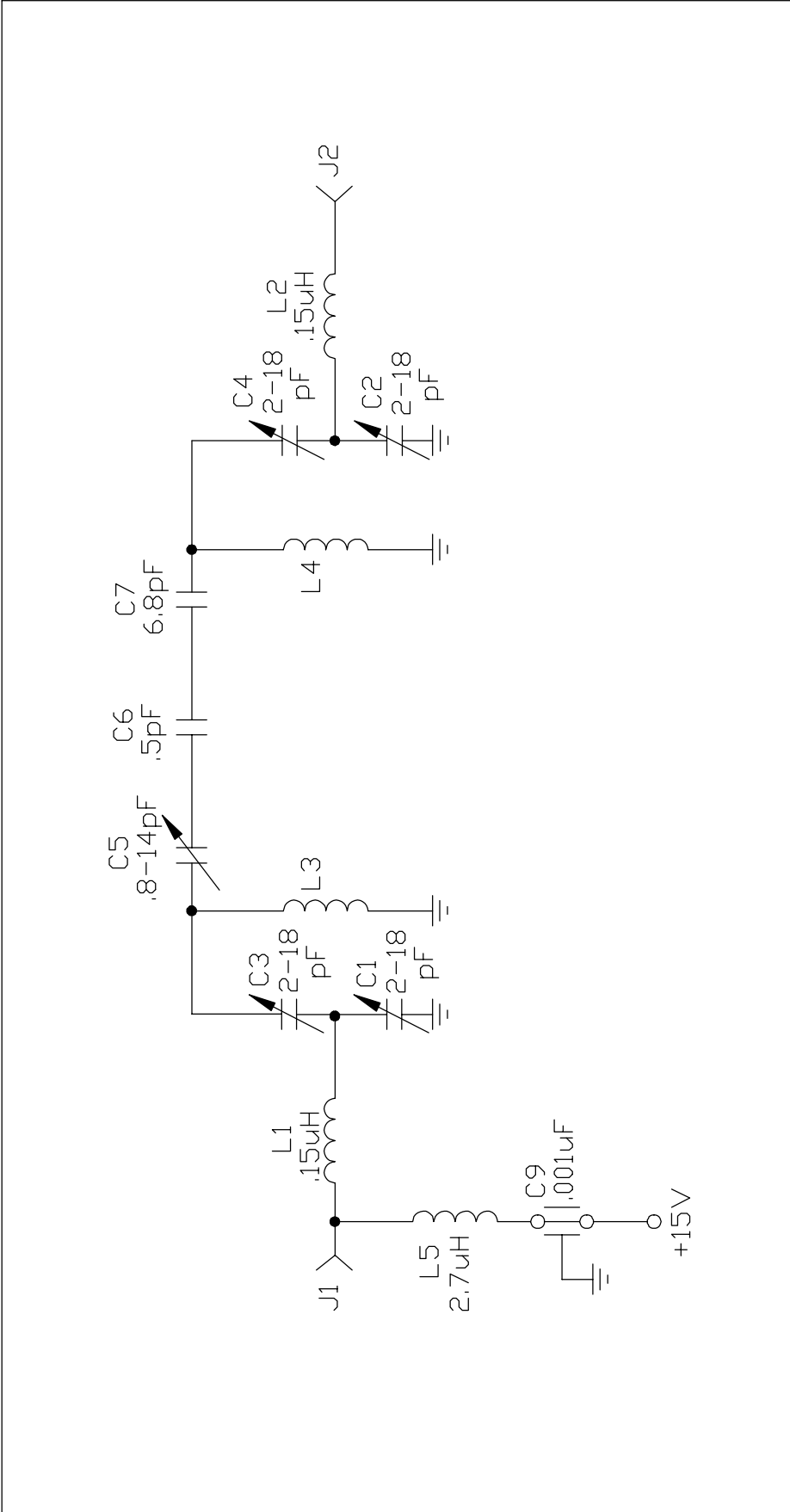



56	2/29/76	AC	35-11 WAS AMPL. 1	THERMAL MONITOR				
57	11-18-79	DTT	PCI RN WAS 303667/91	303666/92SD				
516	4/26/99	AC	ADDR. VALUE IN DTS TO JC-3					C1,1
517	6/19/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
518	7/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
519	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
520	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
521	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
522	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
523	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
524	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
525	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
526	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
527	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
528	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
529	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
530	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
531	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
532	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
533	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
534	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
535	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
536	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
537	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
538	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
539	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
540	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
541	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
542	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
543	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
544	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
545	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
546	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
547	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
548	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
549	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
550	6/26/97	TAB	PCI RN WAS 303667/91	303666/92SD				C1,1
551	6/26/97	TAB	PCI					





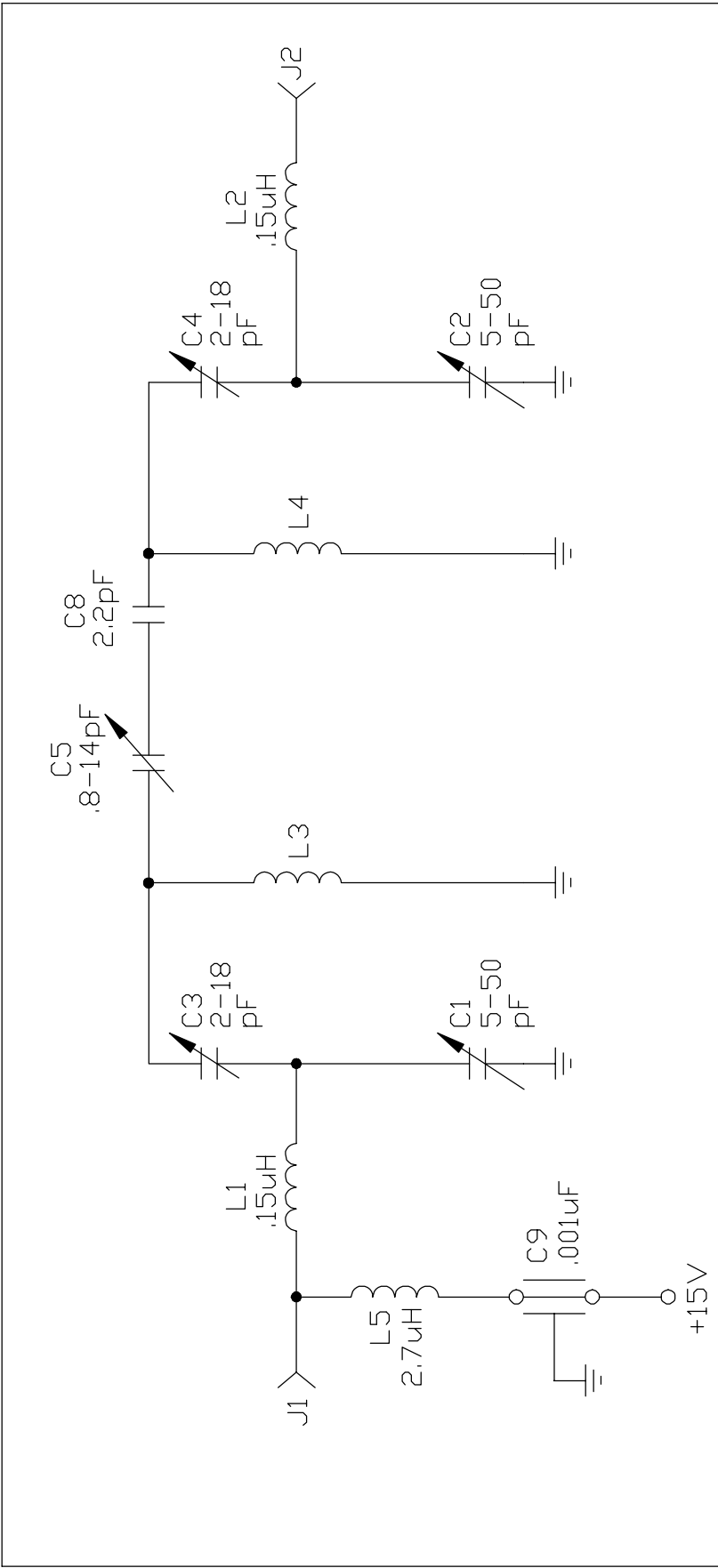
52	12-21-95	AC	J3 WAS OUT TO DETECTOR FWD. J4 WAS OUT TO DETECTOR REFL.						
ECN	DATE	BY					CHK	CHK	APPV'L
NEXT ASSY:			DRAFT	10-24-95	VN	SCHEMATIC DIAGRAM, METERING COUPLER			
VERSION			DR. CHK						
MODEL			M. ENGR						
SCALE			E. ENGR						
TOLERANCES - EXCEPT AS NOTED			RELEASE			ELECTRONICS MISSILES & COMMUNICATIONS INC. WHITE HAVEN, PA. 18661			
DECIMAL			.XX ± .010 .XXX ± .005						
FRACTIONAL			± 1/64"						
ANGULAR			± 1/2 DEG						
						10199178	REV	52	
						SHEET	1	OF	1



ECN	DATE	BY	CHK		CHK	APPV/L
NEXT ASSY:P/L	A280-90-1		DRAFT	5-16-79	C.T.T.	
	P/L A280-91-1		DR. CHK	6-4-79	W.J.H.	
VERSION			M. ENGR			
MODEL			E. ENGR			
SCALE			RELEASE	6-26-79	G.B.	
TOLERANCES - EXCEPT AS NOTED			ELECTRONICS MISSILES & COMMUNICATIONS INC.			
DECIMAL	.XX	± .010				
FRACTIONAL	.XXX	± .005				
ANGULAR	± 1/64°	± 1/2 DEG				
CAD DWG 6-1-94			A280-89		REV 1	
			SHEET 1		OF 1	

REV  
1

WHITE HAVEN, PA. 18661

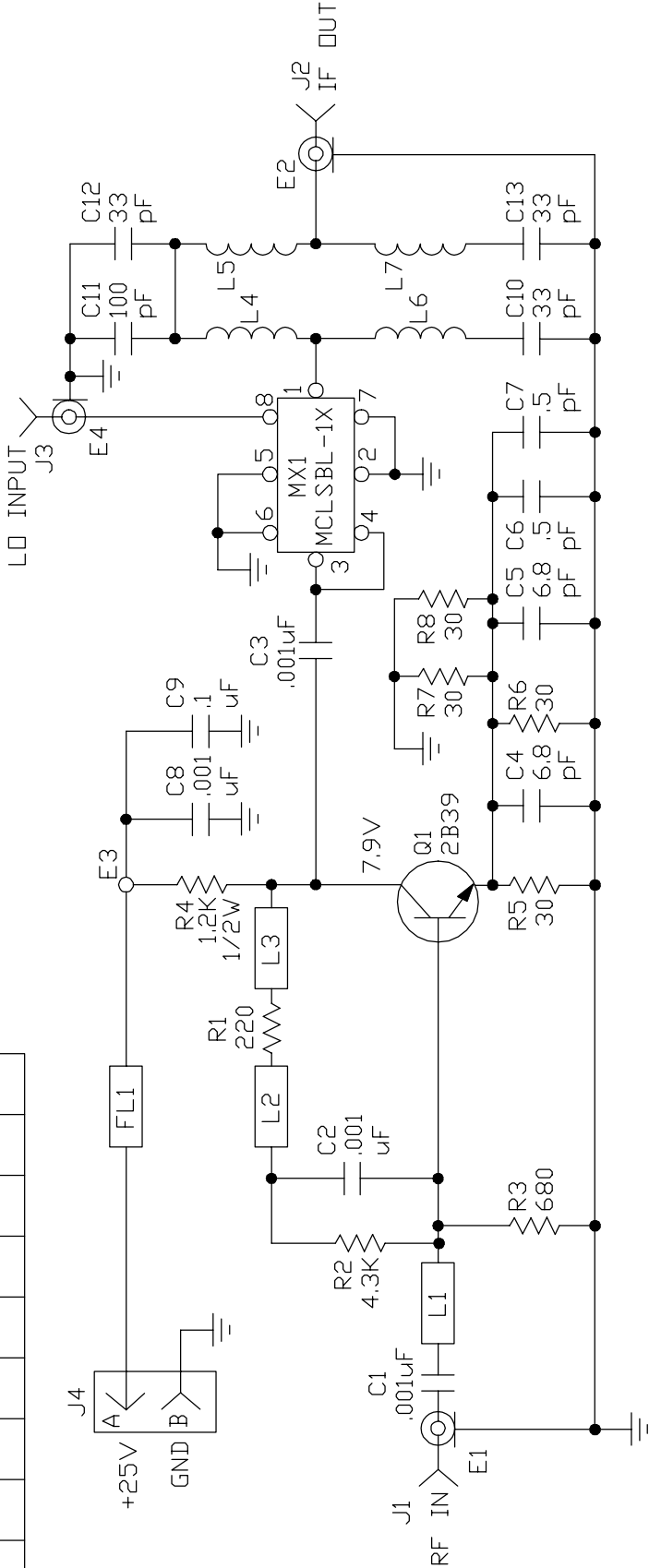


ECN	DATE	BY	CHK			APPV/L
NEXT ASSY: P/L A280-90	DRAFT	5-16-79	C.T.T.	SCHEMATIC DIAGRAM, VHF BANDPASS FILTER (CH 2-6)		
P/L A280-91	DR. CHK	6-4-79	W.J.H.			
VERSION	M. ENGR					
MODEL	E. ENGR					
SCALE NONE	RELEASE	9-3-93	R.H.N.	A280-92		
TOLERANCES - EXCEPT AS NOTED			ELECTRONICS MISSILES & COMMUNICATIONS INC.			REV
DECIMAL	.XX	± .010	EMCEE			1
FRACTIONAL	.XXX	± .005				
ANGULAR	± 1/64°					
CAD DWG 9-29-93			SHEET 1			DF 1

WHITE HAVEN, PA. 18661

HIGHEST REFERENCE DESIGNATIONS									
Q1	L3	FL1	R8	E4	MX1	L7	C13	J4	

REFERENCE DESIGNATIONS NOT USED									

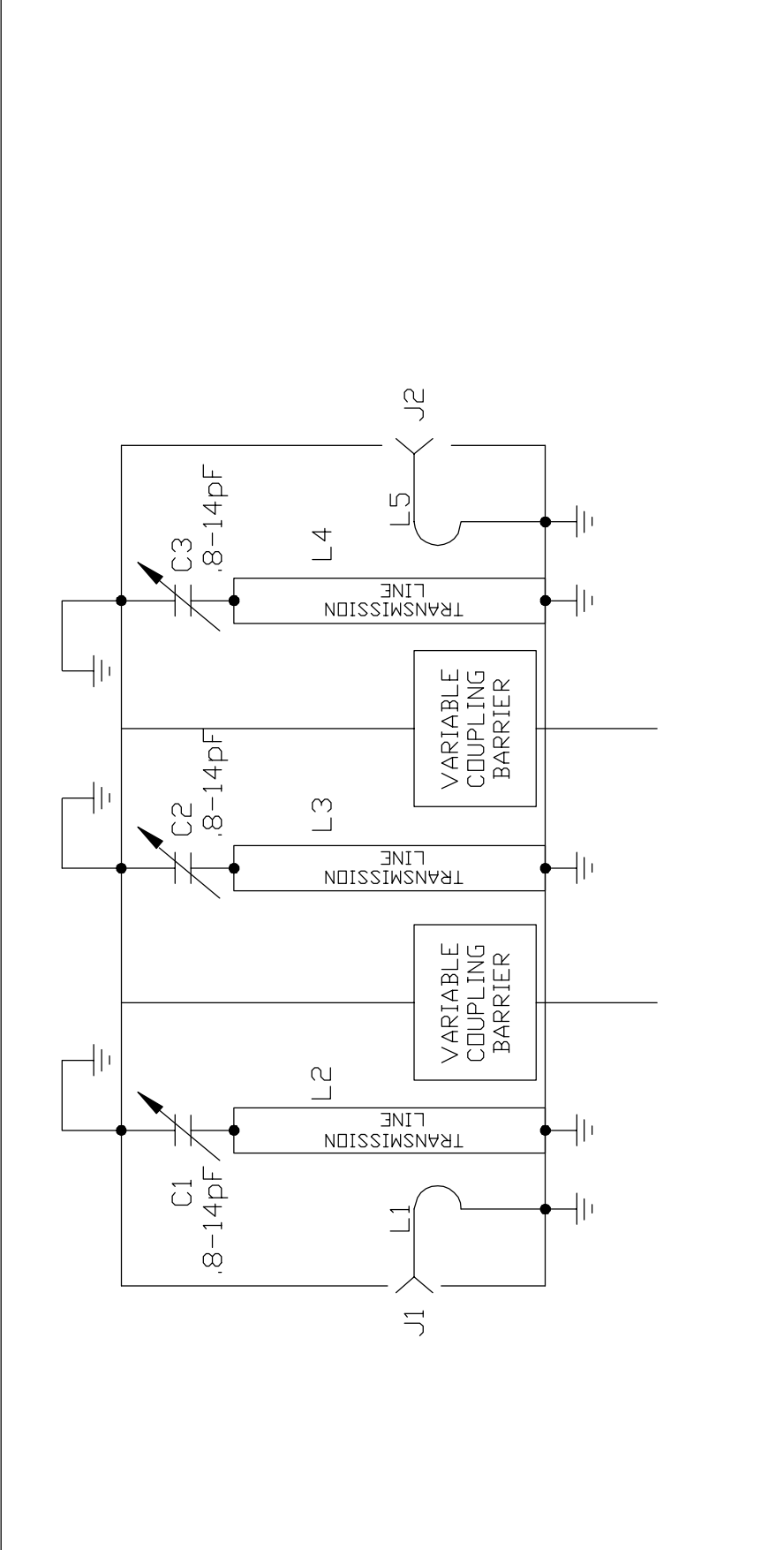


B	12-29-89	TAB	ADDED J4 TO NOTE 2 ; ADDED 7.9V TO Q1	C.T.T.		R.G.N.
ECN	DATE	BY		CHK	CHK	APPV'L

NEXT ASSY: P/L B331-30-1	DRAFT	9-7-84	C.T.T.	SCHEMATIC DIAGRAM, DOWNCONVERTER/ PREAMPLIFIER		
DR. CHK						
M. ENGR						
E. ENGR	4-25-86	J.M.J				
RELEASE	4-25-86	J.M.J				

<div>EMCEE</div> <div>ELECTRONICS MISSILES &amp; COMMUNICATIONS INC.</div>	SHEET 1			OF 1	REV
	A 331-29				B
	WHITE HAVEN, PA. 18661				

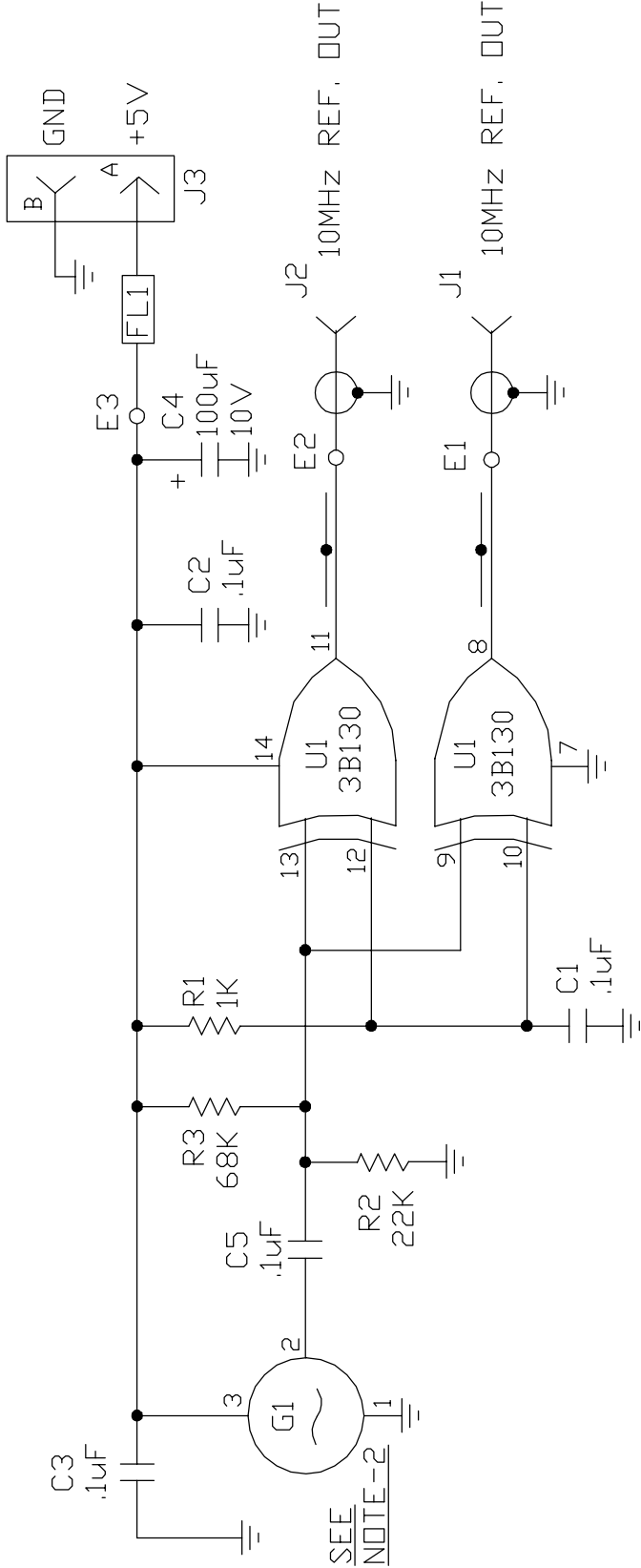
NOTES UNLESS OTHERWISE SPECIFIED  
 1-ALL RESISTORS VALUED AT 1/8W,  
 5%.  
 2-COMPONENTS J1,J2,J3,J4, AND FL1  
 ARE NOT LOCATED ON PC BOARD.



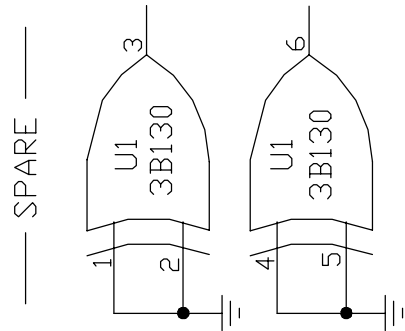
52	3-18-97	S.D.C.	L5 WAS L4						
ECN	DATE	BY				CHK	CHK	APPV'L	
NEXT ASSY:P/L	C331-218	DRAFT	8-17-95	VN	SCHEMATIC DIAGRAM, UHF BANDPASS FILTER				
		DR. CHK	10-23-95	C.T.T.					
VERSION		M. ENGR							
MODEL		E. ENGR							
SCALE		RELEASE	11-6-96	DB	<div><div></div><div>EMCEE</div><div></div></div> <div>ELECTRONICS MISSILES &amp; COMMUNICATIONS INC.</div> <div>WHITE HAVEN, PA. 18661</div>				
TOLERANCES - EXCEPT AS NOTED									
DECIMAL	.XX ± .010 .XXX ± .005								
FRACTIONAL	± 1/64°								
ANGULAR	± 1/2 DEG				10331209		REV 52		
					SHEET 1		OF 1		

HIGHEST REFERENCE DESIGNATIONS									
C5	R3	U1	G1	E3	J3	FL1			
REFERENCE DESIGNATIONS NOT USED									

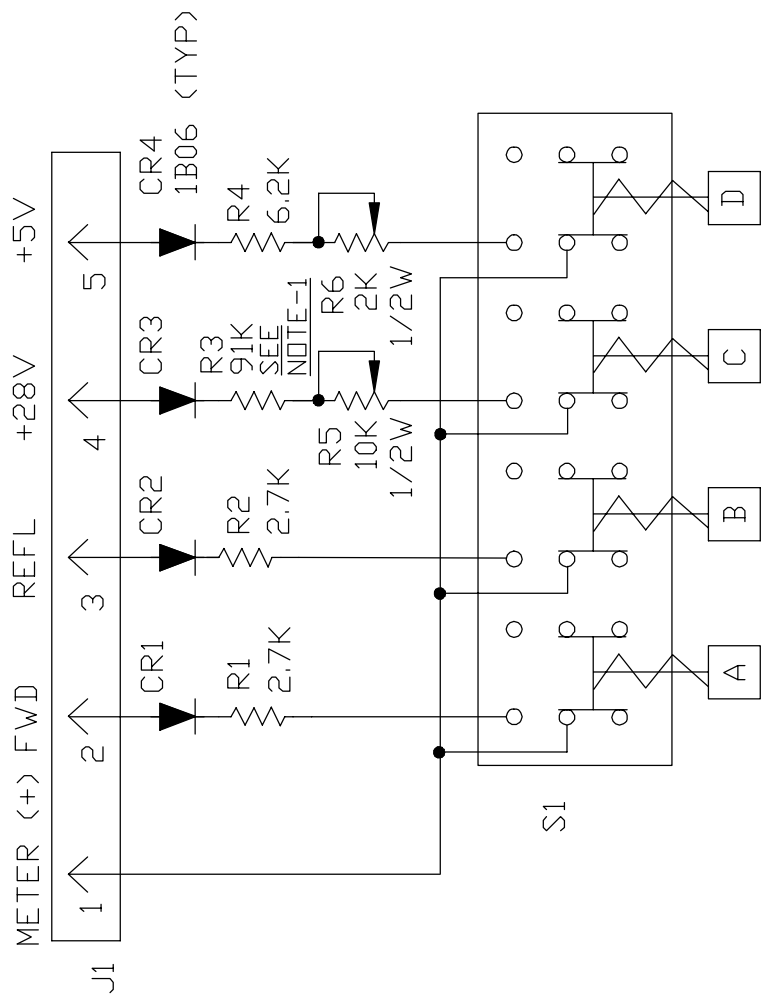
- NOTES: UNLESS OTHERWISE SPECIFIED
- COMPONENTS FL1 AND J1-J3 ARE NOT LOCATED ON BD ASSY.
  - FOR G1 (RTX0771AD), R2 IS 47K, C5 IS A 0 OHM RESISTOR AND R3 IS REMOVED.



B	12/10/98	TAB	ADDED NOTE-2.			CTT	CTT	CTT
293	8-10-95	VN	ADDED C5, R3; R2 VALUE WAS 4.7K			CTT	DB	DB
ECN	DATE	BY	RELEASED AT REV 57			CHK	CHK	APPV'L
NEXT ASSY:			DRAFT	7-03-90	SMP	SCHEMATIC DIAGRAM, REF. OSCILLATOR		
VERSION			DR. CHK	10-4-90	CTT			
MODEL			M. ENGR					
SCALE			E. ENGR	11-8-90	JL			
			RELEASE	6-14-95	BN			
TOLERANCES - EXCEPT AS NOTED						ELECTRONICS MISSILES & COMMUNICATIONS INC.		
DECIMAL		.XX ± .010 .XXX ± .005		10368037				
FRACTIONAL		± 1/64"						
ANGULAR		± 1/2 DEG						
						SHEET 1 OF 1		



NOTE:  
1-FOR OPERATION IN THE  
TTU100FA VALUE OF R3  
IS 100K.



54	12-3-99	CTT	ADDED NOTE-1 AND VALUE OF R3 WAS 6.2K AND R4 91K		
53	7/31/96	CMG	CHANGED SCH. TO CONFORM TO NEW SWITCH CONFIG.	CTT	
52	12/1/95	A.C.	ADDED E & F POSITION	CTT	
ECN	DATE	BY		CHK	CHK APPV'L
NEXT ASSY:					
VERSION			DRAFT	10-10-95	A.C.
MODEL			DR. CHK	10-11-95	C.T.T.
SCALE			M. ENGR		
			E. ENGR		
			RELEASE		
TOLERANCES - EXCEPT AS NOTED			SCHEMATIC DIAGRAM, METERING SWITCH TTU20F		
DECIMAL	.XX ± .010		10383057		
FRACTIONAL	.XXX ± .005		REV 54		
ANGULAR	± 1/64°		SHEET 1 OF 1		
			EMCEE BROADCAST PRODUCTS INC. WHITE HAVEN, PA. 18661		

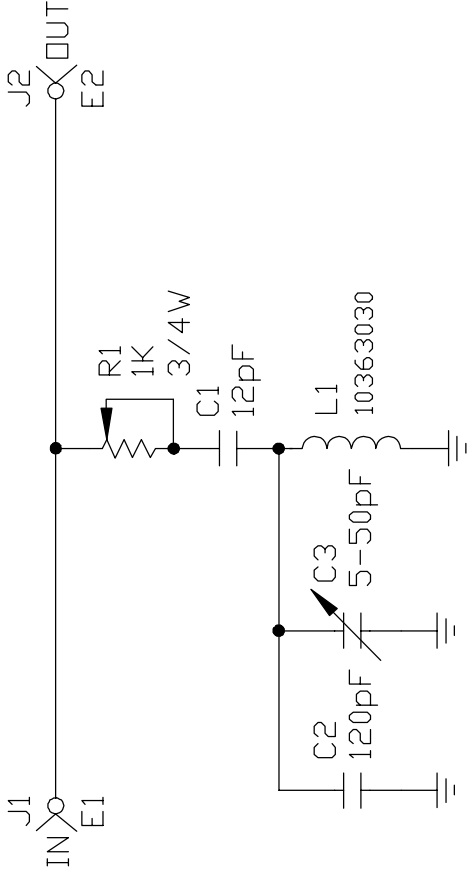
HIGHEST REFERENCE DESIGNATIONS

J2	E2	R1	C3	L1					
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REFERENCE DESIGNATIONS NOT USED

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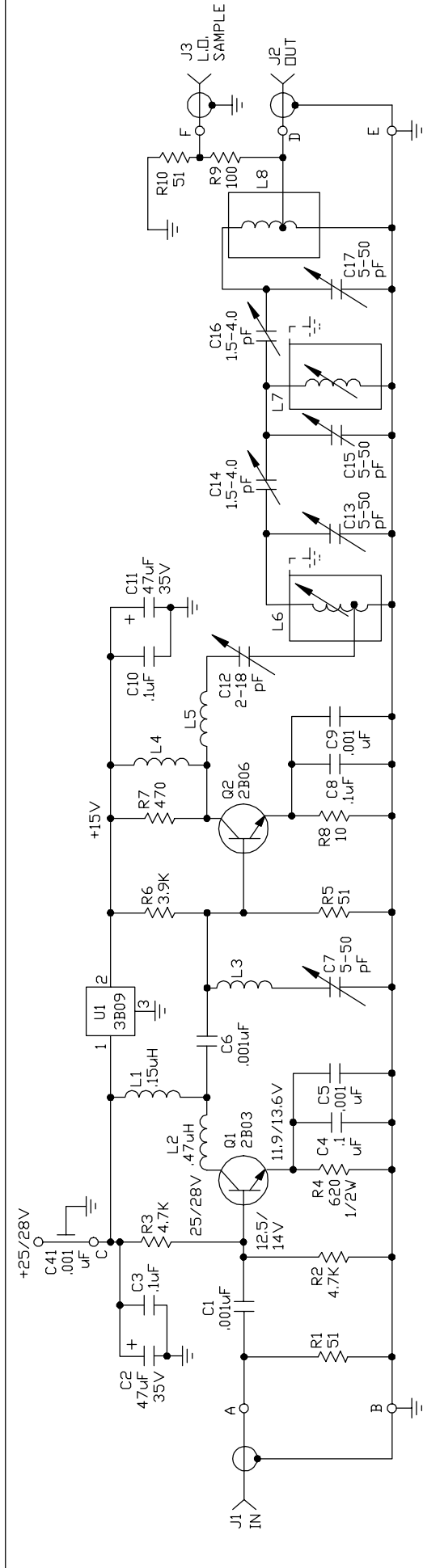
NOTE:  
1-J1 & J2 ARE NOT ON THE  
PC BOARD.



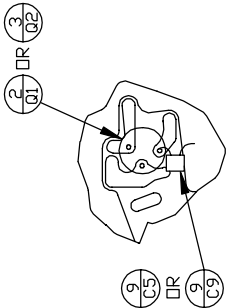
ECN	DATE	BY				CHK	CHK	APPV'L
NEXT ASSY:			DRAFT	12/17/96	A.C.	SCHEMATIC DIAGRAM, AURAL NOTCH FILTER		
VERSION			DR. CHK					
MODEL			M. ENGR					
SCALE			E. ENGR					
TOLERANCES - EXCEPT AS NOTED			EMCEE BROADCAST PRODUCTS INC. WHITE HAVEN, PA. 18661			10383097		
DECIMAL	.XX ± .010					REV 51		
FRACTIONAL	.XXX ± .005							
ANGULAR	± 1/64°							
	± 1/2 DEG					SHEET 1 OF 1		



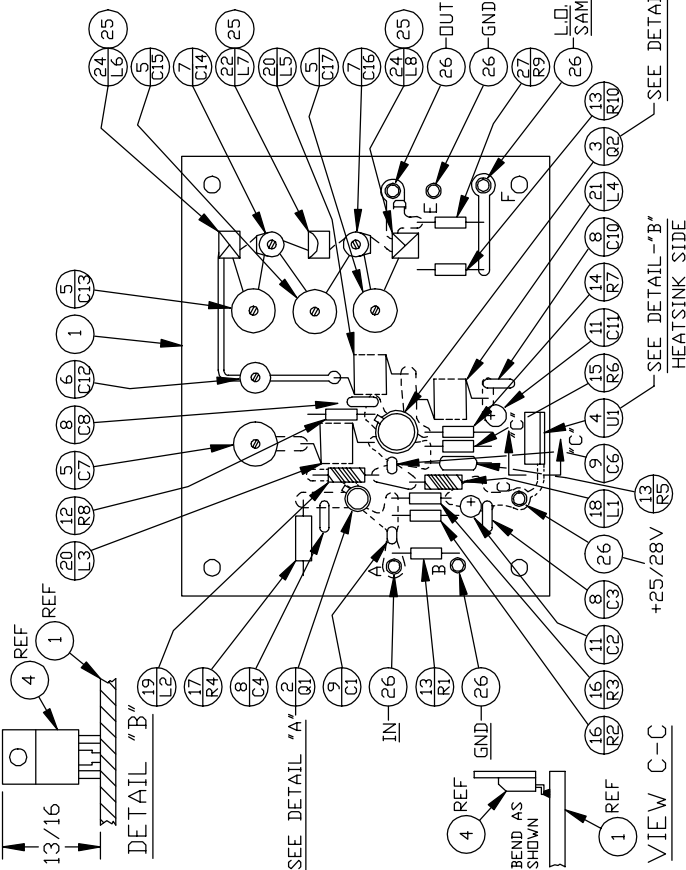




NOTES : UNLESS OTHERWISE SPECIFIED  
 1-ALL RESISTORS ARE 1/4W, 5%.  
 2-CONNECTORS J1, J2, J3, AND CAPACITORS C41  
 ARE MOUNTED ON MODULE CAN.  
 3-CAPACITORS C5 & C9 ARE MOUNTED ON BOTTOM  
 OF PC BOARD (SEE DETIL "A") FROM  
 EMITTER LEAD OF TRANSISTOR Q1 & Q2 TO GND.



DETAIL "A"  
 (SEE NOTE-3)



E	12-29-89	DB	ADDED TRANSISTOR VOLTAGE 13.6V	C.T.T.	RGN
A1	4-25-89	SMP	ADDED SECTION C-C	C.T.T.	C.T.T.
6025	4-18-83	W.J.H. REFER TO ECN		B.G.	W.J.H. M.G.
5423	8-8-80	JL	ITEM 7 WAS EF JOHNSON, 1-3P CAP P.N. 278-0103-005	W.J.H. R.K.	V.J.H.
ECN	DATE	BY		CHK	CHK APPV'L
NEXT ASSY: P/L B280-76			DRAFT	8-2-77	J.C.
VERSION			DR. CHK	3-2-78	W.J.H.
MODEL			M. ENGR	3-2-78	G.K.
SCALE NONE			E. ENGR		
TOLERANCES - EXCEPT AS NOTED			RELEASE	3-20-80	G.B.
DECIMAL .001					
FRACTIONAL 1/64					
ANGULAR 1/2 DEG					

SCHEMATIC DIAGRAM,  
 & ASSEMBLY,  
 PC BOARD,  
 MULTIPLIER, X2

EMCEE  
 ELECTRONICS  
 MISSILES &  
 COMMUNICATIONS  
 INC.  
 WHITE HAVEN, PA. 18661

PL B280-35 REV E

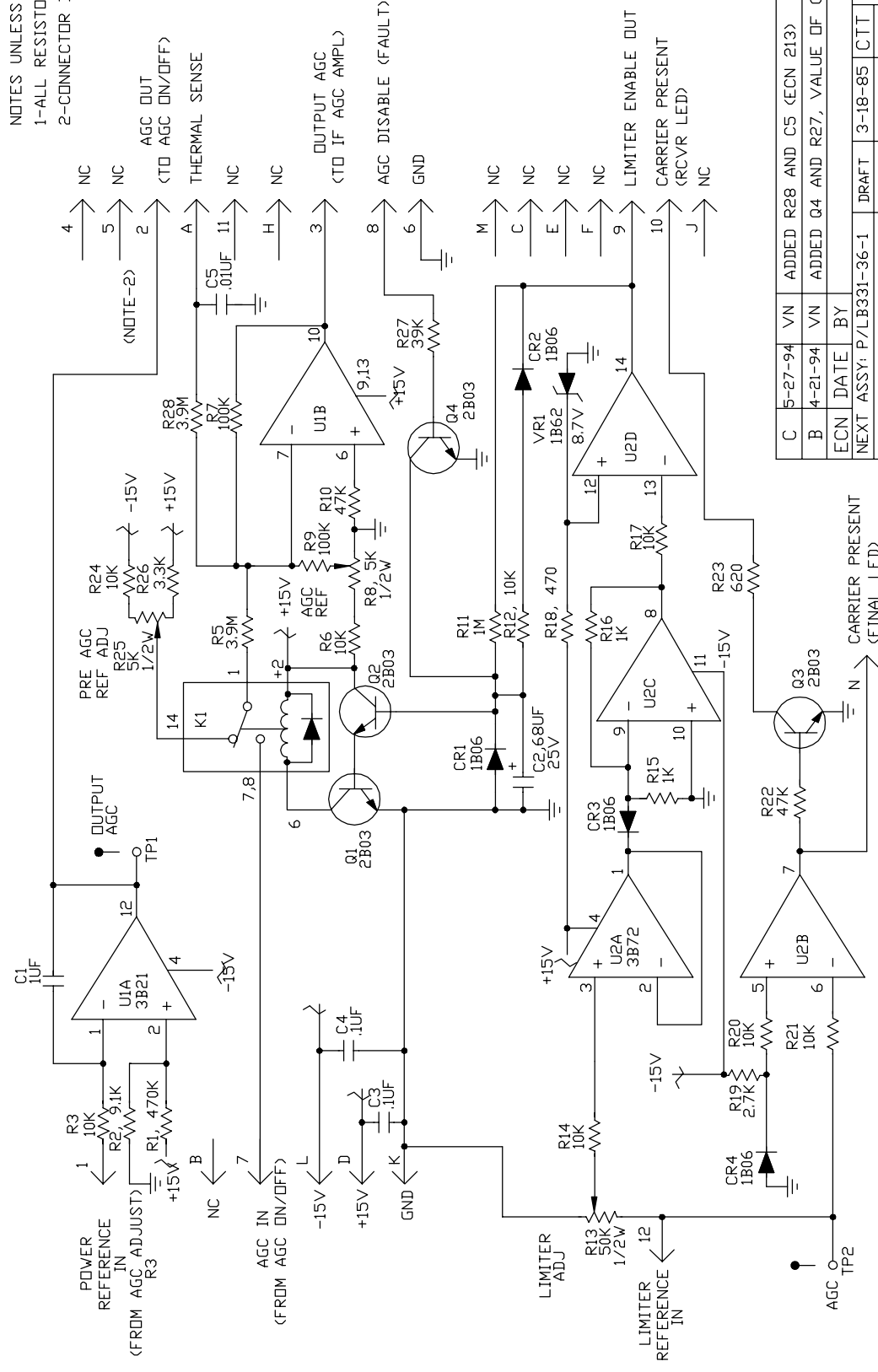
SHEET 1 OF 1








NOTES UNLESS OTHERWISE SPECIFIED  
1-ALL RESISTORS VALUED AT 1/4W, 5%.  
2-CONNECTOR DESIGNATIONS ARE P.C. FINGERS



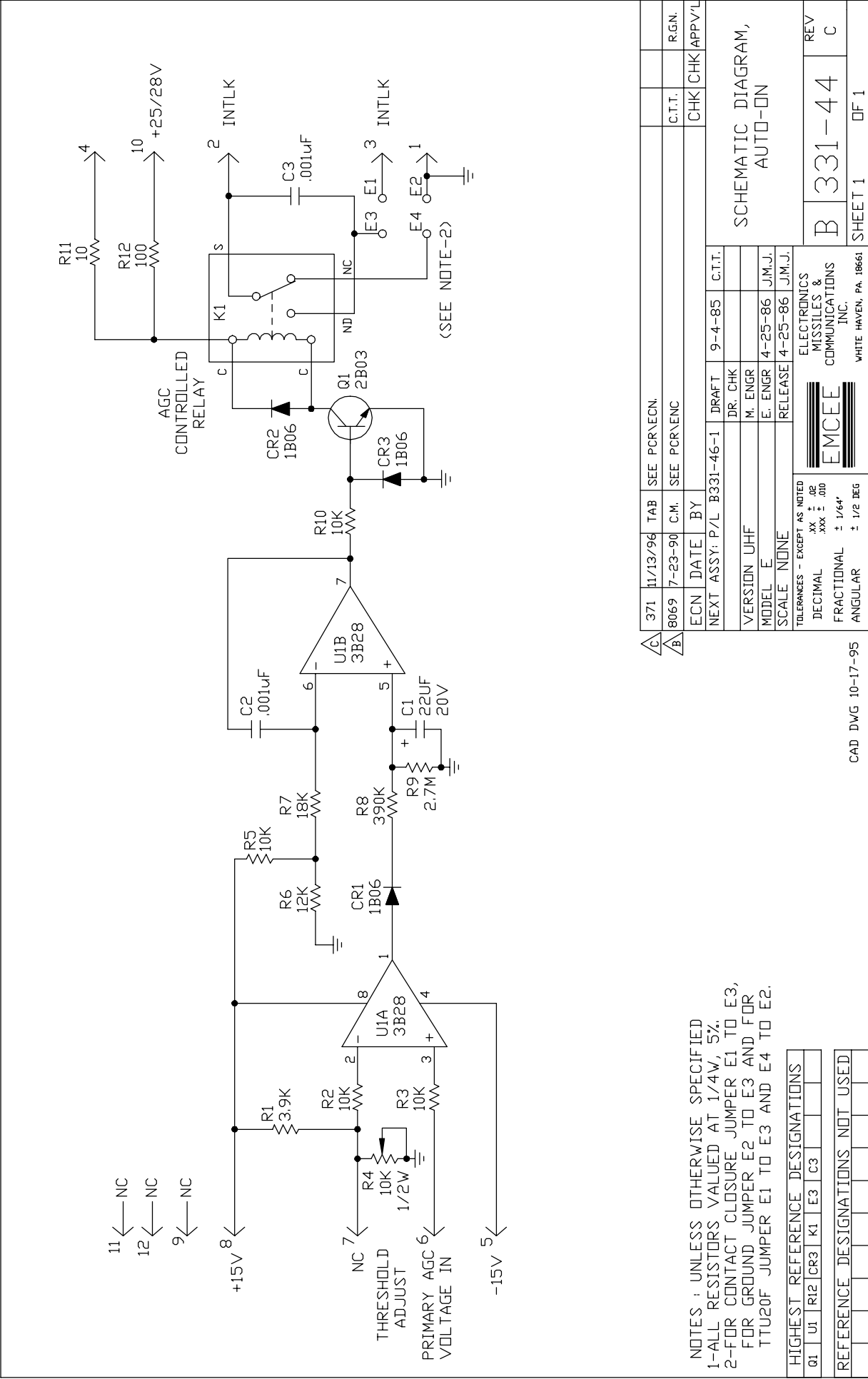
C	5-27-94	VN	ADDED R28 AND C5 (ECN 213)			CTT	JL	RGN
B	4-21-94	VN	ADDED Q4 AND R27, VALUE OF C2 WAS 10 UF			CTT	JMJ	JMJ
ECN	DATE	BY				CHK	CHK	APPV'L
NEXT ASSY: P/LB331-36-1			DRAFT	3-18-85	CTT			
			DR. CHK					
VERSION			M. ENGR					
MODEL			E. ENGR	4-25-86	JMJ			
SCALE			RELEASE	4-25-86	JMJ			
TOLERANCES - EXCEPT AS NOTED			 MISSILES & COMMUNICATIONS INC.					
DECIMAL			.XX ± .010					
FRACTIONAL			.XXX ± .005					
ANGULAR			± 1/64°					
			± 1/2 DEG					
			B 331-34			REV C		
			SHEET 1 OF 1			WHITE HAVEN, PA. 18661		

### HIGHEST REFERENCE DESIGNATIONS

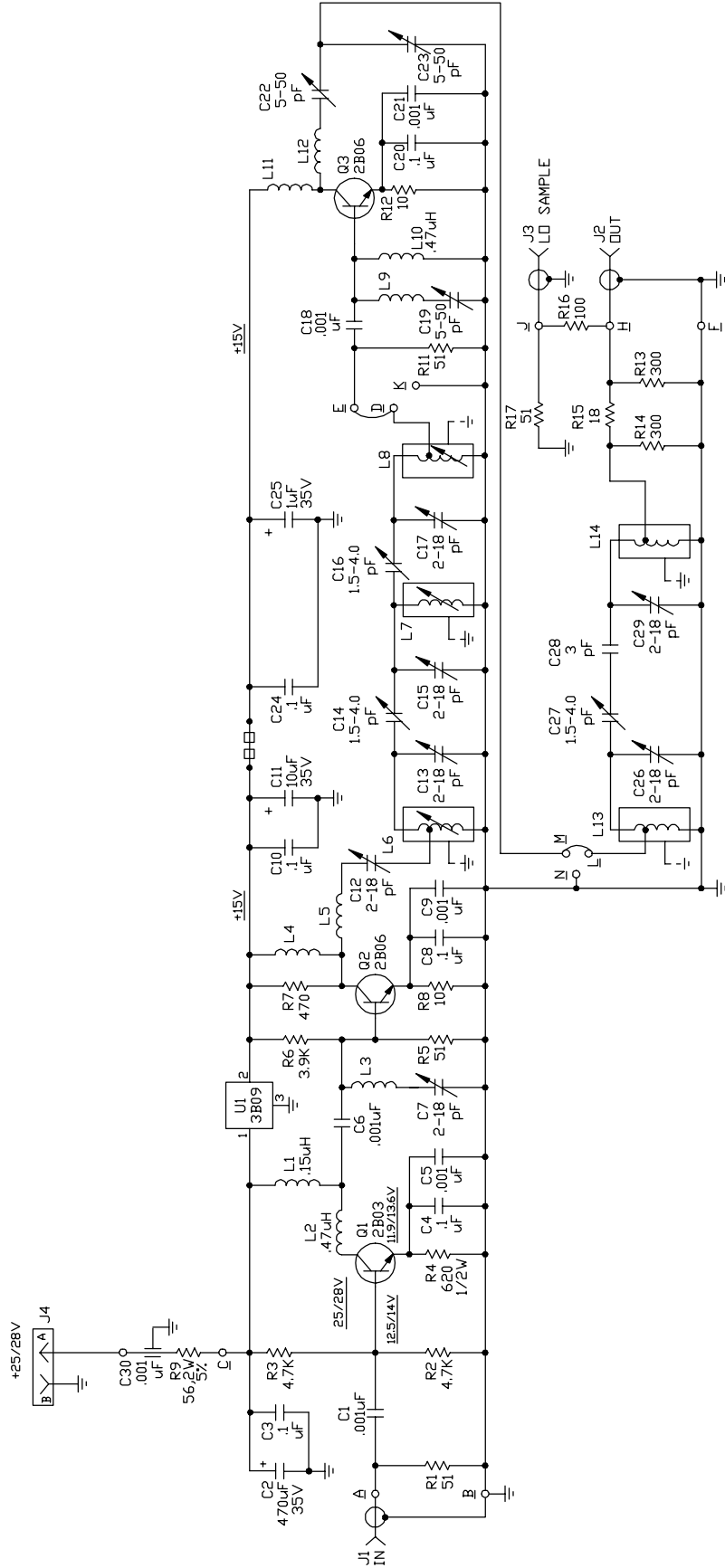
U2	Q4	R28	C5	CR4	VR1	K1	TP2
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REFERENCE DESIGNATIONS NOT USED

[illegible]



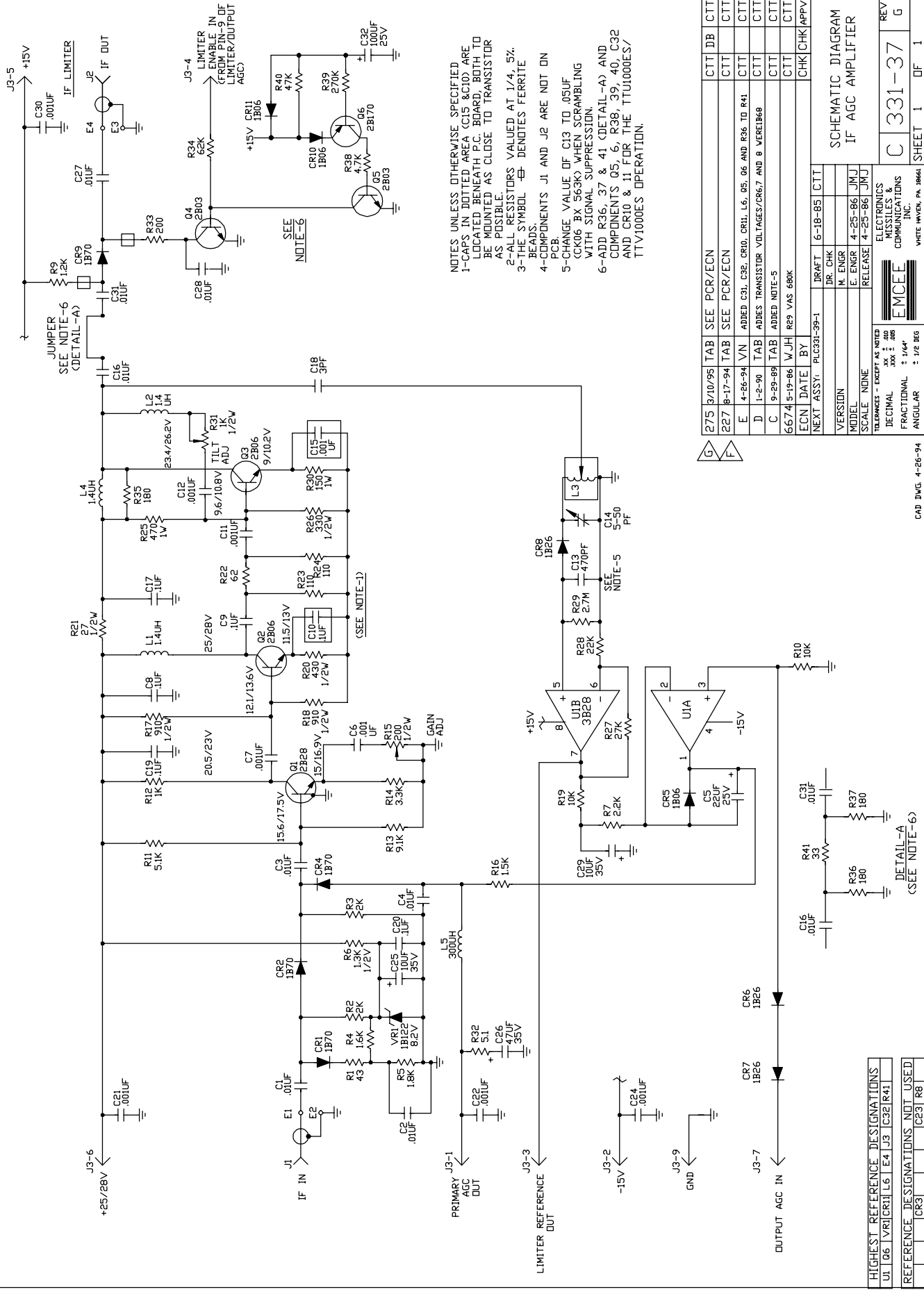
NOTES : UNLESS OTHERWISE SPECIFIED  
1-THE SYMBOL  DENOTES A FERRITE BEAD.  
2-ALL RESISTORS ARE 1/4W, 5%  
3-COMPONENTS J1,J2,J3,J4,R9 AND C30 ARE  
MOUNTED ON THE MODULE CAN.



D	3-16-94	VN	C11 WAS 47uF			C.T.T	RGN	RGN
C	1-2-90	TAB	CHANGED TRANSISTORS VOLTAGES. ADDED J3,J4-R9 TO NOTE 3			C.T.T	RGN	RGN
	67967-5-89	CAB	ADDED RESISTOR R9			C.T.T	RGN	RGN
ECN	DATE	BY				CHK	CHK	APPV/L
NEXT ASSY. SEE DASH No.			DRAFT	8-30-84	W.J.H.	SCHEMATIC DIAGRAM, X4 MULTIPLIER		
PL C331-16-1PL B331-19-1			DR. CHK	8-31-84	C.T.T.			
VERSION			M. ENGR					
MODEL			E. ENGR	4-25-86	JMJ			
SCALE N/A			RELEASE	4-25-86	JMJ	ELECTRONICS MISSILES & COMMUNICATIONS INC. WHITE HAVEN, PA. 18661		
TOLERANCES - EXCEPT AS NOTED								
DECIMAL .XX ± .005								
FRACTIONAL 1/16 ± 1/64								
ANGULAR ± 1/2 DEG						REV D		

HIGHEST REFERENCE DESIGNATIONS	
C301,141R17J4 Q3 U1	
REFERENCE DESIGNATIONS NOT USED	
R10	





CTT	DB	CTT
275	9/10/95	TAB SEE PCR/ECN
227	8-17-94	TAB SEE PCR/ECN
E	4-26-94	VN ADDED C31, C32, CR10, CR11, L6, Q5, Q6 AND R36 TO R41
D	1-2-90	TAB ADDED TRANSISTOR VOLTAGES/CR6, 7 AND 8 VERIFIED
C	9-29-89	TAB ADDED NOTE-5
6674	9-19-86	WJH R25 WAS 680K
ECN	DATE	BY
NEXT ASSY:	PLC331-39-1	
DRAFT	6-18-85	CTT
JR. CHK		
M. ENGR	4-25-86	JMJ
E. ENGR	4-25-86	JMJ
RELEASE	4-25-86	JMJ
VERSION	NONE	
MODEL		
SCALE	NONE	
TOLERANCES - EXCEPT AS NOTED		
DECIMAL	XX $\pm$ .001	
FRACTIONAL	XX $\pm$ 1/64	
ANGULAR	$\pm$ 1/2 DEG	

SCHEMATIC DIAGRAM  
 IF AGC AMPLIFIER

HIGHEST REFERENCE DESIGNATIONS	U1 06   VR1CR11 L6   E4 J3   C32R41
REFERENCE DESIGNATIONS NOT USED	CR3   CR31 R8

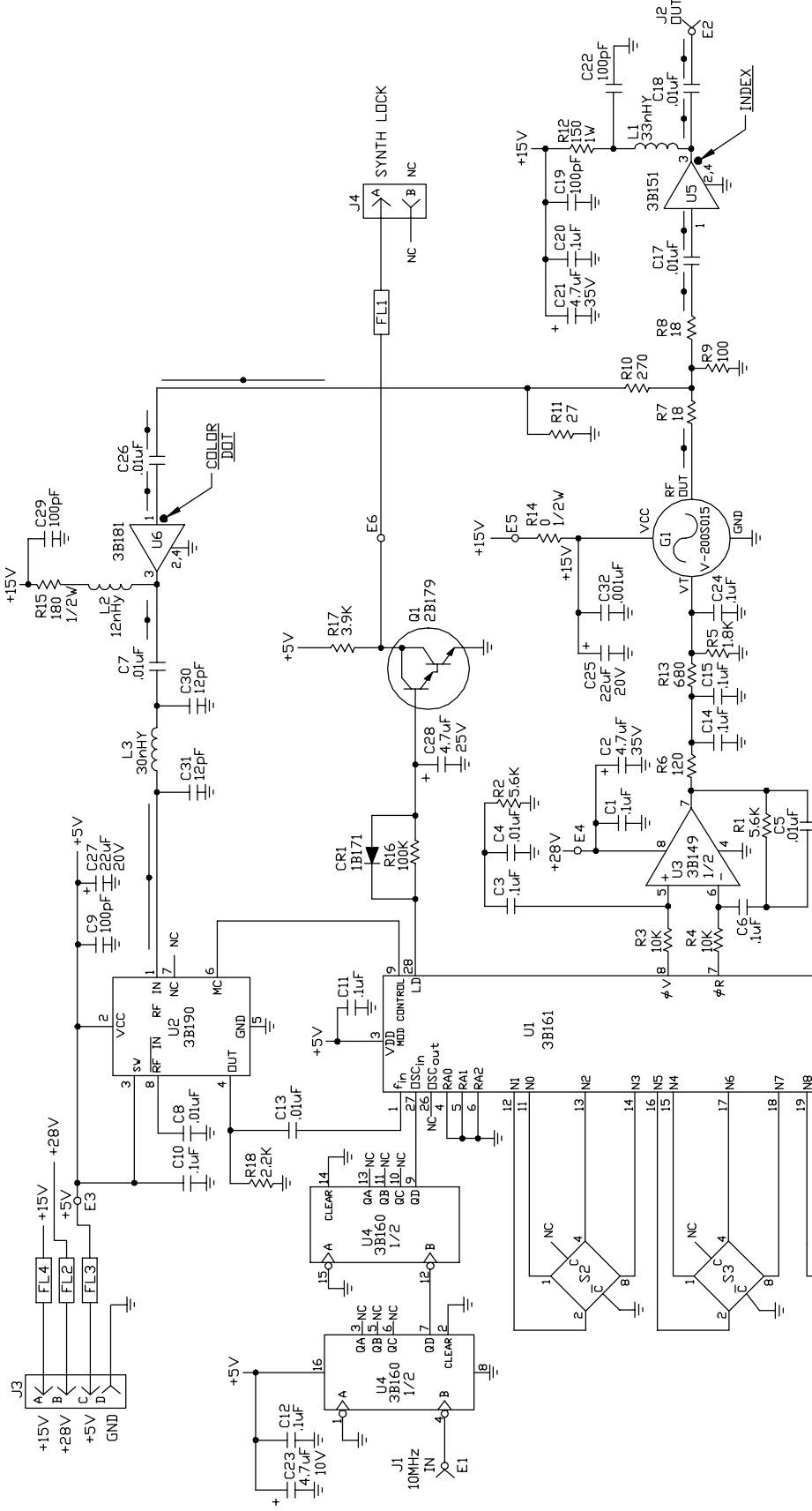
CAD DWG 4-26-94


DETAIL-A  
 (SEE NOTE-6)

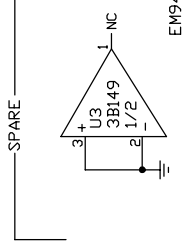
C331-37	REV	G
SHEET 1	OF	1

EMCEE  
 ELECTRONICS  
 MISSILES &  
 COMMUNICATIONS  
 INC.

WHITE HAVEN, PA. 18641



250	1-3-94	VN	R10 WAS 91 OHMS, R11 WAS 10 OHMS	CTT	JL	RGN
B	12-18-93	CTT	CHANGED VALUES - R910 WAS 47.87 R WAS 30, R15 WAS 390 U6 WAS 38B393 ADDED L3,C30, AND C31	MVS	RGN	RGN
A	10-7-93	TAB	REMOVED FERRITE BEAD FROM L1-R12	CTT	RGN	CTT
EN	DATE	BY	RELEASED AT REV. 52	CHK	CHK	APPROV
NEXT ASSY:			DRAFT 3-24-93 TAB	CTT	SCHEMATIC DIAGRAM, VHF SYNTHESIZER (BAND III)	
VERSION			DR. CHK 4-1-93	CTT		
MODEL			M. ENGR			
			E. ENGR 9-1-93	JMK		
SCALE			RELEASE	9-1-93	RN	
TOLERANCES - EXCEPT AS NOTED			ENGINEER		REV	
			BROADCAST		D	
			PRODUCTS			
			INC.			
DECIMAL .XX ± .005					30362003	
FRACTIONAL ± 1/64"						
ANGULAR ± 1/8 DEG						
				SHEET 1 OF 1		



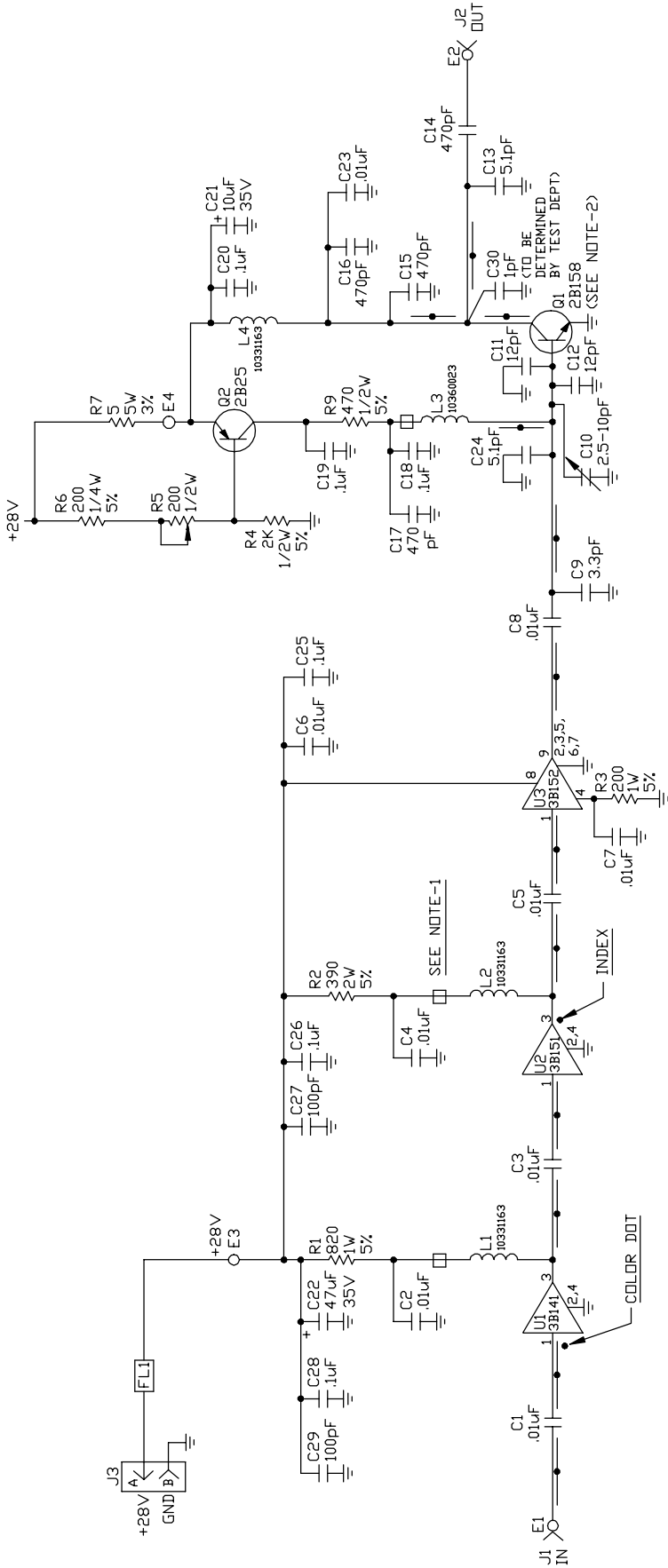
\* LINES ARE  
CUT FOR PA  
OPERATION



HIGHEST REFERENCE DESIGNATIONS			
U3	Q2	C30	R9
L4	FL1	E4	

REFERENCE DESIGNATIONS NOT USED			
R8			

NOTES: UNLESS OTHERWISE SPECIFIED,  
 1-THE SYMBOL  INDICATES FERRITE BEADS.  
 2-COMPONENTS J1, 2, 3, FL1, U3, C10, C11, C12R7, Q1, AND Q2 ARE NOT ON PCB ASSEMBLY.



A	12-6-93	TAB	ADDED C30	RELEASED AT REV 55	CTT	RGN	RGN
ECN	DATE	BY	RELEASED AT REV 55				CHK
NEXT ASSY:			DRAFT	B-03-90	SMP		CHK
VERSION			DR. CHK				
MODEL			M. ENGR				
SCALE			E. ENGR	6-19-92	RGN		
TOLERANCES - EXCEPT AS NOTED				RELEASE	6-19-92	RGN	
DECIMAL	.XX	± .005					
FRACTIONAL	± 1/64"						
ANGULAR	± 1/2 DEG						

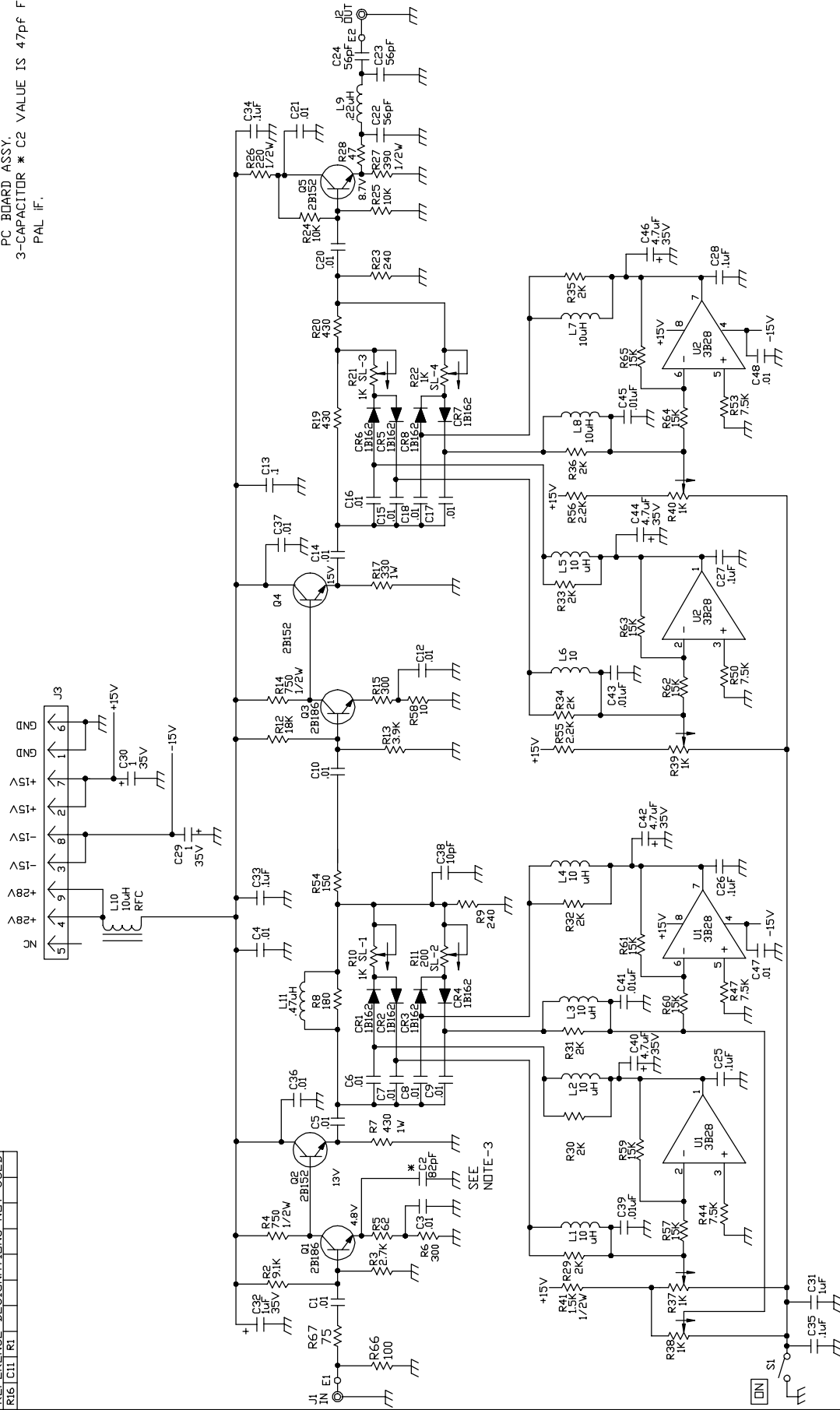
SCHEMATIC DIAGRAM,  
 2W UHF  
 AMPLIFIER

30367002  
 REV A

EMCEE  
 MISSILES &  
 COMMUNICATIONS  
 INC.  
 WHITE HAVEN, PA. 18661

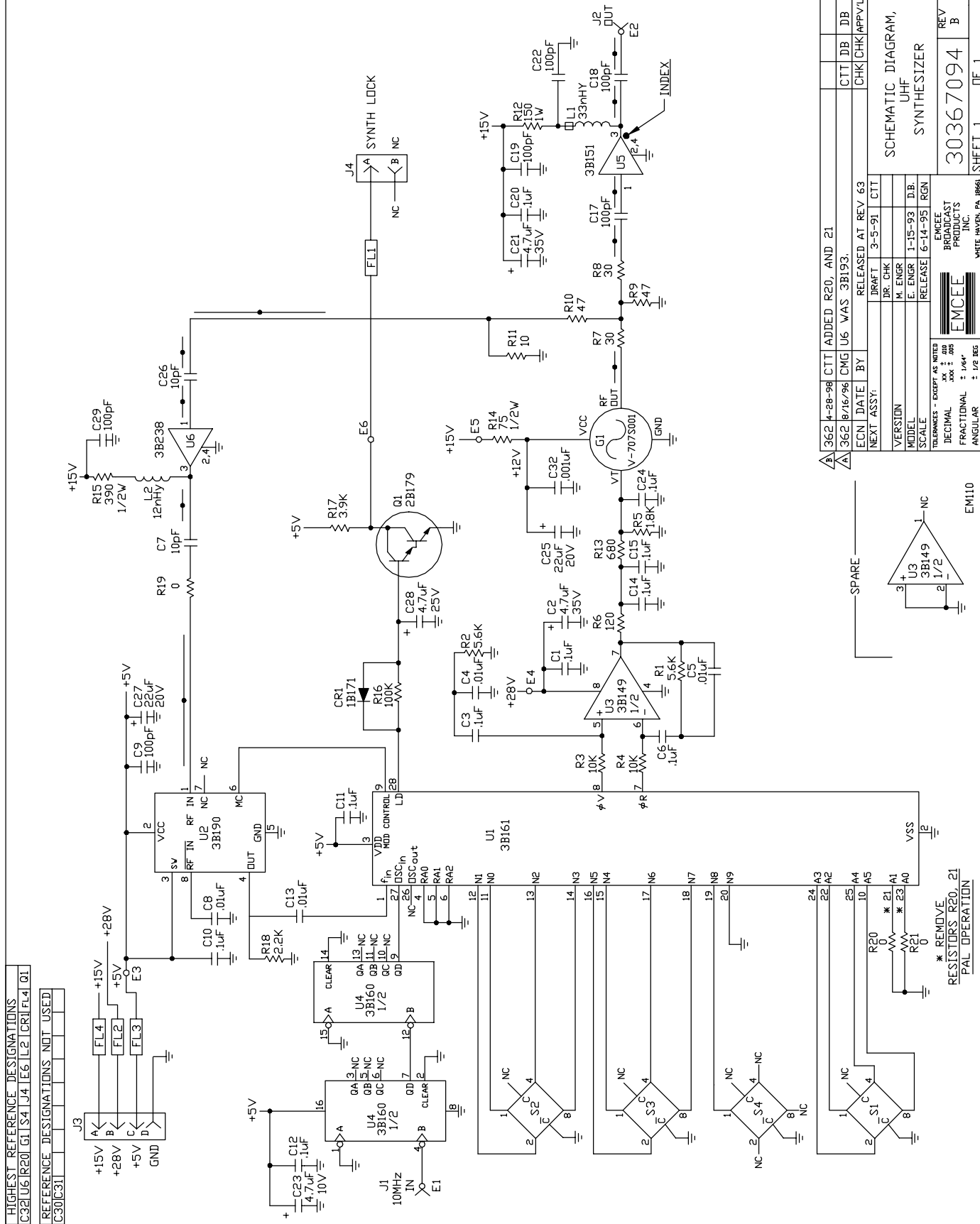
HIGHEST REFERENCE DESIGNATIONS									
C48	C68	R67	Q5	L1	J3	E2			
REFERENCE DESIGNATIONS NOT USED									
R16	C11	R1							

NOTES : UNLESS OTHERWISE SPECIFIED  
 1-ALL CAPACITORS ARE VALUED IN UF.  
 2-CONNECTORS J1 & J2 ARE NOT ON  
 PC BOARD ASSY.  
 3-CAPACITOR \* C2 VALUE IS 47pf FOR  
 PAL IF.



ECN	DATE	BY	RELEASED AT	REV	CHK	CHK	APPV	L
NEXT ASSY:			DRAFT	10-13-93	TAB			
DR. CHK	10-14-93	CTT						
VERSION			M. ENGR					
MODEL			E. ENGR	11-10-93	JL			
SCALE			RELEASE	6-14-95	RGN			
TOLERANCES - EXCEPT AS NOTED								
DECIMAL	XX	± .002						
FRACTIONAL	XXX	± .005						
ANGULAR		± 1/64°						
EMCEE ELECTRONICS MISSILES & COMMUNICATIONS INC.								
WHITE HAVEN, PA. 18641								
30367078								
SHEET 1 OF 1								

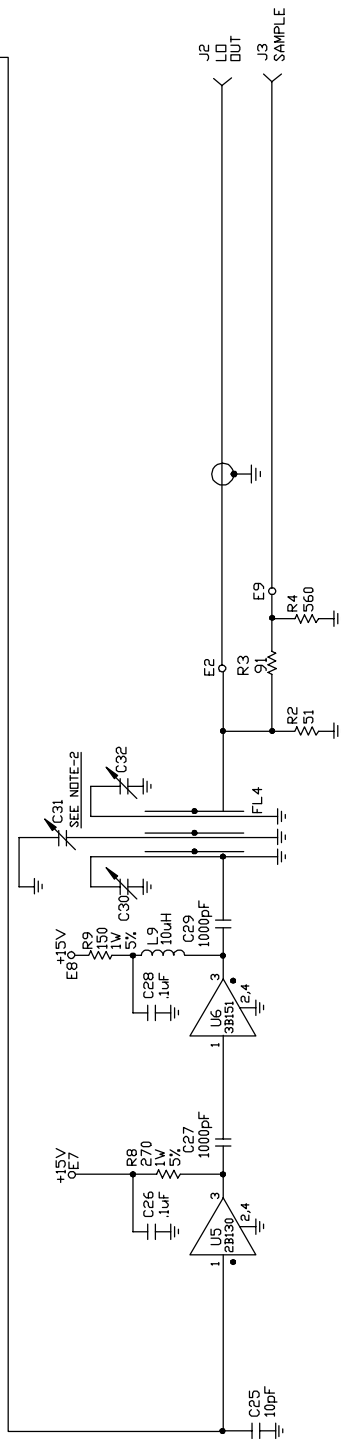
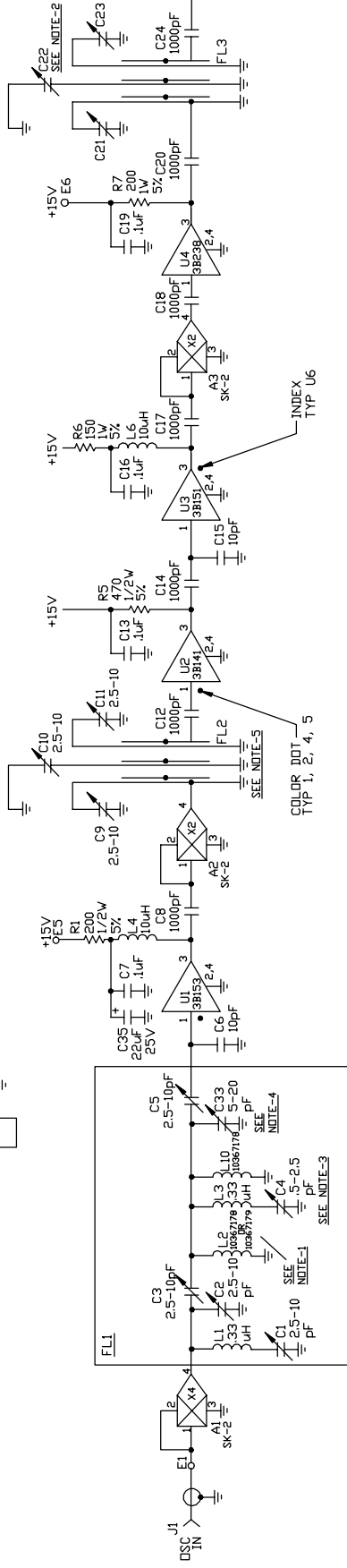
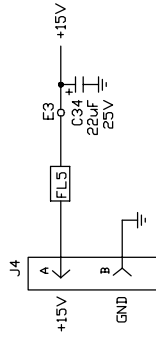
SCHEMATIC DIAGRAM,  
 LINEARIZER



362	4-28-98	CTT	ADDED R20, AND 21					
ECN	DATE	BY	CMG	U6 WAS 3B193.			CTT	DB DB
362	8/16/96						CHK	CHK APP/V/L
RELEASED AT REV 63								
NEXT ASSY:			DRAFT	3-5-91	CTT			
VERSION			DR. CHK					
MODEL			M. ENGR					
SCALE			E. ENGR	1-15-93	D.B.			
			RELEASE	6-14-95	RGN			
TOLERANCES - EXCEPT AS NOTED			EMCEE					
DECIMAL			XXX ± .005					
FRACTIONAL			1/16"					
ANGULAR			1/2 DEG					
			EMCEE					
			BROADCAST PRODUCTS INC.					
			WHITE HAVEN PA 18661					
			SHEET 1 OF 1					
			30367094					
			REV B					
			SCHEMATIC DIAGRAM, UHF SYNTHESIZER					

HIGHEST REFERENCE DESIGNATIONS											
J3	FL5	U6	A3	E8	L10	C35	R9				
REFERENCE DESIGNATIONS NOT USED											
L5	L7	L8	L4								

- NOTES: UNLESS OTHERWISE SPECIFIED:  
 1- FOR COIL L2, USE 10367178 FOR CHANNELS 14-39 AND 10367179 FOR CHANNELS 38-83.  
 2- VARIABLE CAPACITORS C21, 22, 23, 30, 31, AND 32 VALUES ARE 2.5-10PF FOR CHANNELS 14-45 AND 1-5PF FOR CHANNELS 44-83.  
 3- FOR CHANNELS 69-83 CHANGE C4 (5-25PF) CAPACITOR TO 1-SPF VARIABLE CAPACITOR AND ADD L10.  
 4- CHANGE VALUE OF C33 TO 1-SPF DUE TO LACK OF FILTER RESPONSE. (DETERMINED BY TEST DEPT.).  
 5- FILTERS FL2, 3, AND 4 ARE STRIP LINE ON PC BOARD.



362		B/19/96		CMG		U4		WAS		2B131.						CHK		CHK		APPV			
ECN		DATE		BY						RELEASED AT REV 51													
										NEXT ASSY:													
										DRAFT		10-5-93		TAB									
										DR. CHK		10-22-93		CIT									
										M. ENGR				RGN									
										E. ENGR		6-14-95		RGN									
										SCALE		RELEASE		6-14-95		RGN							

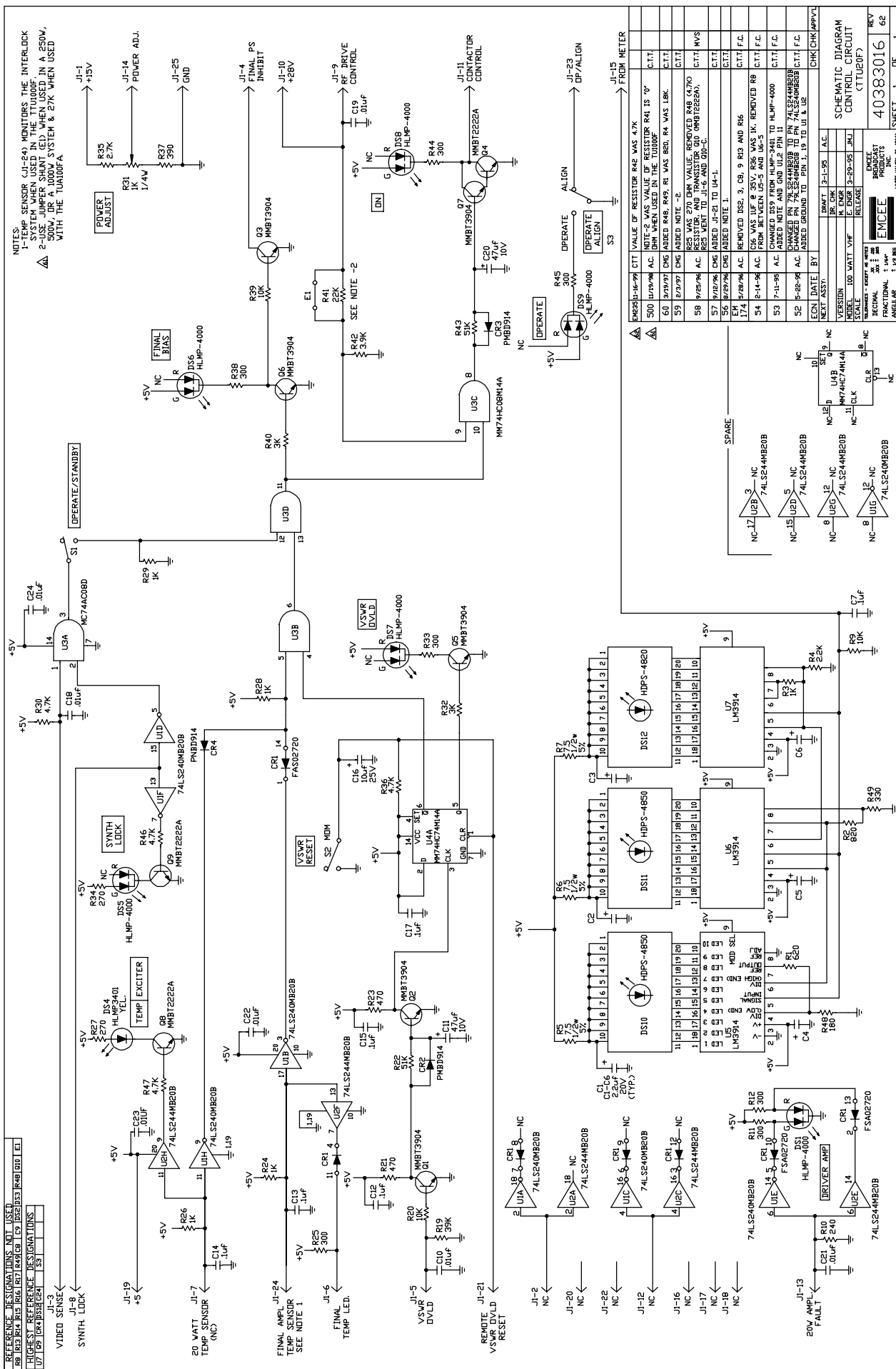






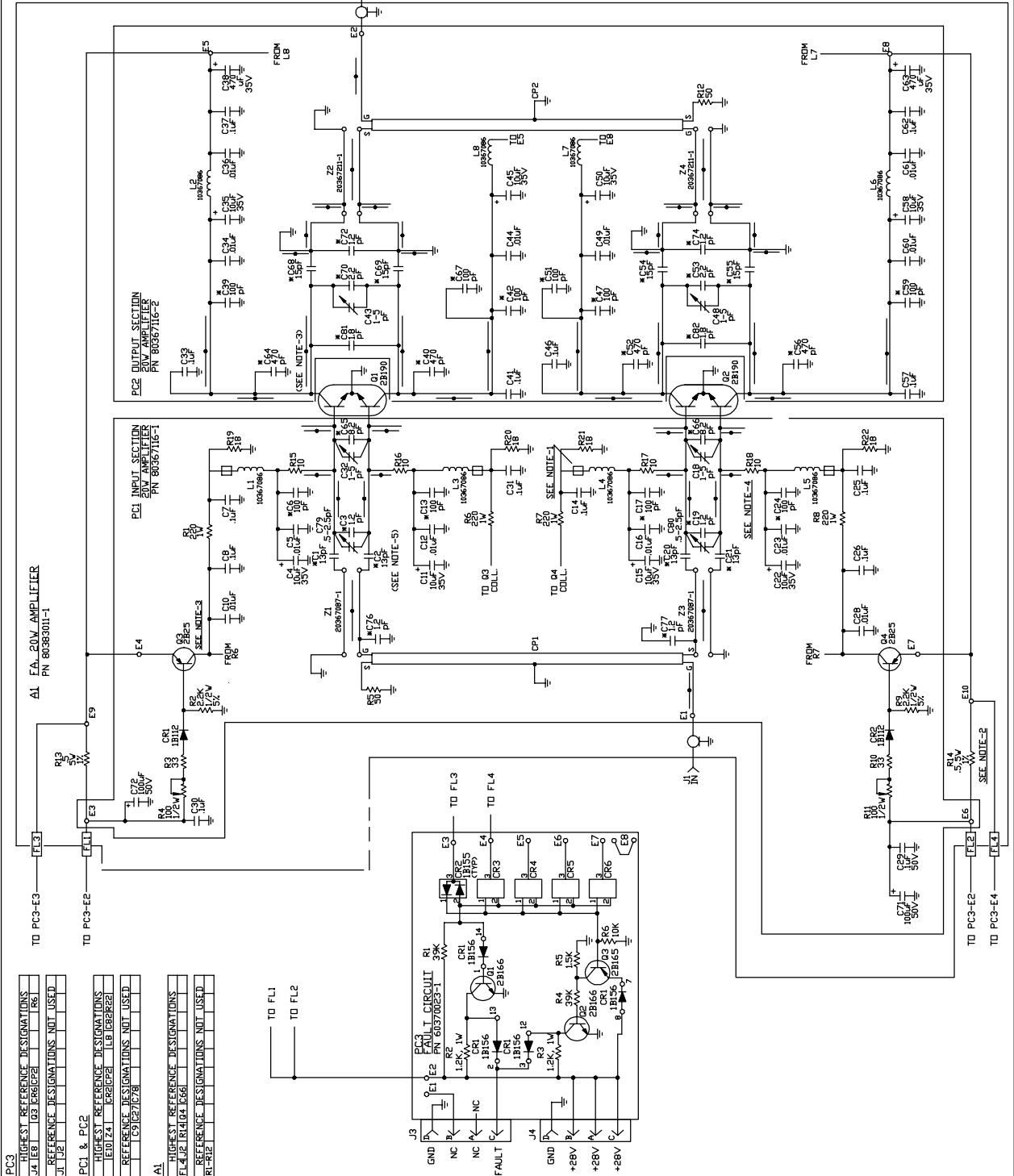




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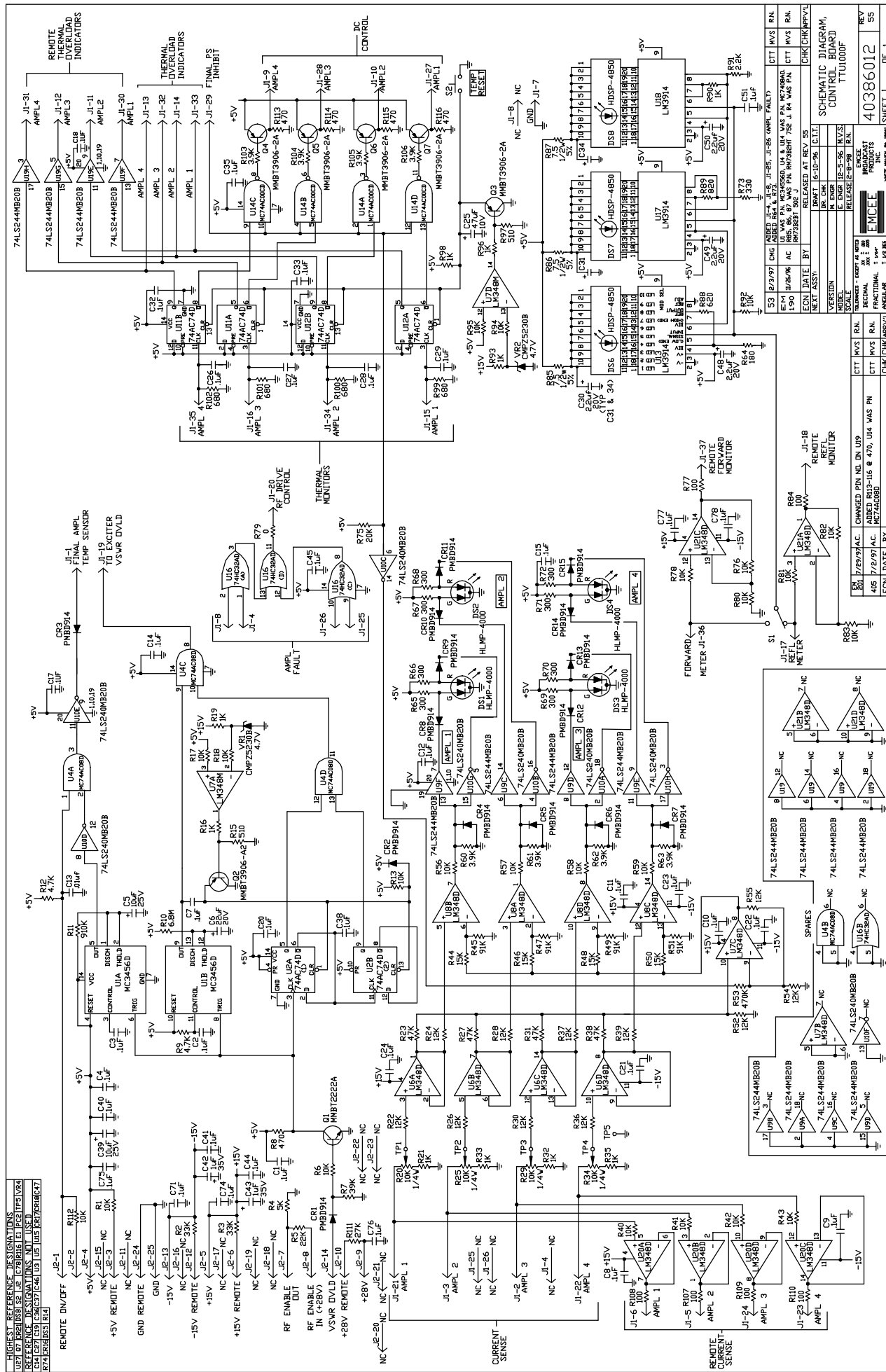


PC3			
HIGHEST REFERENCE DESIGNATIONS	J4 E8	Q3 C65C2P1	R6
REFERENCE DESIGNATIONS NOT USED	J1 L2		
PC1 & PC2			
HIGHEST REFERENCE DESIGNATIONS	E10 Z4	E62C2P1	L8 C62R22
REFERENCE DESIGNATIONS NOT USED			
A1			
HIGHEST REFERENCE DESIGNATIONS	F4 L2P	F4 L4	L6A
REFERENCE DESIGNATIONS NOT USED	R1-RE		



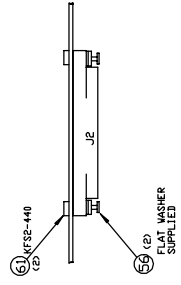
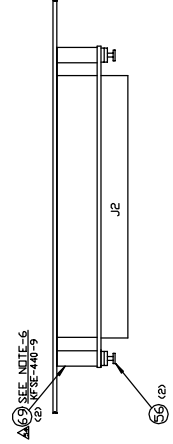
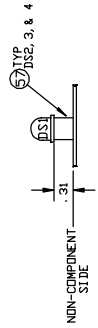
NOTE: UNLESS OTHERWISE SPECIFIED:  
 1- THE SYMBOL-DENOTES FERRITE BEADS.  
 2- RESISTOR VALUES ARE 1/4W, 5%.  
 3- COMPONENTS D1 THRU Q4, F1 THRU F4, AND R5 ARE NOT LOCATED IN PCB ASSY.  
 4- COMPONENTS R13 THRU R15 MAY BE CAPACITORS OR RESISTORS, MARKED WITH AN ASTERISK.  
 5- ARE ATC CAPACITORS.

EN4046-21-94	VN	REMOVED C78 1.50F CAPACITOR	CHK	CHK	APPV
ECN	DATE	BY	DRMT	3/28/95	TAB
SCHEMATIC DIAGRAM,	INC	CHK	6/25/95	CTT	
20W UHF	VERSION				
AMPLIFIER	REVISION				
(TU20F)	SCALE				
RELEASE					
TELECOM - ELECTRONICS	40383053				
RECOMM. 1.00	INC				
COMMUNICATIONS					
ANGULAR	1.00				
SHEET	1	OF	1		



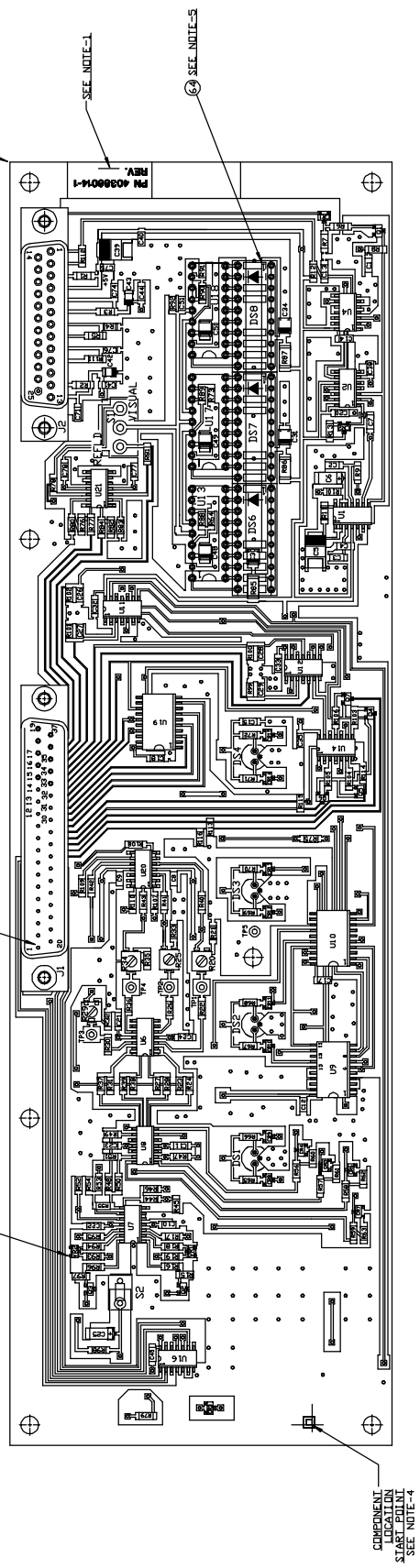
EM 20	7/29/97	AC.	CHANGED PIN NO. DN U19	CTT	MVS	R.N.	TELEPHONE - EXCEPT AS NOTED	SCALE	RELEASE 2-8-98	R.N.
405	7/2/97	AC.	ADDED R113-116 & 470, U14 WAS PN	CTT	MVS	R.N.	DECIMAL XX : 100 XX : 100 XX : 100	EMCEE	BROADCAST PRODUCTS INC.	40386012
CON DATE	BY			CLW	CLW	CLW	FRACTIONAL 1 : 104"	ANCI	1 : 10	SHEET 1 OF 1

NOTES:  
 1-MARK REV LEVEL PER SHEET 1 OF 1 AND SPEC A238-107-3.  
 2-APPLY SOLDER PASTE (ITEM 59) TO PC BOARD COMPONENTS U13, 17, 18, D56, 7, & 8 ARE MOUNTED TO NON-COMPONENT SIDE OF PC BOARD.  
 4-SEE COORDINATE SHEETS FOR LOCATION OF COMPONENTS.  
 5-MAKE SURE TO INSERT THE L.E.D. ARRAYS INTO THE SOCKETS BEFORE SOLDERING THE SOCKETS INTO THE BOARD.  
 6-INSTALL SPACERS (ITEM 69) BEFORE SOLDERING CONNECTOR IN PLACE.



58 TYP ALL HAND SOLDER COMPONENTS

59 TYP ALL SURFACE MOUNT COMPONENTS (SEE NOTE-2)



COMPONENT LOCATION START POINT SEE NOTE-4

REV	DATE	BY	REASON	CHK	APP	CIT
1	12/01/91	A. C.	ADDED -3 (SHEET 3 OF 3)			CTT
2	12/01/91	A. C.	ADDED -2 (SHEET 2 OF 2)			CTT
3	12/01/91	A. C.	ADDED R113-116, U14 WAS PN M74AC00B			CTT
4	06/09/97	TAB	ADDED ITEM 69, NOTE-6, J1 WAS PN 20800P-1			CTT
5	01/11/97	A. C.	ADDED R77, R84, R91, WAS 1 BK, R79 WAS 27K			CTT
6	12/22/91	A. C.	CHANGED PER EM 190			CTT
7	12/22/91	A. C.	CHANGED PER EM 190			CTT
8	12/22/91	A. C.	CHANGED PER EM 190			CTT
9	12/22/91	A. C.	CHANGED PER EM 190			CTT
10	12/22/91	A. C.	CHANGED PER EM 190			CTT
11	12/22/91	A. C.	CHANGED PER EM 190			CTT
12	12/22/91	A. C.	CHANGED PER EM 190			CTT
13	12/22/91	A. C.	CHANGED PER EM 190			CTT
14	12/22/91	A. C.	CHANGED PER EM 190			CTT
15	12/22/91	A. C.	CHANGED PER EM 190			CTT
16	12/22/91	A. C.	CHANGED PER EM 190			CTT
17	12/22/91	A. C.	CHANGED PER EM 190			CTT
18	12/22/91	A. C.	CHANGED PER EM 190			CTT
19	12/22/91	A. C.	CHANGED PER EM 190			CTT
20	12/22/91	A. C.	CHANGED PER EM 190			CTT
21	12/22/91	A. C.	CHANGED PER EM 190			CTT
22	12/22/91	A. C.	CHANGED PER EM 190			CTT
23	12/22/91	A. C.	CHANGED PER EM 190			CTT
24	12/22/91	A. C.	CHANGED PER EM 190			CTT
25	12/22/91	A. C.	CHANGED PER EM 190			CTT
26	12/22/91	A. C.	CHANGED PER EM 190			CTT
27	12/22/91	A. C.	CHANGED PER EM 190			CTT
28	12/22/91	A. C.	CHANGED PER EM 190			CTT
29	12/22/91	A. C.	CHANGED PER EM 190			CTT
30	12/22/91	A. C.	CHANGED PER EM 190			CTT
31	12/22/91	A. C.	CHANGED PER EM 190			CTT
32	12/22/91	A. C.	CHANGED PER EM 190			CTT
33	12/22/91	A. C.	CHANGED PER EM 190			CTT
34	12/22/91	A. C.	CHANGED PER EM 190			CTT
35	12/22/91	A. C.	CHANGED PER EM 190			CTT
36	12/22/91	A. C.	CHANGED PER EM 190			CTT
37	12/22/91	A. C.	CHANGED PER EM 190			CTT
38	12/22/91	A. C.	CHANGED PER EM 190			CTT
39	12/22/91	A. C.	CHANGED PER EM 190			CTT
40	12/22/91	A. C.	CHANGED PER EM 190			CTT
41	12/22/91	A. C.	CHANGED PER EM 190			CTT
42	12/22/91	A. C.	CHANGED PER EM 190			CTT
43	12/22/91	A. C.	CHANGED PER EM 190			CTT
44	12/22/91	A. C.	CHANGED PER EM 190			CTT
45	12/22/91	A. C.	CHANGED PER EM 190			CTT
46	12/22/91	A. C.	CHANGED PER EM 190			CTT
47	12/22/91	A. C.	CHANGED PER EM 190			CTT
48	12/22/91	A. C.	CHANGED PER EM 190			CTT
49	12/22/91	A. C.	CHANGED PER EM 190			CTT
50	12/22/91	A. C.	CHANGED PER EM 190			CTT
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55	12/22/91	A. C.	CHANGED PER EM 190			CTT
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98	12/22/91	A. C.	CHANGED PER EM 190			CTT
99	12/22/91	A. C.	CHANGED PER EM 190			CTT
100	12/22/91	A. C.	CHANGED PER EM 190			CTT

1 PCB ASSY, CONTROL BOARD, TTUI 000F

PCB ASSEMBLY CONTROL CIRCUIT, TTUI 000F	REV 40386014	REV 58
ENCLER BROADCAST PRODUCTS INC.	40386014	58
DATE 12/22/91	40386014	58
BY A. C.	40386014	58
CHK A. C.	40386014	58
APP A. C.	40386014	58
DATE 12/22/91	40386014	58
BY A. C.	40386014	58
CHK A. C.	40386014	58
APP A. C.	40386014	58
DATE 12/22/91	40386014	58
BY A. C.	40386014	58
CHK A. C.	40386014	58
APP A. C.	40386014	58
DATE 12/22/91	40386014	58
BY A. C.	40386014	58
CHK A. C.	40386014	58
APP A. C.	40386014	58
DATE 12/22/91	40386014	58
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DATE 12/22/91	40386014	58
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DATE 12/22/91	40386014	58
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BY A. C.	40386014	58
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DATE 12/22/91	40386014	58
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DATE 12/22/91	40386014	58
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