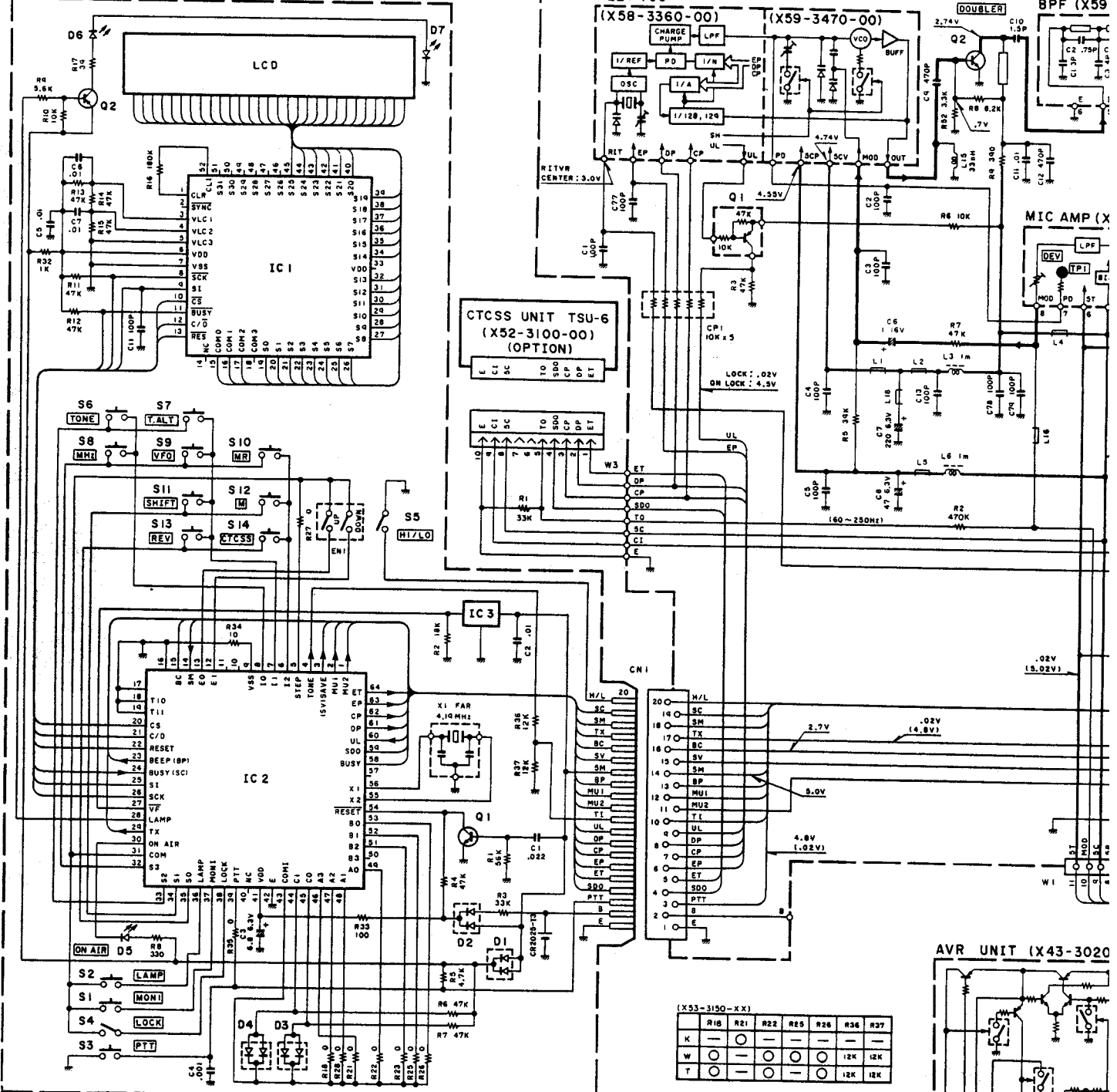


Signal line Control line Common DC line

CONTROL UNIT (X53-3150-11, 51, 61)

TX-RX UNIT (X57-3250-11, 61) (A/3)



- (X53-3150-XX)
 IC1 : LH5008TP
 IC2 : μ PD75108AG
 IC3 : S8054 ALR-LN
 Q1 : 2SC2712(Y)
 Q2 : 2SA1162(Y)
 D1, 2 : 1SS184
 D3, 4 : 1SS181

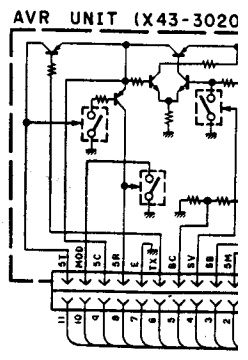
- (X57-3250-XX)
 IC1 : M57787
 IC2 : MD-004
 Q1 : DTA114YU
 Q2, 3, 5 : 2SC4093(R27)
 Q6, 7 : 2SC4095(R47.6)
 Q8 : 2SC3585(R44.3)
 Q9 : 2SC2714(O)
 Q10 : 2SJ144(GR)

- D1, 2, 6 : MA77
 D3 : DA204K
 D4 : HSM88AS
 D5 : MA110

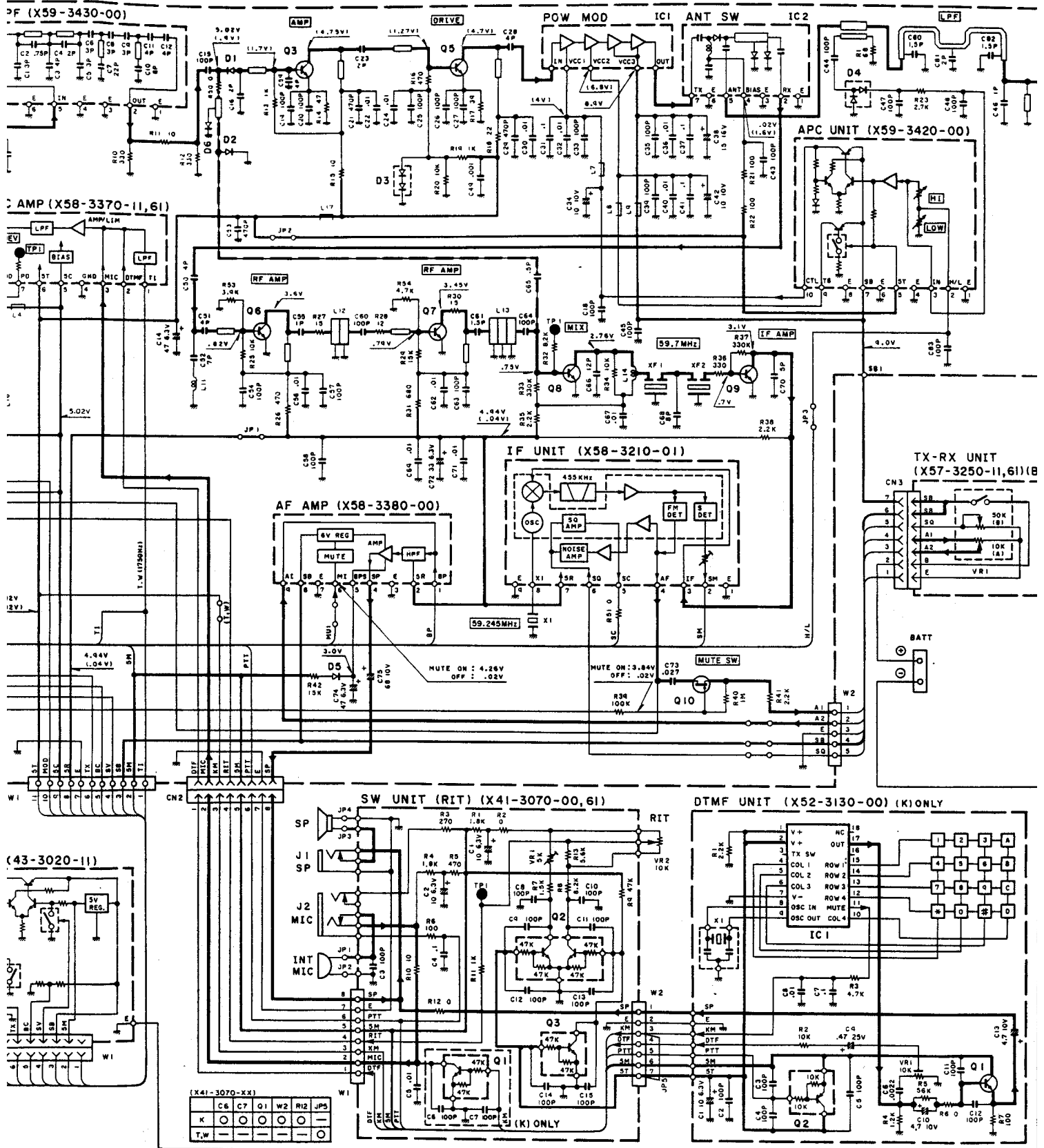
(X53-3150-XX)

R18	R21	R22	R25	R26	R36	R37
K	—	—	—	—	—	—
T	—	—	—	12K	12K	—
W	—	—	—	—	—	—

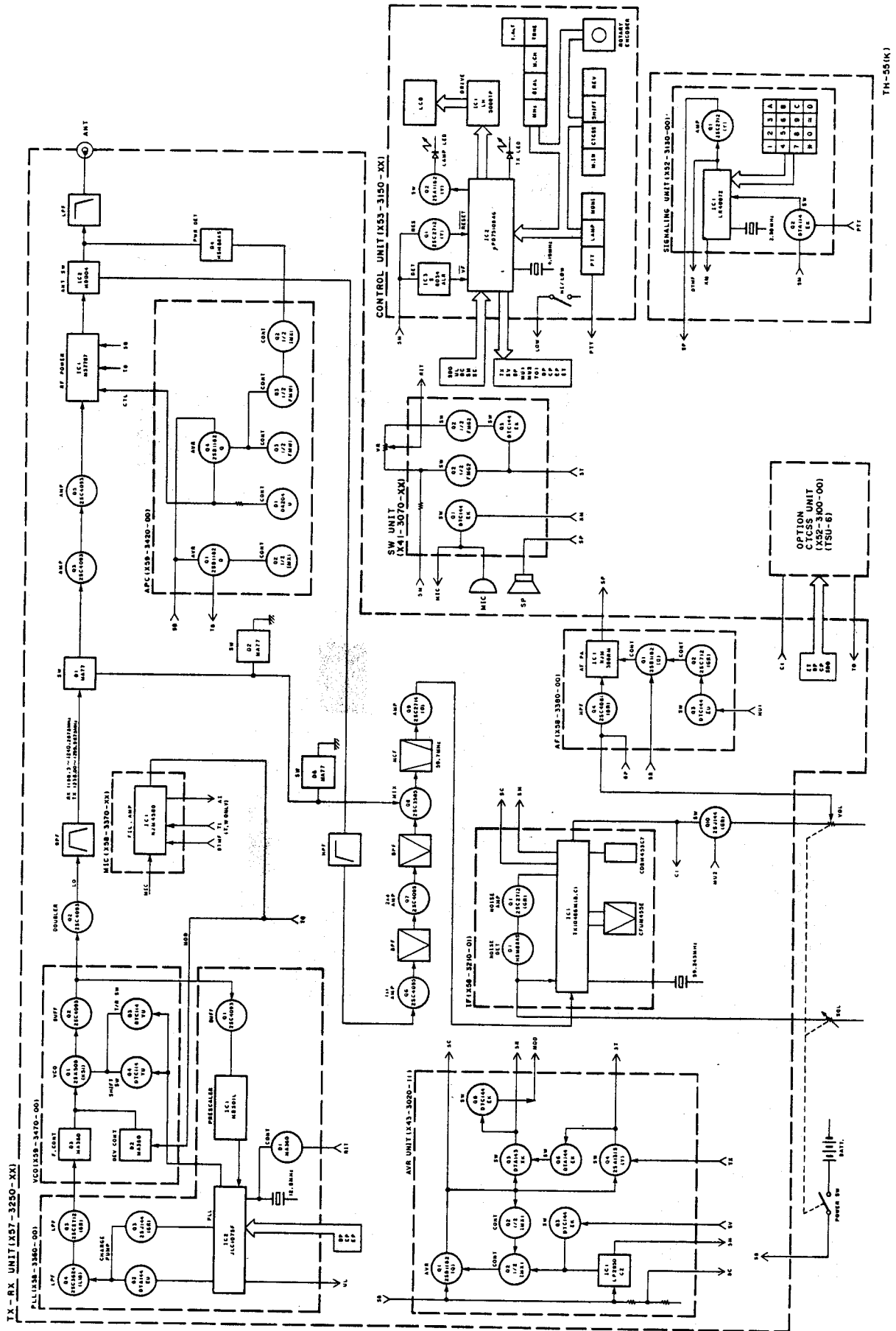
- (X41-3070-XX)
 Q1, 3 : DTC144EK
 Q2 : FMG2
 (X52-3130-00)
 IC1 : LR40872
 Q1 : 2SC2712(GR)
 Q2 : DTA114EK



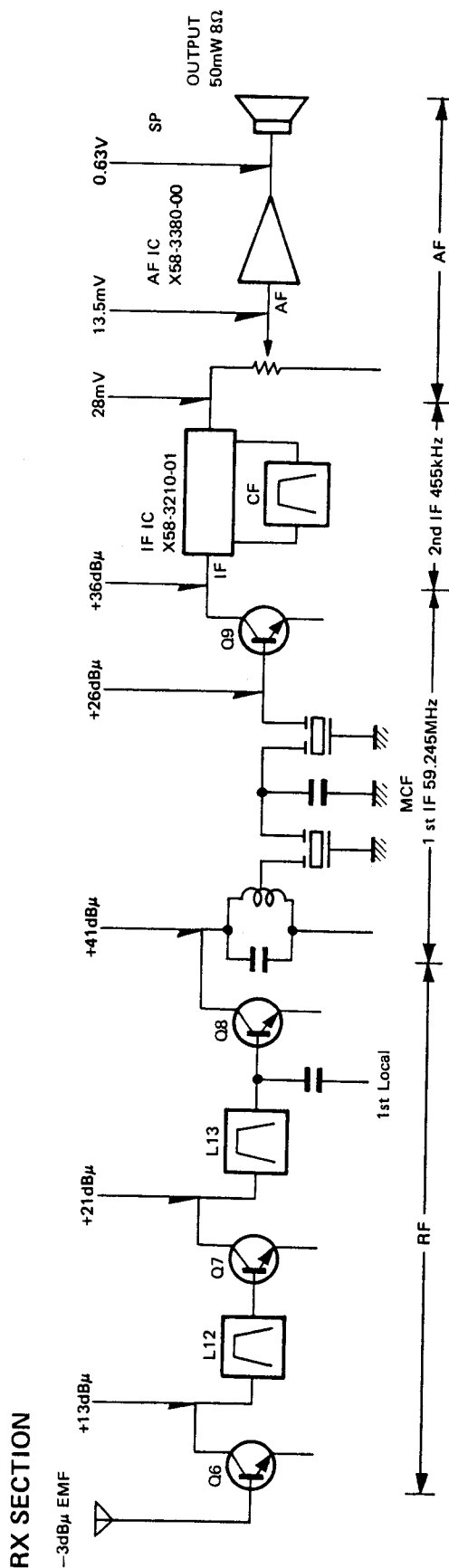
SCHEMATIC DIAGRAM TH-55AT



BLOCK DIAGRAM



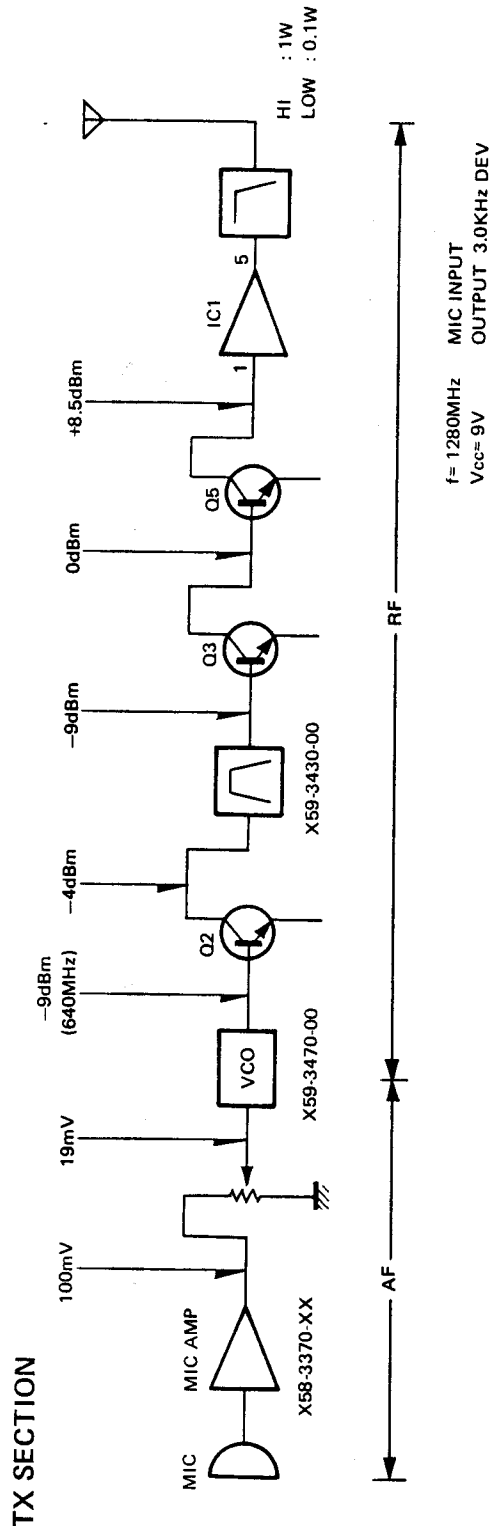
LEVEL DIAGRAM



$f = 1280\text{MHz}$
 $\text{MOD} = 1\text{kHz}$
 $\text{DEV} = 3\text{kHz}$

$C = 100\text{pF}$ (1μF for AF)

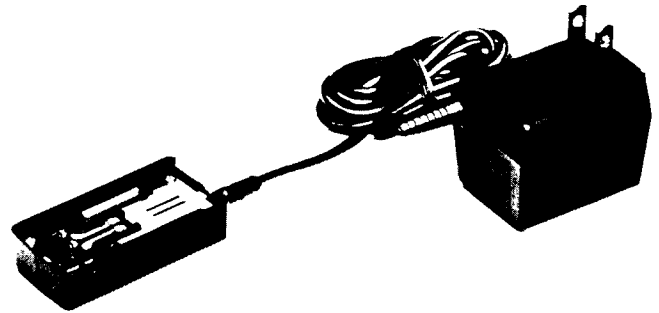
- The RF and IF signal levels are the levels that illuminate "SS" on the S-meter.
- The IF and AF injection points are the terminals on the Daughter board.



TERMINAL FUNCTIONS/BC-9 (BATTERY CHARGER)

Connector No.	Terminal No.	Terminal Name	Function
TX-RX UNIT (A/3) – CONTROL UNIT			
CN1	1	E	Ground.
	2	B	Not used.
	3	PTT	PTT SW signal. "L" : TX, "H" : RX.
	4	SDO	Tone signal match/mismatch identification signal.
	5	ET	Tone enable.
	6	EP	PLL enable.
	7	CP	Clock signal.
	8	DP	PLL tone serial data.
	9	UL	PLL unlock signal.
	10	TI	1750Hz tone signal. TH-55E
	11	MU2	Mute signal. "H" : Mute.
	12	MU1	Mute signal. "H" : Mute.
	13	BP	Beep signal.
	14	5M	5V power supply for MUP and MIC.
	15	SV	SAVE signal output. "L" : Save, "H" : Normal.
	16	BC	Battery voltage check signal.
	17	TX	Transmit/receive switching signal. "L" : TX, "H" : RX.
	18	SM	S-meter signal.
	19	SC	Busy signal.
	20	H/L	High/Low power switching signal.
TX-RX UNIT (A/3) – TSU-6			
W3	1	ET	Tone enable.
	2	DT	Tone serial data.
	3	CT	Clock signal.
	4	SDO	Tone signal match/mismatch identification signal.
	5	TO	Tone output.
	6	PTT	Not used.
	7	CO	Not used.
	8	5C	5V power supply.
	9	CI	Audio signal input.
	10	E	Ground.
TX-RX UNIT (A/3) – SWITCH UNIT			
CN2	1	DTMF	DTMF signal. TH-55AT
	2	MIC	Signal line from microphone.
	3	KM	MIC mute signal.
	4	RIT	RIT voltage.
	5	5M	5V power supply for MUP and MIC.
	6	PTT	External standby line.
	7	E	Ground.
	8	SP	Signal line to built in speaker.
TX-RX UNIT (A/3) – TX-RX UNIT (B/3)			
W2	1	A1	AF volume input line.
	2	A2	AF amplifier input line.
	3	E	Ground.
	4	SB	B power supply after power switch.
	5	SQ	Squelch volume input line.
TX-RX UNIT (A/3) – AVR UNIT			
W1	1	TI	Not used.
	2	5M	5V power supply for MPU and MIC.
	3	SB	B power supply after power switch.
	4	SV	Battery save signal.
	5	BC	Battery voltage check signal.
	6	TX	Transmit signal.
	7	E	Ground.
	8	5C	Common 5V power supply.
	9	5R	5V power supply for receive.
	10	MOD	Not used.
	11	5T	5V power supply for transmit.

BC-9 EXTERNAL VIEW



BC-9 PARTS LIST

* : New Parts

Ref. No.	New Parts	Parts No.	Description
		A02-0814-03	Case (Charge adapter)
		A40-0622-04	Bottom plate
		B42-3301-04	Label (LA) (K)
		E23-0494-04	Terminal ⊖
		E23-0605-04	Terminal ⊕
		G13-0852-04	Cushion
		J19-1426-03	Terminal holder