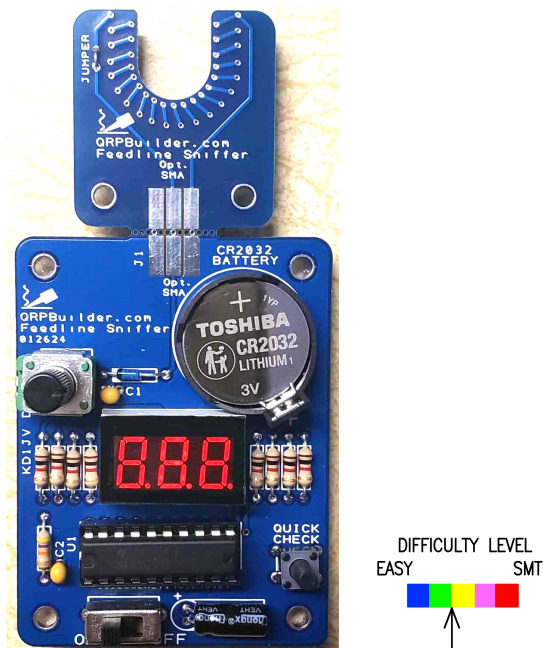




## QRPBuilder Feedline Sniffer kit



First, familiarize yourself with the parts and check for all the components. If a part is missing, please contact us and we will send one. You must use the **SUPPORT** button on the product page to request a part, or for any questions.

### Parts List

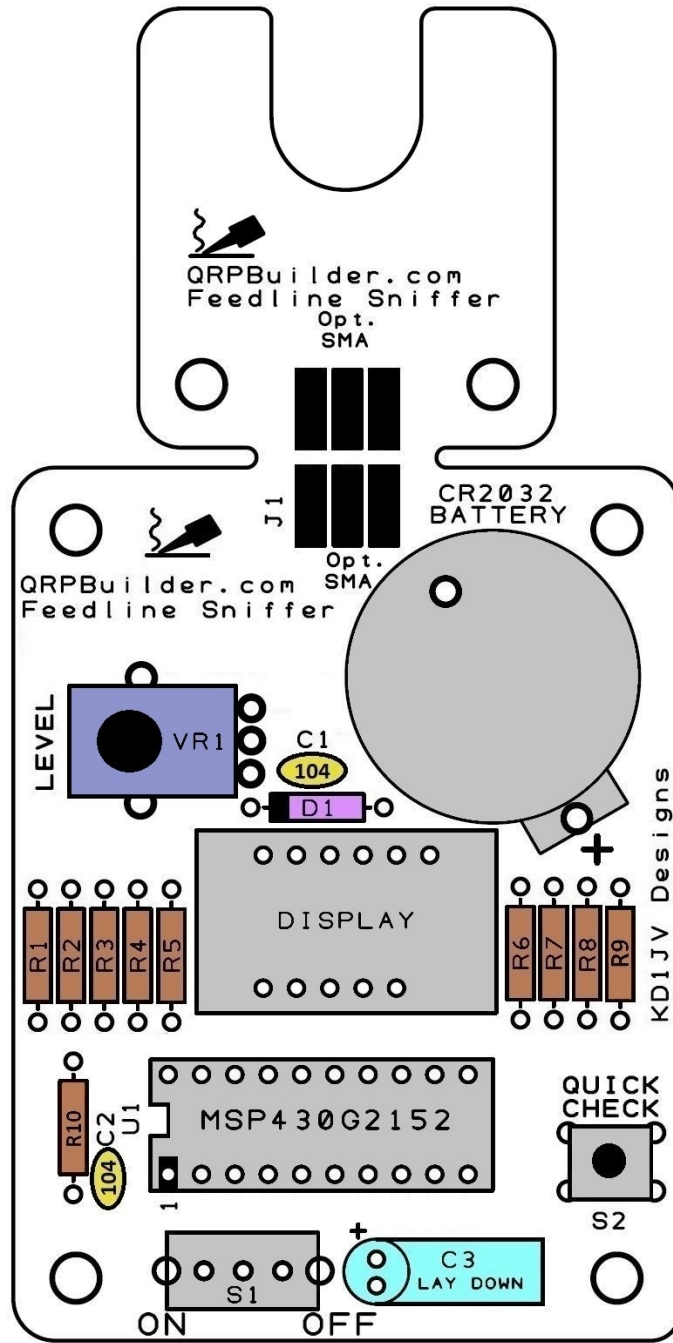
- 1 – Feedline Sniffer pcb
- 1 – XXK, 1/4W resistor (xxx-xxx-xxx-gld)
- 1 – 47K, 1/4W resistor, (yel-vio-org-gld)
- 8 – 1K, 1/4W resistor (brn-blk-red-gld)
- 1 – XXK, 9mm vertical pcb pot
- 2 – 100nF capacitor (104)
- 1 – 100uF 16V electrolytic capacitor
- 1 – 1N5711, Schottky diode, glass w/band
- 1 - TI MSP430G2152 IC mpu
- 1 – 3 digit, 7 segment display, w/red filter plastic
- 1 - 20 pin dip socket
- 1 – CR2032 battery holder
- 1 – SPDT slide switch
- 1 – tactile N.O. switch
- 4 – Self adhesive rubber foot
- 1 – Red led mylar filter plastic

Optional sensing coil detachment components purchased separately:

- 1 – SMA female pcb connectors
- 1 – SMA male pcb connector
- 1 – SMA male/female RG316 cable 100cm long

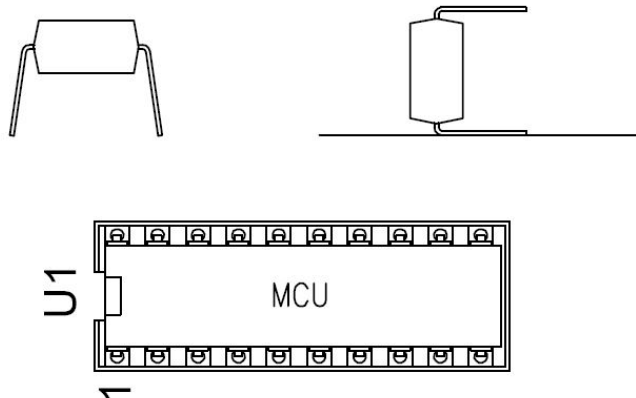
The tools required for assembly are: needle nosed pliers, wire cutters, soldering iron, and some rosin core solder.

Print the graphic below for the part placements:



Start with the smallest components first. All the components fit on the top side of the board.

- [ ] R1 – XXK ohm resistor (xxx-xxx-xxx-gld)
- [ ] R2,3,4,5,6,7,8,9 - 1K ohm resistors (brn-blk-red-gld)
- [ ] R9 - 47K ohm resistor (yel-vio-org-gld)
- [ ] D1 – 1N5711, glass diode, *match the component band with the silkscreen band*
- [ ] C1,2 - 100nF mono capacitor (104)
- [ ] 20 pin dip socket
- [ ] S1 - SPDT slide switch
- [ ] S2 – tactile switch
- [ ] C4 - 100uF electrolytic capacitor, *long lead is “+”, lay down component*
- [ ] CR2032 battery holder
- [ ] Install the 3 digit led display. *It only fits one way.* Trim and glue the red filter on the surface of the display.
- [ ] XXK 9mm vertical pcb potentiometer
- [ ] Install the four rubber feet on the bottom side where indicated by the silkscreen.
- [ ] Carefully install U1, the MPU, with proper orientation to pin# 1 into the 20 pin socket as shown In the graphic below.



*When inserting IC's the pins are flared so that they can be retained by auto insertion tools. Gently rock them on a flat surface so the pins are parallel and it will insert into the socket more easily.*

This completes the assembly.

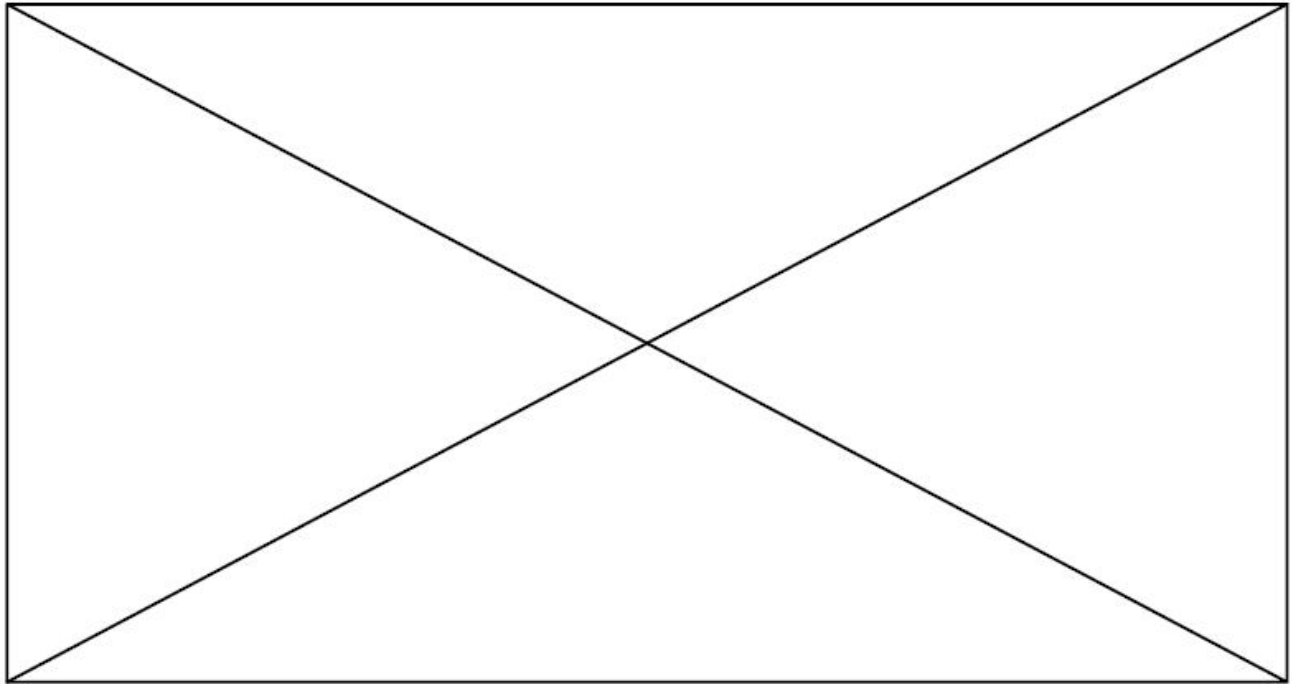
## Operation:

Install a CR2032 coin cell, positive side up. Turn [ON] S1. The display should display all digits for 1 sec., then [000]. While the power switch S1 is turned on, the display will go to sleep in about 10 sec. flashing [-] to let you know it is still on. It will wake from sleep mode when it senses RF. The "QUICK CHECK" button can be pushed at any time instead of sliding the power to [ON]. This can preserve battery life as opposed to leaving the unit on continuously.



### Optional sensing coil detachment.

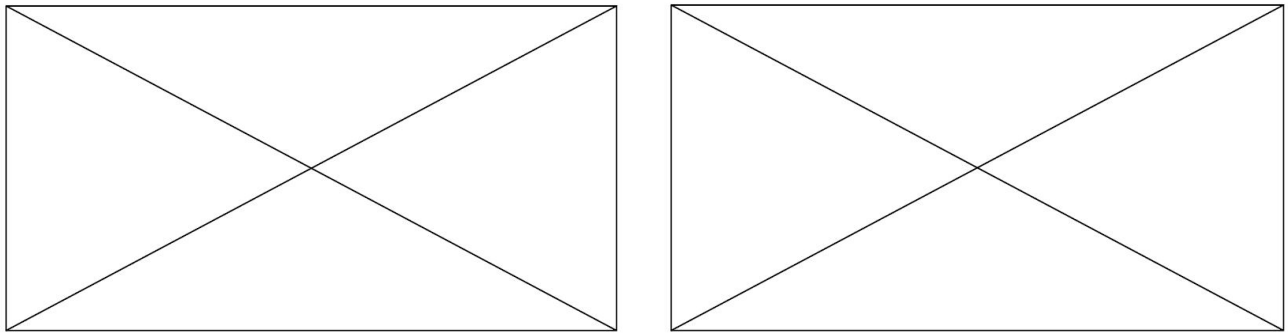
If you have purchased the optional configuration, the pcb is designed so that the sensing coil can be detached from the main board along the row of small holes, and re-connected with SMA connectors and SMA male/female jumper cable for longer reach and adaptability, joined again as a single device, or used with the male SMA telescoping antenna as a field strength meter.



[ ] Break off and smooth the edges with some emery paper until partial small holes disappear.



- [ ] Solder the SMA pcb female on the main board, and the SMA male on the sensor board. Solder The grounds on both sides of the pcb. Higher heat will be necessary soldering the ground connections on the connectors than needed on the center pin.



Use the supplied cable for longer reach and adaptability. Since the SMA connectors are male and female, you can go back to the smaller profile by simply joining the two pcb connectors without the cable.

This option can be added at any time to an existing built unit

**Notes:**

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