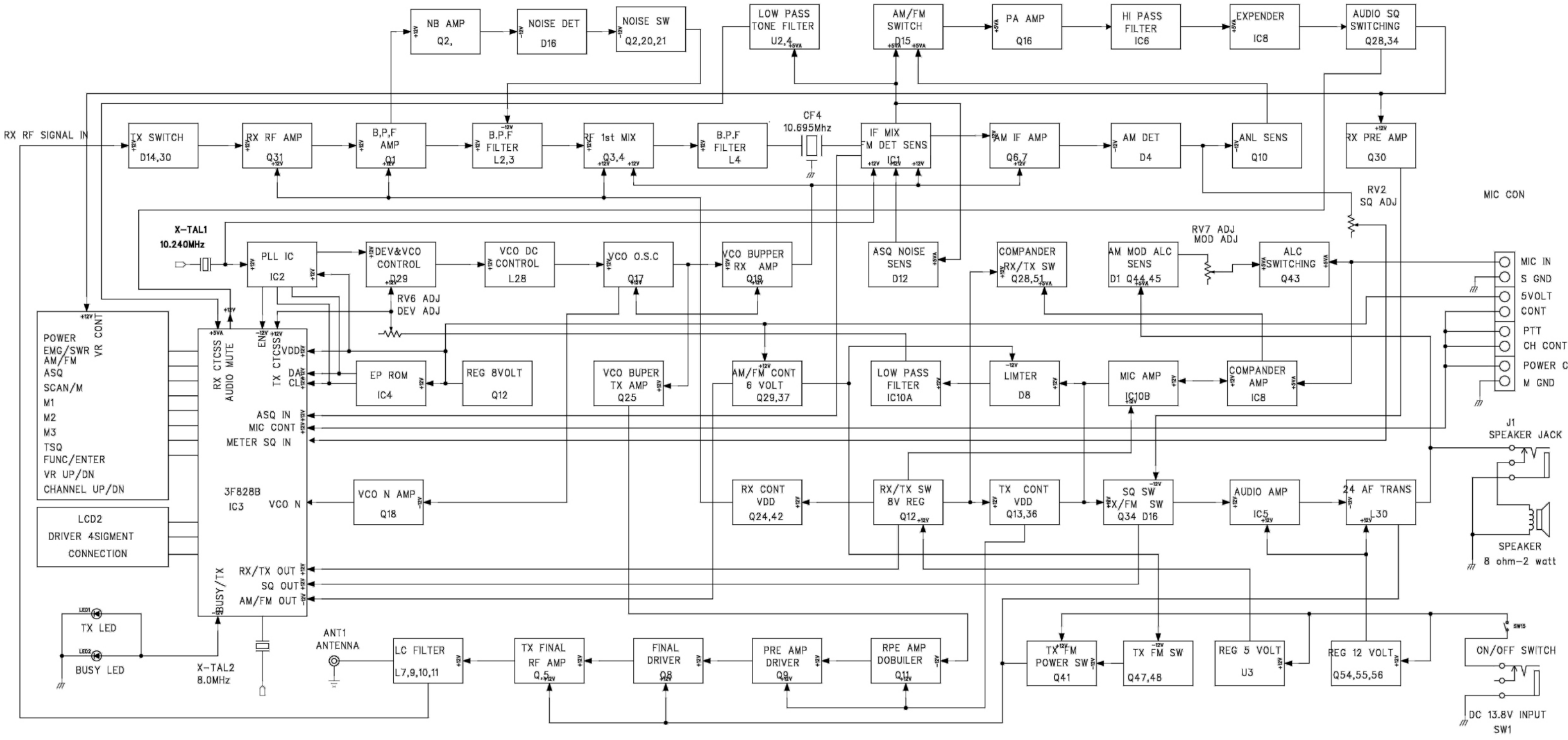
VECTOR VT-27
Explorer / Navigator

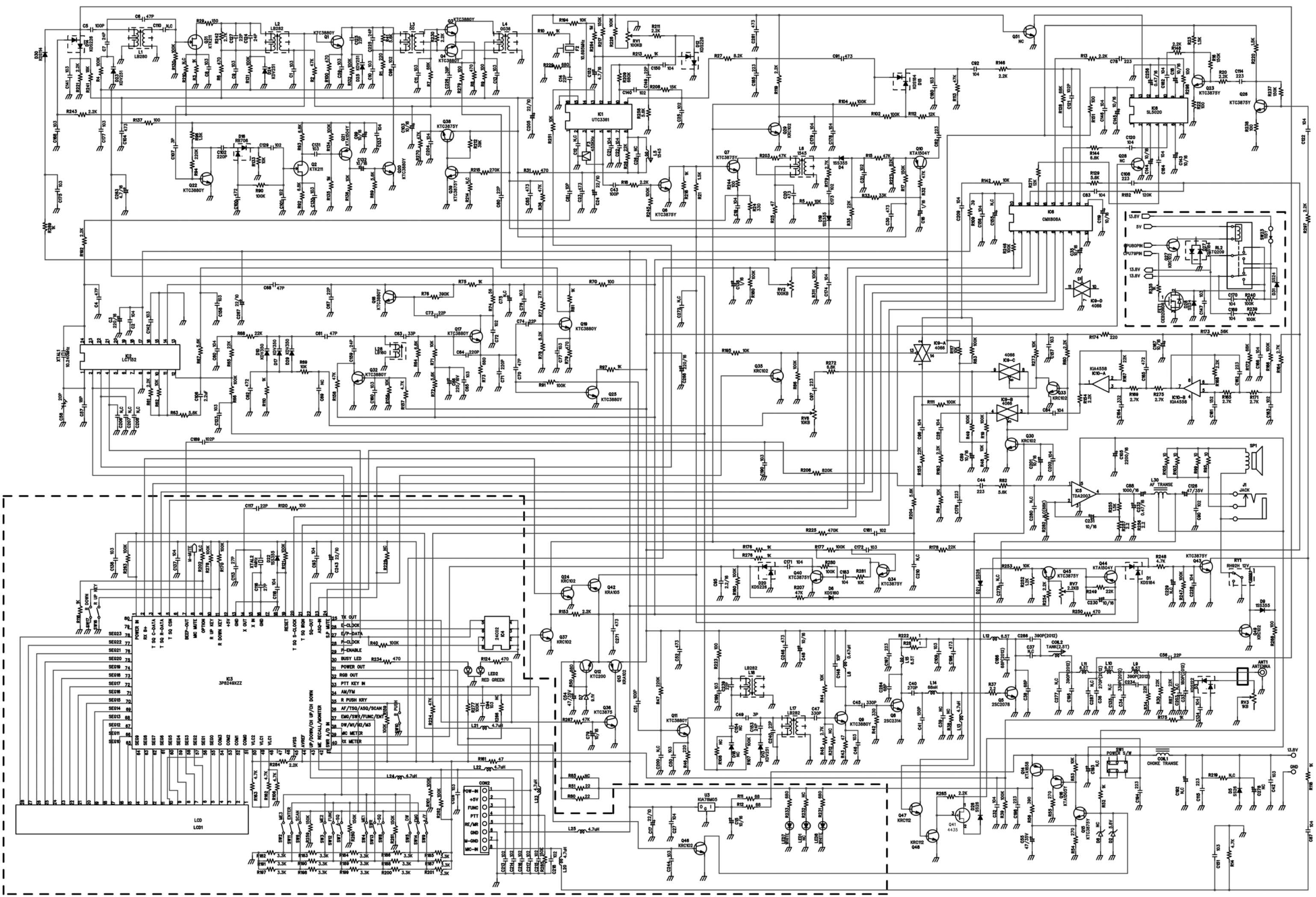
Service manual

2009

ЧЕГЕТ_35

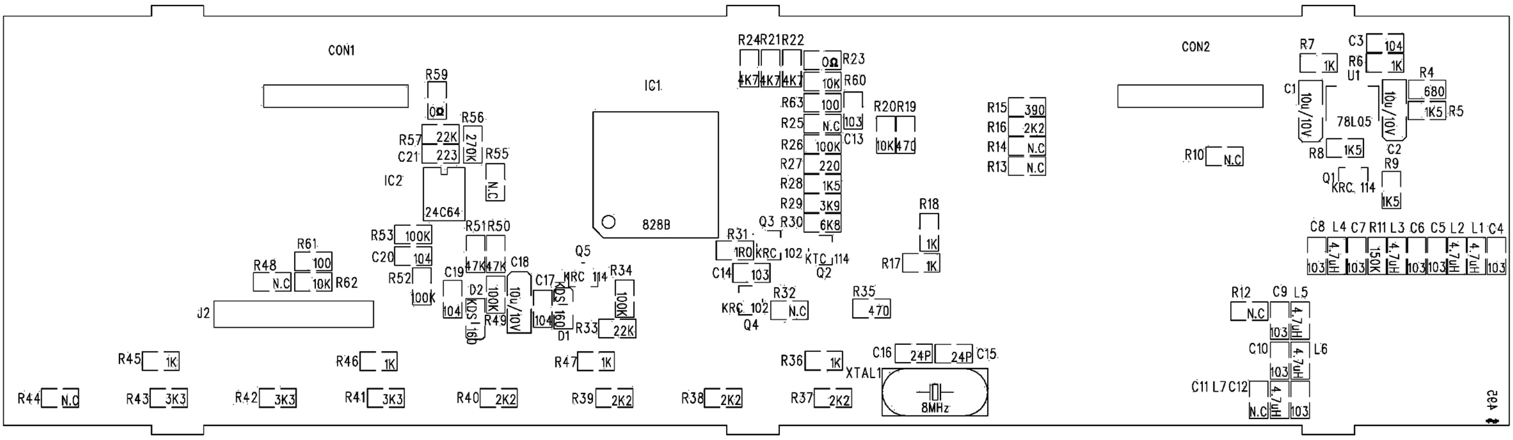
VT-27 Explorer/Navigator
BLOCK DIAGRAM



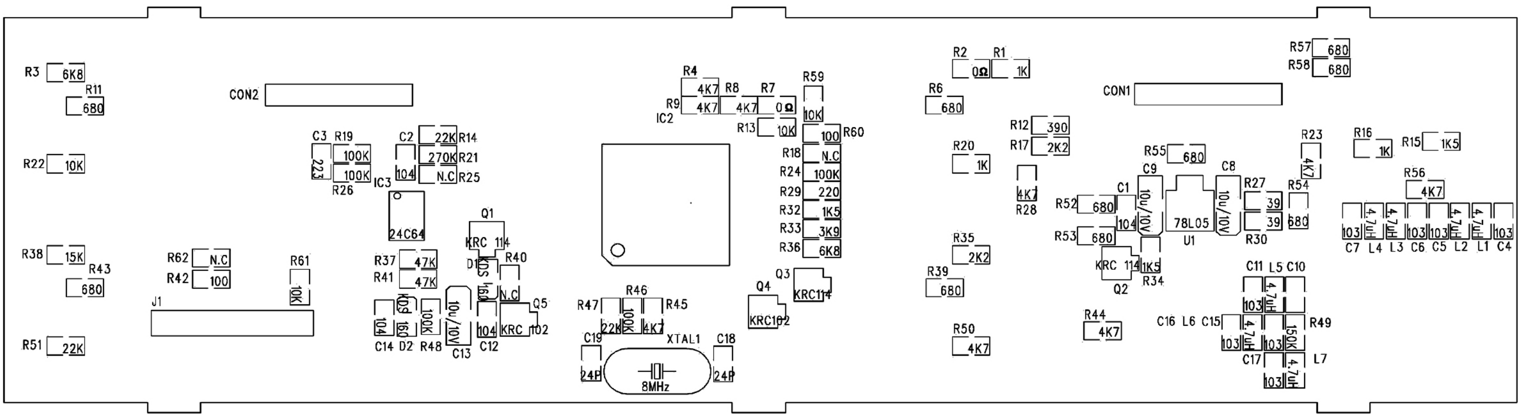


IC1 UTC3361
IC2 LC7152
IC3 3P8249XZZ
IC4 24C02
IC5 TDA2003
IC6 CMX808A
IC8 SL5020
IC9-A 4066
IC9-B 4066
IC9-C 4066
IC9-D 4066
IC10-A KIA4558
IC10-B KIA4558
U3 KIA78M05
XTAL1 10.240MHz
F2 10.695MHz
RL2 ST0209
RY1 RH92H 12V
LED2 RED GREEN
LCD LCD1
CON2
POW-IN
+5V
FUNC
PTT
RE/MR
GND
M-GND
MIC-IN
SP1
J1 JACK
L30 AF TRANSE
ANT1 ANTENNA
SW1 POWER S/W
COIL1 CHOKE TRANSE
13.8V
GND
5V
CPU80PIN
CPU79PIN
TX OUT
E-CLOCK
E/P-DATA
P-CLOCK
P-ENABLE
BUSY LED
POWER OUT
RGB OUT
PTT KEY IN
AM/FM
R PUSH KEY
AF/TSQ/ASQ/SCAN
EMG/SWR/FUNC/ENT
DW/M1/M2/M3
MIC METER
RX METER
POWER IN
RX B+
T SQ C-DATA
T SQ R-DATA
T SQ CSN
BEEP-OUT
MIC MUTE
OPTION
R UP KEY
R DOWN KEY
X OUT
X IN
RESET
T SQ S-CLOCK
T SQ MON
ASQ-IN
SQ-OUT
SLP MUTE
UP/DOWN/CH UP/CH DOWN
MIC RECALL/MONITER
SWR A/D IN
AVREF
AVSS
SEG23
SEG22
SEG21
SEG20
SEG19
SEG18
SEG17
SEG16
SEG15
SEG14
SEG13
SEG12
SEG11
SEG10

FRONT PCB

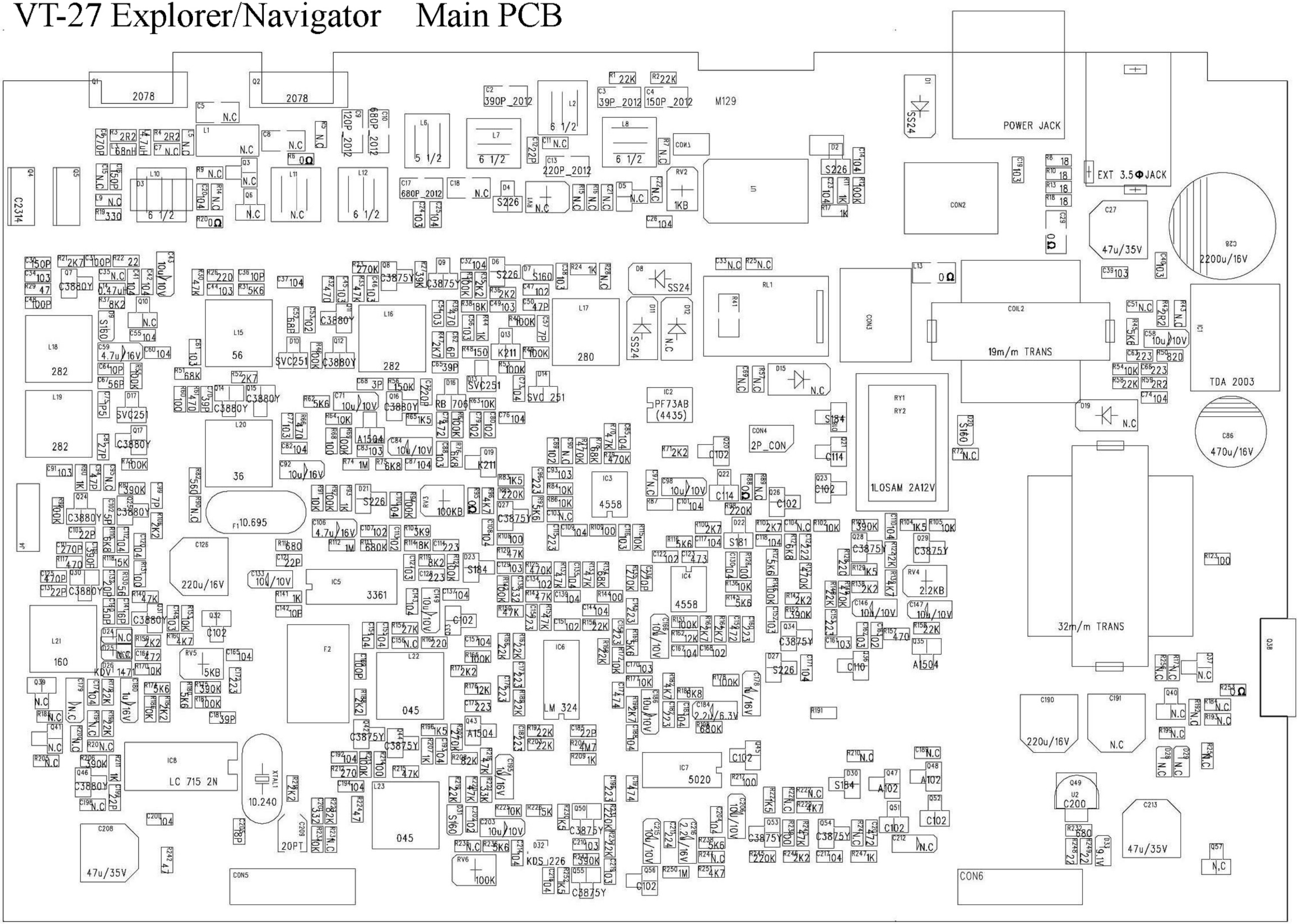


VT-27 Navigator



VT-27 Explorer

VT-27 Explorer/Navigator Main PCB



PARTS LIST

MODEL : VT-27 NAVIGATOR/EXPLORER

MAIN SMD

	Part Name	Value	Reference	Qty	REMARK
CAPACITOR	Ceramic Capacitor(0608)	1.5P	C73,	1	
		3p	C66,	1	
		5p	C103,	1	
		6p	C59,	1	
		7p	C98,	1	
		8p	C35.C61,	2	
		10p	C33,C107,C143,	3	
		18p	C207,	1	
		20p	C133	1	
		22p	C132,C201,C123,C188,C.,	5	
		24p	C142,	1	
		27p	C80,	1	
		39p	C184,C68,C62	3	
		47p	C93,C47,C54,	3	
		56p	C65,	1	
		68p	C49,	1	
		100p	C20,C45,C171,	3	
		150p	C141,C15,	2	
		220p	C70,C137,	2	
		270p	C113,C16,	2	
		330p	C21,	1	
		390p	C121,	1	
		470p	C126,	1	
		1000p 1nF(102)	C203,C115,C78,C79,C110,C50,C44,C153,C135,C124,C169,C	12	
		3300p 3.3nF(332)	C139,	1	
		4700p 4.7nF(472)	C166,C77,C162,	3	
		10000p 10nF(103)	c28,C41,C58,C90,C149,C128,C87,C76,C42,C51,	23	
			C154,C164,C36,C37,C14,C23,C24,C25,C46,C35,C130,C172,		
		22nF 223(0.022uF)	C204,C129,C116,C151,C178,C179,C190,C175,C152	18	
			C156,C163,C60,C64,,C185,C161,C146,C117,C95		
		47nF 473(0.047uF)	C125,	1	

	Part Name	Value	Reference	Qty	REMARK

		100nF 104(0.1uF)	C38,C39,C52,C114,C122,C174,C177,C202,C197,C195,C157	51	
			C138,C99,C111,C86,C74,C71,C81,C30,C136,C199,C191,		
			C119,C84,C63,C67,C92,C120,C105,C102,C106,C131,		
			C25,C.,C.,C.,C34,C57,C140,,C158,C160,C144C180,C186,		
			C168,C173,C212,C206,C31C145,C112		
	Trimmer Capacitor	20P, 3PIE(CHIP)	C216,	1	
	Ceramic Capacitor(0805)	68P		1	
		680P		2	
		390P		1	
		270P		1	
		39P		1	
		150P		1	
TANTALUM	TANTALUM	2.2µF/16V "A"(CHIP)	C183,C218,C187,C181,	4	
		0.47µF/16V "A"(CHIP)			
		1µF/16V "A"(CHIP)	C198,	1	
		4.7µF/16V "A"(CHIP)	C56,C109	2	
		10µF/16V "A"(CHIP)	C40,C91,C150,C83,C217,C209,C214,C189,	16	
			C167,C97,C147,C148,C208,C55,C134,C69		
		22µF/10V "B2"(CHIP)			
		20P, 3PIE(CHIP)	C216,	1	
		47µF/35v (CHIP)	C215,C220,C26	3	
		220µF/16V	C127,C193	2	
inductor	Inductor Coil	100NH, 1608(CHIP)	L.,	1	
		0.47uH, 1608(CHIP)	L14	1	
		4.7uH, 1608(CHIP)	L.,	1	
	Part Name	Value	Reference	Qty	REMARK

	Part Name	Value	Reference	Qty	REMARK
DIODE	Switching Diode	1SS355, USC(CHIP)			
	Switching Diode	KDS114,SOT-23 (CHIP)			
	Switching Diode	KDS160, USC(CHIP)	D7,D31,D9	3	
	Switching Diode	KDS181, SOT-23(CHIP)	D23	1	
	Switching Diode	KDS184, SOT-23(CHIP)	D24,D18,	2	
	Rectifier Diode	KDS 226, SOT-23(CHIP)	D6,D21,D?,D28	4	
	Schottky Diode	SS24(CHIP)	D11,D12,D8,D??,D15,D19	7	
	Schottky Diode	RB706F UMD3(CHIP)	D16,	1	
	V.V.C Diode	KDV251, SOT-23(CHIP)	D17,D10,D14,D13,	5	
	Zener Diode	KDV350(CHIP)	D25,D26,D27	3	
	Zener Diode	ZD9.1B, USC(CHIP)	D33,	1	
	Zener Diode	ZD9.1B, USC(CHIP)	D33,	1	
IC	Analog Switch IC	LM324(CHIP)	IC6	1	
	Comparator IC	SL5020(CHIP)	IC7	1	
	IF DET IC	LM3361(CHIP)	IC3	1	
	OP Amp IC	KIA4558(CHIP)	IC3,IC4	2	
	PLL IC	LC7152 (CHIP)	IC8,	1	
	Adio IC	TDA2003(CHIP)	IC1	1	
	FET	PF73AB(4435)	IC2	1	
	CPU IC	S838B(CHIP)	F	1	
	EEPROM IC	24C64(CHIP)	F	1	
	Regulator IC	KIA78L05F SOT-89(CHIP)	F	1	
PCB	PCB	MAIN PCB	PCB1	1	

	Part Name	Value	Reference	Qty	REMARK
Resistor	Resistor (1608)	0 ohm, 1/10W, 1603(CHIP)	R207,	1	
		1, ohm, 1/10W, 1603(CHIP)	??	2	
		2.2 ohm, 1/10W, 1603(CHIP)	??, R42,	3	
		10 ohm, 1/10W, 1603(CHIP)			
		18 ohm, 1/10W, 1603(CHIP)	????	4	
		22 ohm, 1/10W, 1603(CHIP)	R247,	1	
		39 ohm, 1/10W, 1603(CHIP)			
		47 ohm, 1/10W, 1603(CHIP)	R26.R239,R222	3	
		56 ohm, 1/10W, 1603(CHIP)	R128,	1	
		68 ohm, 1/10W, 1603(CHIP)			
		100 ohm, 1/10W, 1603(CHIP)	R22,R129,R60,R68,R110,R103,R141,R211,R120,R215,R123	11	
		150 ohm, 1/10W, 1603(CHIP)	R48,	1	
		220 ohm, 1/10W, 1603(CHIP)	R27,R158,R126,	3	
		270 ohm, 1/10W, 1603(CHIP)	R209,	1	
		330 ohm, 1/10W, 1603(CHIP)	R17,	1	
		390 ohm, 1/10W, 1603(CHIP)			
		470 ohm, 1/10W, 1603(CHIP)	R113,R61,R33,R40,R66,	5	
		560ohm, 1/10W, 1603(CHIP)	R84,	1	
		680 ohm, 1/10W, 1603(CHIP)	R106,R230,	2	
		820 ohm, 1/10W, 1603(CHIP)	R50,	1	
		1 Kohm, 1/10W, 1603(CHIP)	R82,R208,R44,R24,R89,R138,R205,R203,R19,?,	10	
		1.2 Kohm, 1/10W, 1603(CHIP)			
		1.5 Kohm, 1/10W, 1603(CHIP)	R65,R86,R80,R190,R249,R100,R127,	7	
		2.2 Kohm, 1/10W, 1603(CHIP)	R?,R156,R184,R36,R37,R90,R169,R185,R187,R135,R144,R7	12	
		2.7 Kohm, 1/10W, 1603(CHIP)	R30,R52,R102,R160,R161,R104,R97,	7	
		3.3 Kohm, 1/10W, 1603(CHIP)			
		4.7 Kohm, 1/10W, 1603(CHIP)	R157,R29,R101,R111,R216,R179,R136,	7	
		5.6 Kohm, 1/10W, 1603(CHIP)	R172,R177,R47,R62,R96,R45,R235,R167,R112,R124,R142,	11	
		6.8 Kohm, 1/10W, 1603(CHIP)	R105,R76,R75,R180,	4	
		8.2 Kohm, 1/10W, 1603(CHIP)			
		10 Kohm, 1/10W, 1603(CHIP)	R38,R150,R168,R183,R25,R64,R87,R91,R231,	18	
			R134,R63,R5,R67,R59,R170,R174,R98,R101		
		12 Kohm, 1/10W, 1603(CHIP)	R115,R173,R159,R119,R145,	5	
		15 Kohm, 1/10W, 1603(CHIP)	R114,R224,	2	
		18 Kohm, 1/10W, 1603(CHIP)	R39	1	
		22 Kohm, 1/10W, 1603(CHIP)	R32.R164,R165,R186,R191,R199,R217,R166,R153,?,?,R156	12	

Resistor	Resistor (1608)	27 Kohm, 1/10W, 1603(CHIP)	R109,R117,	2	
		33 Kohm, 1/10W, 1603(CHIP)	R219,	1	
		39 Kohm, 1/10W, 1603(CHIP)	R28,	1	
		47 Kohm, 1/10W, 1603(CHIP)	R31,R137,R34,R116,R131,R130,R140,R152,	17	
			R246,R118,R70,R147,R151,R212,R213,R218,R223,		
		56Kohm, 1/10W, 1603(CHIP)			
		68Kohm, 1/10W, 1603(CHIP)	R51,R152,R78	3	
		82Kohm, 1/10W, 1603(CHIP)	R204	1	
		100 Kohm, 1/10W, 1603(CHIP	R94,R178,R35,R49,R41,R67,R69,R100,R139,R121,	18	
			R143,R46,R163,R210,R221,R53,R175,R148,		
		150 Kohm, 1/10W, 1603(CHIP	R56,R88,C155,	3	
		220 Kohm, 1/10W, 1603(CHIP	R73,R85,R133,R214,R92,	5	
		270 Kohm, 1/10W, 1603(CHIP	R23,R198,	2	
		390 Kohm, 1/10W, 1603(CHIP	R83,R202,R99,R149,	4	
		470 Kohm, 1/10W, 1603(CHIP	R122,R146,R125,R77,R79,	5	
		680 Kohm, 1/10W, 1603(CHIP	R108,R156,R184,R36,R37,R90,R192,	7	
		1 Mohm, 1/10W, 1603(CHIP)	R74,R107,R242,	3	
		2.2Mohm 1/10W, 1603(CHIP)			
		4.7Mohm 1/10W, 1603(CHIP)	R200,	1	

	Part Name	Value	Reference	Qty	REMARK
Transistor	Transistor	KTA1504Y, SOT-23(CHIP)	Q43,Q35,Q18	3	
		KTA1505Y, SOT-23(CHIP)			
		KRC112, SOT-23(CHIP)			
		KRA102, SOT-23(CHIP)	Q47,Q48	2	
		KRA105, SOT-23(CHIP)			
		KTC3880Y, SOT-23(CHIP)	Q7,Q14,Q15,Q17,Q26,Q24,Q30,Q31,Q46,Q11,Q12,Q16	12	
		KTC3875Y, SOT-23(CHIP)	Q10,Q8,Q9,Q27,Q42,Q44,Q55,Q50,Q29,Q34,Q52,Q28	12	
		KRC102 SOT-23(CHIP)	Q32,Q33,Q21,Q19,Q25,Q45,Q51,Q54,Q53	9	
		KRC110 SOT-23(CHIP)	Q36,	1	
		KTK211SOT-23(CHIP)	Q13,Q22,	2	
		FETP, 4435			
		KTC200,	Q49	1	
		KTA1658(CHIP)			
		SSC114 SOT-23(CHIP)	Q20,Q23,	2	
		2SC2314(CHIP)	Q4,	1	
		2SC2078	Q1,Q2	2	

		2.2KB 3PIE(chip)	RV4	1	
		10KB 3PIE(chip)	RV2	1	
Semi Volume	Semi Volume	100KB 3PIE(chip)	RV3	1	
		5KB 3PIE(chip)	RV5,	1	
		50KB 3PIE(chip)	RV6	1	
MAIN Manual					
	ELECT Capacitor	470μF/16V	C85,	1	
	ELECT Capacitor	1000μF/16V		1	
	ELECT Capacitor	2200μF/16V	C?	1	
	IFT	LB280	L16	1	
	IFT	LB282	L19,L18,L20	3	
	IFT	56	L15	1	
	IFT	36	L21	1	
	IFT	1545	L23,L24	2	
	IFT	LB160	L22	1	
	Spring Coil	0.8X5PIEX6.5T	L1,L2,L4,L5,L6	5	
	Spring Coil	0.8X5PIEX5.5T	L3	1	
	Chock Trans	19mm	MY1	1	
	Part Name	Value	Reference	Qty	REMARK
	AF Trans	32m/m	COIL1	1	
	Transistor	2SC2078	Q1,Q2	2	Fixed to Back Chassis
MAIN (Manua	Relay	ILOSAM 2A 12V	RY1	1	
	Crystal	10.2400MHz HC-49/S 30ppm,	XTAL1	1	
	X-TAL Filter	10.695MHz	F1	1	
	CeramicFilter	455KHzHTW	F2	1	
	Discriminator				
	Transistor	2SC2314	Q49	1	
	Transistor	KTC200	Q49	1	
	EXT Jack	3.5 PIE JI		1	
	DC JACK	3.5 PIE J2		1	
	Speaker con	2P 2.0Pich	CON6	1	Connected to speaker
	Ant pcb			1	Fixed to Ant Connector
	power con	2p		1	Option (Power Cord ON Bord)
	con	7p dule		2	on Front ass'y
	CON	2P		4	Back Chassis & GND
	CON	3P	J5	1	Option for Output power
	Metal JUMP			1	Insert to 3P CON

FRONT SMD(C-4)					
	Part Name	Value	Reference	Qty	REMARK
S M D	Ceramic Capacitor	10P, CH, D,1608(CHIP)			
	Ceramic Capacitor	24P, CH, J,1608(CHIP)	C19,C20		
	Ceramic Capacitor	0.001μF, CH, J,1608(CHIP)			
	Ceramic Capacitor	0.01μF, K,1608(CHIP)	C8,C9,C10,C11,C12,C18,C21,C6,		
	Ceramic Capacitor	0.1μF, Z,1608(CHIP)	C15,C16		
	Tantalum Capacitor	10μF/16V "A"(CHIP)	C4,C17		
	Tantalum Capacitor	22μF/6V "A"(CHIP)			
	Inductor Coil	4.7uH, 1608(CHIP)	L2,L3,L4,L5,L6,L7,L1,		
	Switching Diode	S160, USC(CHIP)	D1,D2		
	CPU IC	S838B(CHIP)	IC1,		
	EEPROM IC	24C64(CHIP)	IC2		
	Regulator IC	KIA78L05F SOT-89(CHIP)	IC3		
	Transistor	KRC102 SOT-23(CHIP)			
	Transistor	KRC110 SOT-23(CHIP)			
	Transistor	KRC112 SOT-23(CHIP)			
	Resistor	47 ohm, 1/10W, 1603(CHIP)			
	Resistor	68 ohm, 1/10W, 1603(CHIP)			
	Resistor	100 ohm, 1/10W, 1603(CHIP)			
	Resistor	470 ohm, 1/10W, 1603(CHIP)			
	Resistor	680 ohm, 1/10W, 1603(CHIP)			
	Resistor	1 Kohm, 1/10W, 1603(CHIP)			
	Resistor	2.2 Kohm, 1/10W, 1603(CHIP)			
	Resistor	3.3Kohm, 1/10W, 1603(CHIP)			
	Resistor	4.7 Kohm, 1/10W, 1603(CHIP)			
	Resistor	47 Kohm, 1/10W, 1603(CHIP)			
	Resistor	100 Kohm, 1/10W, 1603(CHIP)			
	Resistor	150 Kohm, 1/10W, 1603(CHIP)			
	Tact switch	DT-1101AS		12	
	PCB	FRONT PCB		1	
	LED (Chip)	BLUE (		5	

	Part Name	Value	Reference	Qty	REMARK
	LCD	For C-4 LCD(S4P8121A)		1	

Manual	con	7p*dule		2	On Main bord
	LED LEMP	RED/GREEN 3PIE(DUAL)	3RG9HWA	1	
	LED LEMP	3PIE(WHITH) 30MU	3W4SC	2	
	Puse Switch(Lock)	DP-2212		1	
	Modular Jack	657PT-8 (SAK)		1	
	Crystal	8MHz HC-49/S 30ppm CL:18pF		1	
	Reflector	Acryl (x8T) White Splay		1	Double face TAPE affixed
	CH Selector VR	push -5p		1	
Ass'y	Rotery SW IN KNOB	CH Selector VR		1	Double face TAPE affixed
	Rotery SW OUT KNOB	CH Selector VR		1	Spring inserted
	Push KNOB	POWER SW		1	
	KEY KNOB	8P ARRAY		1	
	KEY KNOB	2P ARRAY (Func, Enter)		1	
	KEY KNOB	2P ARRAY (EMG,PIE/SWR)		1	
	BEZEL	사출		1	
	WINDOW	양면테이프 작업포함		1	Double face TAPE affixed

SET 조립

Preparation	Mica Sheet	For 2SC2078		2	
	Bushing	For 2SC2078		2	
	Spaker	SP,8 ohm/3W		1	
	ANT Jack			1	Including lug and nut
	T.R Mica Sheet	For 2SC2078		2	
	Bushing			2	
	Bind Head M/S	3*6 (white plated)		7	PCB-4, TR -2, Audio ic -1
	Bind Head M/S	2.6*6 (white Plated)		4	Back Shassis -4
	Bind Head M/S	3*6 (Black Plated)		12	COVER - 8, Speaker - 4
	Flat Head M/S	3*5 (Black Plated)		4	FRONT Panel - 4
	HEX NUT	M3		7	TR -2, Speaker-4, Audio ic-1
	Top Cover			1	
	Bottom Cover			1	
	Side Chassis (L)			1	
	Side Chassis (R)			1	
	Back Chassis			1	
Preparation	Wire Harness			1	Speaker Wire
	Cord Stopper				Option
	Speaker Felt			1	

	Cover Felt			4	Affiexd on TOP & BOTTOM COVER
	Spring Washer			4	SP - 4

MIC ASS'Y

	Part Name	Value	Reference	Qty	REMARK
S M D	JOYSTIC SW			1	
	TACT SW	IT-1200		2	
	CHIP LED	BLUE	17-21/BHC/E	4	
	Resistor	680 ohm, 1/10W, 1603(CHIP)	R229,230,231,233	4	
	Resistor	4.7 Kohm, 1/10W, 1603(CHIP)	R224,225,226,227,228	5	
	PCB	MIC PCB		1	
Manual	Unit	MIC unit 32 Ohm		1	
	Connector	2PIN Connector		1	
		8PIN Connector		1	
	TACT SW	DT-1101AS	PTT(KFC-WA3.85)	1	
Ass'y	Wire Harness	40mm 2PIN 2.0mm		1	
	Curl Cord	8PIN MOLD	8pin	1	
	PTT Knob			1	
	POWER Knob			1	
	MS/OSQ Knob			1	
	JOYSTIC SW Knob			1	
	MIC Front Cover			1	
	MIC Back Cover			1	
	Magnet		3t	1	On Back cover
	Ring		2.5t	1	On Back cover
	MIC B,K,T			1	On Back cover
	PTT Cap			1	On PTT Knob
	JOYSTIC SW Cap			1	On JOYSTIC SW Knob
	SCREW	Pan Head T/S 1종	2.6*12	2	
		Flat Head T/S 1종	2.6*12	1	
	COUTION			2	Lighting protection
	UL BOND				Magnet
Packing	Tie band		40mm	1	
	MIC POLY BAG		150*100	1	

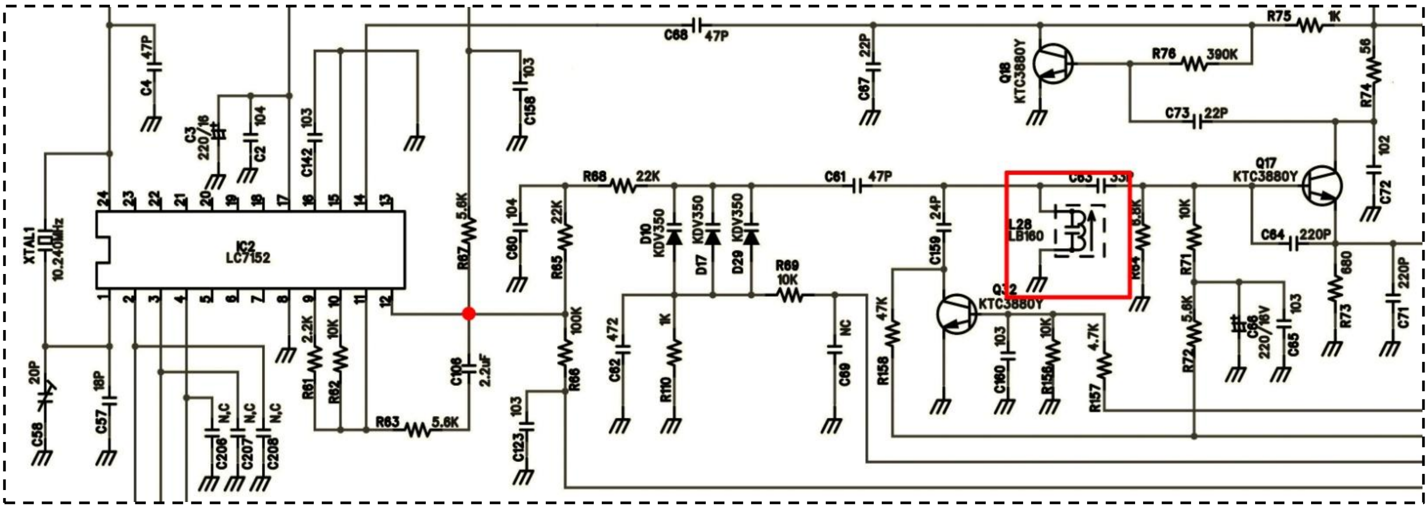
Packing

Packing					
		SET ASS"y		1	
		MIC ASS"y		1	
		SET POLY BAG		1	
		Mounting B,K,T		1	
		Power Cord	1.6M*2.5T*3.50	1	
		Manual		1	
	ACC'Y	FUSE	32V 5A	1	
		Truss Head T/S 1종		2	
		Rubber Washer	5X12 BLACK	2	
		Flat Washer	OD15XID5.0X0.5T BLACK	2	
		Mounting Screw	OD12XID5.2X0.5T BLACK	2	
		ACC"y POLY BAG	100*60	1	
		C/T BOX	10 PCS IN		
		G/T BOX		1	
		INNER Pad		1	

How to adjust

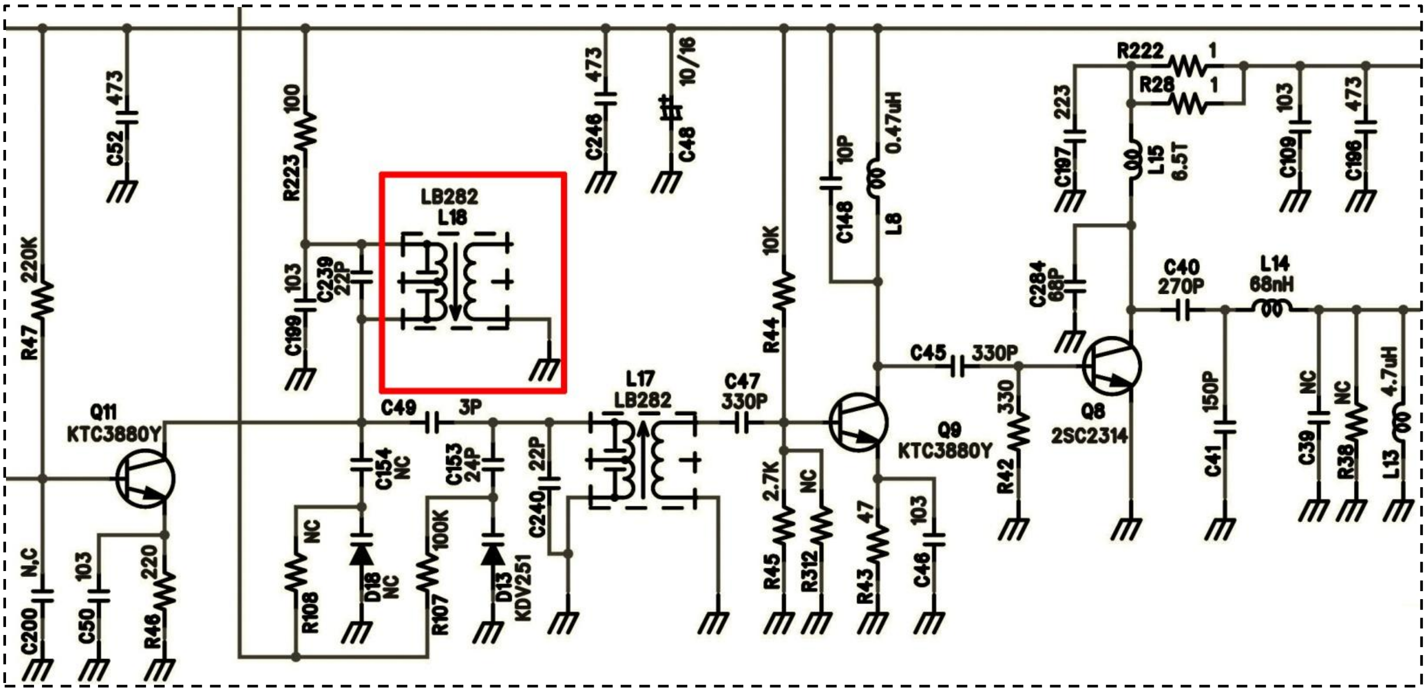
VCO

1. Adjust IFT Coil (L28) to get 0.8 volt at pin no. 12 of PLL IC (IC7152).
   Band-A, CH-1

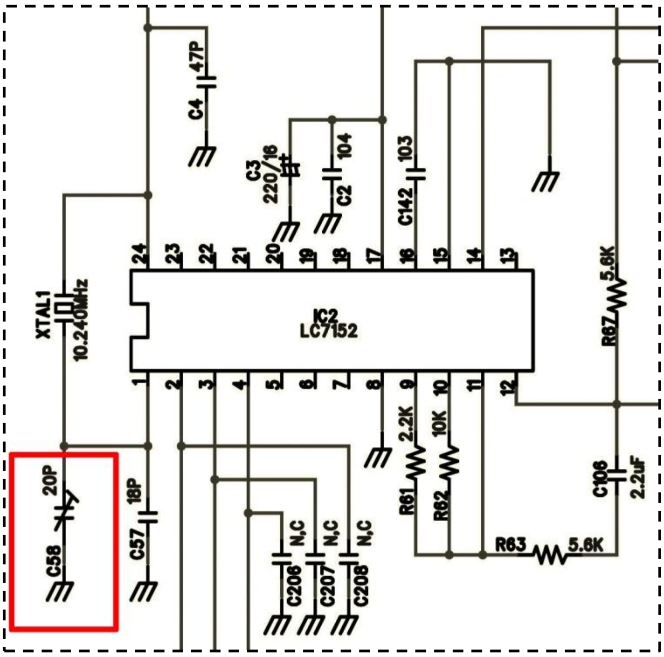


TX

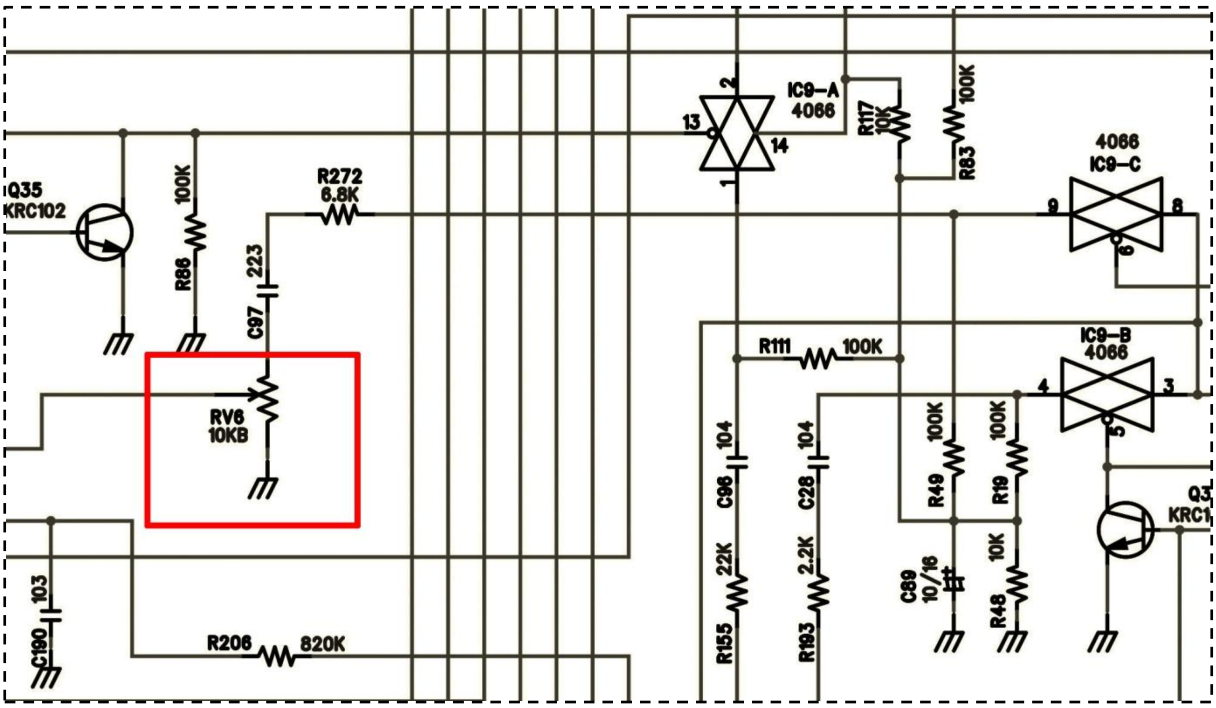
1. Adjust IFT Coils (L17 and L18) to get maximum output power.
   PTT button is pushed. Band-D, CH-20



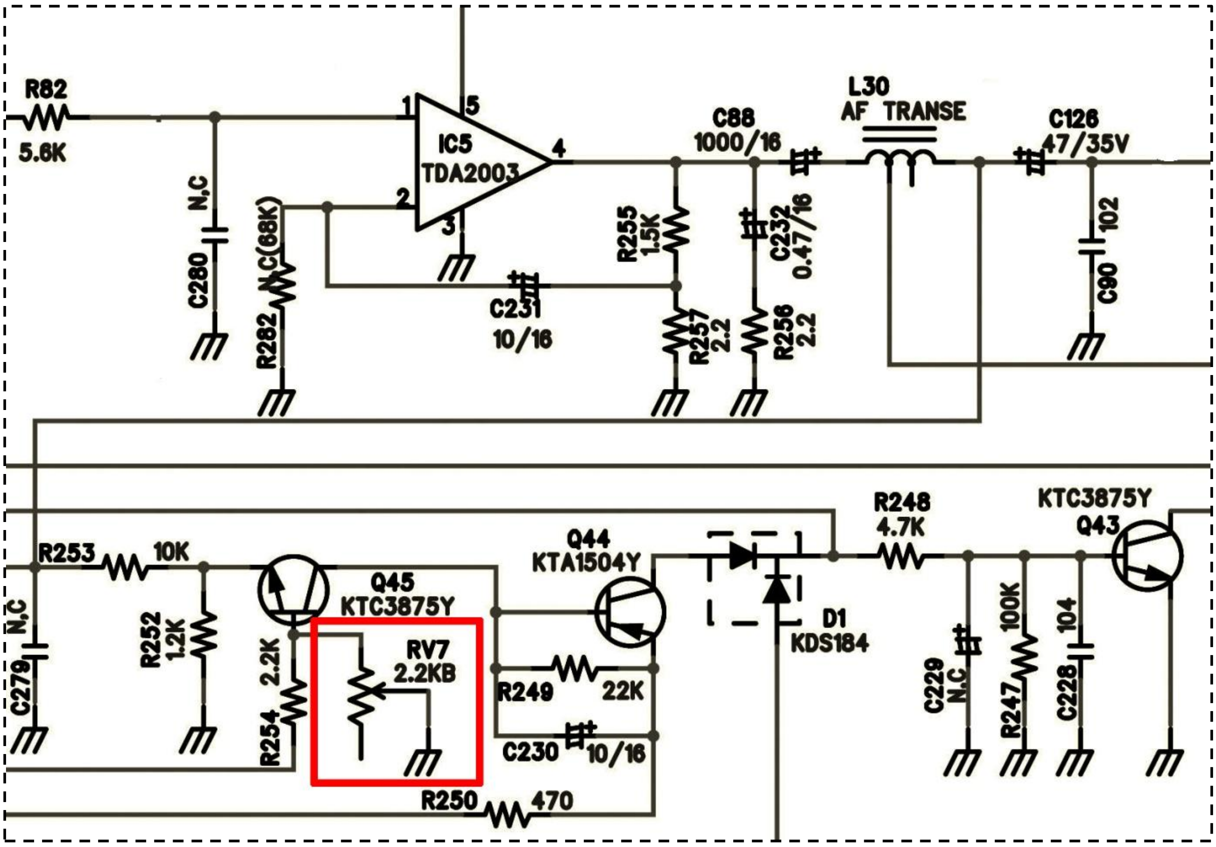
2. Adjust Frequency with C58 (27.205 kHz).



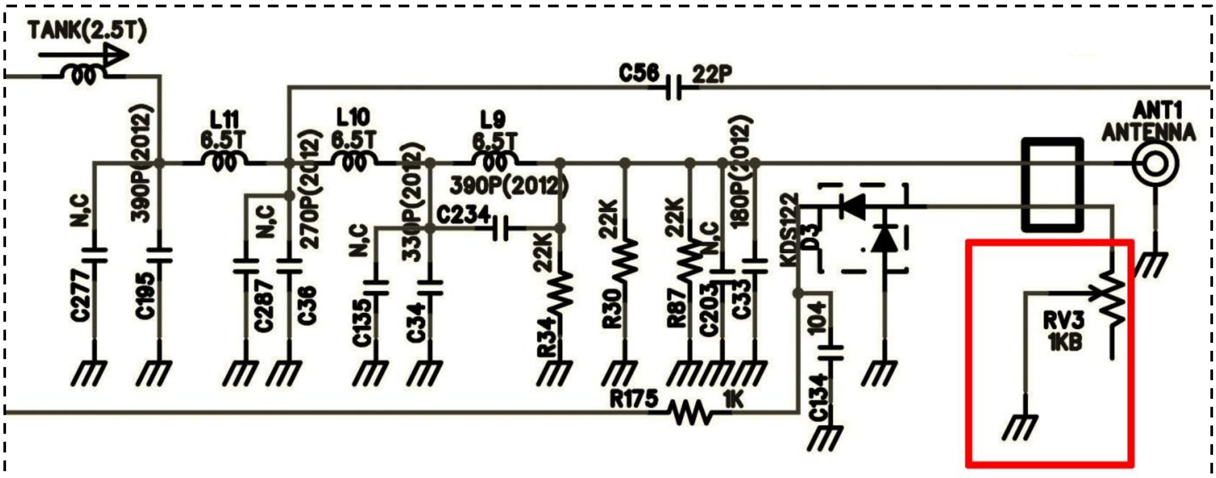
3. Adjust DEV FM to 2 KHz with RV6.



4. Adjust AM MOD. To 80% MOD. with RV7.

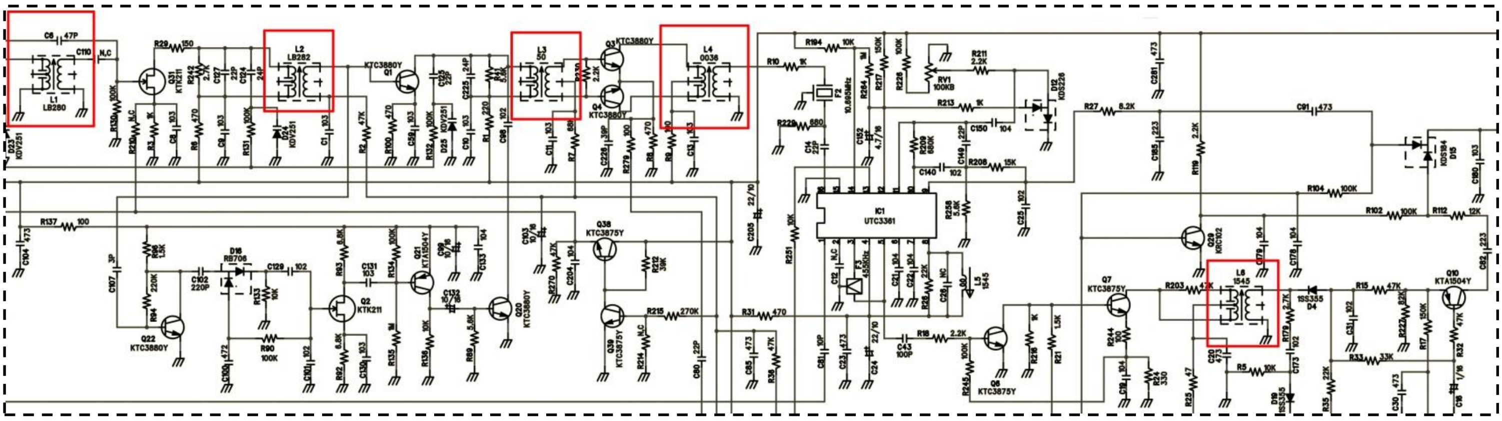


5. Adjust SWR to 1.0 at 50Ω in TX mode with RV3.



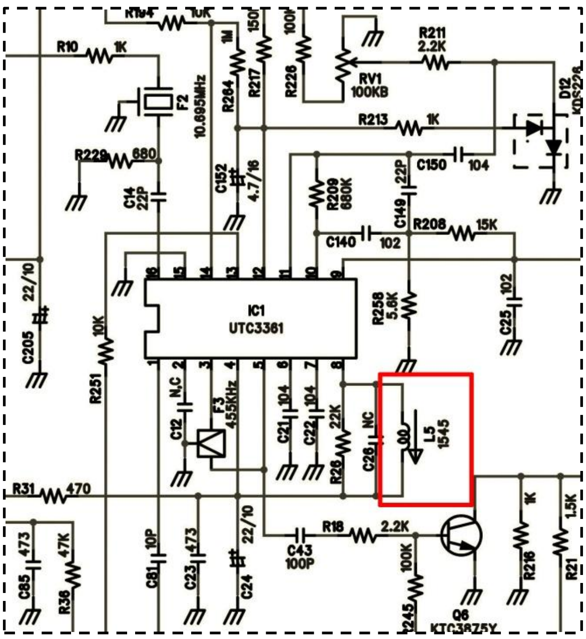
RX AM

1. Adjust RX sensitivity to maximum with L1, L2, L3, L4 and L6.
   Input: AM30% SSG signal.



RX FM

1. Adjust FM level to maximum with L5.



SPECIFICATIONS

NOSTER R&D CENTER

MODEL : VT-27 Explorer/Navigator

TEST CONDITIONS				
TEST CONDITIONS	AUDIO GENERATOR	1.0KHz	POWER SUPPLY	13.8V
	SPEAKER/ANTENA	8 Ω / 50 Ω	TEMPERATURE	20 ℃

TRANSMITTING SECTION (Tx LOAD : 50 Ω)					TEST DATA					
NO	TEST ITEM	SPECIFICATIONS		UNIT	SAMPLE 1			SAMPLE 2		
		TEST CONDION	LIMIT		(CH)			(CH)		
					1	40	80	1	40	80
1	RF OUTPUT FM POWER	D 20 CH	17 <	W						
	RF OUTPUT AM POWER	D 20 CH	15 <	W						
2	REQUENCY TOLERANC	D 20 CH	± 300	Hz						
3	AM MODULATION (1KHz)	D 20 CH	80	%						
	FM DEV 1KHz	D 20 CH	2.0-2.2	KHz						
4	AUDIO FIDELITY	0.4 / 2.4 Khz	-6 ± 10	dB						
5	CTCSS TON MODULATION	D 20 CH	0.5 / 0.9	KHz						
6	CURRENT DRAIN (MAX)	CARRIER	3600	mA						
7	MIC SENSITIVITY (50%)	D 20 CH	0.8 >	mV						
8	HORMONICS	D 20 CH	-60	dB						
9	SPRIOUS	D 20 CH	-60	dB						

RECEIVING SECTION (SPEAKER LOAD : 8 Ω)					TEST DATA					
NO	TEST ITEM USABLE SENSITIVITY	SPECIFICATIONS		UNIT	SAMPLE 1			SAMPLE 2		
		TEST CONDION	LIMIT		(BAND)			(BAND)		
					A	D	J	A	D	J
1	AT SINNAD FM 12 dB	D 20 CH	-117	dBm						
	AM 10 dB S/N	D 20 CH	- 113 >	dBm						
2	SQ SENS (ON/OFF	D 20 CH	-117 >	dbm						
3	SABLE SELECTIVIT	D20 CH	60 <	dB						
4	SQUELCH SENSITIVITY (START / MAX)	D 20 CH	- 125 / -110	dBm						
5	10% T.H.D POWER OUTPUT AM/FM	D 20 CH	3.0	W						
6	MAX. POWER OUTPUT	D 20 CH	3.5 <	W						
7	DISTORTION (50% MOD)	D 20 CH	3.0	%						
8	AUDIO FIDELITY	0.4 / 2.5 Khz	-6 ± 10	dB						
9	O.S.C STOP VOLTAGE	D 20 CH	10 <	V						
10	mV HUM & NOISE RATIO	D 20 CH	40 <	dB						
11	CURRENT DRAIN	NO SIGNAL	400 >	mA						
		SIGNAL	1200 >	mA						
12	METER SENSITIVIT	D 20 CH / MAX	-110 <	dBm						
13	ACA	D 20 CH	- 56 <	dB						

TESTED BY	