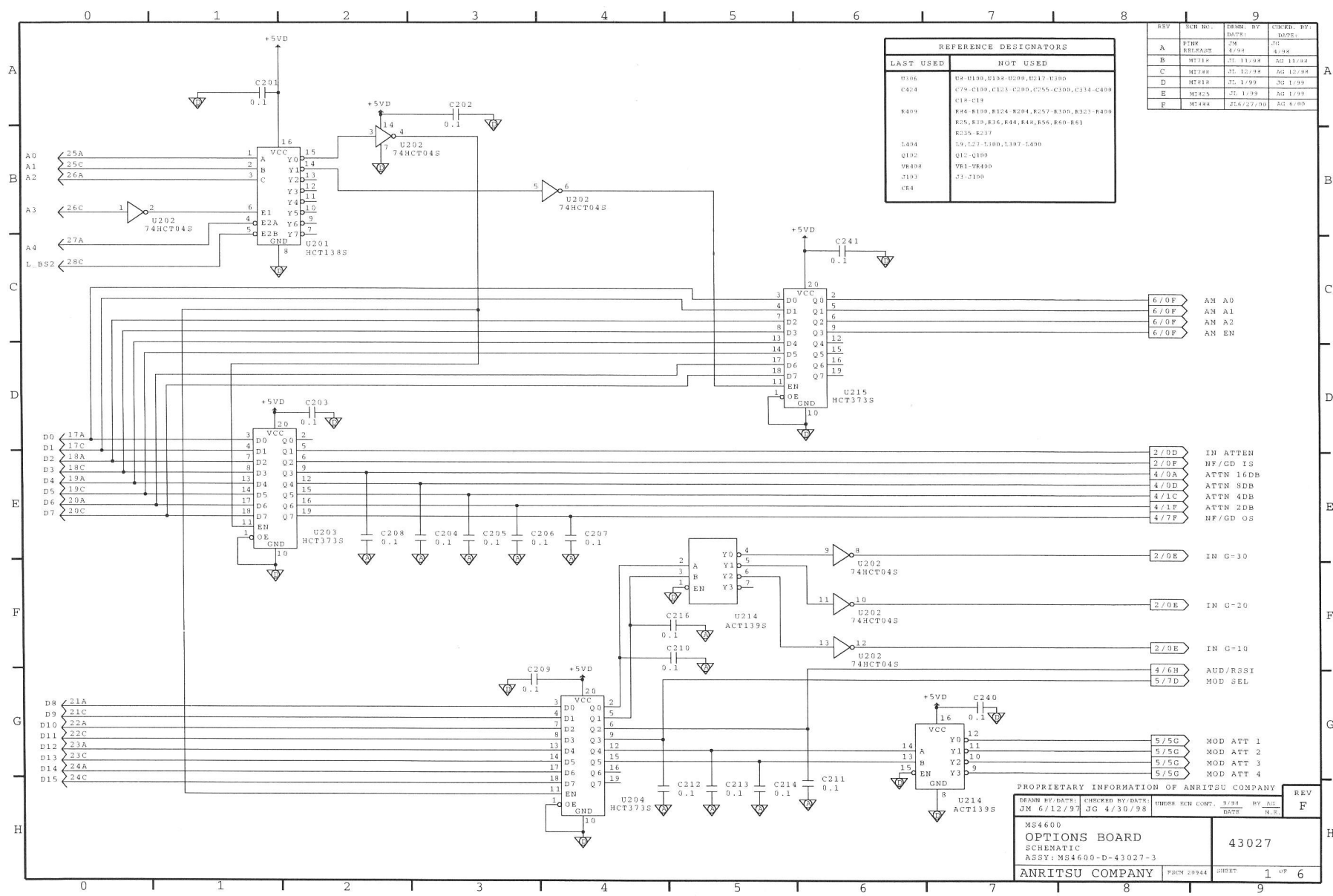


# THUAN HOANG 's Reference A2 OPTION BOARD



REFERENCE DESIGNATORS	
LAST USED	NOT USED
U106	U4-U100, U104-U200, U217-U300
C424	C79-C100, C123-C200, C255-C300, C334-C400
C18-C19	
E409	E44-E100, E124-E200, E257-E300, E323-E400
	E25, E39, E36, E44, E44, E56, E60-E61
	E235-E237
U404	U9, U27-U100, U107-U400
Q102	Q12-Q100
WE408	WE1-WE400
J193	J3-J100
CR4	

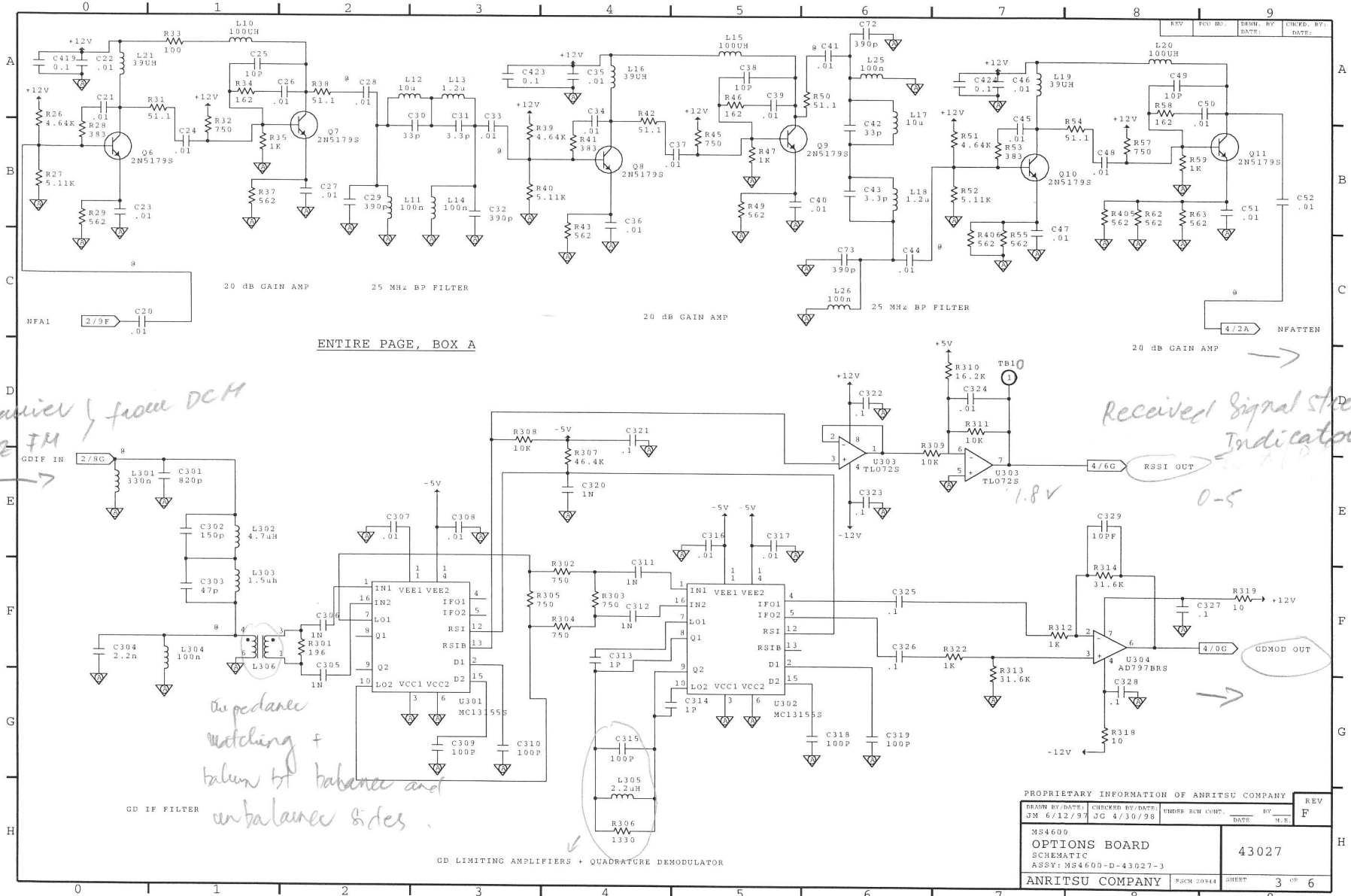
REV	CHG NO.	DESN BY	CHKD BY
DATE	DATE	DATE	DATE
A		TH	JG
1/94		4/94	4/94
B		MT718	JG
11/99		12/99	12/99
C		MT788	JG
12/99		1/99	1/99
D		MT818	JG
1/99		1/99	1/99
E		MT825	JG
1/99		2/6/27/00	03/0/00

PROPRIETARY INFORMATION OF ANRITSU COMPANY

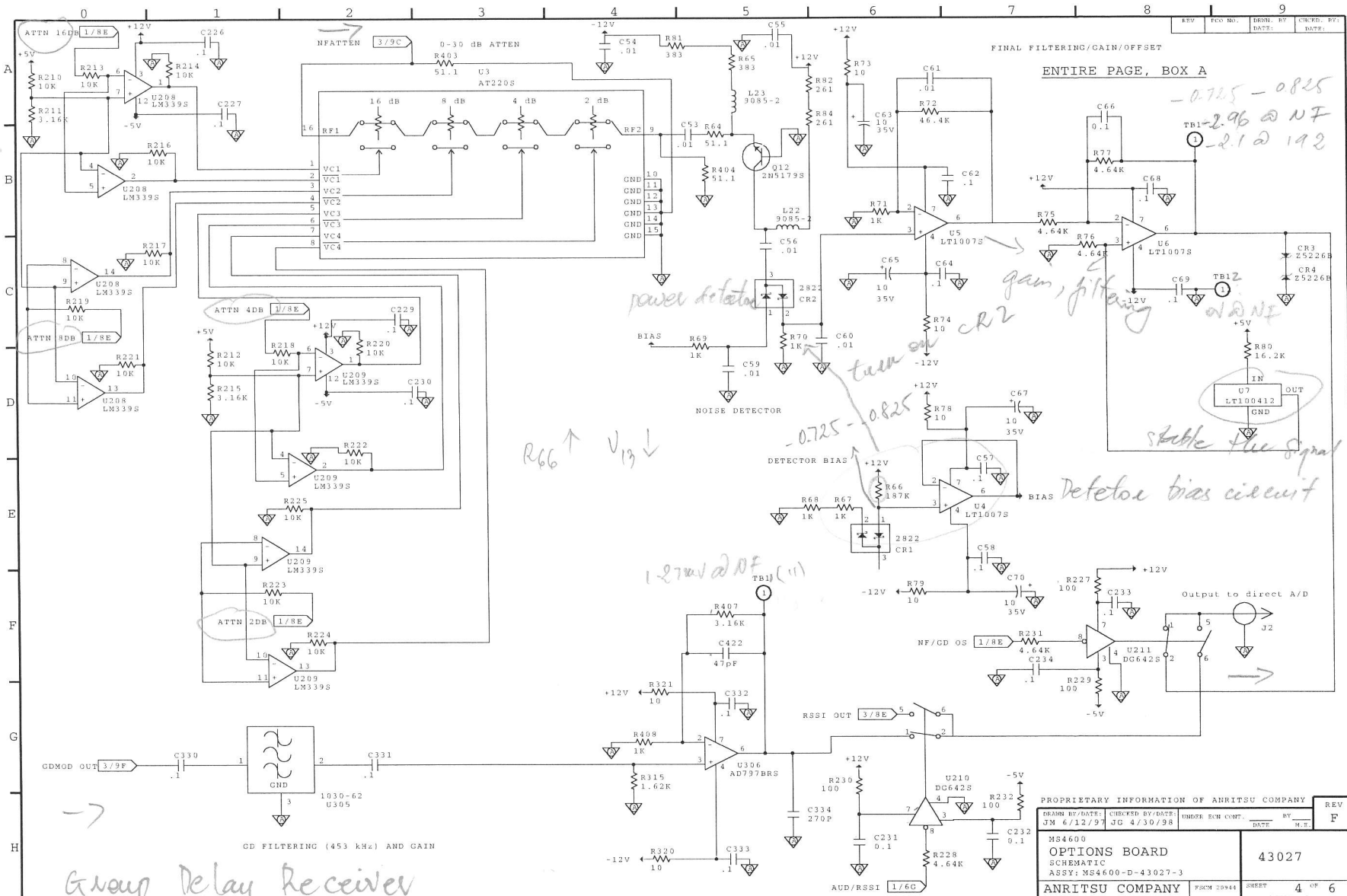
DESN BY/DATE: JM 6/12/97	CHECKED BY/DATE: JG 4/30/98	THIRD CHG. DATE: 3/94	REV. NO.:
MS4600 OPTIONS BOARD SCHEMATIC ASSY: MS4600-D-43027-3		43027	
ANRITSU COMPANY		FORM 20944	1 OF 6



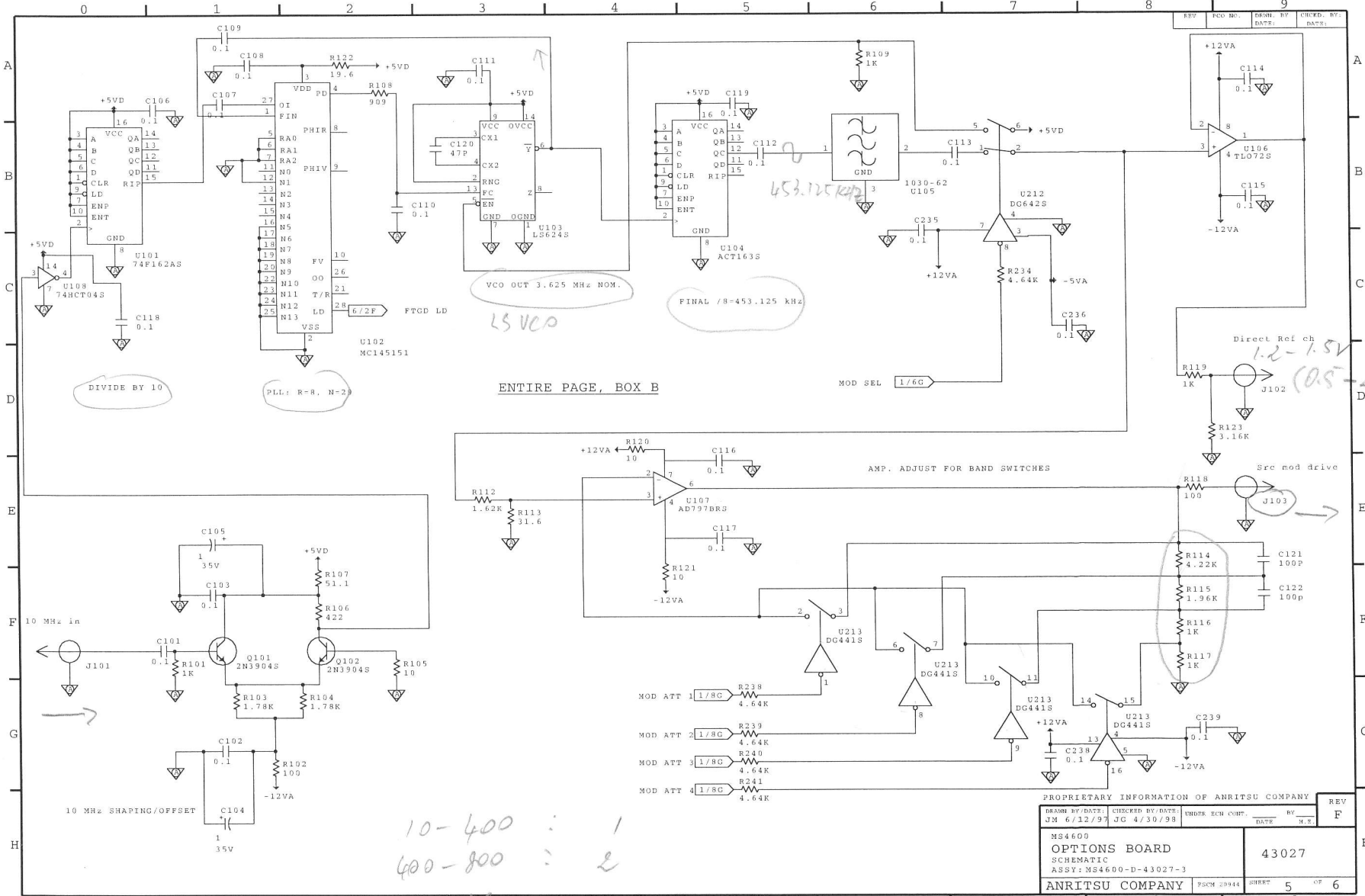
# Filter - Amp - chain of NF Receiver



PROPRIETARY INFORMATION OF ANRITSU COMPANY				REV
DRAWN BY/DATE:	CHECKED BY/DATE:	UNDER ECH. COMP.	BY	F
JM 6/12/97	JG 4/30/98		DATE	N.T.
MS4600 OPTIONS BOARD SCHEMATIC ASSY: MS4600-D-43027-3			43027	
ANRITSU COMPANY		FIG. NO. 20944	SHEET	3 OF 6

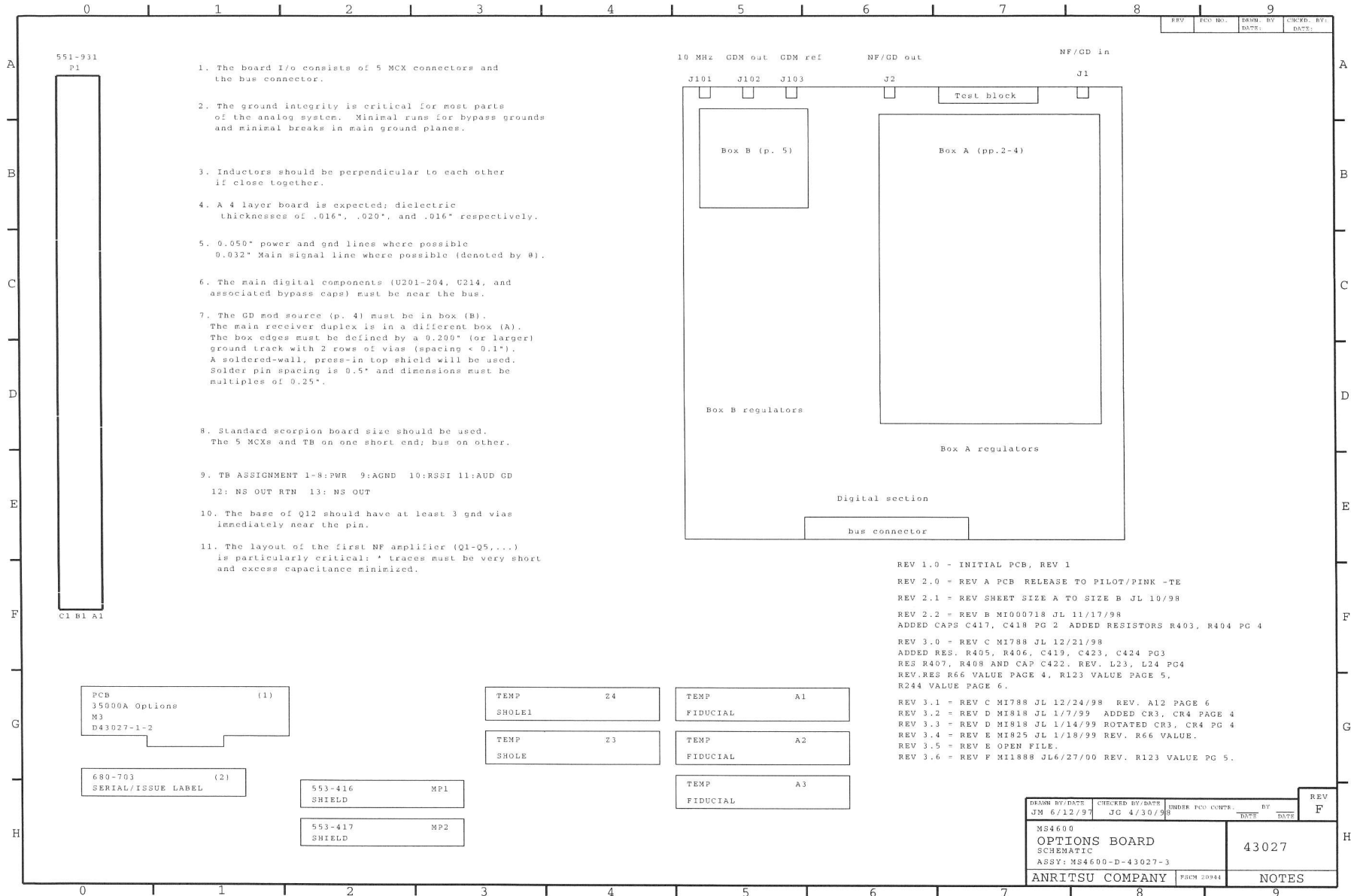


# Modulation Synthesizer



PROPRIETARY INFORMATION OF ANRITSU COMPANY				REV
DRAWN BY/DATE:	CHECKED BY/DATE:	UNDER ECH. CONT.	DATE	BY
JM 6/12/97	JG 4/30/98			F
MS4600 OPTIONS BOARD SCHEMATIC ASSY: MS4600-D-43027-3			43027	
ANRITSU COMPANY		FORM 2944	SHEET	5 OF 6

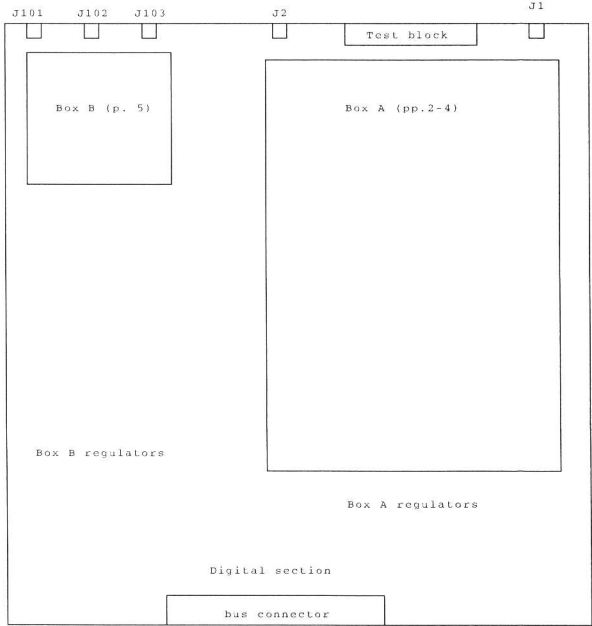




551-931  
P1

1. The board I/o consists of 5 MCX connectors and the bus connector.
2. The ground integrity is critical for most parts of the analog system. Minimal runs for bypass grounds and minimal breaks in main ground planes.
3. Inductors should be perpendicular to each other if close together.
4. A 4 layer board is expected; dielectric thicknesses of .016", .020", and .016" respectively.
5. 0.050" power and gnd lines where possible  
0.032" Main signal line where possible (denoted by @).
6. The main digital components (U201-204, U214, and associated bypass caps) must be near the bus.
7. The CD mod source (p. 4) must be in box (B). The main receiver duplex is in a different box (A). The box edges must be defined by a 0.200" (or larger) ground track with 2 rows of vias (spacing < 0.1"). A soldered-wall, press-in top shield will be used. Solder pin spacing is 0.5" and dimensions must be multiples of 0.25".
8. Standard scorpion board size should be used. The 5 MCXs and TB on one short end; bus on other.
9. TB ASSIGNMENT 1-8:PWR 9:AGND 10:RSSI 11:AUD CD 12: NS OUT RTN 13: NS OUT
10. The base of Q12 should have at least 3 gnd vias immediately near the pin.
11. The layout of the first NF amplifier (Q1-Q5,...) is particularly critical: \* traces must be very short and excess capacitance minimized.

10 MHz GDM out GDM ref NF/GD out NF/GD in



- REV 1.0 - INITIAL PCB, REV 1
- REV 2.0 - REV A PCB RELEASE TO PILOT/PINK -TE
- REV 2.1 - REV SHEET SIZE A TO SIZE B JL 10/98
- REV 2.2 - REV B MI000718 JL 11/17/98  
ADDED CAPS C417, C418 PG 2 ADDED RESISTORS R403, R404 PG 4
- REV 3.0 - REV C MI788 JL 12/21/98  
ADDED RES. R405, R406, C419, C423, C424 PG3  
RES R407, R408 AND CAP C422. REV. L23, L24 PG4  
REV.RES R66 VALUE PAGE 4, R123 VALUE PAGE 5,  
R244 VALUE PAGE 6.
- REV 3.1 - REV C MI788 JL 12/24/98 REV. A12 PAGE 6
- REV 3.2 - REV D MI818 JL 1/7/99 ADDED CR3, CR4 PAGE 4
- REV 3.3 - REV D MI818 JL 1/14/99 ROTATED CR3, CR4 PG 4
- REV 3.4 - REV E MI825 JL 1/18/99 REV. R66 VALUE.
- REV 3.5 - REV E OPEN FILE.
- REV 3.6 - REV F MI1888 JL6/27/00 REV. R123 VALUE PG 5.

C1 B1 A1

PCB (1)  
35000A Options  
M3  
D43027-1-2

680-703 (2)  
SERIAL/ISSUE LABEL

553-416 MP1  
SHIELD

553-417 MP2  
SHIELD

TEMP 24  
SHOLE1

TEMP 23  
SHOLE

TEMP A1  
FIDUCIAL

TEMP A2  
FIDUCIAL

TEMP A3  
FIDUCIAL

DESIGN BY/DATE JM 6/12/97	CHECKED BY/DATE JG 4/30/98	ORDER POC CNTR. INSTR DATE	BY DATE	REV F
MS4600 OPTIONS BOARD SCHEMATIC ASSY: MS4600-D-43027-3			43027	
ANRITSU COMPANY FROM 20944			NOTES	