Bandpass filters designed with Elsie by Jan Verduyn G0BBL – QRP2000 Design Team for Softrock V9 Plugin BPF Kit by Tony KB9YIG

Each of the plots shows Transmission and VSWR.

The main design objective was to provide optimum 3\textsuperscript{rd} and 5\textsuperscript{th} harmonic attenuation of the main Amateur Radio band for each BPF to reduce spurious response of QSD detectors due to sub-sampling.

1. Band 1 - 1.8 MHz – 4 MHz Bandpass filter design

![Bandpass filter diagram]

Attenuation of the 3.5 MHz Amateur Band at 10.5 MHz is additional -40dB, at 17.5 MHz – 55dB
2. Band 2 - 4 MHz – 8 MHz Bandpass filter design

![Bandpass filter circuit diagram]

Attenuation of 7 MHz Amateur band at 21 MHz is additional -40dB, at 35 MHz – 55dB
3. Band 4 - 8 MHz – 16 MHz Bandpass filter design

![Bandpass Filter Circuit](image)

Attenuation of 14 MHz Amateur band at 42 MHz is additional – 40dB
4. Band 2 - 16 MHz – 30 MHz Bandpass filter design

Attenuation of 21 MHz Amateur band at 63 MHz is additional -31dB and about -47dB at 105 MHz