Wider bandwidth IF filter for NFM

With this modification you got possibility of:

- Meteosat and other geostationary satellites weather pictures decoding
- NOAA and other polar orbiting satellites weather pictures decoding
- 9k6 amateur packet decoding
- Significantly better readability of Inmarsat voice transmissions
- Decoding other higher speed data transmissions as FAX etc.
- if you know of another let me know

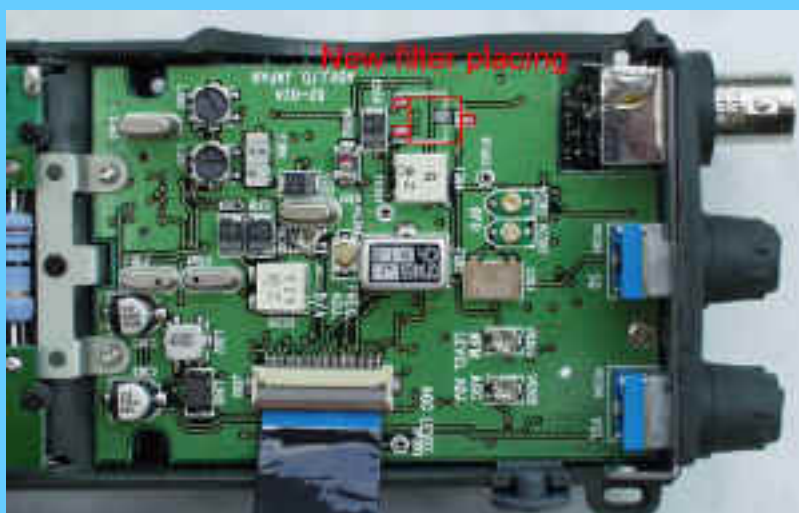Three types of narrowband IF (Intermediate Frequency) filters are used in AR8200:
- 3 kHz for both SSB, CW and NAM
- 9 kHz AM and SFM
- 12 kHz for WAM and NFM

Widest one is 12 kHz filter, but if you want to use AR8200 for decoding higher data speeds or other data transmissions you need bandwidth at least 30 kHz and one of filters must be replaced by wider type. You can change any of these three filter but I recomending 12 kHz filter. Standard narrowband FM transmission you can still receive on SFM mode without significant difference between 9 kHz SFM and original 12 kHz NFM mode. Same thing for WAM and AM receiving mode, because NFM and WAM using one filter. Of course you can still clearly receiving for example amateur repeater on 30 kHz filter but if there is another transmission on channel 12.5kHz close you will hear it in background too.
After searching on Murata website I have found type for ideal replacement - SFGCG455BX. It has same package, bandwidth of 30 kHz (+/-15kHz) and SMD package same as Murata filters used in receiver. Other filter parameters as loss and impedance little vary but it is not problem. The problem is source for this new filter. I'm tried contact official distributors but they selling 500+ quantities. Other components distributors like RS-components, GME or GES don't have any of Murata filters in stock. My last try was searching by web search engine. And I was found one radioamateur components distributor here in Europe selling this filter by one piece. They are from Finland and nam is EL-KAMA. They also selling other hard to find components.
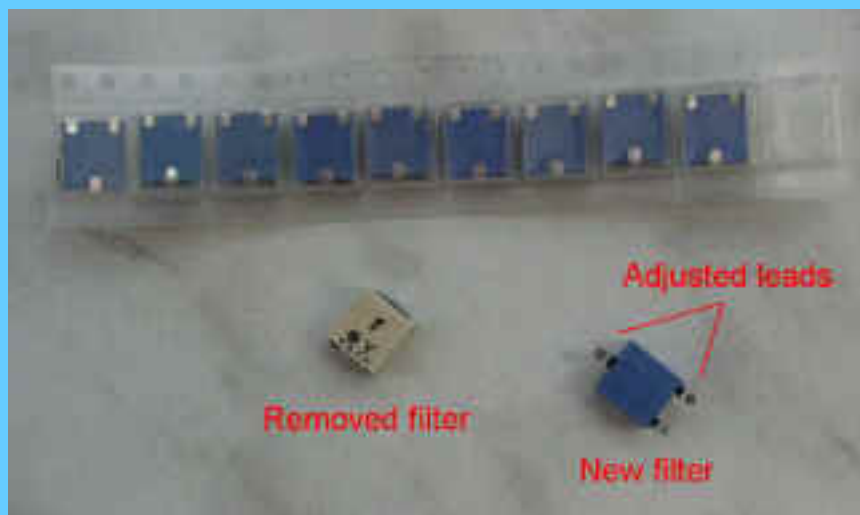
IF Board with original filter:

Desolder old filter located on IF board using desoldering braid:

Adjust new filter leads and solder on place:

Removed filter

Adjusted leads

New filter