

Active audio tilter - Component layout

Avoid mounting the unit near to any AC mains supply or AC-carrying leads. If you are going to use it as a 'standalone' unit with an additional AF amplifier, the input, if driven from the speaker or headphone output of your receiver will need to have its input impedance reduced — connect a 4.7 ohm 1 or 2 watt resistor between point A and ground.

Use with Project Ω transceiver

As mentioned earlier, the gain can be varied by changing the value of R6. For the HF transceiver project, R6 should be 2.2k for unity gain. As IC2b (the 2.2kHz low-pass section) is

somewhat superfluous with this design which already uses a 2.2kHz SSB filter, it can usefully have the component values changes to the same as IC3a (ie. $C11=.022\mu F$, $C12=.018\mu F$ and $C13=.0015\mu F$). This gives an additional 2.0kHz lowpass section in cascade which will improve the skirt rejection still further.

Using with the DSB80

When used with the DSB80, the unit can be mounted behind the main PCB with the input at the left-hand side of the board. The switch for SSB/CW on the transceiver was specified as a double-pole changeover type — this was to accomodate the switching of this filter. It is suggested that the 2.0kHz bandpass output is wired for the SSB position, and one of the H, I or J outputs for CW, depending on your preference.

If you want more positions available, then a rotary switch will be required. If the digital display of the DSB80 is not being used then the switch can be mounted on the front panel (don't forget to use screened leads), otherwise it will have to go on the back as there isn't much room elsewhere. The drawing shows how to connect up the filter with the DSB80 as a two position unit only.

