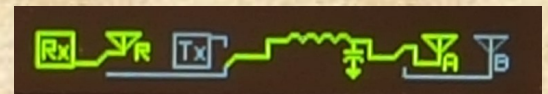


DZKit Sienna XL 250W HF+6 Transceiver kit Soldering required!



World-class RF performance with ultra low phase noise synthesizer - Rx LO beats other well-known brands at <200Hz and >50kHz offset, and virtually ties in the middle (-134dBc @ 2kHz, -150dBc @ 60kHz).



See antenna status at a glance. Tx path turns red on transmit

Acclaimed ergonomics made even better (new dark blue color option shown; also available in black and multi-color, with choice of LED and keycap colors)

New, stronger, more serviceable chassis and fewer cables

Color touch displays and logically grouped controls make Sienna XL easier to use than most rigs.



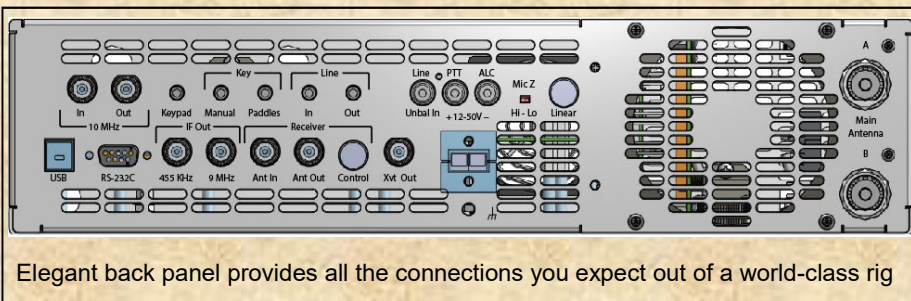
Change meter scales by tapping the meter

Outstanding audio on transmit and receive: Receiver audio stage includes

bhi DSP Noise Cancelling technology: A complete mixed-signal audio system consisting of a dual Harvard core, a patented high-resolution floating-point coprocessor and an Input/Output Processor which yields 88 dB of dynamic range and exceptionally low system noise. Removes background noise, makes signals stand out! **High performance class AB stereo audio amp** with .02% THD at 4W output on 'phones and speakers simultaneously, with compression to eliminate clipping at high volume. **Extremely low noise audio amps and switching circuits in transmitter and receiver**, for clean reproduction of line-in and mic audio. **3-band Parametric equalizers** on transmitter and receiver. **Balanced mic audio** works great with Heil PR-781 XLR mic.

And more!

Separate band data outputs for Tx and Rx. Master/Slave operation with secondary Sienna XL receiver. Linear amp control. Transverter-ready. Dual pass-band tuning. Install up to four high performance 9MHz Inrad roofing filters and four 455kHz filters. Two 10dB preamps. One 10dB attenuator. Manual and paddle inputs active simultaneously. Remote controllable via RS-232. Upgradeable firmware. Serviceable yourself! Detailed Assembly, User's and Service manuals and the famous DZKit Worldwide Support!



Elegant back panel provides all the connections you expect out of a world-class rig

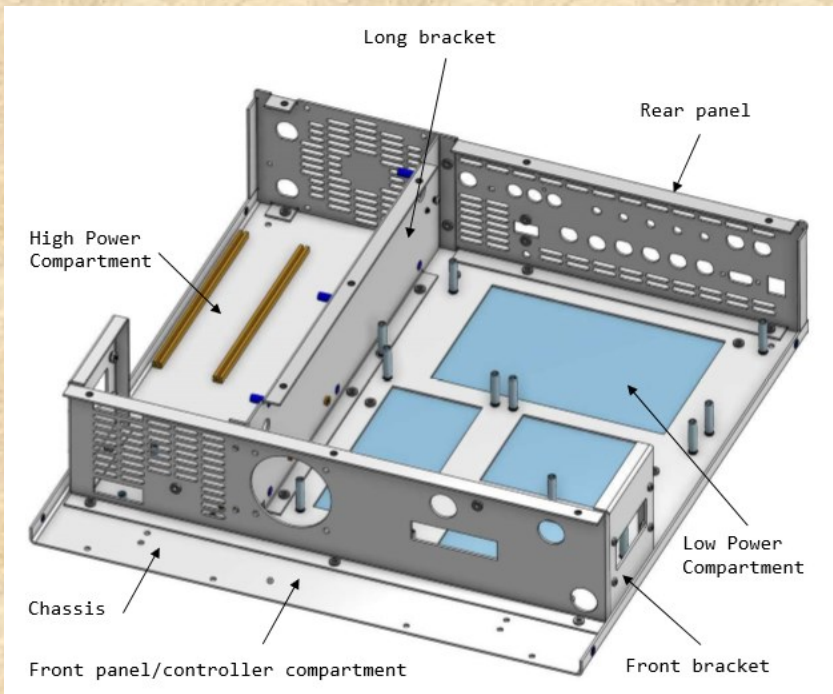
*Fun to build. Easy to use. High performance.
Features not available on other rigs. Made in the USA!*



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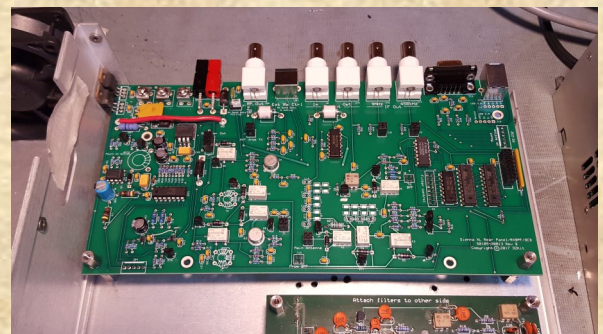
What do you get to build?



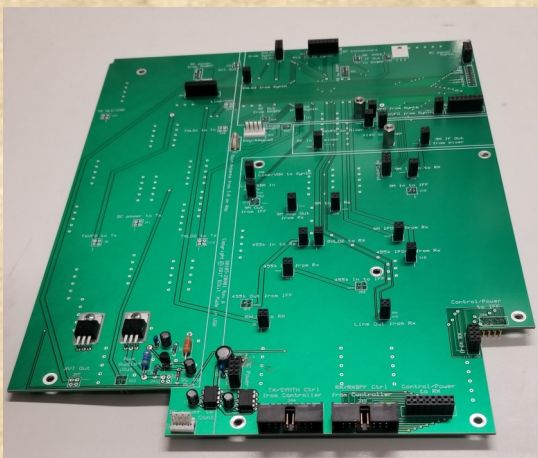
Chassis



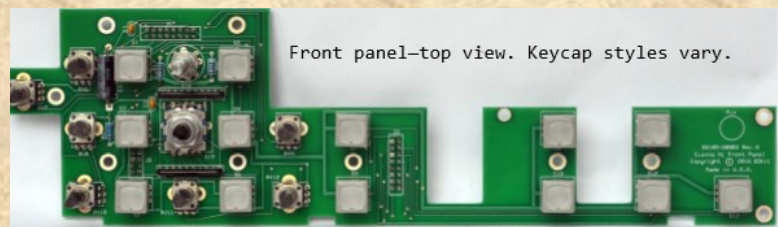
IF Filter board. Crystal filters plug in from the bottom



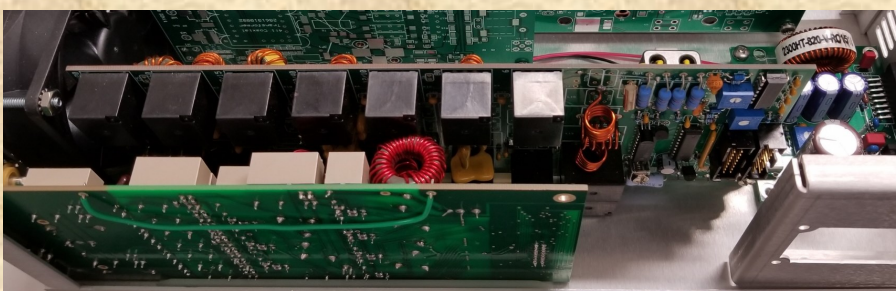
DC Power conditioning/RF Front end/Rear Panel board.



Motherboard



Front panel boards



Low Pass Filters and Antenna Switch/Tuner



250W PA

We preassemble and test the Synthesizer, Receiver, Transmitter, 10W amp and Controller boards.



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DZKit assembly manuals have all the detail you expect out of a world-class kit! Our step-by-step instructions and pictorials are easy to follow and make kit-building fun!

An electronic version of our circuit boards is included so that you can rapidly find the location of parts. All you need to do is run free ExpressPCB software and load the appropriate circuit board.

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Chassis Parts

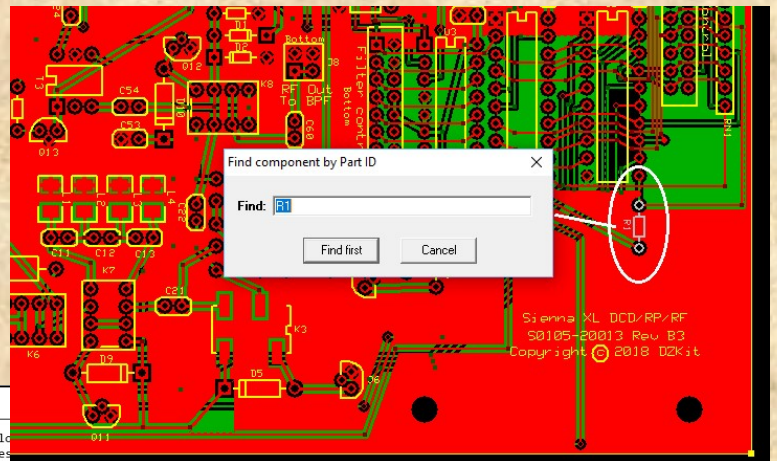
Item	Description	Stock bin	Quantity
1	Hardware #10 Flat Washer 1/2in OD, .05in Thick Zinc-Plated Steel	473	2
2	Hardware 10-32 Wing Nut Zinc-Plated Steel		
3	Hardware 10-32 KEPS Nut SS		
4	Hardware 10-32 x 5/8in PH Phillips M/S SS		
5	Hardware 6-32 KEPS Nut SS		
6	Hardware 6-32 x 1/4in PH Phillips M/S SS P/L		
7	Hardware 6-32 x 1/4in PH Phillips M/S SEMS S		
8	Hardware 6-32 x 1/2in PH Phillips M/S SEMS S		
9	Hardware 6-32 x 1/4in FH 100 degree Phillips B		
10	Hardware 6-32 x 7/16in Hex M/F Spacer SS		
11	Hardware 6-32 x 1/2in Hex M/F Spacer SS		
12	Hardware #6 internal tooth lockwasher with sold		
13	Hardware 4-40 x 5/16in Jackscrew, washer, loc		
14	Hardware 4-40 x 1/4in PH Phillips M/S Polycarb		
15	Hardware 4-40 x 1/4in PH Phillips M/S SS P/L		
16	Hardware 4-40 x 1/4in PH Phillips M/S SS		
17	Hardware 4-40 x 1/2in PH Phillips M/S SS		
18	Hardware 4-40 KEPS Nut SS		
19	Hardware PCB card guide 6in plastic		
20	Hardware Anderson Powerpole mounting clamp		
21	Hardware 60mm metal finger guard		
22	Hardware 60mm metal finger guard		
23	1/16" Nylon spacer		

() Attach the front bracket to the chassis bottom using three 6-32 x 1/4" PL screws in the center and one on each side under the speakers. (Note: "PL" refers to the Nylon patch compound that is on the threads. Do not use the screws with attached lockwashers, called "SEMS".) See below.

() Route the left speaker cable under the fan and into the low power compartment.

() Locate the "tilt ball" with mounting hardware. Follow mounting instructions provided with the ball. Refer to the drawing below for mounting locations of the front feet (with ball) and rear feet.

* Extra ss



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Keyer board VR Mic FP board FP sheet metal

Screws are 6-32 x 1/4" SEMS Standoffs are 6-32 x 7/16" HEX M/F

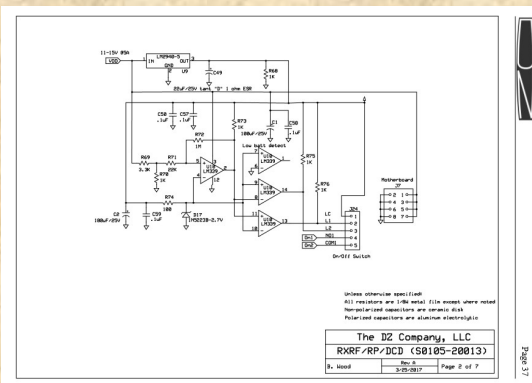
Front panel circuit board

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- () Inspect your work. Look for shorted pads, unsoldered parts, backwards parts, etc. Fix any defects.
- () Attach the board to the chassis bottom as shown below, using two 6-32 x 1/4" SEMS screws (screws with attached lockwashers) and two 6-32 x 1/2" hex M/F standoffs.
- () Insert power transistors Q14 and Q15 into the board so that the mounting holes line up with the two captive nuts in the long bracket. Bend the leads in an "S" pattern as shown below so that there is no strain on the leads. Mount each transistor to the long bracket using a 4-40 x 1/4" polycarbonate screw.
- () Solder the transistor leads to the board from the top.
- () Remove the screws from the +14V, +48V and GND terminals.
- () Attach the lug on the end of the orange wire in the orange/black twisted pair power cable (50105-00124, labeled PMR-DC48V-REG48V) to the screw terminal marked +48V. Dress the cable along the DCD/RF board, under the notch in the long bracket (next to the fan) and into the high power compartment.
- () Repeat the previous step using the red wire in the red/black twisted pair power cable (50105-00125), connecting it to the screw terminal marked +14V.
- () Attach both black wires to the ground terminal. See photos below.
- () Remove the four screws from the screw terminals on the 48V-14V DC-DC converter board. Insert a screw through each of the four wires coming from the DCD board and re-insert and tighten them as follows:

Red/black twisted pair:
Red: +14V Black: GND

Orange/black twisted pair:
Orange: +48V In Black: GND



Our User's manual includes detailed instructions on how to use Sienna XL and all I/O commands needed to operate it from a remote control program. Our Service manual includes complete schematics and detailed theory of operation, should you want to understand how it works and service it yourself.



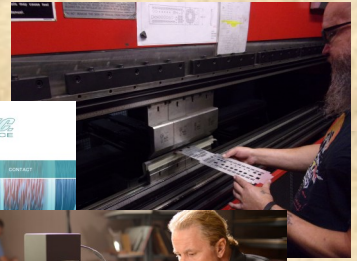
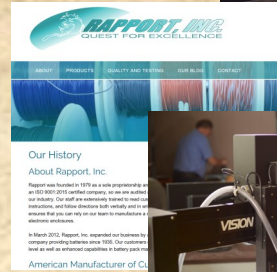
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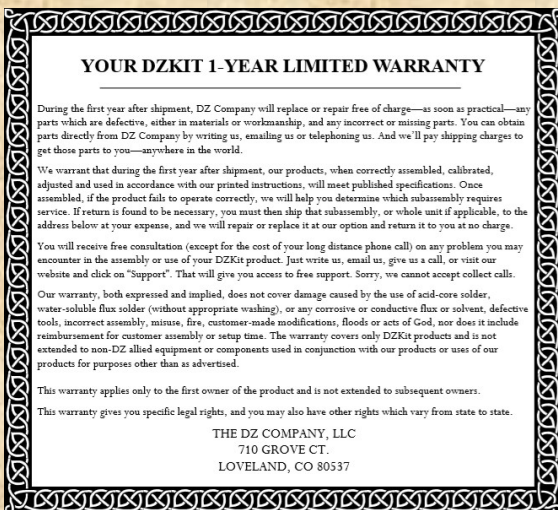
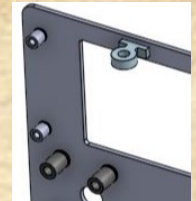
Ten reasons why we know you'll be successful building a DZKit Sienna XL

1. It's made in the U.S. to assure high quality and fast response to any manufacturing issues:

- ✓ Chassis sheet metal is manufactured by a top-notch manufacturing facility in Golden, CO.
- ✓ Cables are made by a top-notch facility in Golden, CO
- ✓ Front panel overlays are made in Illinois
- ✓ Circuit boards are made in Oregon
- ✓ Products are designed, tested and kitted at our plant in Loveland, CO
- ✓ We buy parts from American distributors (e.g., Mouser, Digikey) and directly from many manufacturers, guaranteeing high quality and no "knock-offs".



2. We provide detailed assembly manuals with pictures, drawings and step-by-step instructions. (See previous page)
3. Pre-built boards are fully tested.
4. Firmware is updateable by customers easily as new features or bug fixes are released.
5. No custom IC's are used. All parts are off-the-shelf.
6. Captive nuts/standoffs and screws with built-in lockwashers eliminate tedious mechanical assembly.
7. Surface-mount parts are pre-loaded.
8. We provide hard-to-get or uncommon tools in the kit.
9. Beta testers are used to refine the kit assembly process and provide feedback on usability.



10. Support is just a phone call or email away, with exceptional responsiveness.



We'll make sure you succeed! The DZKit 1-year warranty includes free consultation with our engineers if any problems come up, and we can even finish the assembly for you if it becomes necessary (for a small fee).



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