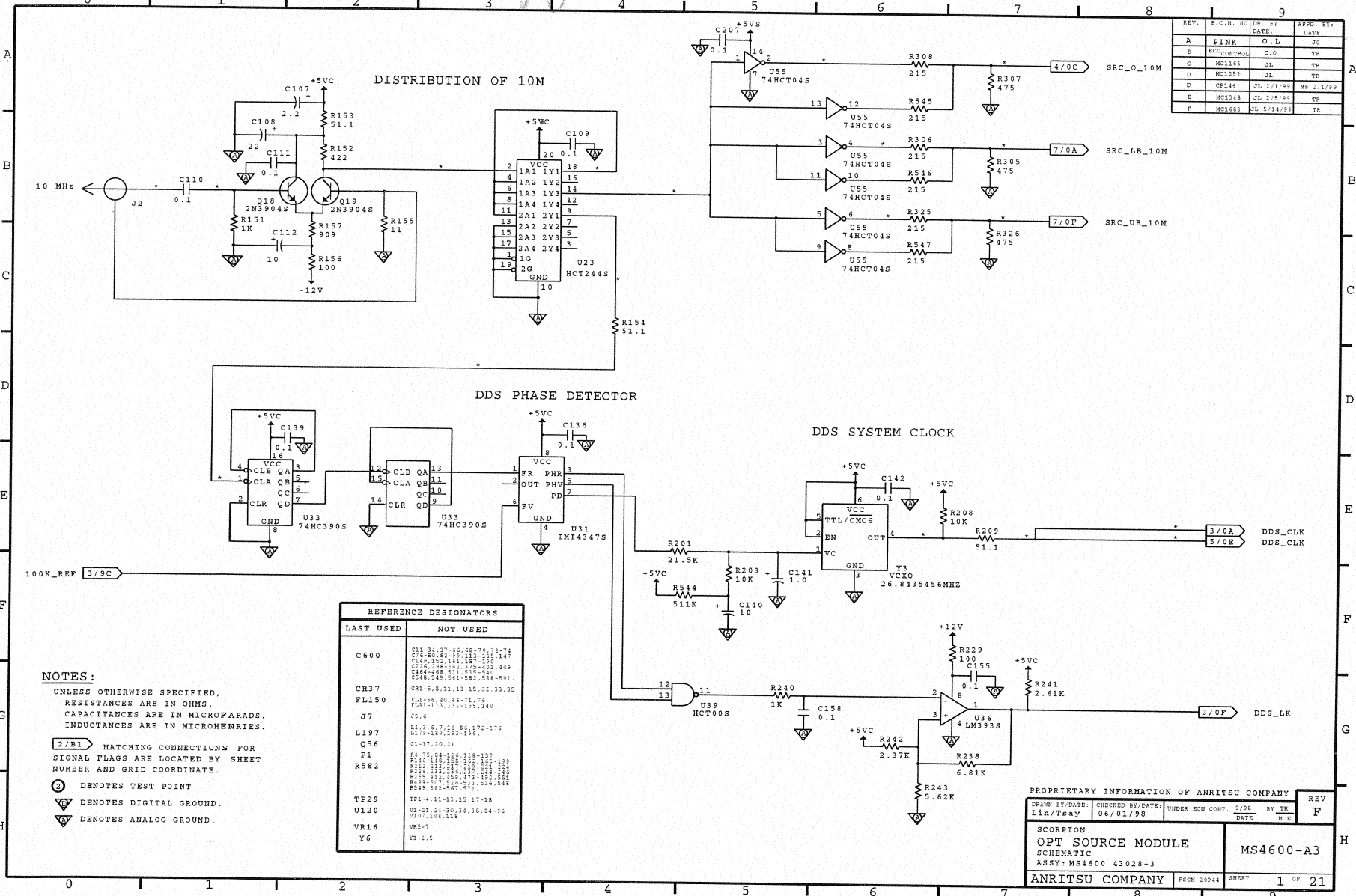


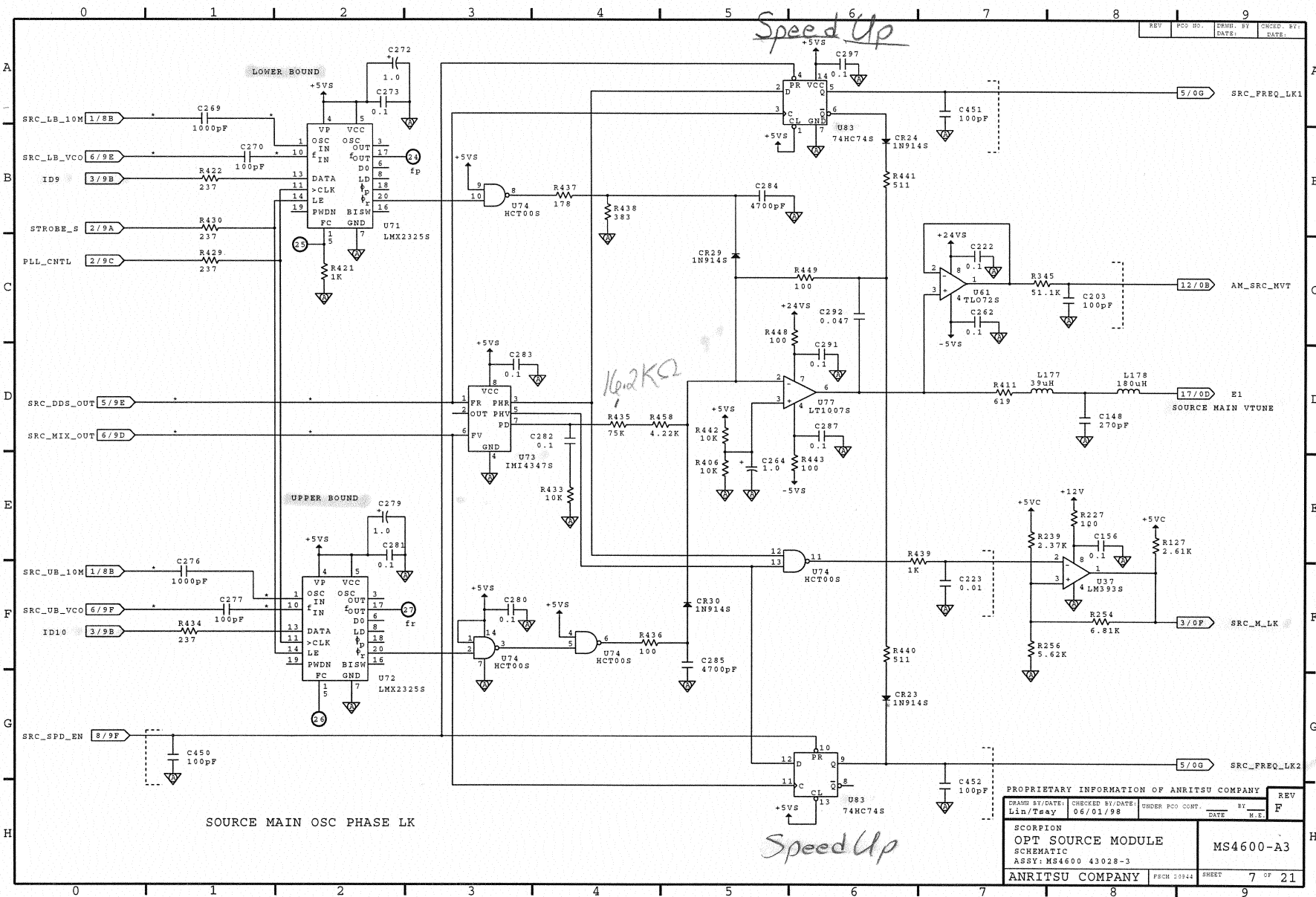
# OPT SRC (F)

## Old Filter Configuration

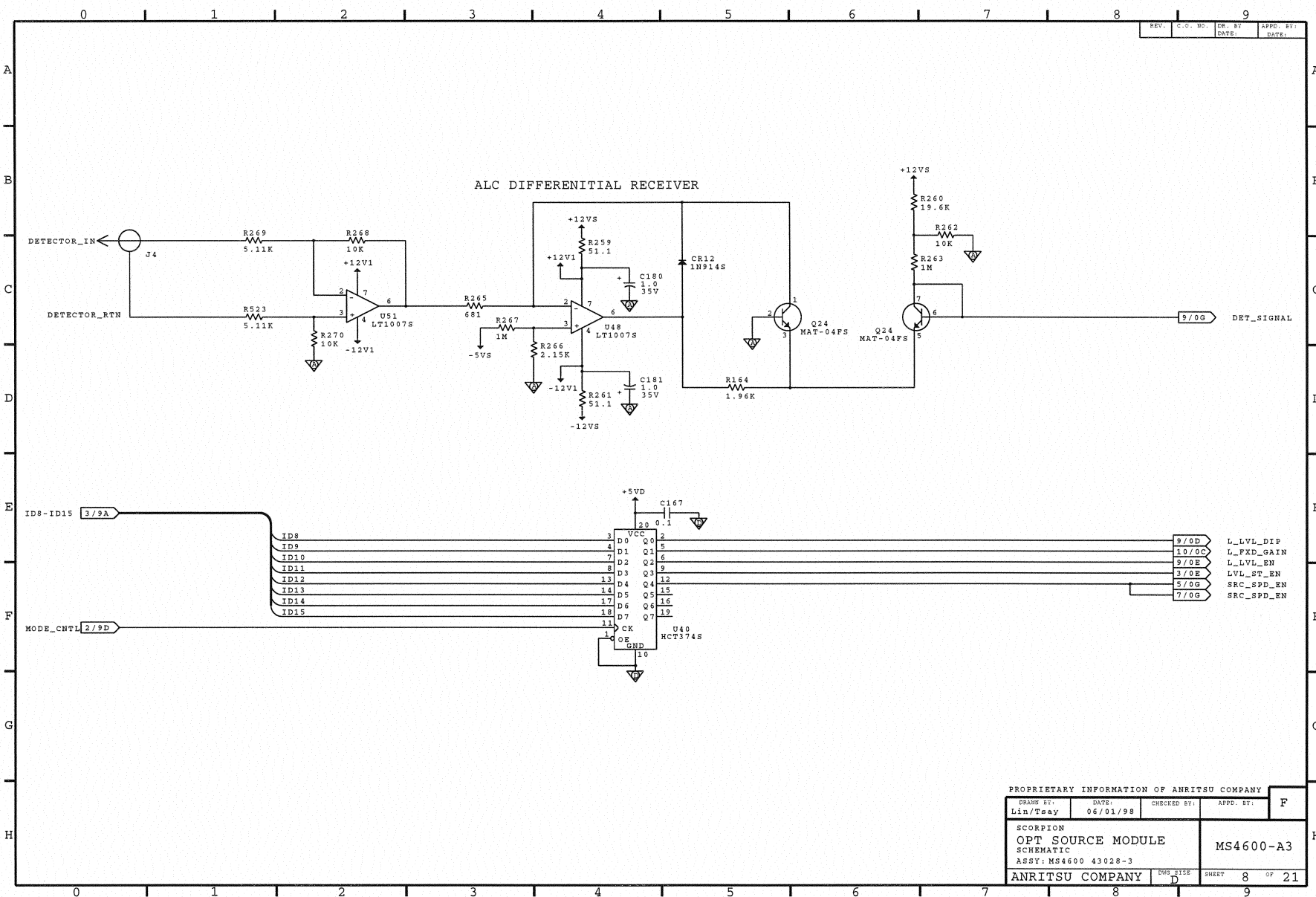


REV.	E.C.N. NO.	DR. BY	DATE	APPR. BY	DATE
A	PINK	O.L.		JG	
B	SCORPION	C.O.		TR	
C	MC1148	JL	5/1/99	TR	
D	MC1157	JL	5/1/99	TR	
E	CP144	JL	2/1/99	NR	2/1/99
F	MC3348	JL	5/14/99	TR	

PROPRIETARY INFORMATION OF ANRITSU COMPANY				REV
DRAWN BY/DATE:	CHECKED BY/DATE:	UNDER RCN CONT.	9/98	BY TR
Lin/Tsuy	06/01/98	DATE		F
SCORPION			MS4600-A3	
OPT SOURCE MODULE				
SCHEMATIC				
ASSY: MS4600 43028-3				
ANRITSU COMPANY			FROM 10944	SHEET 1 OF 21

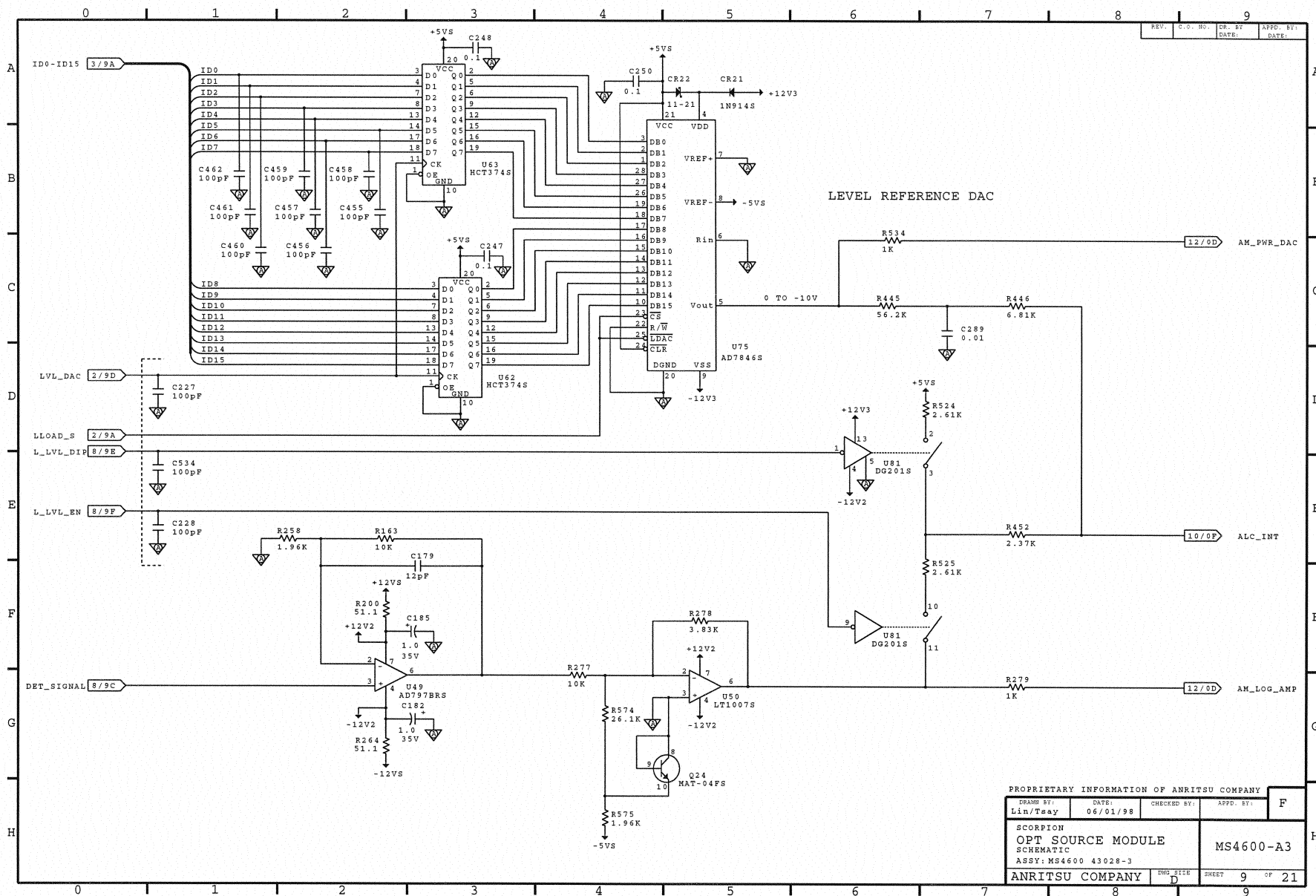


PROPRIETARY INFORMATION OF ANRITSU COMPANY				REV
DRAWN BY/DATE: Lin/Tsuy	CHECKED BY/DATE: 06/01/98	UNDER PCH CONT.	DATE	BY M.E.
SCORPION OPT SOURCE MODULE SCHEMATIC ASSY: MS4600 43028-3			MS4600-A3	
ANRITSU COMPANY			FROM 10944	SHEET 7 OF 21



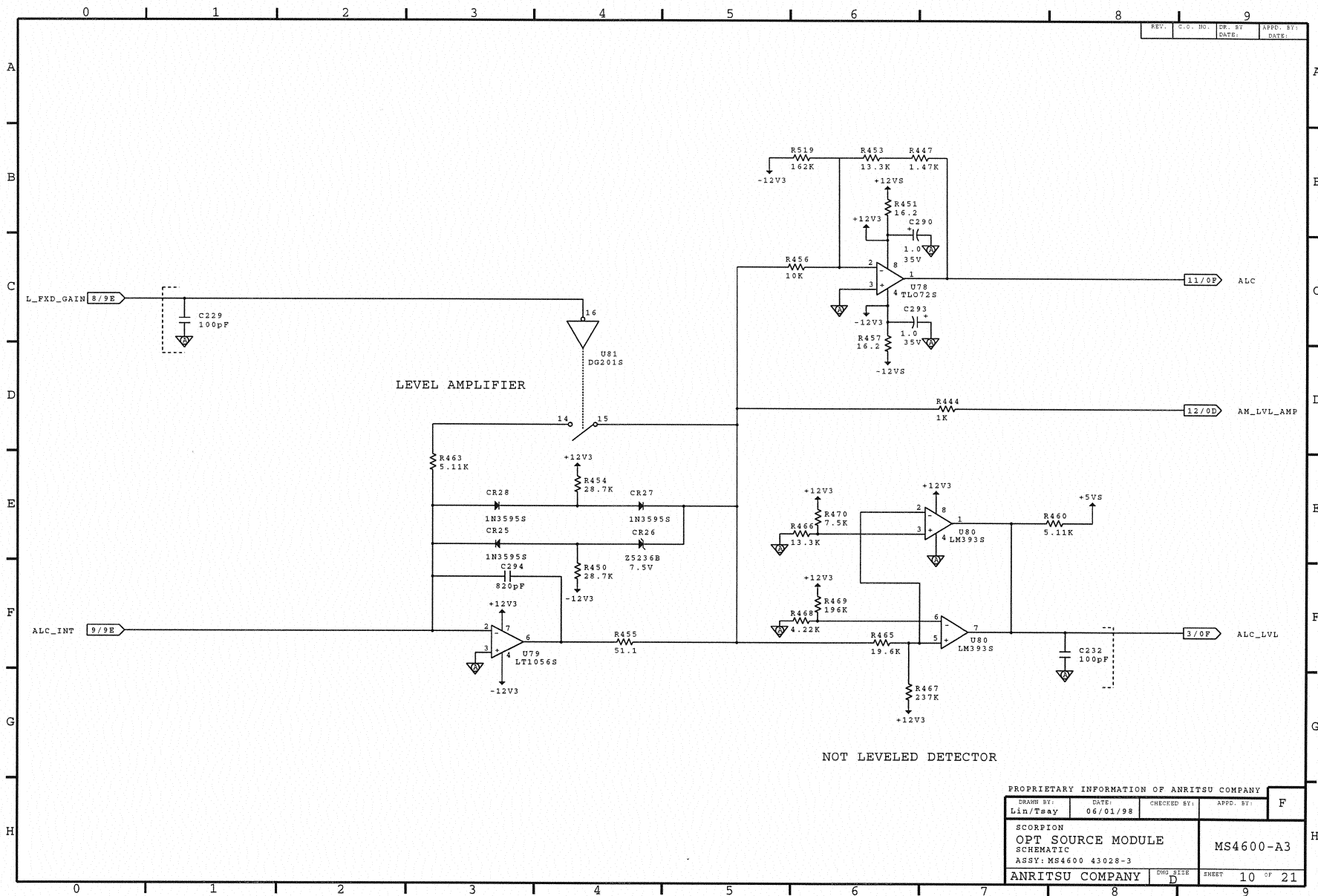
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		DATE:	DATE:

PROPRIETARY INFORMATION OF ANRITSU COMPANY			
DRAWN BY: Lin/Tsay	DATE: 06/01/98	CHECKED BY:	APPD. BY: F
SCORPION OPT SOURCE MODULE SCHEMATIC		MS4600-A3	
ASSY: MS4600 43028-3			
ANRITSU COMPANY		DWG. SIZE D	SHEET 8 OF 21



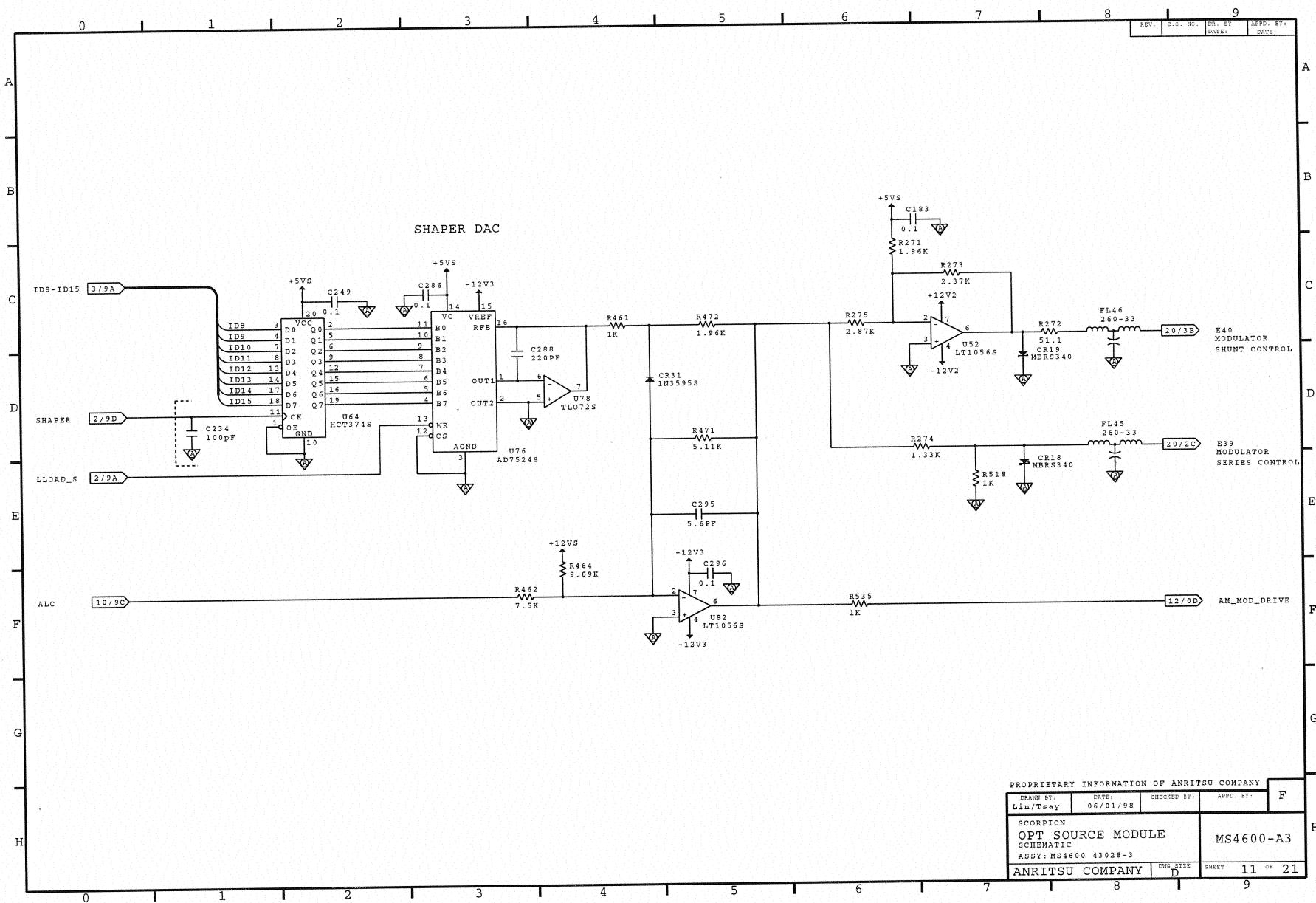
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		DATE:	DATE:

PROPRIETARY INFORMATION OF ANRITSU COMPANY			
DRAWN BY: Lin/Tsuy	DATE: 06/01/98	CHECKED BY:	APPD. BY: F
SCORPION OPT SOURCE MODULE SCHEMATIC ASSY: MS4600 43028-3			MS4600-A3
ANRITSU COMPANY			DWG. NO. SHEET 9 OF 21



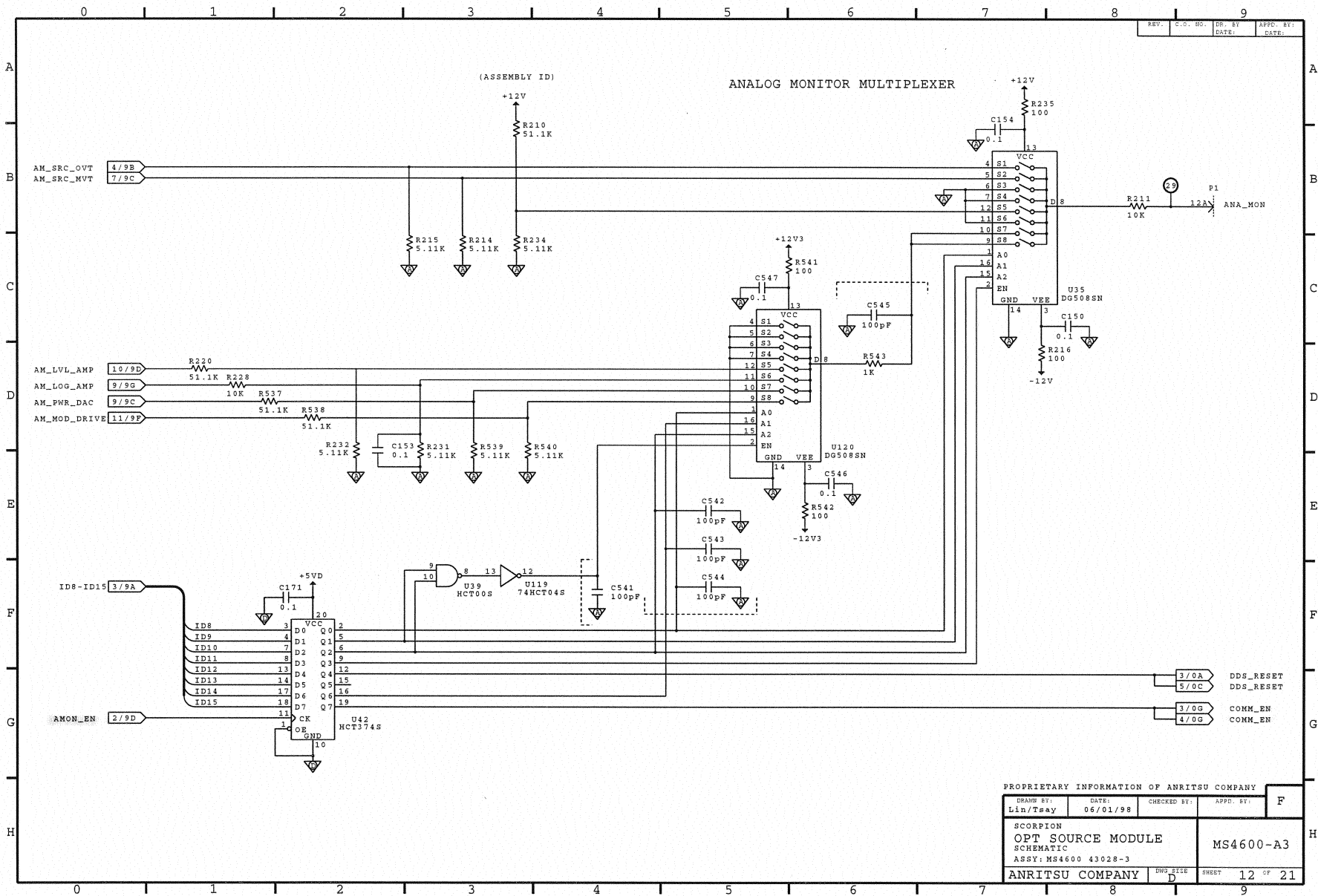
REV.	0.0	NO.	DR. BY	APPD. BY:
			DATE:	DATE:

PROPRIETARY INFORMATION OF ANRITSU COMPANY				
DRAWN BY:	DATE:	CHECKED BY:	APPD. BY:	F
Lin/Tsuy	06/01/98			
SCORPION OPT SOURCE MODULE SCHEMATIC ASSY: MS4600 43028-3			MS4600-A3	
ANRITSU COMPANY		DESIGN	SHEET	10 OF 21

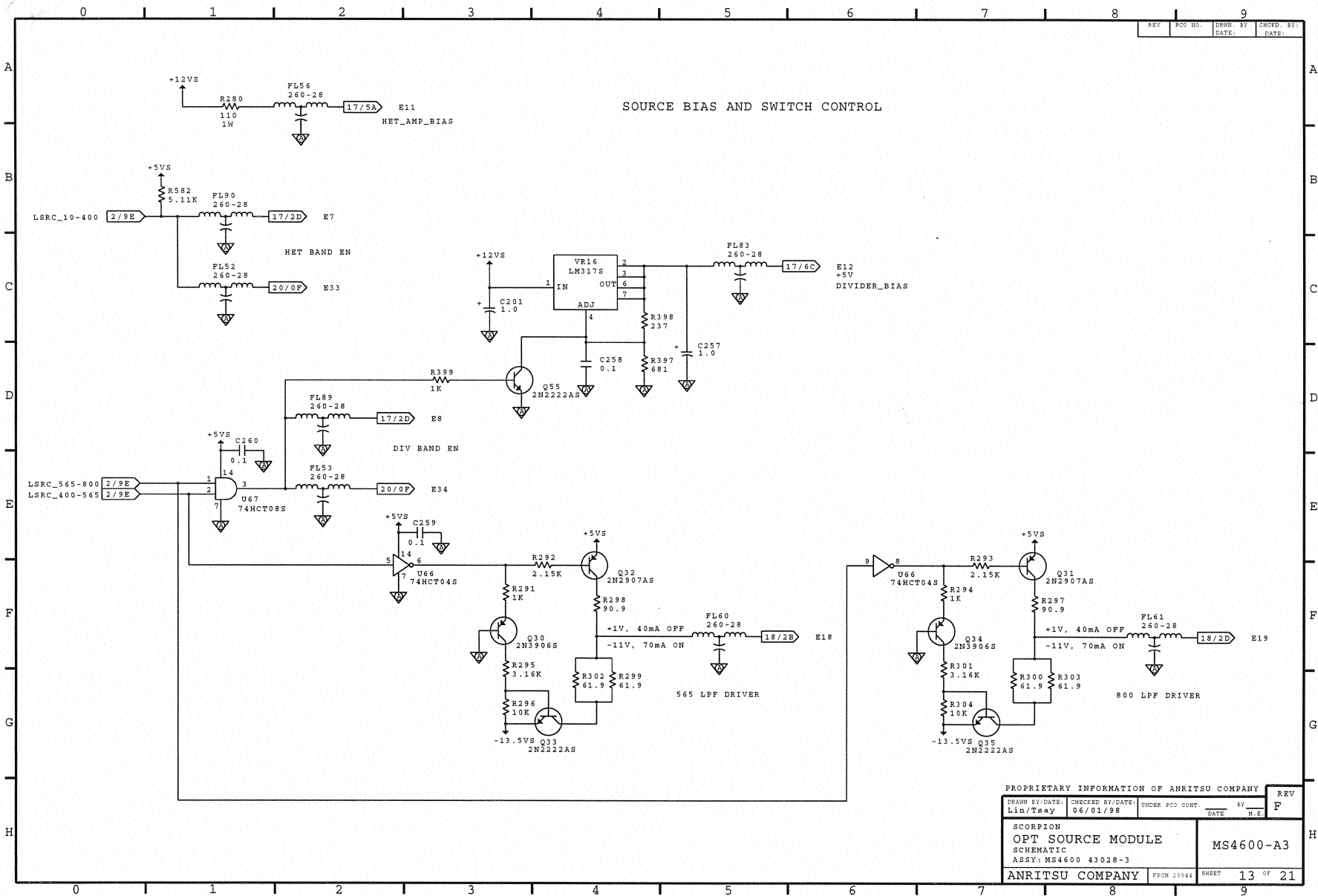


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		DATE:	DATE:

PROPRIETARY INFORMATION OF ANRITSU COMPANY			
DESIGN BY:	DATE:	CHECKED BY:	APPD. BY:
Lin/Tsuy	06/01/98		F
SCORPION OPT SOURCE MODULE SCHEMATIC		MS4600-A3	
ASSY: MS4600 43028-3		ENG. DESK	SHEET
ANRITSU COMPANY		D	11 OF 21



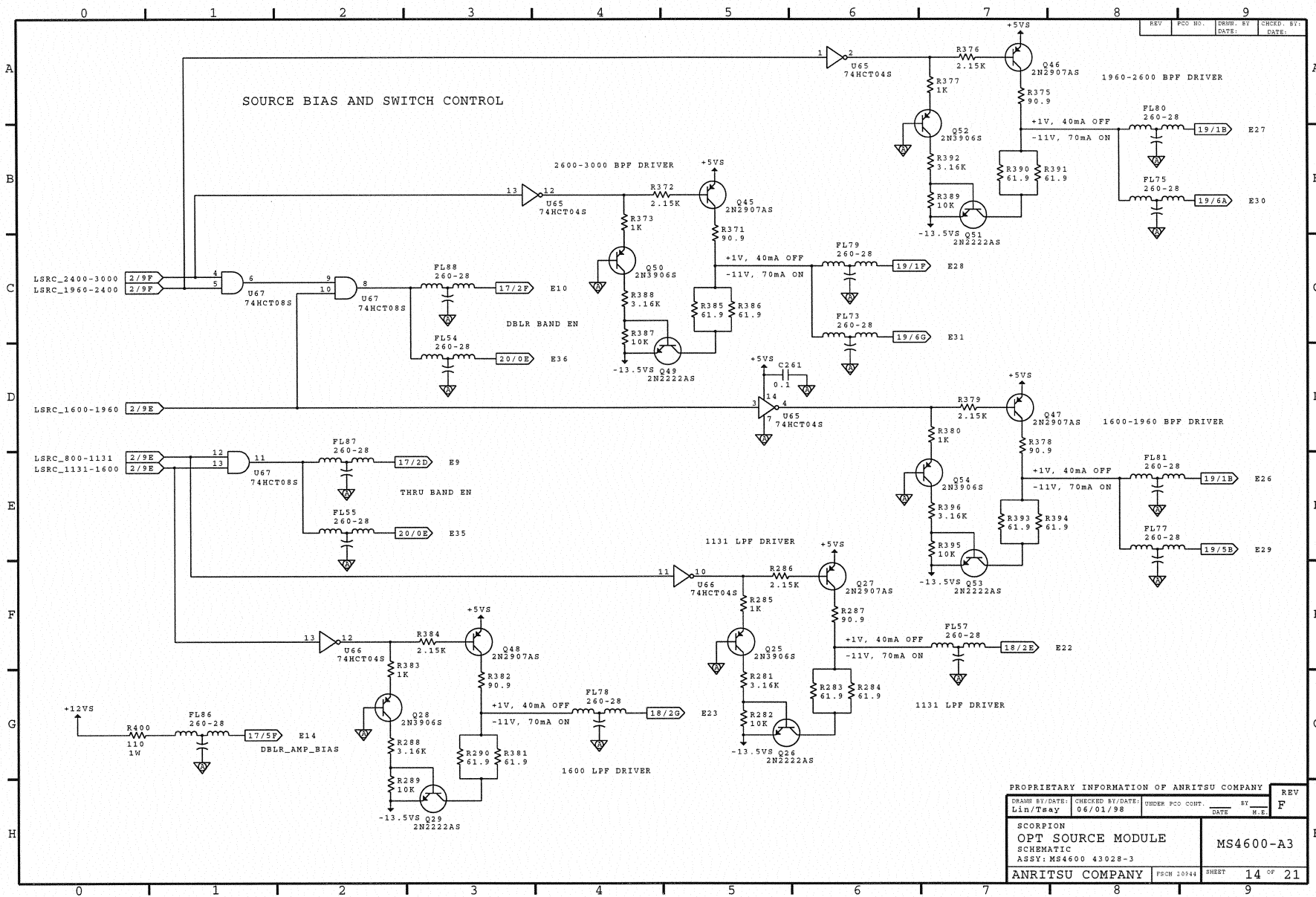
PROPRIETARY INFORMATION OF ANRITSU COMPANY			
DRAWN BY: Lin/Tsay	DATE: 06/01/98	CHECKED BY:	APPD. BY: F
SCORPION OPT SOURCE MODULE SCHEMATIC		MS4600-A3	
ASSY: MS4600 43028-3			
ANRITSU COMPANY		DWG FILE D	SHEET 12 OF 21



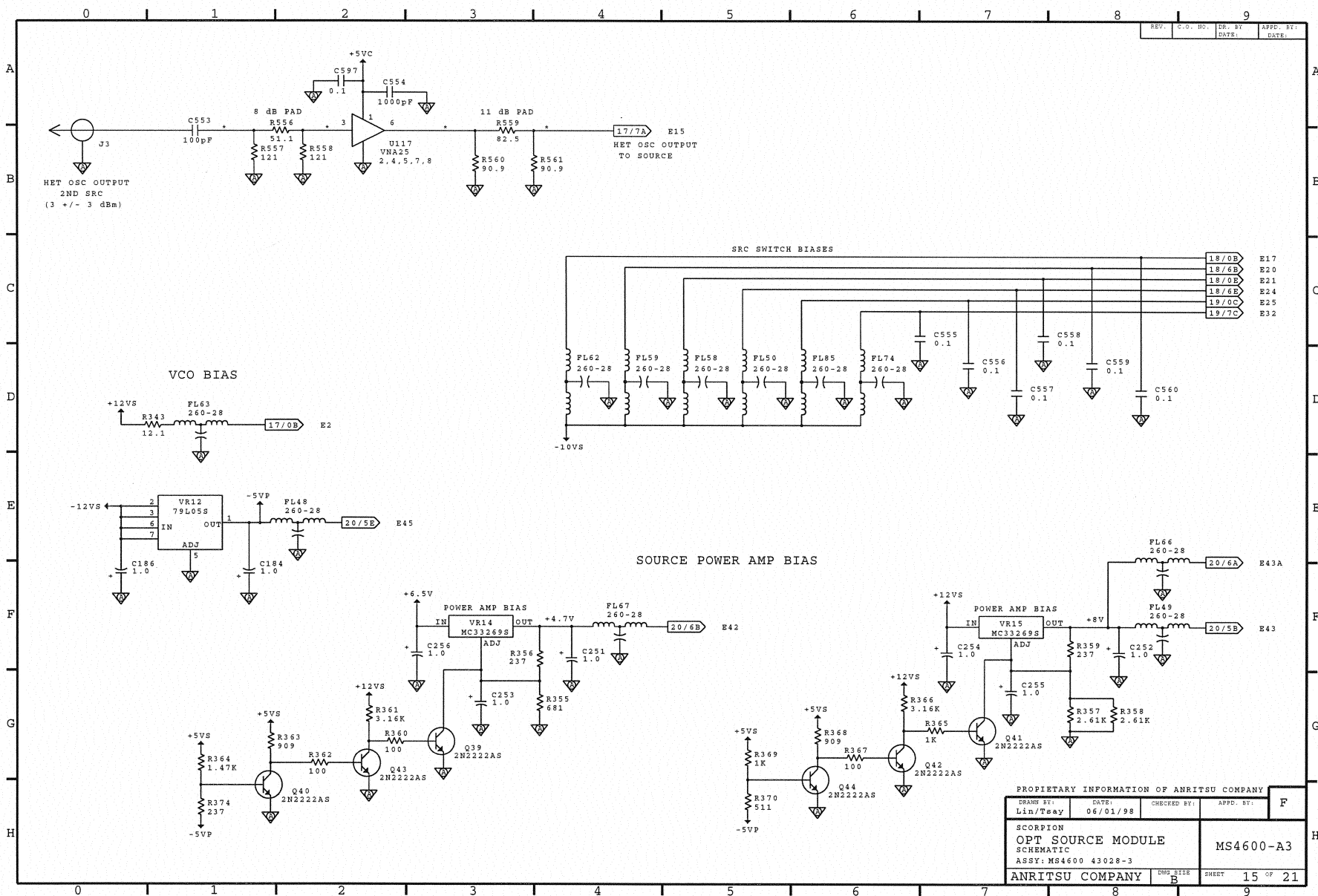
SOURCE BIAS AND SWITCH CONTROL

PROPRIETARY INFORMATION OF ANRITSU COMPANY				REV
DRAWN BY/DATE: Lin/Tsay	CHECKED BY/DATE: 06/01/98	UNDER PCO CONT.	DATE	BY H.E.
SCORPION OPT SOURCE MODULE SCHEMATIC ASSY: MS4600 43028-3			MS4600-A3	
ANRITSU COMPANY		PSCH 20944	SHEET	13 OF 21



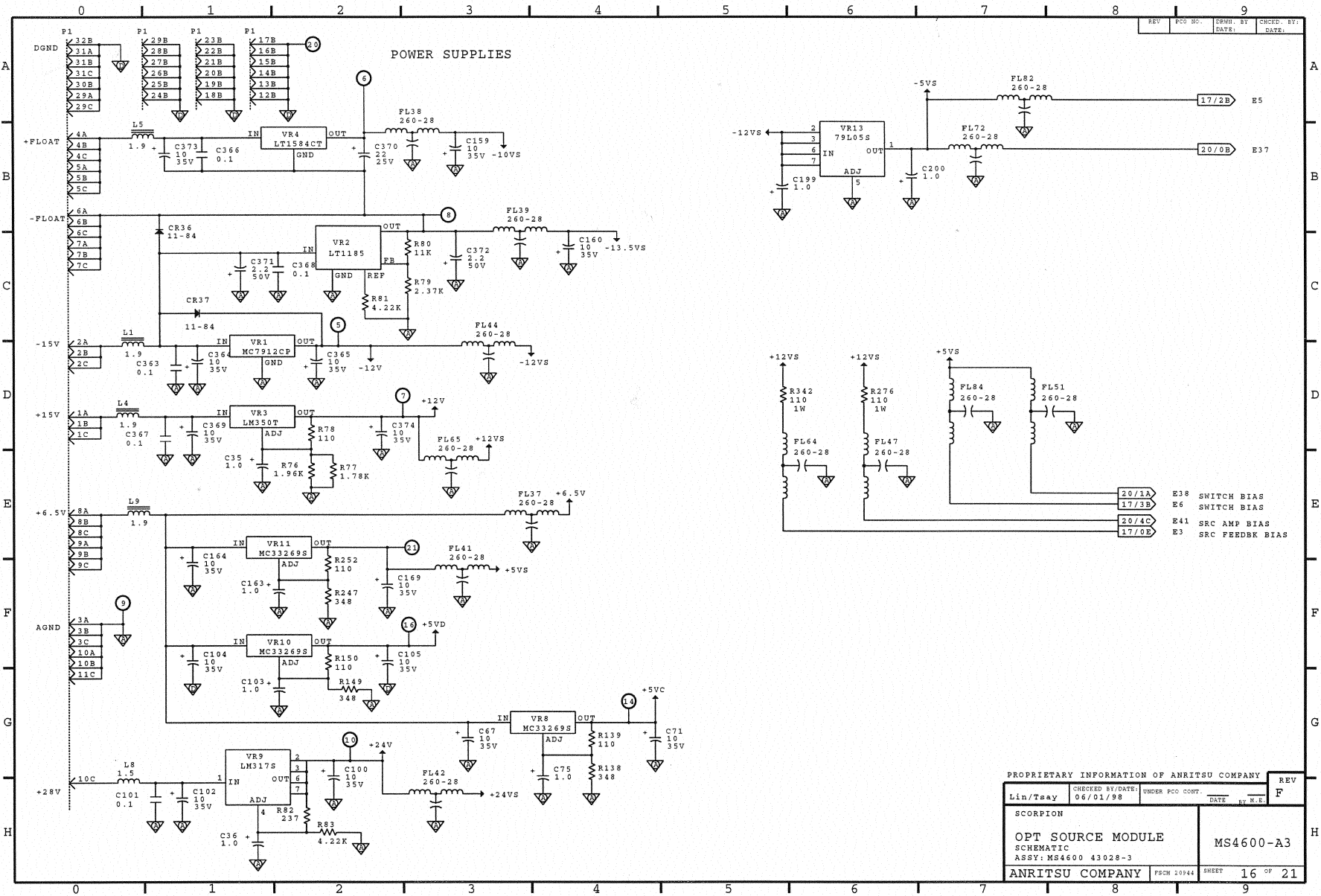


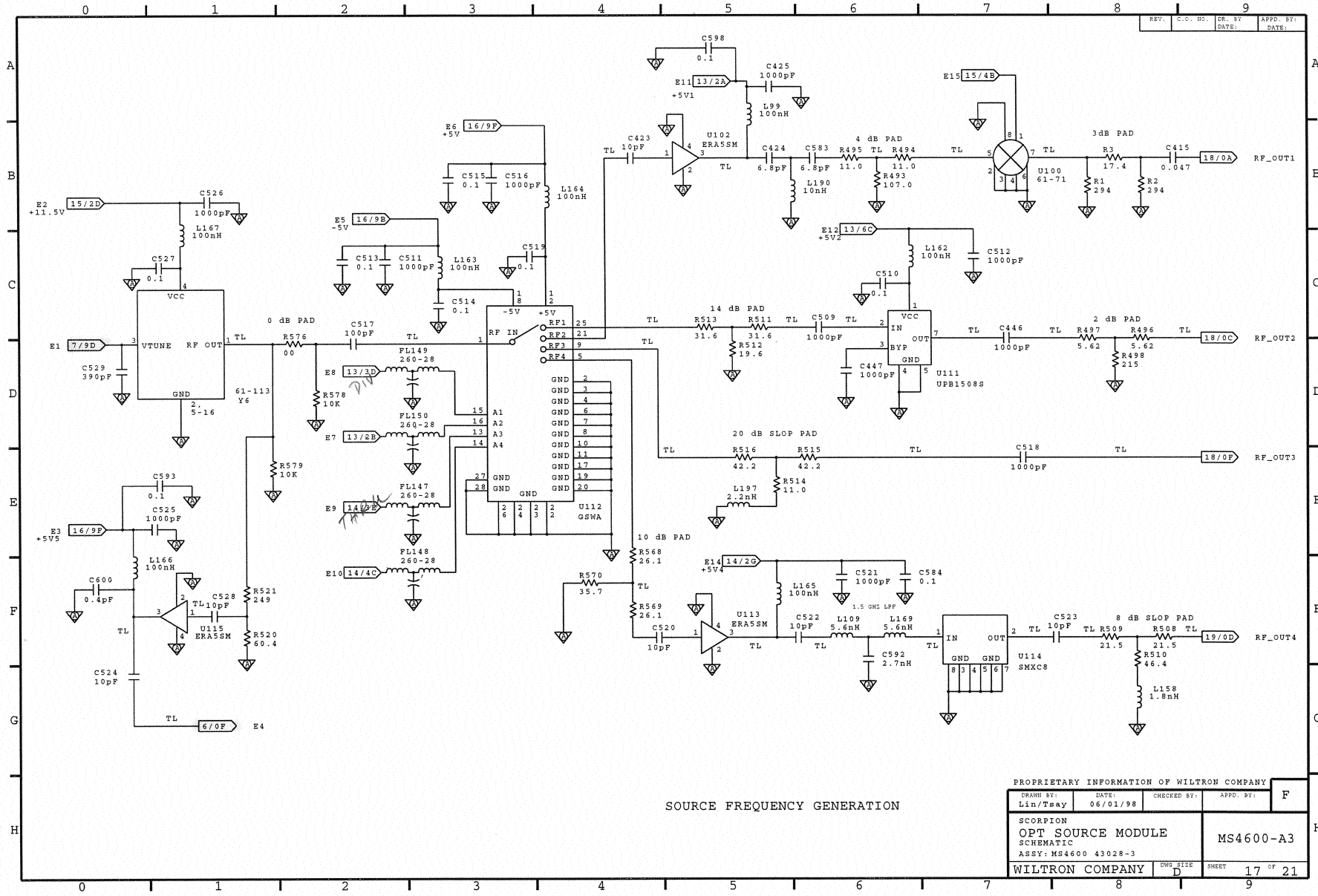
PROPRIETARY INFORMATION OF ANRITSU COMPANY				REV
DRAWN BY/DATE:	CHECKED BY/DATE:	UNDER POC CONF.	DATE	BY
Lin/Tsay	06/01/98			F
SCORPION OPT SOURCE MODULE SCHEMATIC ASSY: MS4600 43028-3			MS4600-A3	
ANRITSU COMPANY			PSCH 10044	SHEET 14 OF 21



REV.	Q.O. NO.	DR. BY	APPD. BY:
		DATE:	DATE:

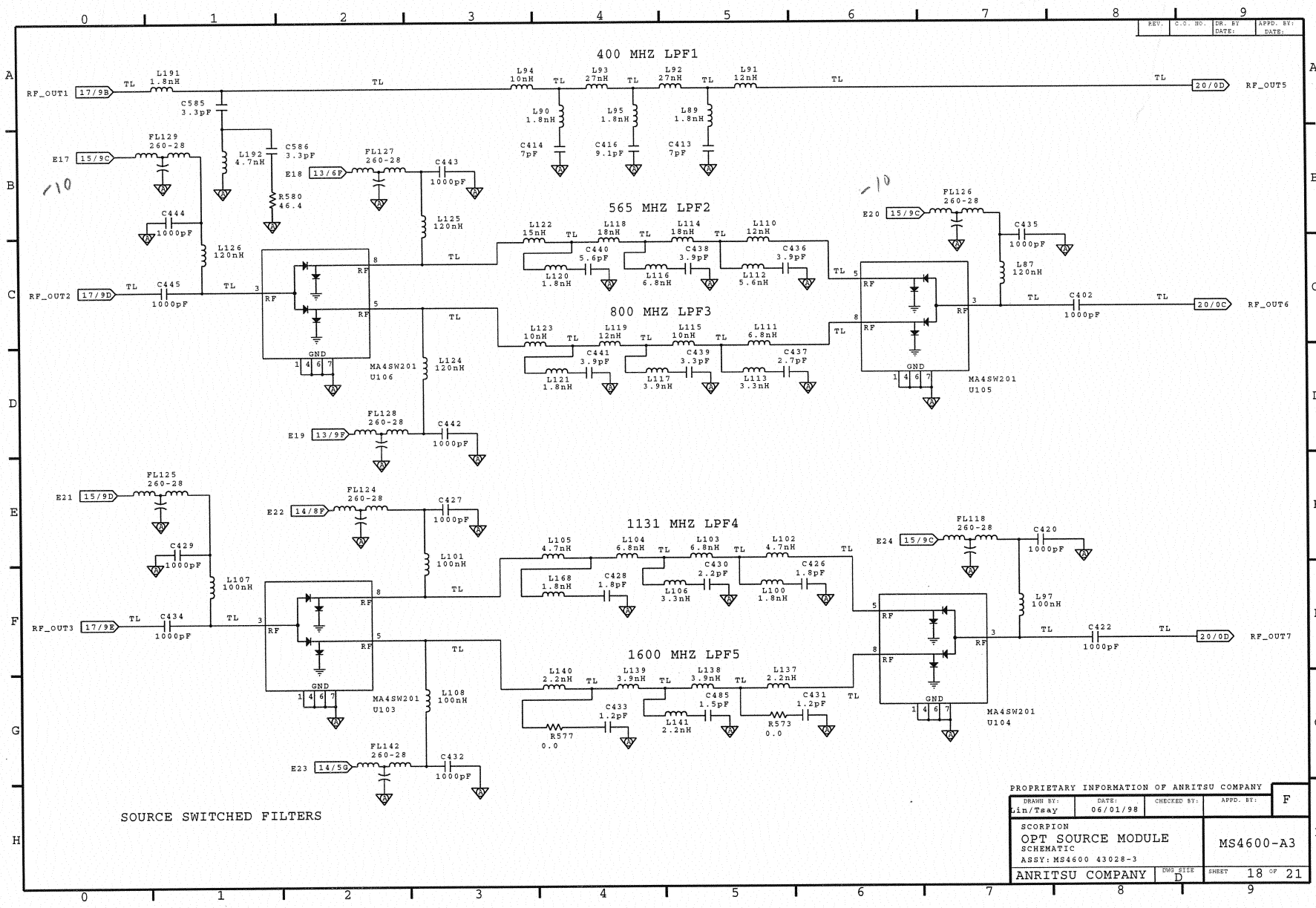
PROPRIETARY INFORMATION OF ANRITSU COMPANY			
DRAWN BY:	DATE:	CHECKED BY:	APPD. BY:
Lin/Teay	06/01/98		F
SCORPION OPT SOURCE MODULE SCHEMATIC ASSY: MS4600 43028-3			MS4600-A3
ANRITSU COMPANY			15 OF 21





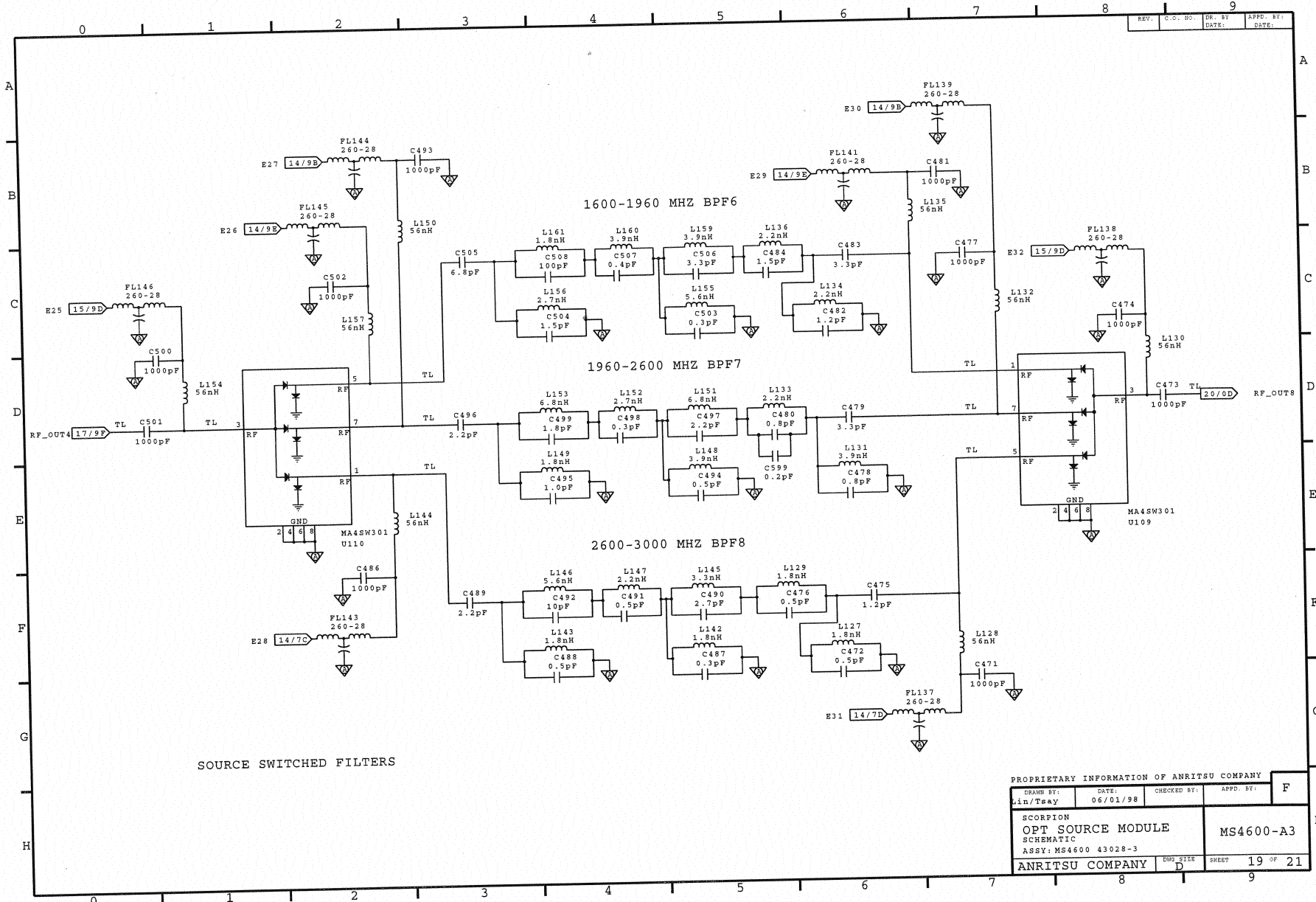
SOURCE FREQUENCY GENERATION

PROPRIETARY INFORMATION OF WILTRON COMPANY			
DESIGN BY: Lin/Teay	DATE: 06/01/98	CHECKED BY:	APPD. BY: F
SCORPION OPT SOURCE MODULE SCHEMATIC ASSY: MS4600 43028-3		MS4600-A3	
WILTRON COMPANY		DESIGN SHEET	17 OF 21

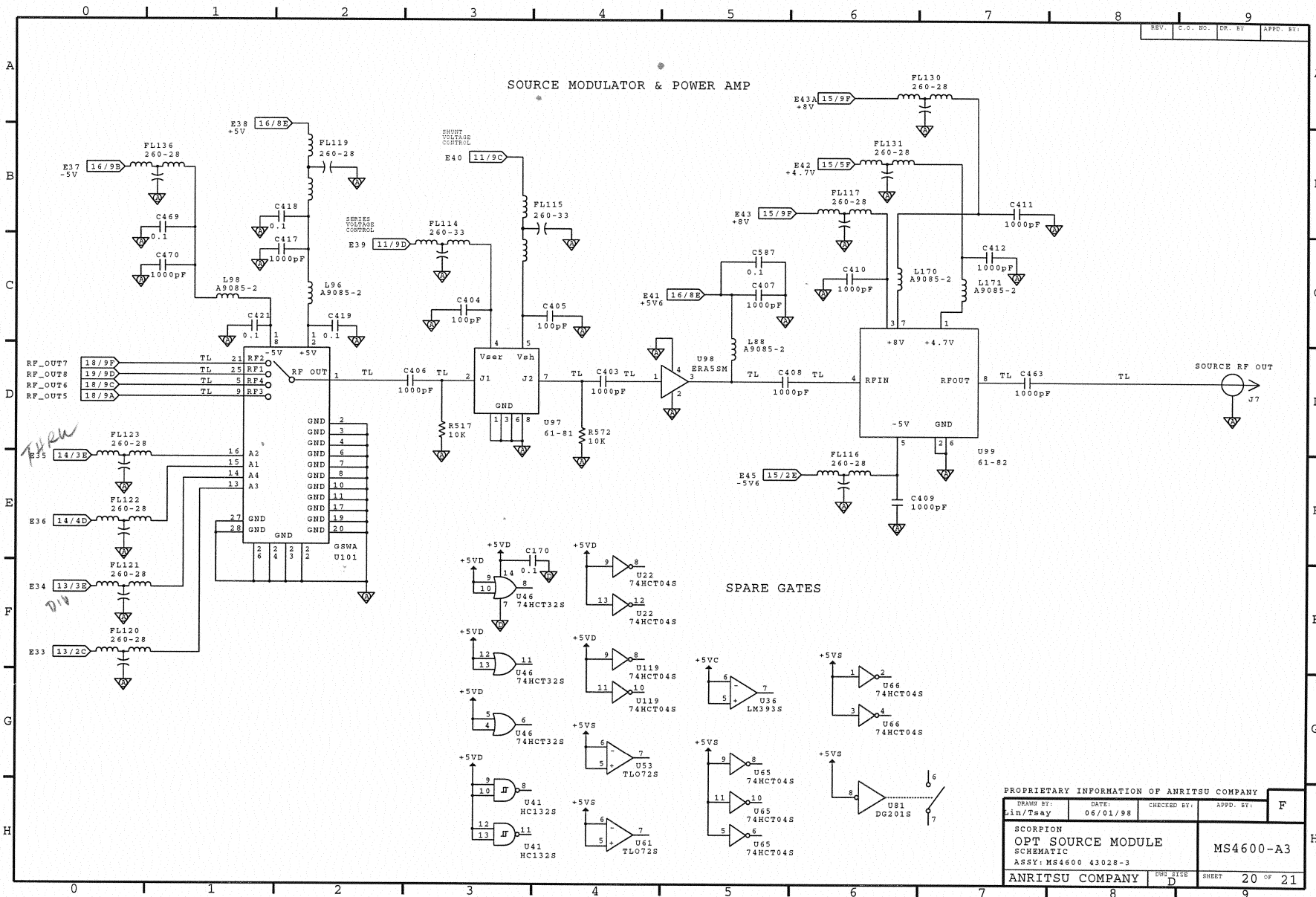


SOURCE SWITCHED FILTERS

PROPRIETARY INFORMATION OF ANRITSU COMPANY				F
DRAWN BY: Lin/Tsuy	DATE: 06/01/98	CHECKED BY:	APPD. BY:	
SCORPION OPT SOURCE MODULE SCHEMATIC			MS4600-A3	
ASSY: MS4600 43028-3			SHEET 18 OF 21	
ANRITSU COMPANY			END SIDE D	



PROPRIETARY INFORMATION OF ANRITSU COMPANY			
DRAWN BY: Lin/Tsuy	DATE: 06/01/98	CHECKED BY:	APPD. BY: F
SCORPION OPT SOURCE MODULE SCHEMATIC		MS4600-A3	
ASSY: MS4600 43028-3			
ANRITSU COMPANY		DWG. SIZE D	SHEET 19 OF 21

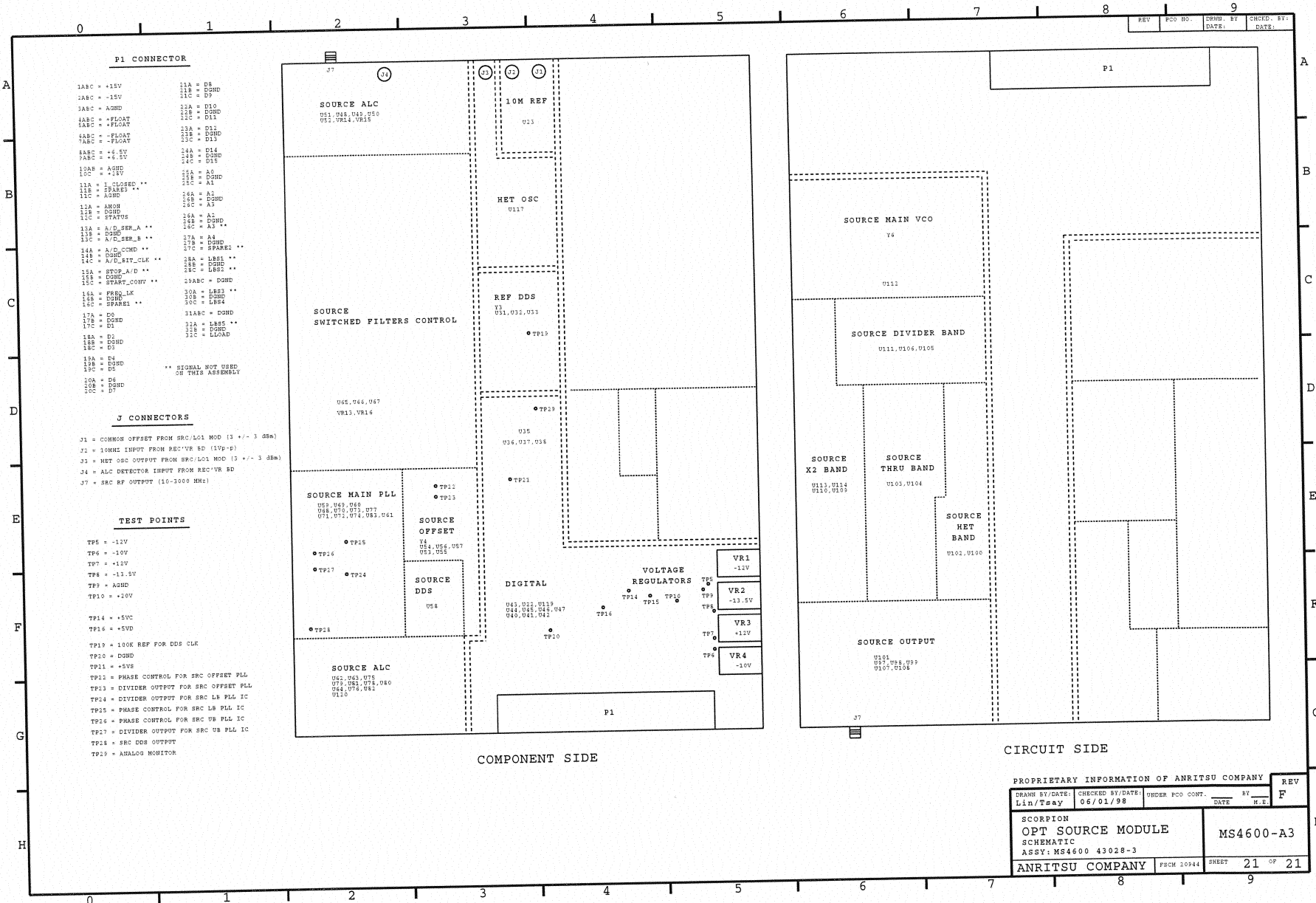


REV.	Q. NO.	NO.	CR. BY	APPD. BY
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SOURCE MODULATOR & POWER AMP

SPARE GATES

PROPRIETARY INFORMATION OF ANRITSU COMPANY				
DRAWN BY:	DATE:	CHECKED BY:	APPD. BY:	F
lin/Tsuy	06/01/98			
SCORPION OPT SOURCE MODULE SCHEMATIC ASSY: MS4600 43028-3			MS4600-A3	
ANRITSU COMPANY			SHEET	20 OF 21



- P1 CONNECTOR**
- 1A8C = +15V
  - 1A8B = -15V
  - 1A8E = AGND
  - 1A8D = +FFIGAT
  - 1A8C = -FFIGAT
  - 1A8B = +4.5V
  - 1A8A = -4.5V
  - 102AF = AGND
  - 102 = +15
  - 11A = I\_CLOSED \*\*
  - 11B = I\_OPEN \*\*
  - 11C = AGND
  - 11A = AMOH
  - 11B = DQND
  - 11C = STATUS
  - 11A = A/D\_SER\_A \*\*
  - 11B = DQND
  - 11C = A/D\_SER\_B \*\*
  - 14A = A/D\_CMD \*\*
  - 14B = DQND
  - 14C = A/D\_HIT\_CLK \*\*
  - 15A = SRC\_LD \*\*
  - 15B = DQND
  - 15C = START\_CMD \*\*
  - 16A = FREQ\_LF \*\*
  - 16B = DQND
  - 16C = SPARE1 \*\*
  - 17A = D0
  - 17B = DQND
  - 17C = D1
  - 18A = D2
  - 18B = DQND
  - 18C = D3
  - 19A = D4
  - 19B = DQND
  - 19C = D5
  - 20A = D6
  - 20B = DQND
  - 20C = D7
- \*\* SIGNAL NOT USED ON THIS ASSEMBLY

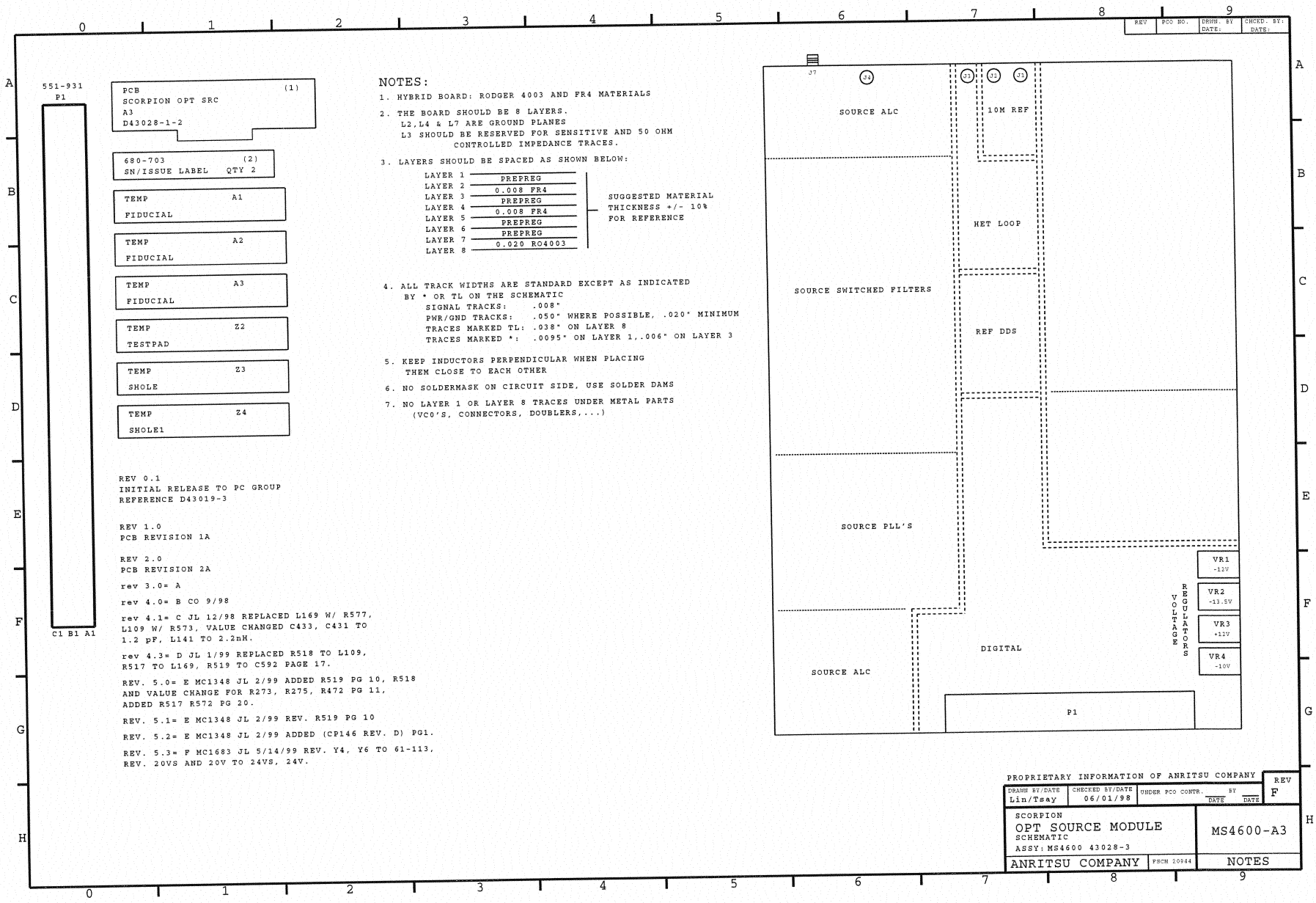
- J CONNECTORS**
- J1 = COMMON OFFSET FROM SRC/L01 MOD (3 +/- 3 dBm)
  - J2 = 10MHz INPUT FROM REC'VE BD (19dB)
  - J3 = HET OSC OUTPUT FROM SRC/L01 MOD (3 +/- 3 dBm)
  - J4 = ALC DETECTOR INPUT FROM REC'VE BD
  - J7 = SRC RF OUTPUT (10-3000 MHz)

- TEST POINTS**
- TP5 = -12V
  - TP6 = -10V
  - TP7 = -10V
  - TP8 = -11.5V
  - TP9 = AGND
  - TP10 = +10V
  - TP14 = +5VC
  - TP16 = +5VD
  - TP19 = 100K REF FOR DDS CLK
  - TP20 = DQND
  - TP21 = +5VE
  - TP22 = PHASE CONTROL FOR SRC OFFSET PLL
  - TP23 = DIVIDER OUTPUT FOR SRC OFFSET PLL
  - TP24 = DIVIDER OUTPUT FOR SRC LB PLL IC
  - TP25 = PHASE CONTROL FOR SRC LB PLL IC
  - TP26 = PHASE CONTROL FOR SRC UB PLL IC
  - TP27 = DIVIDER OUTPUT FOR SRC UB PLL IC
  - TP28 = SRC DDS OUTPUT
  - TP29 = ANALOG MONITOR

VR1	-12V
VR2	-13.5V
VR3	-112V
VR4	-10V

PROPRIETARY INFORMATION OF ANRITSU COMPANY				REV
DRWN BY/DATE: Lin/Tsay	CHECKED BY/DATE: 06/01/98	ISSUED FOR CONT.	BY DATE	F
SCORPION OPT SOURCE MODULE SCHEMATIC ASSY: MS4600 43028-3			MS4600-A3	
ANRITSU COMPANY		FORM 10944	SHEET	21 OF 21





551-931  
P1

C1 B1 A1

PCB (1)  
SCORPION OPT SRC  
A3  
D43028-1-2

680-703 (2)  
SN/ISSUE LABEL QTY 2

TEMP A1  
FIDUCIAL

TEMP A2  
FIDUCIAL

TEMP A3  
FIDUCIAL

TEMP Z2  
TESTPAD

TEMP Z3  
SHOLE

TEMP Z4  
SHOLE1

REV 0.1  
INITIAL RELEASE TO PC GROUP  
REFERENCE D43019-3

REV 1.0  
PCB REVISION 1A

REV 2.0  
PCB REVISION 2A

rev 3.0= A

rev 4.0= B CO 9/98

rev 4.1= C JL 12/98 REPLACED L169 W/ R577,  
L109 W/ R573, VALUE CHANGED C433, C431 TO  
1.2 pF, L141 TO 2.2nH.

rev 4.3= D JL 1/99 REPLACED R518 TO L109,  
R517 TO L169, R519 TO C592 PAGE 17.

REV. 5.0= E MC1348 JL 2/99 ADDED R519 PG 10, R518  
AND VALUE CHANGE FOR R273, R275, R472 PG 11,  
ADDED R517 R572 PG 20.

REV. 5.1= E MC1348 JL 2/99 REV. R519 PG 10

REV. 5.2= E MC1348 JL 2/99 ADDED (CP146 REV. D) PG1.

REV. 5.3= F MC1683 JL 5/14/99 REV. Y4, Y6 TO 61-113,  
REV. 20VS AND 20V TO 24VS, 24V.

**NOTES:**

1. HYBRID BOARD: RODGER 4003 AND FR4 MATERIALS
2. THE BOARD SHOULD BE 8 LAYERS.  
L2, L4 & L7 ARE GROUND PLANES  
L3 SHOULD BE RESERVED FOR SENSITIVE AND 50 OHM  
CONTROLLED IMPEDANCE TRACES.

3. LAYERS SHOULD BE SPACED AS SHOWN BELOW:

LAYER 1	PREPREG	SUGGESTED MATERIAL THICKNESS +/- 10% FOR REFERENCE
LAYER 2	0.008 FR4	
LAYER 3	PREPREG	
LAYER 4	0.008 FR4	
LAYER 5	PREPREG	
LAYER 6	PREPREG	
LAYER 7	0.020 RC4003	
LAYER 8	0.020 RC4003	

4. ALL TRACK WIDTHS ARE STANDARD EXCEPT AS INDICATED  
BY \* OR TL ON THE SCHEMATIC  
SIGNAL TRACKS: .008"  
PWR/GND TRACKS: .050" WHERE POSSIBLE, .020" MINIMUM  
TRACES MARKED TL: .038" ON LAYER 8  
TRACES MARKED \*: .0095" ON LAYER 1, .006" ON LAYER 3
5. KEEP INDUCTORS PERPENDICULAR WHEN PLACING  
THEM CLOSE TO EACH OTHER
6. NO SOLDERMASK ON CIRCUIT SIDE, USE SOLDER DAMS
7. NO LAYER 1 OR LAYER 8 TRACES UNDER METAL PARTS  
(VCO'S, CONNECTORS, DOUBLERS, ...)

PROPRIETARY INFORMATION OF ANRITSU COMPANY				REV
DRAWN BY/DATE	CHECKED BY/DATE	UNDER PCO CONTR.	BY	F
Lin/Tsay	06/01/98		DATE	DATE
SCORPION OPT SOURCE MODULE SCHEMATIC			MS4600-A3	
ASSY: MS4600 43028-3				
ANRITSU COMPANY			FORM 20244	NOTES