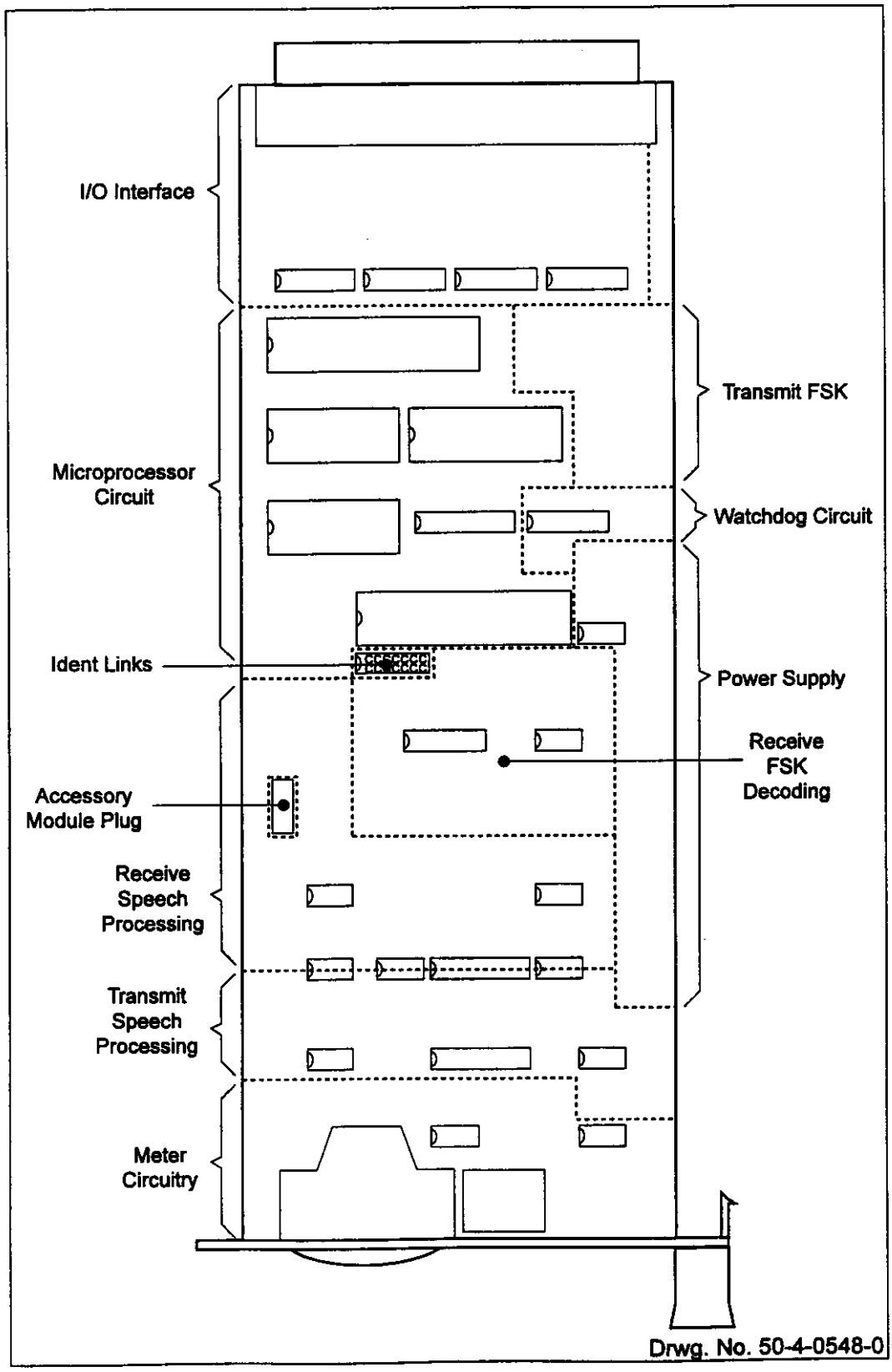


Figure 6.1 Controller Type 2737 Layout

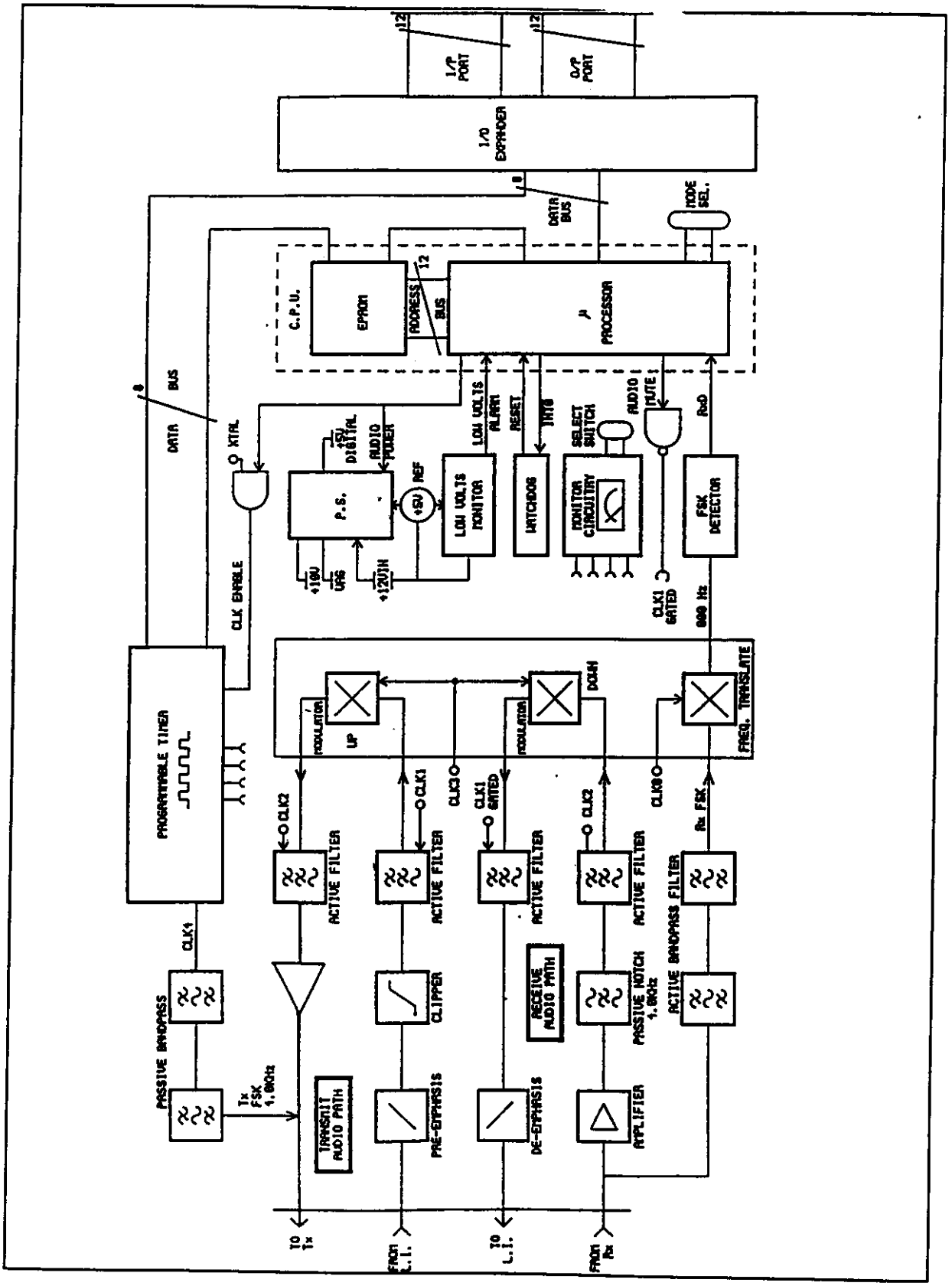


Figure 6.3 Controller 2737 - Block Diagram

Drg. no. 26-3-1220-0

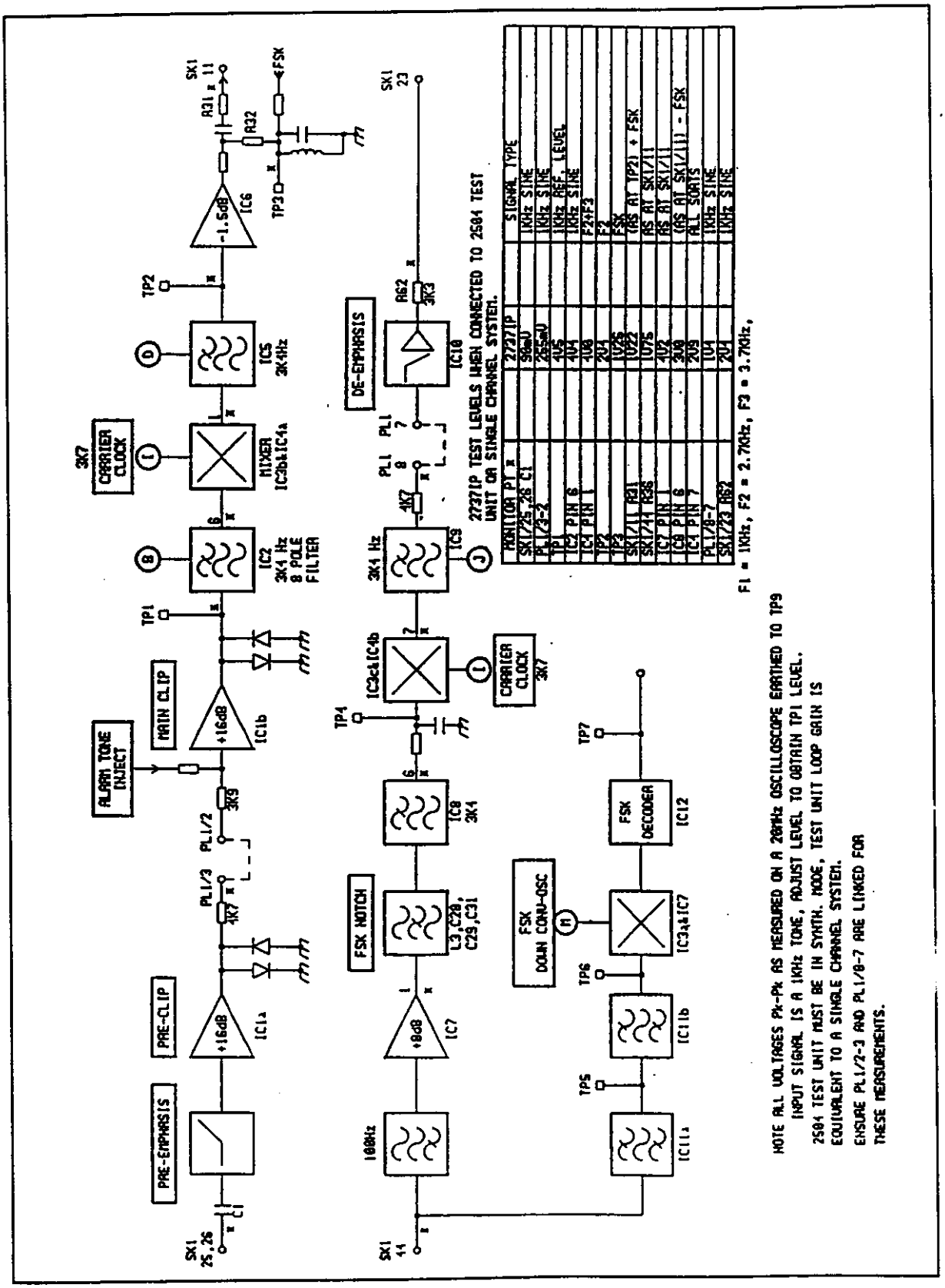
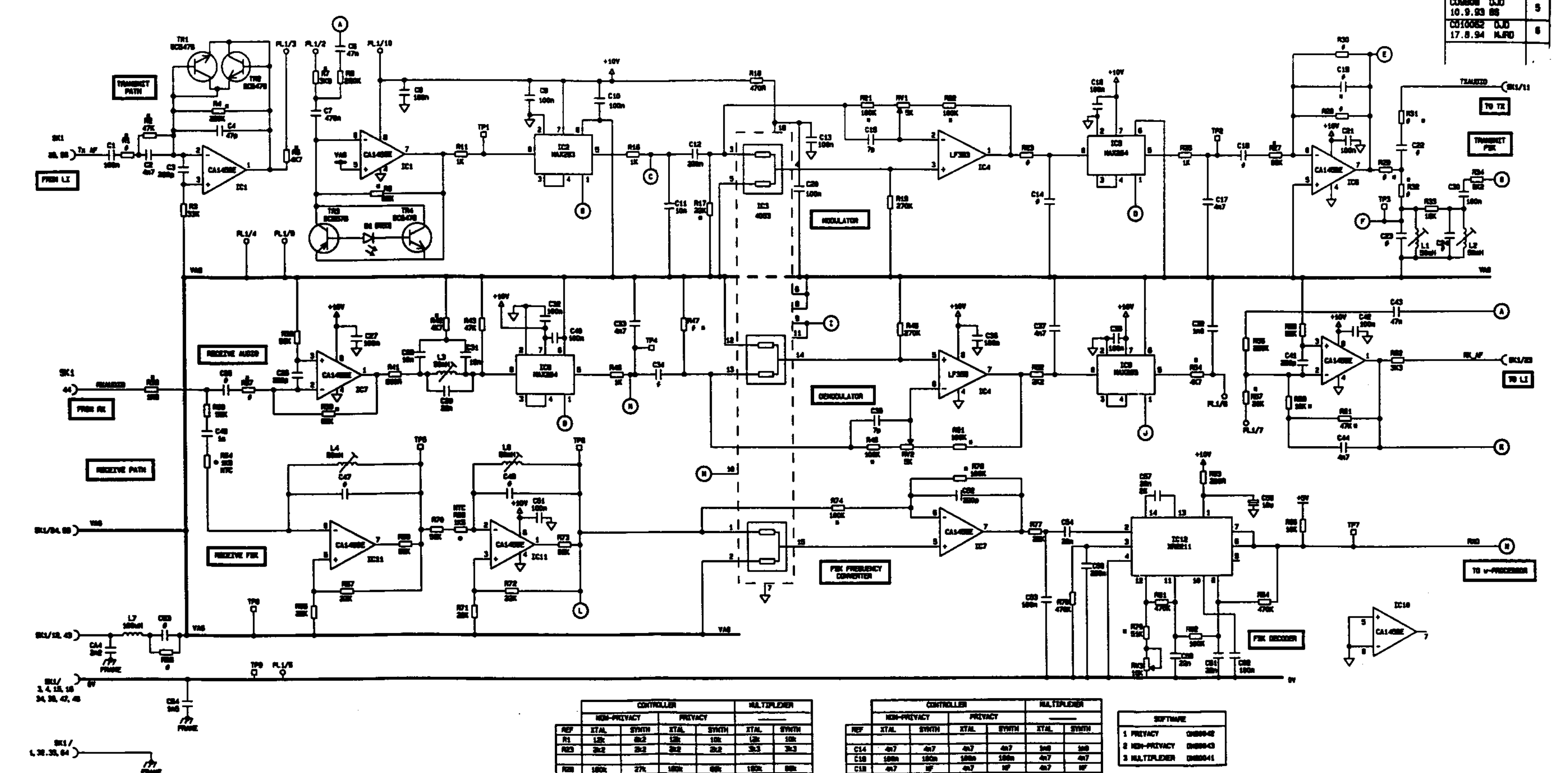


Figure 6.2 Controller 2737 - Levels on 2504 Test Unit or Single Channel System Drg.no. 26-3-12190

CHANGES	No.
C08711 MJRD 30.6.93 DJD	3
C08762 C08765 MJRD 6.8.93 DJD	4
C09508 DJD 10.9.93 BB	5
C010062 DJD 17.8.94 MJRD	6



	CONTROLLER				MULTIPLEXER	
	NON-PRIVACY		PRIVACY		—	
REF	XTAL	SYNTH	XTAL	SYNTH	XTAL	SYNTH
R1	12k	8k2	12k	10k	12k	10k
R23	2k2	2k2	2k2	2k2	3k3	3k3
R28	100k	27k	100k	68k	100k	68k
R29	2k2	3k9	2k2	3k9	2k2	3k9
R30	NF	NF	NF	120k	100k	100k
R31	2k2	1k0	2k2	1k0	2k2	1k0
R32	33k	10k	33k	10k	33k	10k
R37	33k	33k	33k	33k	27k	27k
R47	47k	47k	47k	47k	22k	22k
R65	0R0	0R0	0R0	0R0	100k	100k
R106	56k	56k	18k	56k	18k	22k
R108	12k	15k	12k	15k	22k	22k
X1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SW2	Fitted	Fitted	Fitted	Fitted	NF	NF
LK4	NF	NF	NF	NF	Fitted	Fitted

SYNTH N.P. CONTROLLER IS AVAILABLE FOR USE WITH TELEX.
FOR THIS APPLICATION, SPECIAL SOFTWARE IS REQUIRED.
- N.P. CONTROLLER [illegible] OK

	CONTROLLER				MULTIPLEXER	
	NON-PRIVACY		PRIVACY		—	
REF	XTAL	SYNTH	XTAL	SYNTH	XTAL	SYNTH
C14	4n7	4n7	4n7	4n7	1n0	1n0
C16	100n	100n	100n	100n	4n7	4n7
C18	4n7	NF	4n7	NF	4n7	NF
C22	220n	220n	220n	220n	120n	120n
C23	33n	33n	33n	33n	27n	27n
C24	33n	33n	33n	33n	27n	27n
C25	100n	100n	100n	100n	4n7	4n7
C28	10n	10n	10n	10n	15n	15n
C31	15n	15n	15n	15n	10n	10n
C34	22n	22n	100n	100n	10n	10n
C37	3n3	3n3	4n7	4n7	4n7	4n7
C47	33n	33n	33n	33n	27n	27n
C48	33n	33n	33n	33n	27n	27n
C63	NF	NF	NF	NF	1n0	1n0
C66	2n7	2n7	10n	10n	10n	10n

SOFTWARE	
1 PRIVACY	[illegible]
2 NON-PRIVACY	[illegible]
3 MULTIPLEXER	[illegible]

NOTE. RESISTORS DENOTED THUS * = 1%.
N.F. = NOT FITTED
COMPONENT REFs DENOTED THUS # REFER TO OPTIONS TABLE.

TEST POINT	9
INDUCTOR	7
RES. VARIABLE	3
PLUG	1
DIODE	1
TRANSISTOR	4
CAPACITOR	64
RESISTOR	[illegible]
IC	12
REF.	No.
HIGHEST CCT. REF. THIS SHEET	

KEY	SIGNAL NAME
M	RxD
N	FSK REF CLOCK
L	Rx FSK MONITOR
K	Rx AUDIO MONITOR
J	LOW CLOCK GATED
I	MODULATOR CLOCK
H	Rx PRE-AUDIO MONITOR
G	Tx FSK
F	Tx FSK MONITOR
E	Tx AUDIO MONITOR
D	HIGH CLOCK
C	Tx PRE-AUDIO MONITOR
B	LOW CLOCK
A	ALARM TONES

N.B. ALL SIGNALS INTERCONNECT TO SHEET 2.

Drg. no. 28-1-0538-6

Figure 6.4a Controller Type 2737 Circuit Diagram (Page 2 of 2)

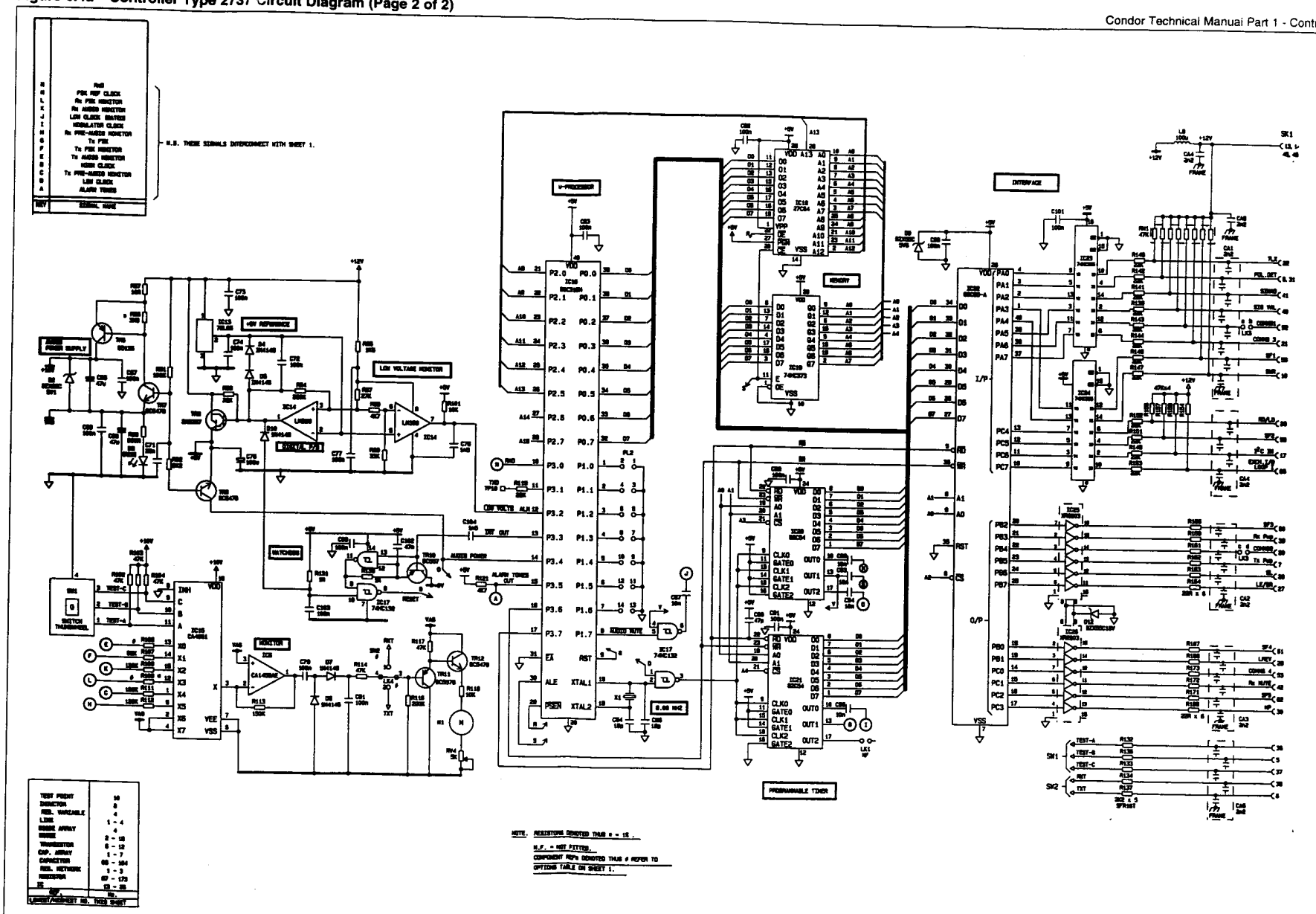
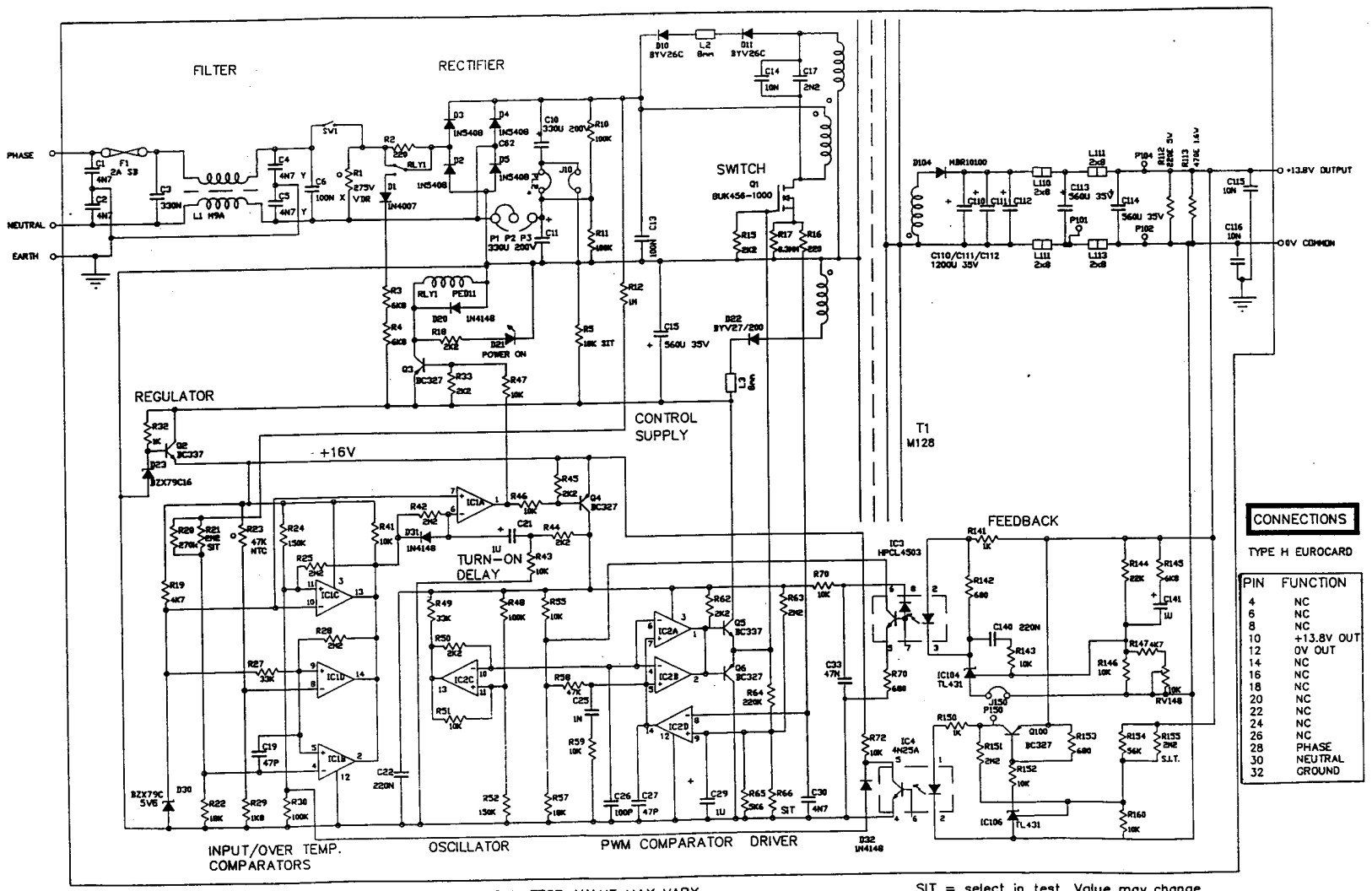


Figure 12.4 Mains Power Supply Type 2828 Circuit Diagram

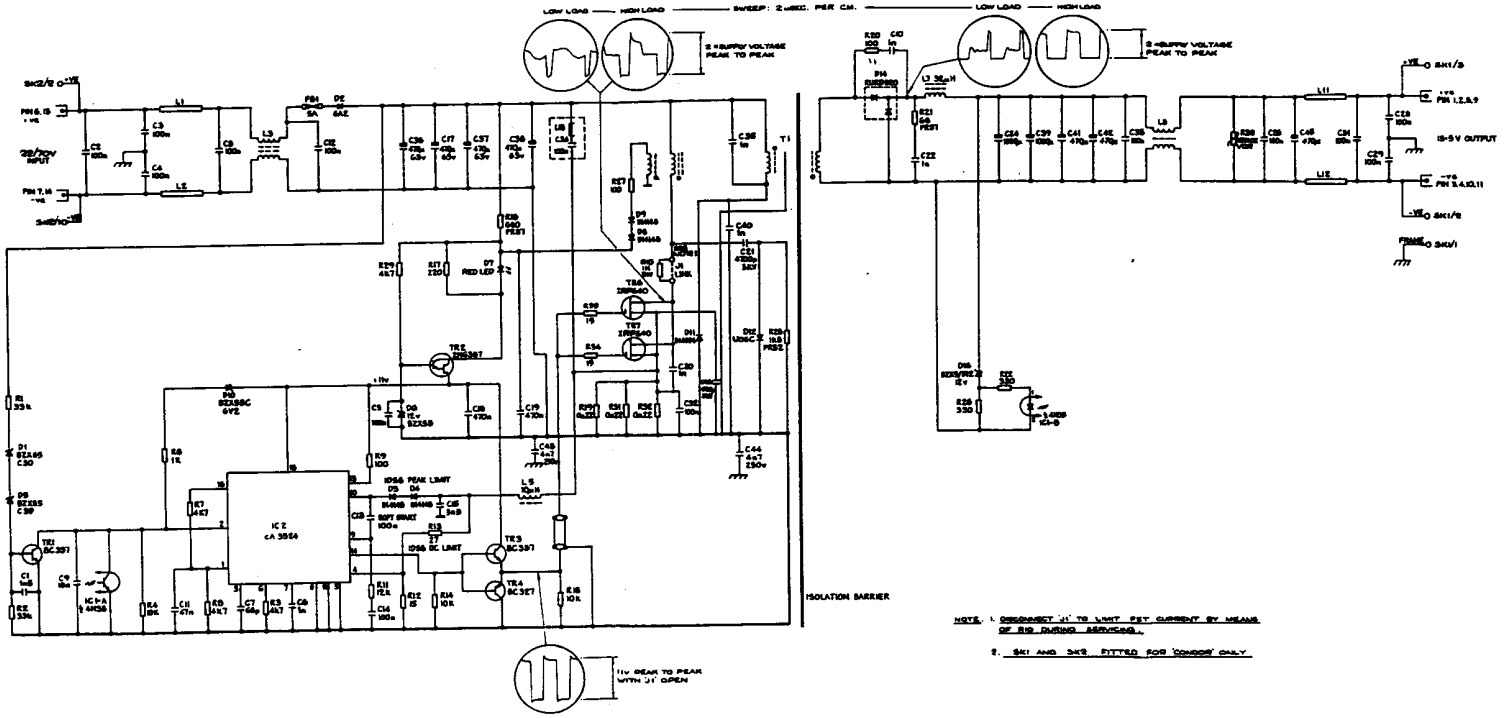


NOTE: PARTS MARKED • NOT NORMALLY FITTED. SIT = SELECT IN TEST. VALUE MAY VARY.

SIT = select in test. Value may change.

Drg. no. A3C1327

Figure 13.3 DC-DC Converter Type 2461 Circuit Diagram



Drg. no. 28-1-0294-13

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EXICOM TECHNOLOGIES (1996) LTD.

TRANSMITTERS: MODELS 2950-3, -4, -5

LIST OF DOCUMENTATION SUBMITTED WITH APPLICATIONS

1. NOTICE FOR INTERMEDIATE MANUAL:
(old 2802) New 2950
2. LIST OF ACTIVE DEVICES : 2950
3. CIRCUIT DIAGRAMS: 3 of 3

TECHNICAL MANUAL
CONDOR 2737

1. PART ONE: CONDOR STANDARD CONFIGURATION
2. PART 2 : SPECIFICATIONS NOT APPLICABLE
3. PART 3: SYSTEM OPERATION
4. PART 4: SYSTEM SETUP
5. PART 6: CONTROLLER TYPE 2737 (includes Circuit Descriptions, Schematics and , Block Diagram etc.)
6. PART 9: INTRODUCTION UHF Type 2950
(Includes Alignment & Block Diagram)
7. PART 10: VHF Duplexer descriptions
8. PART 12: MAIN POWER SUPPLY (includes Schematic)
9. PART 13: DC-DC Converter Type 2461 (includes Schematics)
10. PART 17: SYSTEM SETUP

EXICOM
INTERNATIONAL

Important Note

Exicom Technologies has recently designed new transmitter and receiver modules for its Condor radio link product. Specifically, the new 2950 transmitter module replaces the old 2802 module and the new 2940 receiver module replaces the old 2801 module.

The Condor Technical Manual is currently in the process of being updated by Exicom Technologies to include references to these new modules.

This version of the manual is an 'intermediate step' – it contains sections on the new 2950 and 2940 modules (appended to the front of the manual), but the main body still contains many references to the old 2802 and 2801 module. Therefore, wherever you read 2802 or 2801 in this manual, please make the following replacements:

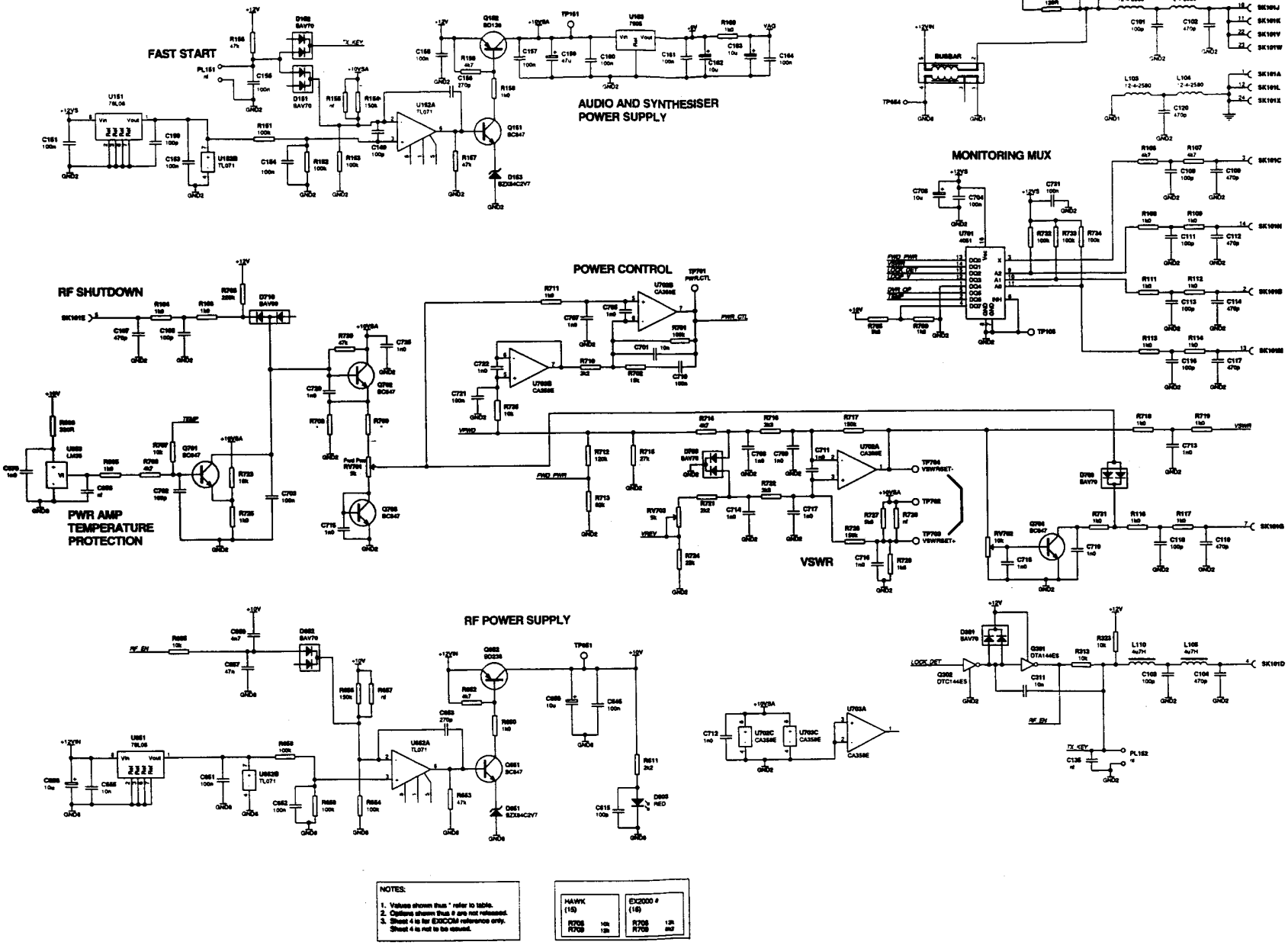
	Old	*New*
Transmitter	2802	2950
Receiver	2801	2940

Thank you,

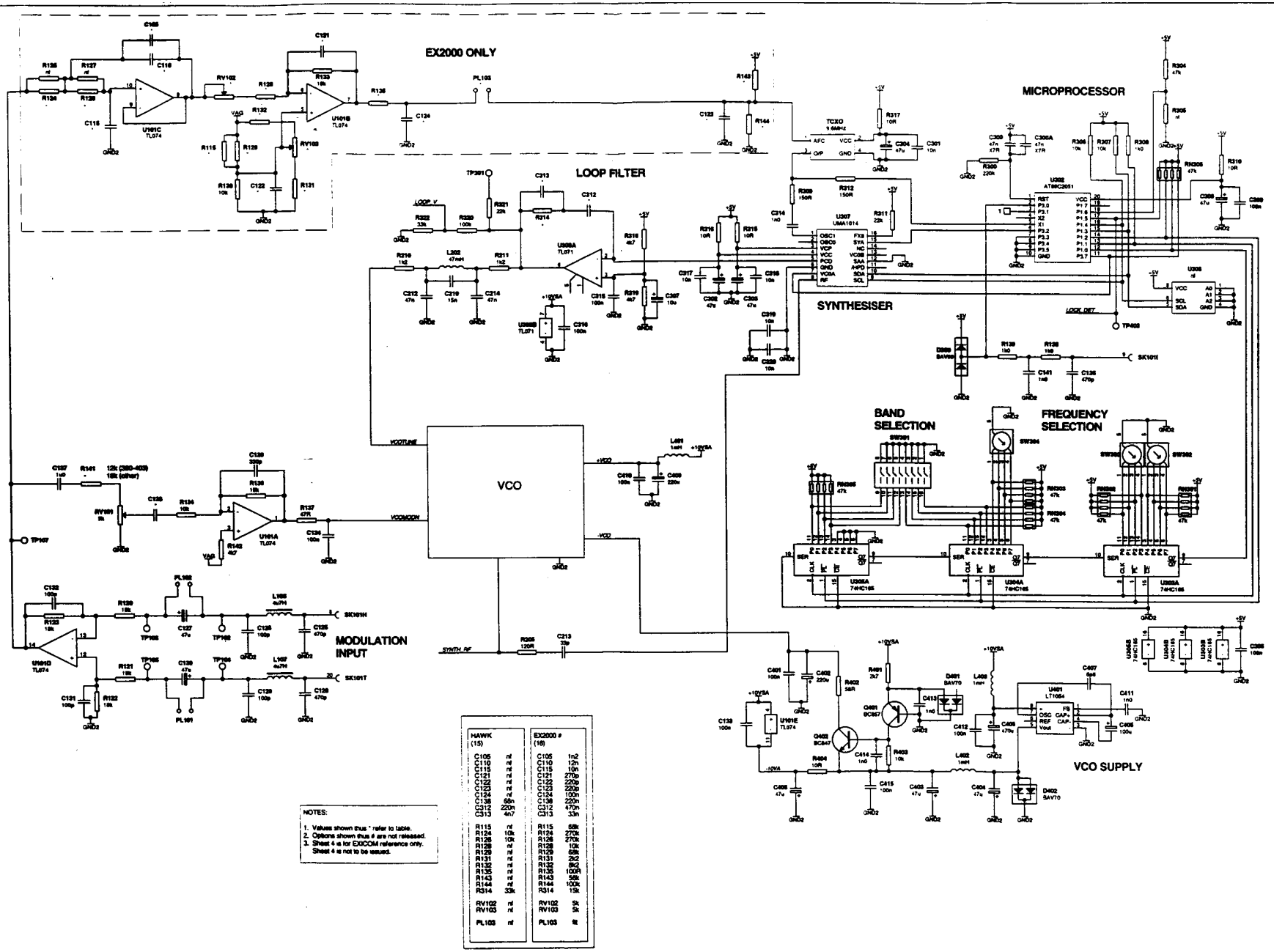
Exicom Technologies (1996) Ltd

Active Devices for UHF Transmitter Type 2950

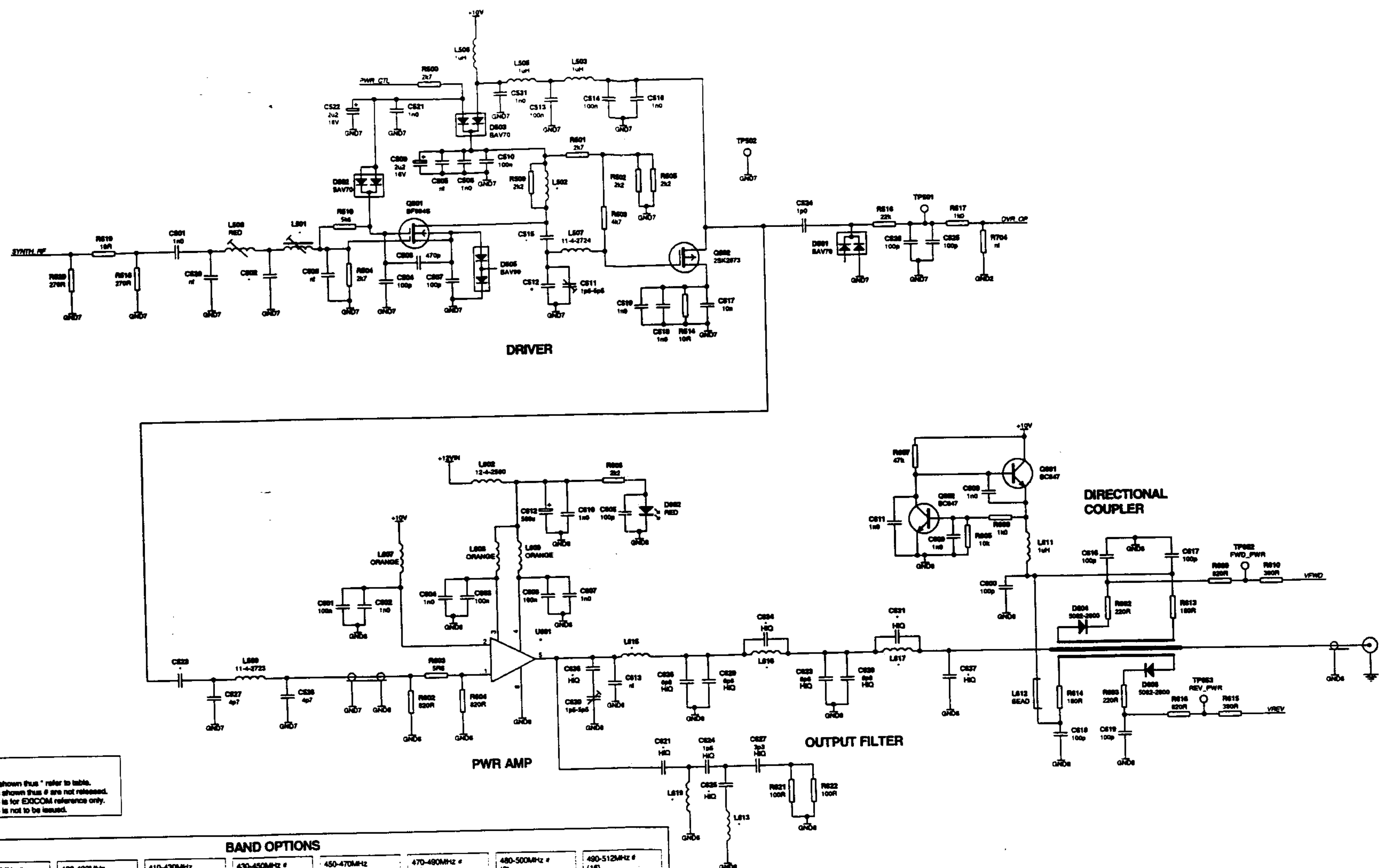
Identifier	Manufacturer's Part Number	Description
D151, D152, D301, D401, D402	BAV70	General purpose diodes
D153, D651	BZX84C2V7	Voltage offset in 10V power supply shift regulators
D200	BB515	UHF varicap for VCO tuning
D201	BB515	UHF varicap audio modulation in VCO
D300, D505, D710	BAV99	General purpose diodes
D501, D502, D503, D652, D700, D703	BAV70	General purpose diodes
D602, D603	LED Red	Front panel indicators
D604, D606	5082-2800	SWR bridge RF detectors
Q151, Q402, Q601, Q602	BC847B	General purpose transistors
Q200	BFR93A	UHF oscillator in VCO tuning
Q301	DTA 144	Digital transistor
Q302	DTC144EC-A	Digital transistor
Q401	BC857B	General purpose transistors
Q501	BF994S	Gain control device in power block driver
Q502	2SK2973	Output stage of powerblock driver
Q651, Q701, Q702, Q703, Q704	BC847B	General purpose transistors
Q652, Q152	BD136	Series pass transistors for +10ps regulators
TCXO	TCXO	Temperature stable crystal oscillator reference
U101	TL074CD	Audio stage amplifiers
U151, U651	MC78L08ACD	8V regulators used as reference voltages
U152, U652	CA3140M	10V power supply regulator amplifier
U153	HA17805	5v regulator for uprocessor end phase lock loop IC
U302	AT89C2051-24SI	Microprocessor
U303,U304, U305	MM74HC165M	Shift registers for loading user settable parameters
U307	UMA1014T	Phase lock loop synthesizer
U308	TL071CD	Phase lock loop amplifier
U401	LT1054CS8	Voltage inverter for VCO negative supply
U601	M57704H	Output power block
U653	LM35DZ	Temperature monitor for power block protection
U701	MC14051BD	Analog Multiplexer for monitoring circuit
U702, U703	LM358M	Power control and SWR protection circuit amplifiers



Drwg. no. 28-2-0612-4



Drwg. no. 28-2-0612-4



NOTES:

1. Values shown thus * refer to table.
2. Options shown thus # are not released.
3. Sheet 4 is for EXICOM reference only. Sheet 4 is not to be issued.

BAND OPTIONS

	380-403MHz # (10)	403-423MHz (11)	410-430MHz (12)	430-450MHz # (13)	450-470MHz (14)	470-490MHz # (15)	480-500MHz # (9)	490-512MHz # (16)
C502	8p2	6p8	6p8	6p8	5p6	6p8	8p2	5p6
C515	2p2	2p2	2p2	1p8	1p5	1p0	1p0	0p8
C523	22p	18p	18p	22p	18p	18p	18p	18p
C621	2p7	2p7	2p7	2p7	3p3	3p3	3p3	3p3
C625	18p	18p	18p	18p	8p2	8p2	8p2	8p2
C631	2p7	2p7	2p7	2p7	nl	nl	nl	nl
C634	1p8	1p8	1p8	1p8	1p0	1p0	1p5	1p0
C636	3p3	4p7	4p7	3p3	4p7	3p3	4p7	3p3
C637	5p6	5p6	5p6	5p6	6p8	6p8	6p8	6p8
L501	Yfe+ferrite slug	Orng+brass slug	Orng+brass slug	Orng+brass slug	Orng+brass slug	Orng+brass slug	Orng+brass slug	Orng+brass slug
L502	11-4-2751	11-4-2724	11-4-2724	11-4-2724	11-4-2724	11-4-2724	11-4-2751	11-4-2751
L613	11-4-2757	11-4-2757	11-4-2757	11-4-2757	11-4-2725	11-4-2725	11-4-2757	11-4-2725
L615	11-4-2742	11-4-2742	11-4-2742	11-4-2742	11-4-2723	11-4-2723	11-4-2742	11-4-2723
L616	11-4-2725	11-4-2725	11-4-2725	11-4-2725	11-4-2742	11-4-2742	11-4-2742	11-4-2742
L617	11-4-2725	11-4-2725	11-4-2725	11-4-2725	11-4-2723	11-4-2723	11-4-2723	11-4-2723
L619	11-4-2744	11-4-2744	11-4-2744	11-4-2744	11-4-2743	11-4-2743	11-4-2743	11-4-2743
U601	M57704UL-01	M57704L-E20	M57704L-E20	M57704M	M57704H (8) EX2000 # U601 M57729H	M57704UH	M57704UH	M57704SH