

RF99 Wireless Thermometer

March 12, 1999



Revision: 05

Common TRANSMITTER Component List

Quantity Part Description

Tx - Mechanical:

See Mechanical Transmitter Components List

Tx - Circuit Boards:

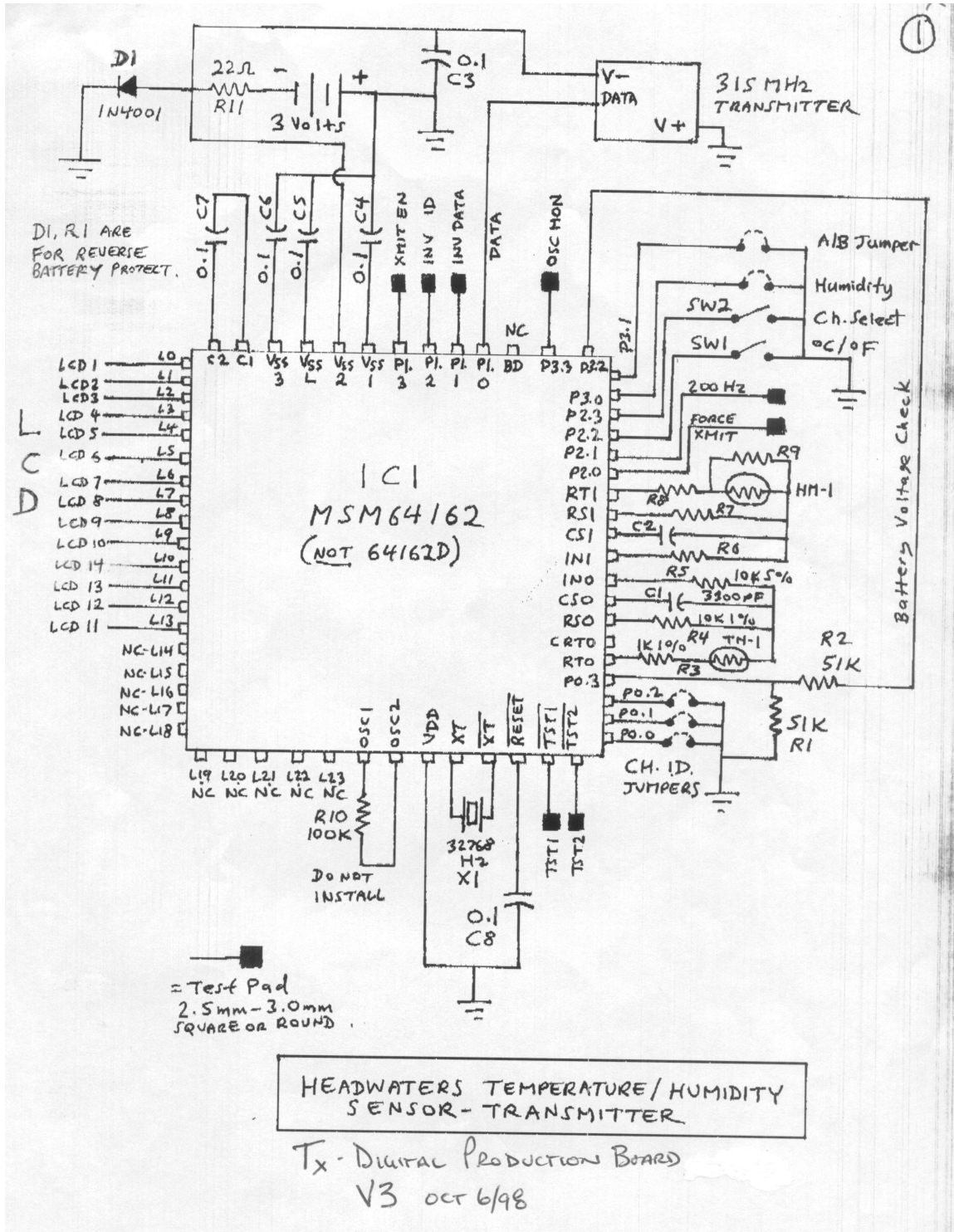
1	Digital board, double sided FR4, 1.0 mm thick, 0.5 -1.0 ounce copper (36 x 35 mm estimate)
1	RF board, double sided FR4, 1.0 mm thick, 1.0 ounce copper (20.2 x 24.6mm)

Tx - Electro-Mechanical:

1	LCD glass panel (20 x 33 mm glass size, 14 x 29 mm view area)
1	LCD elastomeric connector (32 mm long)
1+1+1	Battery contacts for 2 AA cells (+ve, -ve, jumper)
1	3 wire ribbon cable connecting RF board to digital board
1	2 wires to connect to battery clips
1	2 wire connect Humidity sensor (humidity version only)
8+	screws for assembly
1	Push button momentary switch NormOpen, for C/F change (SW1)
1	Push button momentary switch NormOpen, for Channel select (SW2)

Tx - Digital Board (Production Version) Electrical:

1	MSM64162, 3V, CMOS micro (capable of humidity circuit installation, not 64162D) (1C1)
1	32768 Hz quartz watch crystal (X1)
1	1 K-ohm 1% resistor, SMT or thru hole (R3)
1	10 K-ohm 1% resistor, SMT or thru hole (R4)
1	10 K-ohm 5% resistor, SMT (R5)
2	51 K-ohm 5% resistor, SMT (R1,R2)
6	0.1 microfarad, minimum 10 volt, ceramic capacitor, SMT (C3, C4, C5, C6, C7, C8)
1	3300 picofarad NPO or COG ceramic capacitor, SMT (C1)
1	HUMIDITY sensor C5-M3 (HM-1)
1	Temp. probe, 1.2 meter x 2wire cable(white & cap, Korean thermistor, Saitek custom potted cap) (TH-1) (figure RF-Tx-32)
1	IN4001 Diode (D1)
1	22 ohm 1watt resistor (R11)
5	values tbd HUMIDITY ONLY COMPONENTS (R6, R7, R8, R9, C2)



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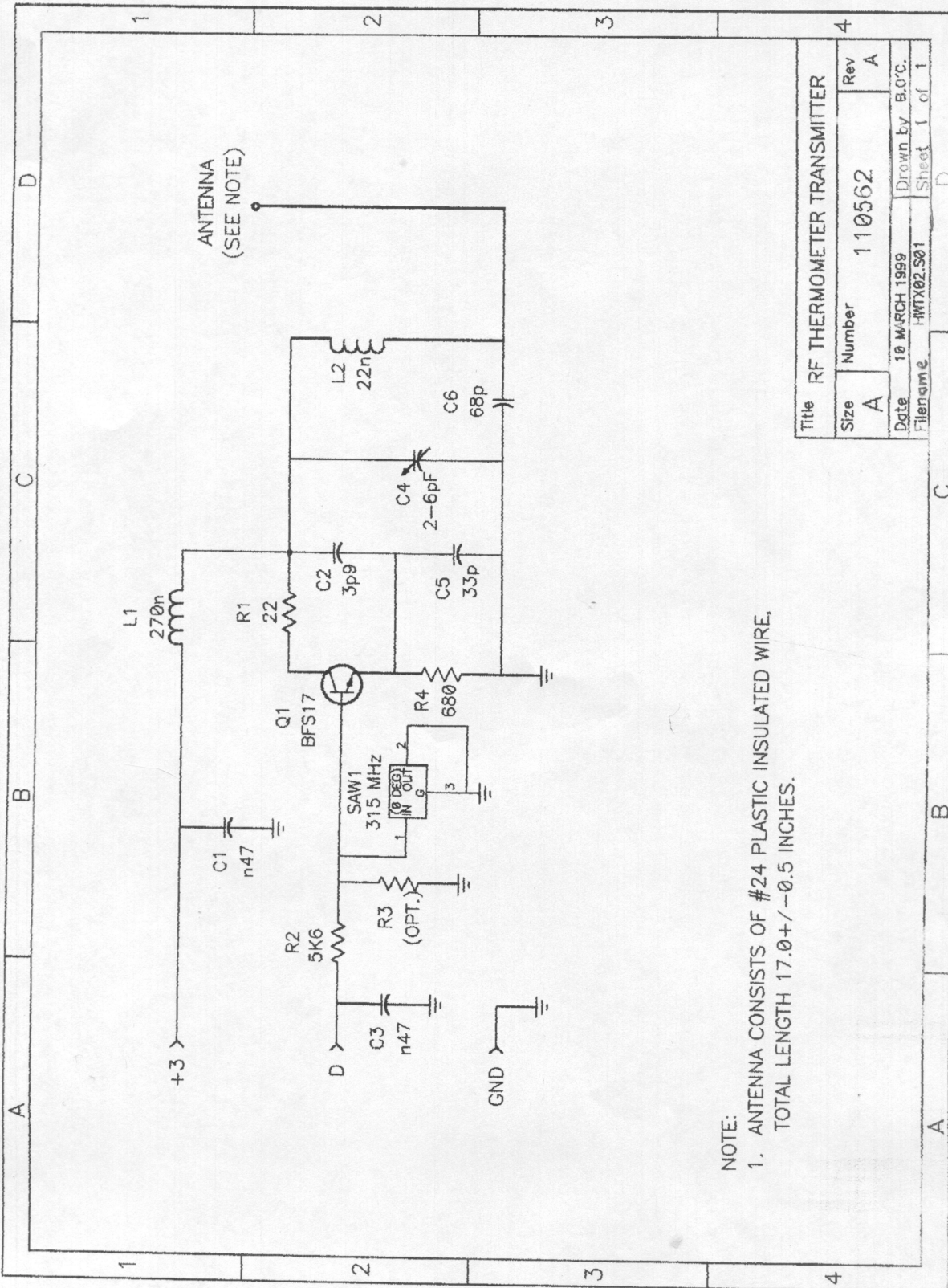
TRANSMITTER Component List (cont'd)

Quantity Part Description

Tx - RF Board:

1	SAW resonator 315MHz, RFM RO-2073 RF Monolithics Inc. SAW1
1	2 to 6 picofarads ceramic trim cap, Voltronics JZ060 SMT C4
1	BFS17 NPN RF transistor Q1
1	3.9 picofarad, 0805, +/-0.25p NPO ceramic capacitor C2
1	33 picofarad, 0805, 5%, 50V, NPO ceramic capacitor C5
1	68 picofarad, 0805, 5% 50V NPO, capacitor C6
3	470 picofarad, 0805, 10% 50V NPO, capacitor C1, C3
1	22 nanohenry, 1008, 10% Inductor (Matsuta 1008-22NK) L2
1	270 nanohenry, 1008, 10% Inductor (Matsuta 1008-R27K) L1
1	22 ohm 5% resistor, 0805, 1/10th watt R1
0	optional part, resistor, 0805, 1/10th watt R3 (NOT REQUIRED)
1	680 ohm 5% resistor, 0805, 1/10th watt R4
1	5.6 K-ohm 5% resistor, 0805, 1/10th watt R2
1	Antenna wire, overmolded jacket, with end cap, white matte finish, approx 1.6mm diam (Fig. RF-Tx-31) (length of wire 430 +/- 10mm from solder hole to end of conductor)

FCC APPROVAL BILL OF MATERIALS



Title RF THERMOMETER TRANSMITTER			
Size A	Number 110562	Rev A	
Date 10 MARCH 1999	Drawn by B.O'C.		
Filename HWY02.S01	Sheet 1 of 1		

NOTE:
 1. ANTENNA CONSISTS OF #24 PLASTIC INSULATED WIRE,
 TOTAL LENGTH 17.0+/-0.5 INCHES.