



# SDR Cube Transceiver Online Assembly Guide

Detailed construction notes for building and testing each of the SDR Cube kit modules

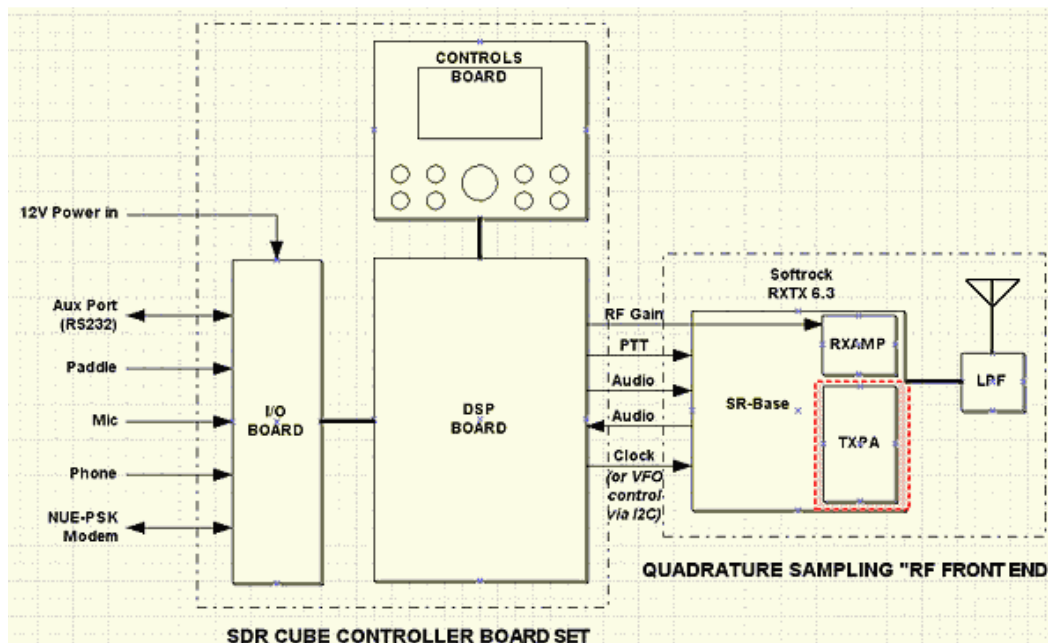
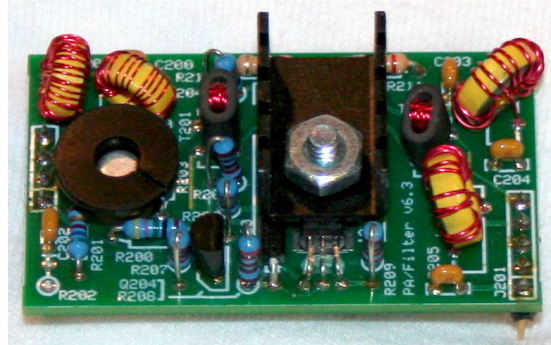
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## Building the Softrock TX/PA Plug-in Module

... (Section version 1.0a)

### What Is It?

The TXPA (or PAF, as it is called in the Softrock literature) is a small plug-in module to the SR-Base board that serves as a small RF amplifier and filter board for the SR-Base. The builder of the TXPA Kit may construct the module for either of two band sets: 80m/40m or 30m/20m/17m.



## PARTS LIST

Designator	QTY	Description
C206, C207, C208, C209, C210, C211	6	0.1uF 1206 SMT
D200	1	1N4003
P200	1	4 pin, header
P201	1	5 pin, header
Q204	1	2N3904
Q201, Q202, Q203	3	BS170
R200	1	475, 1%
R201	1	56.2, 1%
R202	1	68.1, 1%
R203, R208	2	2.21k, 1%
R206	1	221, 1%
R207	1	22.1k, 1%
R209	1	33.2, 1%
R210, R211	2	2.2, 5%
<b>Hardware</b>		
for Q200	1	TO18 heat sink
for the group Q201, Q202, Q203	1	TO220 heat sink
for the group Q201, Q202, Q203	1	TO220 Sil Pad
	1	6-32, 1/2" screw
	1	6-32, hex nut
	1	#6 lockwasher
	1	#4 nylon washer
	1	Wire, #30, 15-ft
	1	Wire, #26, 2-ft
	1	PCB

<b>Band-Specific: 30/20/17</b>		
82pF	2	C200, C201
150pF	2	C203, C205
330pF	1	C204
221	2	R204, R205
T30-6, 1.6uH, 21T #30, 14"	1	L200
T37-6, 0.6uH, 14T #26, 10"	1	L201
T37-6, 0.6uH, 14T #26, 10"	1	L202
T30-6, Pri: 11T bifilar #30, 2x8", Sec: 1.74uH, 22T #30, 14"	1	T200
BN-61-2402, Pri: 6T #30, 10", Sec: 3T bifilar, 2x5"	1	T201
BN-61-2402, Pri: 4T bifilar #30, 2x6", Sec: 5T #30, 9"	1	T202
<b>Band-Specific: 80/40</b>		
220pF	2	C200, C201
470pF	2	C203, C205
820pF	1	C204
221	2	R204, R205
T30-2, 4.7uH, 33T #30, 17"	1	L200
T37-2, 1.4uH, 19T #26, 13"	1	L201
T37-2, 1.4uH, 19T #26, 13"	1	L202
T30-2, Pri: 17T bifilar #30, 2x10", Sec: 5uH, 34T #30, 19"	1	T200
BN-43-2402, Pri: 6T #30, 10", Sec: 3T bifilar, 2x5"	1	T201
BN-43-2402, Pri: 4T bifilar #30, 2x6", Sec: 5T #30, 9"	1	T202

## CONSTRUCTION STEPS

### **STEP 1: Inventory the supplied parts**

We basically supply a standard TXPA as is supplied in the Softrock RXTX 6.3 provided by Tony Parks.

### **STEP 2: Go to the official Softrock Construction web pages by WB5RVZ and build your TXPA (also called the PAF) by following those instruction.**

We are linking over to the excellent WB5RVZ Softrock Assembly pages for Cube owners to build their SR-Base and TXPA modules ... [http://www.wb5rvz.com/sdr/RXTX\\_V6\\_3/](http://www.wb5rvz.com/sdr/RXTX_V6_3/)

Robby's done an outstanding job of documenting everything that needs to be done for the RXTX 6.3 ... and except for the few items noted here in our own SDR Cube Assy Guide, there's nothing better that could be provided!

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