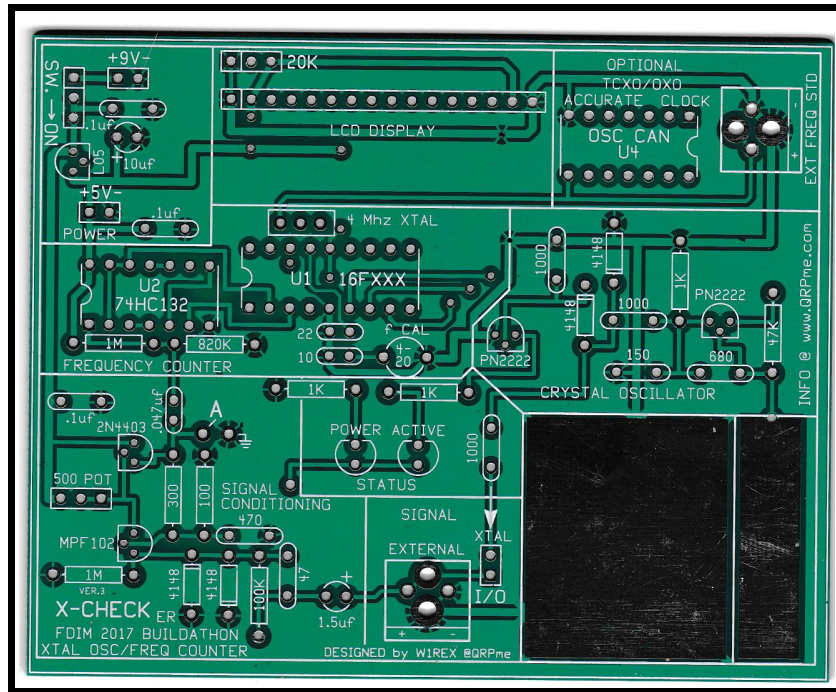
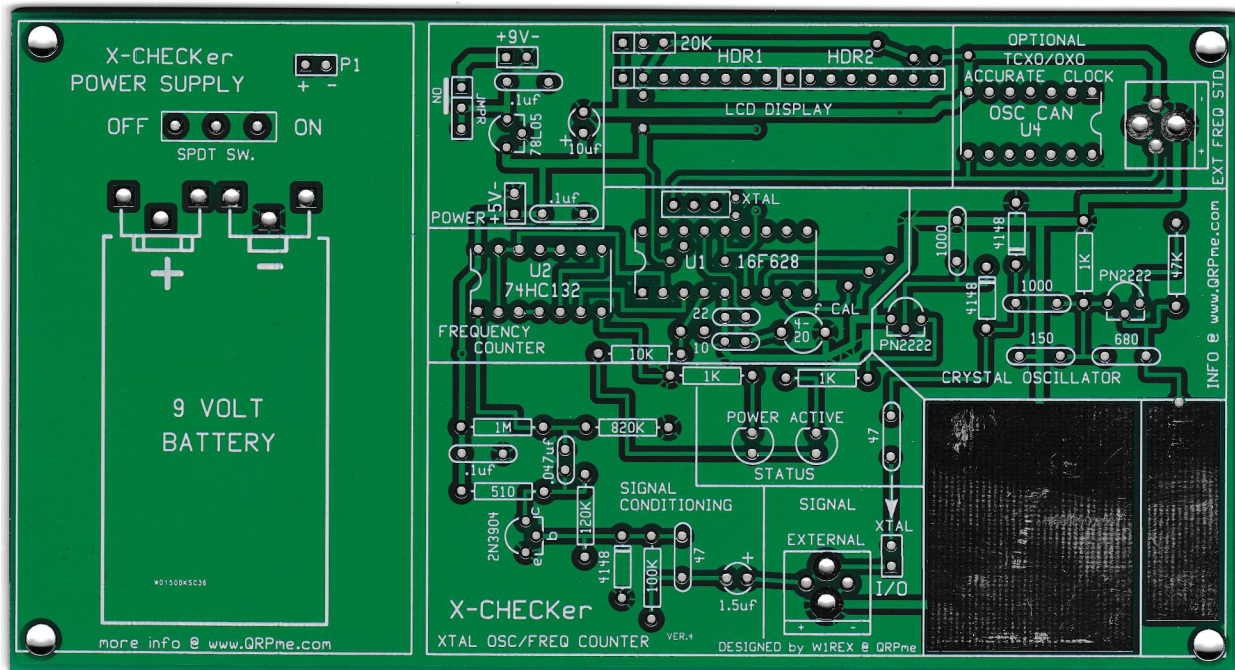


Progression of the X-CHECKer circuit board.



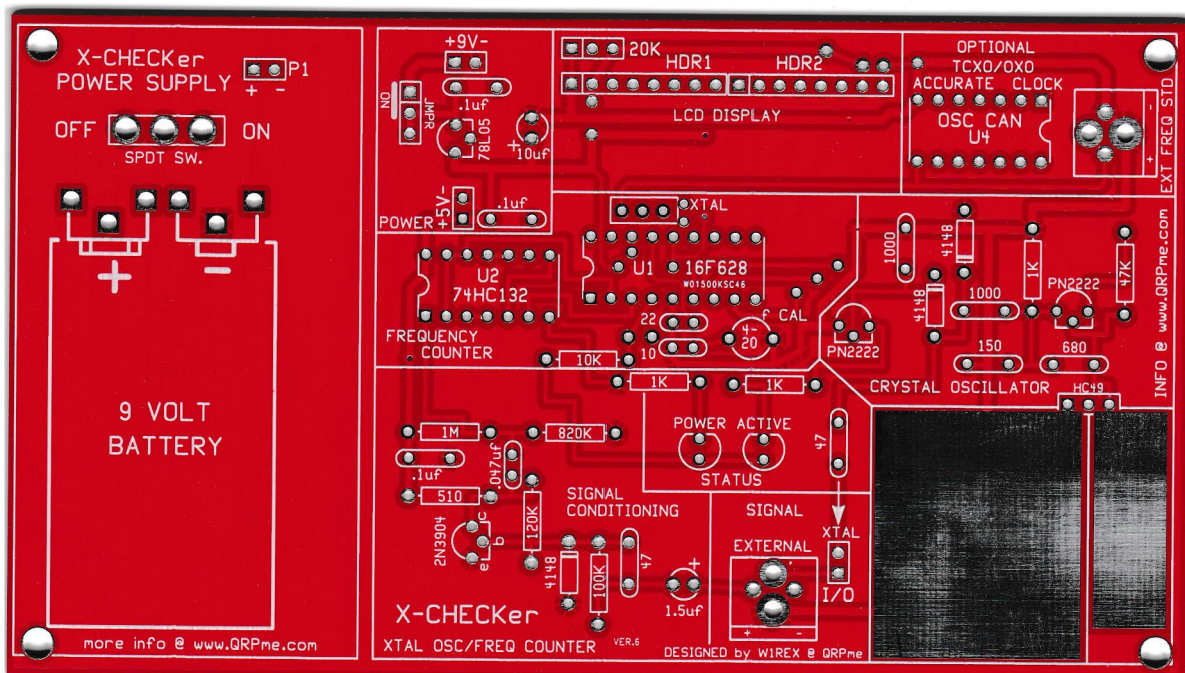
FDIM 2017 Buildathon version

Project worked just fine but there was a suggested modification to the signal conditioning section that allowed for a higher frequency measurement. Power 'switch' was a simple 3 pin header connector with a 2 pin jumper. Jumper the back two pins to turn on the power. A sub-miniature switch could be substituted for the header to make a 'real' power switch. The LEDs were connected to +9 volts so they were a little bright. The 1000pf silk screen designator on the cap just above the XTAL-I/O header was an error as it is supposed to be 47pf.



X-CHECKer V4 circuit board.

The X-CHECKer V4 circuit board had several improvements from the Buildathon version to address deficiencies noted in the QST review. The board was widened to add a nice spot for mounting a 9 volt battery. A miniature switch was added just above the battery. I messed up the spacing of the pads for the switch so the switches I bought didn't fit. I added a sub-miniature switch to the kits for insertion in the original 3 pin header location. The signal conditioning circuit was updated to the suggested mod circuit in case the builder wanted to measure higher frequencies. The LEDs are now driven off +5 volts so not nearly as blinding and the 47pf cap in the same section was now labeled properly. A second set of pads and cuttable traces was added to the LCD connector pins 15 & 16. These are for easily changing the polarity of the LED backlight on LCD modules if desired. A VER4 title was added just to the right of the X-CHECKer board title.



X-CHECKer V5 circuit board.

I fixed the issues with the VER4 miniature switch pads and holes just above the battery. I also added 3 holes to mount a 3 pin SIP socket just above the main crystal measuring pads. The socket is for hands free measuring of HC-48 crystals especially the 'calibration' crystal. I also narrowed the board width to make more efficient use of the relay track. The new board width allows for the saw kerf losses when I cut up the 4' long pieces of relay track. I changed the board color to RED and changed the rev version to REV5.

W1REX