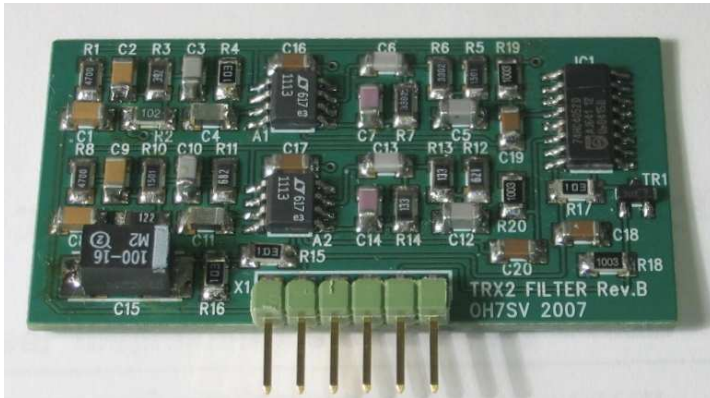
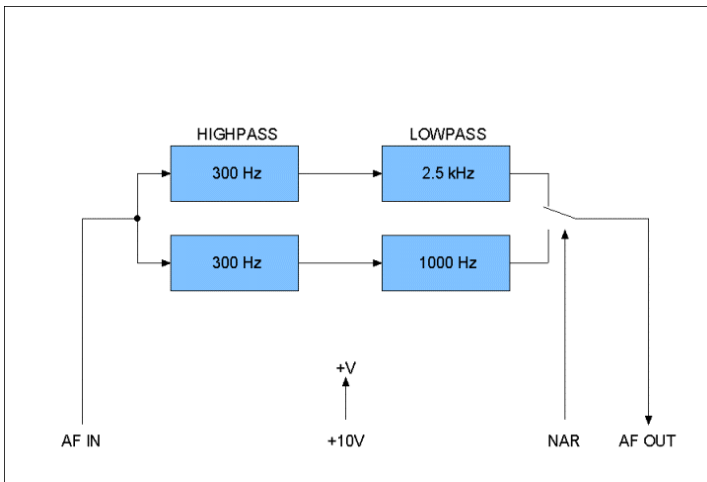


General

The JUMA TRX2 filter board is plug-in module on the main board. It is a low noise, wide dynamic range filter used as the 1st bandpass filter in the RX audio path. The gain is 0 dB. The total noise is 3 μ Vrms and the maximum signal is 3 Vrms, thus the dynamic range is 120 dB. The filter board includes two filters, the wider for SSB and the narrow for the CW. The final selectivity in the JUMA TRX2 is defined by the post SCAF filter which is user adjustable.



The filter plug-in module



JUMA TRX2 filter board block diagram

The circuit description (See the filter board schematics)

There are two alike circuits on the board, one for the wider filter and the other for the narrow filter. Only the component values are different in these two filters. The two filter inputs are driven in parallel and the output is selected by means of the analog muxer IC1. This selection is controlled by the "NAR" signal. The first filter stages (A1-A, A2-A) act as combined active highpass/lowpass filters and the next stages (A1-B, A2-B) are additional active lowpass filters. The 6 dB rolloff frequencies are 300 Hz for the highpass and 1000 Hz/2700 Hz lowpass respectively.