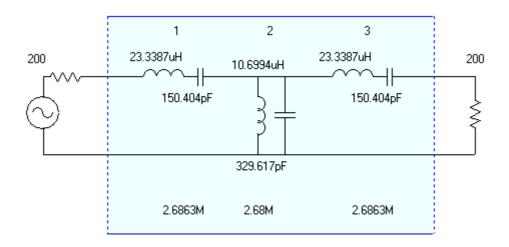
# Bandpass filters designed with Elsie by Jan Verduyn G0BBL – QRP2000 Design Team for Softrock V9 Plugin BPF Kit by Tony KB9YIG

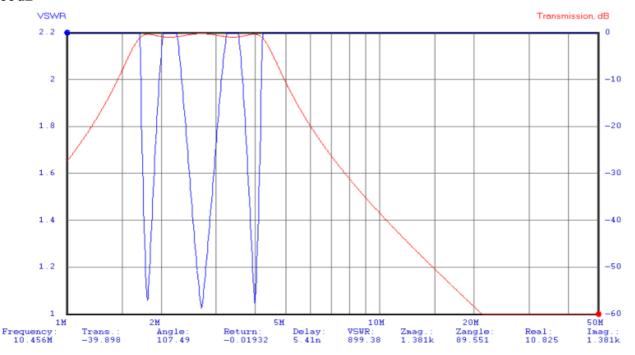
Each of the plots shows Transmission and VSWR.

The main design objective was to provide optimum 3<sup>rd</sup> and 5<sup>th</sup> harmonic attenuation of the main Amateur Radio band for each BPF to reduce spurious response of QSD detectors due to subsampling.

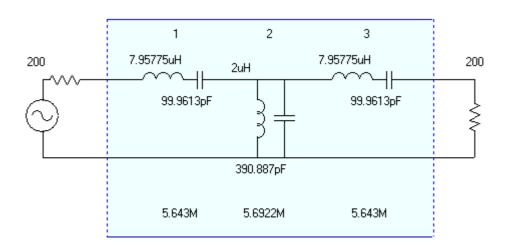
### 1. Band 1 - 1.8 MHz - 4 MHz Bandpass filter design



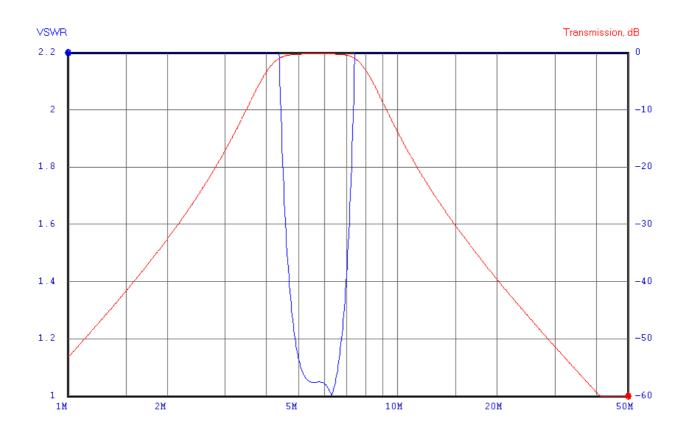
Attenuation of the 3.5 MHz Amateur Band at 10.5 MHz is additional -40dB, at 17.5 MHz – 55dB



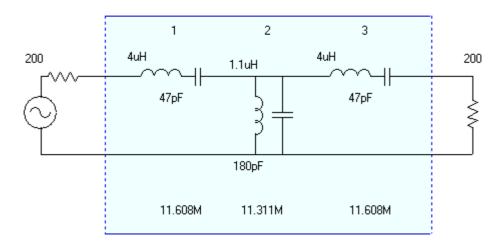
## 2. Band 2 - 4 MHz - 8 MHz Bandpass filter design



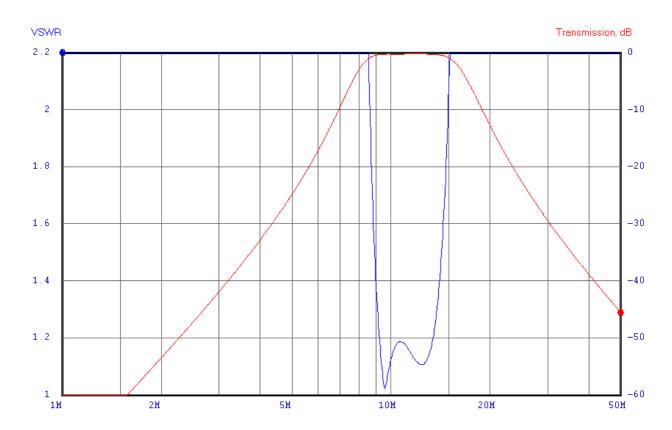
Attenuation of 7 MHz Amateur band at 21 MHz is additional -40dB, at 35 MHz – 55dB



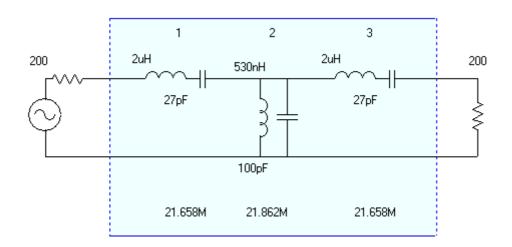
## 3. Band 4 - 8 MHz - 16 MHz Bandpass filter design



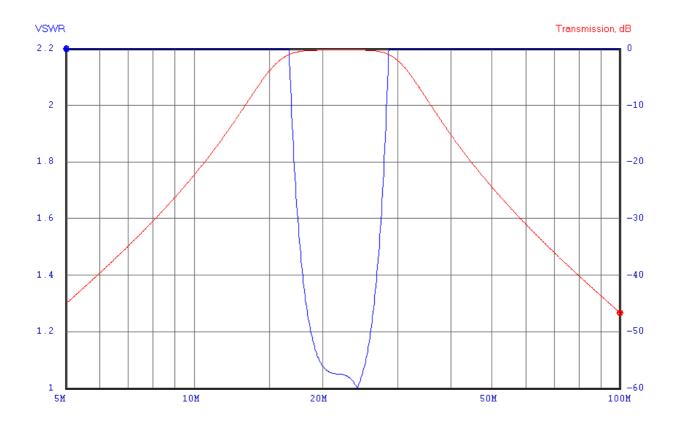
Attenuation of 14 MHz Amateur band at 42 MHz is additional – 40dB



## 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



73,

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