

Build notes for version 1.1 of Chroma DVB Tester R Grieb October 2020

There were some minor issues with the first board which have been corrected in this version, so there is no need to mention them here.

Please install IC sockets for all chips, especially the PIC chip, in case there are firmware updates in the future.

JP1 (next to C5) must be shorted with a blob of solder for the circuitry to work. Install a jumper wire for R24. I used trimmed resistor leads for the Gnd and Vout test points, bent in the shape of a U, sticking up about 1/8" above the board. This gives something to clip an alligator clip or scope probe onto.

The pushbutton switches that the board was designed for were not usable, IMO, so I changed to better ones. Only two of the four holes for each switch are electrically connected, so make sure you install your switches between the correct two holes.

The circuit consisting of U8, D1-3 and associated components was intended for measuring the amplitude of the audio signal, for VCA testing, but is not currently used by the firmware. I suggest that you install these components anyway, in case a test is added in the future that needs them. (I currently, have no plans to add more tests, BTW, but maybe someone else will.)

Resistor R19 controls the LCD contrast. A value of 2.2K seems to work well with the LCD in the BOM. Resistor R20 controls the LCD backlight current/intensity. The 47 ohm value seems fine to me.

The display called out in the parts list has two rows of holes, one along the top edge, and one along the bottom edge. These are connected in parallel on the module, so that either one can be used. I implemented both rows of holes on the pcb, so that the connectors could be used to support the LCD. Only the top row of holes on the pcb are connected. There are other LCD's from the same vendor with different color schemes, but the one I specified seems to be the only one that has both rows of holes. So probably one of the other ones would also work, but you would need to support the LCD in some other way. Connector H1 was added to the pcb to support mounting the switches and LCD remotely, in case someone wanted to do that.