

# SoftRock RXTX Ensemble Transceiver Kit

## Bill of Material

### Circuit Board

1	SoftRock RXTX Ensemble Circuit Board
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### ICs

1	Si570
1	LP2992AIM5-3.3 (LFEA)
1	74AC74
2	TLV2462
1	LT6231
2	FST3253
1	78L05
8	BS170

### Capacitors

17	10 $\mu$ F
7	4.7 $\mu$ F 10%
4	0.022 $\mu$ F 10%
2	82pF 5%
1	47pF 5%
6	220pF 5%
1	4700pF 5%
2	0.047 $\mu$ F 10%
1	560pF 5%
1	22pF 5%
3	1000pF 5%
2	2200pF 5%
1	270pF 5%
4	100pF 5%
1	680pF 5%
3	470pF 5%
1	180pF 5%
2	150pF 5%
1	820pF 5%
11	0.01 $\mu$ F (1206 SMT)
2	390pF 5%
22	0.1 $\mu$ F (1206 SMT -- ink mark on back of strips)

	1	10,000pF 10%
	2	330pF 5%
	1	5600pF 10%

#### Resistors/Diodes/Transistors/Firmware

	1	ATTiny85 programmed with v15.12 code
	1	8-pin DIP socket
	1	LTV817
	2	1N4003
	2	BZX55C3V3
	1	2N222A
	2	2N3904
	2	2N3906
	11	10.0k $\Omega$ 1/4W 1%
	8	49.9 $\Omega$ 1/4W 1%
	1	1.0M $\Omega$ 1/6W 5%
	1	3.32k $\Omega$ 1/4W 1%
	5	2.21k $\Omega$ 1/4W 1%
	3	221 $\Omega$ 1/4W 1%
	2	100 $\Omega$ 1/6W 5%
	4	10.0 $\Omega$ 1/4W 1%
	1	68.1 $\Omega$ 1/4W 1%
	4	2.2k $\Omega$ 1/6W 5%
	1	33.2 $\Omega$ 1/4W 1%
	1	22.1 $\Omega$ 1/4W 1%
	3	4.7k $\Omega$ 1/6W 5%
	4	68 $\Omega$ 1/6W 5%
	5	4.99k $\Omega$ 1/4W 1%
	3	22.1k $\Omega$ 1/4W 1%
	1	56.2 $\Omega$ 1/4W 1%
	2	2.2 $\Omega$ 1/4W 5%
	2	475 $\Omega$ 1/4W 1%
	3	1.00k $\Omega$ 1/4W 1%

#### Connectors

	1	BNC jack
	1	2.5mm power jack
	1	2.5mm power plug
	1	USB jack
	3	3.5mm audio jack

## Hardware

	5	#4 nylon washer
	4	4-40x1/2in. screw
	4	4-40 hex nut
	4	#4x1/4in. nylon spacer
	1	6-32 hex nut
	1	6-22x1/2in. screw
	1	#6 lock washer
	1	TO-18 heat sink
	1	TO-220 heat sink

## Cores/Wire

	4	T30-2 core (0.3inch OD, red)
	2	T30-6 core (0.3inch OD, yellow)
	2	T25-2 core (0.25inch OD, red)
	2	T25-6 core (0.25inch OD, yellow)
	2	T37-2 core (0.37inch OD, red)
	2	T37-6 core (0.37inch OD, yellow)
	5	BN-43-2402 binocular core
	3	BN-61-2402 binocular core
	1	TO-220 Sil-pad
	≈22ft.	#30 magnet wire
	≈10ft.	#26 magnet wire