



MANI INDUSTRIES LIMITED

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TECHNICAL DESCRIPTION

MODEL : TT1000

DATE : 16-9-1998

NAME : FM TRANSCEIVER

REV : 00

A . CIRCUIT OPERATION :

1. SUPERHETERODYNE RECEIVER
2. DOUBLE CONVERSION (IF MIXER : 1 st = 10.695 MHZ , 2 nd = 455 KHZ)
3. PHASE-LOCKED-LOOP VCO CONTROL (10.240 CRYSTAL)
4. HANDFREE (VOX) & PUSH-TO-TALK (PTT) OPERATION
5. TX MODULATION SIGNAL LIMITER

B . COMPONENT DESCRIPTION :

CATEGORY	NUMBER	NAME	DESCRIPTION
INTEGRATED CIRCUIT	MC145166	46/49 MHZ 10 CHANNEL PHASE-LOCKED-LOOP	CONTROL TX & RX VCO FREQUENCY OPERATION
INTEGRATED CIRCUIT	MC3361	NARROWBAND FM IF	IF 455 KHZ MIXER AMPLIFIER & SQUELCH CIRCUIT
INTEGRATED CIRCUIT	LM324	OPERATION AMPLIFIER	MIC PER-AMPLIFIER , EMERGENCY SIGNAL GENERATOR , MODULATION SIGNAL LIMITER , HANDFREE
INTEGRATED CIRCUIT	NJM2070	AUDIO AMPLIFIER	AUDIO POWER AMPLIFIER
INTEGRATED CIRCUIT	NJM2072	SIGNAL DETECTOR	TX & RX OPERATION CONTROLLER
TRANSISTOR	2SC2059	RF SIGNAL TRANSISTOR	RX , TX , VCO & IF 10.7 MHZ MIXER
TRANSISTOR	2SA1036	SWITCHING TRANSISTOR	TX & RX OPERATION SWITCH
TRANSISTOR	8050C	LOW POWER RF TRANSISTOR	TX POWER AMPLIFIER
TRANSISTOR	BC874	SMALL SIGNAL TRANSISTOR	HANDFREE OPERATION INHIBIT
DIODE	BB535	TUNING DIODE	PHASE-LOCKED-LOOP VOLTAGE
DIODE	BA782	SWITCH DIODE	TX & RX ANTENNA SWITCH
CRYSTAL	10.240 MHZ	CRYSTAL 20 PPM	MC145166 OPERATION