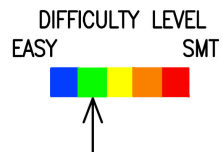
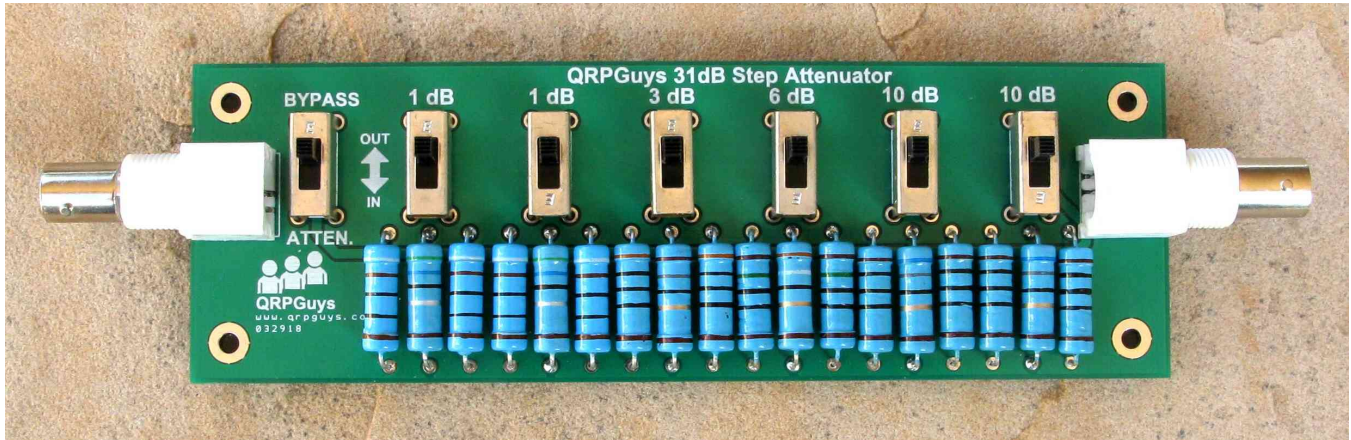


## QRPGuys 31 dB Step Attenuator



First, familiarize yourself with the parts and check for all the components. If a part is missing, please contact us at [qrpguys.parts@gmail.com](mailto:qrpguys.parts@gmail.com) and we will send you one.

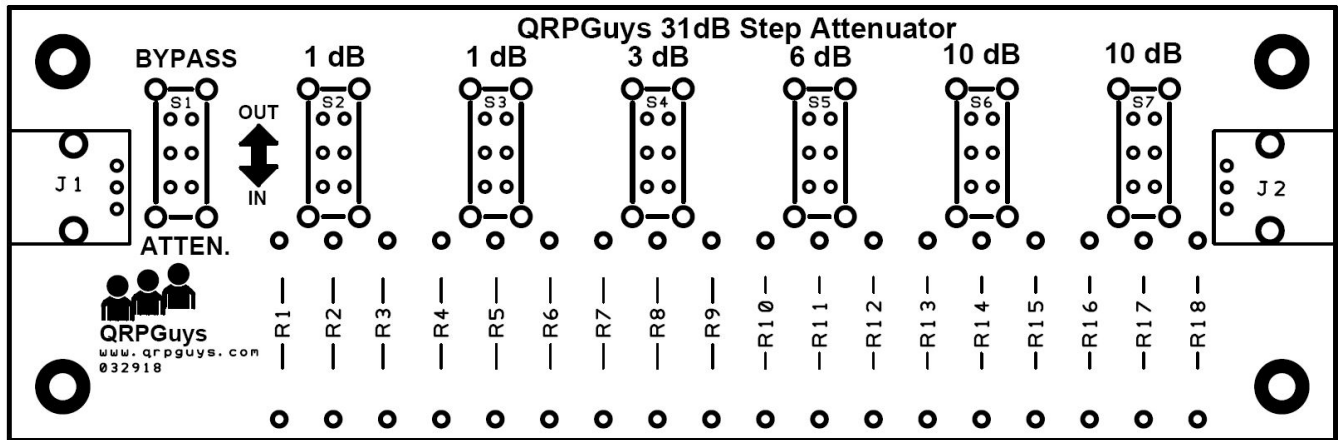
*Please read all the instructions before starting to assemble the receiver.*

### Parts List

- 1 – Attenuator pcb
- 7 – S1,2,3,4,5,6,7, DPDT slide switch
- 2 – J1,2, female pcb bnc connector
- 4 – R1,3,4,6, 910 ohm resistor (white-brown-black-black-brown)
- 2 – R2,5, 5.6 ohm resistor (green-blue-black-silver-brown)
- 2 – R7,9, 300 ohm resistor (orange-black-black-black-brown)
- 1 – R8, 18 ohm resistor (brown-gray-black-gold-brown)
- 2 – R10,12, 150 ohm resistor (brown-green-black-black-brown)
- 1 – R11, 39 ohm resistor (orange-white-black-gold-brown)
- 4 – R13,15,16,18, 100 ohm resistor (brown-black-black-black-brown)
- 2 – R14,17, 68 ohm resistor (blue-gray-black-gold-brown)
- 5 – self adhesive rubber foot

The resistors are the five band color coded standard on blue bodies. *Check the values carefully before installing with an ohmmeter.*

Refer to the graphic below for parts placement.



All the components mount of the top side of the board, except the rubber feet, *unless you are planning to mount the device in a chassis. In that case, only mount the switches on the top side, and the bnc connectors and resistors on the back side.*

When mounting the resistors, *do not mount them flush*. Keep the diameter of the resistor 1/16" off the surface of the pcb to allow for airflow. You can use a thin slat of wood like a popsicle stick or tongue depressor to space them off the board, and remove after soldering. Don't press the resistors tight against the stick or it will be difficult to remove.

- [ ] Install R1,3,4,6, 910 ohm resistor (white-brown-black-black-brown)
- [ ] Install R2,5, 5.6 ohm resistor (green-blue-black-silver-brown)
- [ ] Install R7,9, 300 ohm resistor (orange-black-black-black-brown)
- [ ] Install R8, 18 ohm resistor (brown-gray-black-gold-brown)
- [ ] Install R10,12, 150 ohm resistor (brown-green-black-black-brown)
- [ ] Install R11, 39 ohm resistor (orange-white-black-gold-brown)
- [ ] Install R13,15,16,18 100 ohm resistor (brown-black-black-black-brown)
- [ ] Install R14,17, 68 ohm resistor (blue-gray-black-gold-brown)
- [ ] Install S1,2,3,4,5,6,7, DPDT slide switch, solder all 10 pads.
- [ ] Install J1,2, female pcb bnc connector. The center hole on the board is signal and you use the outside hole for ground no matter which side you mount the BNC's on.
- [ ] Install the five self adhesive rubber feet where shown on the back side

This completes the assembly

