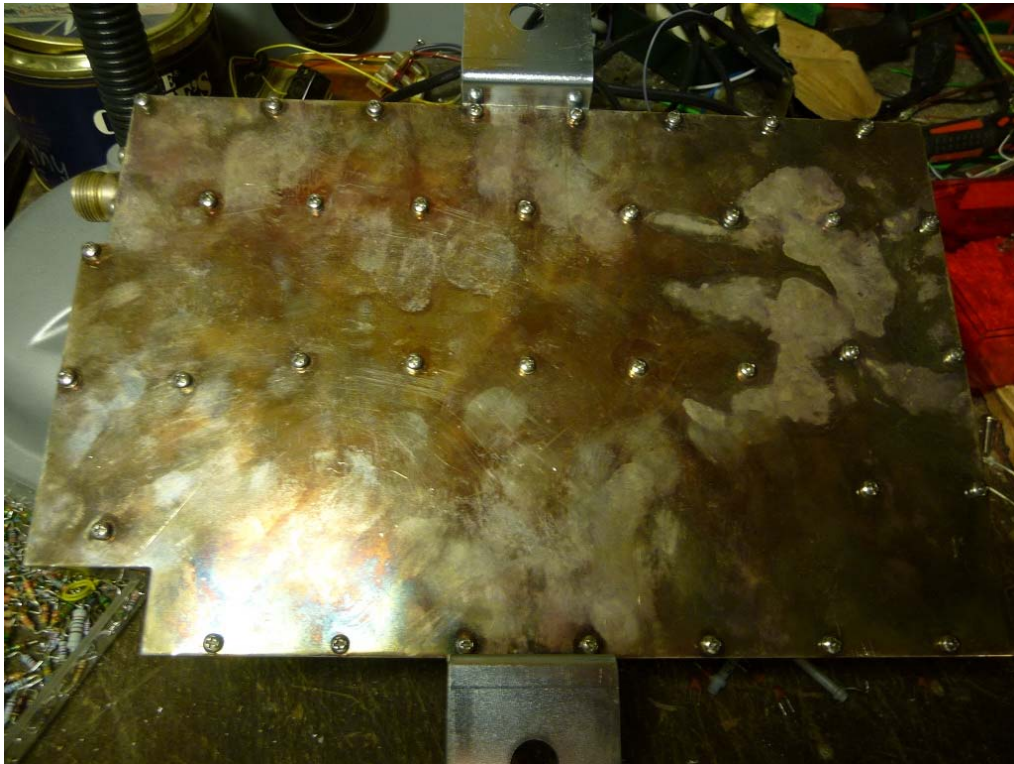
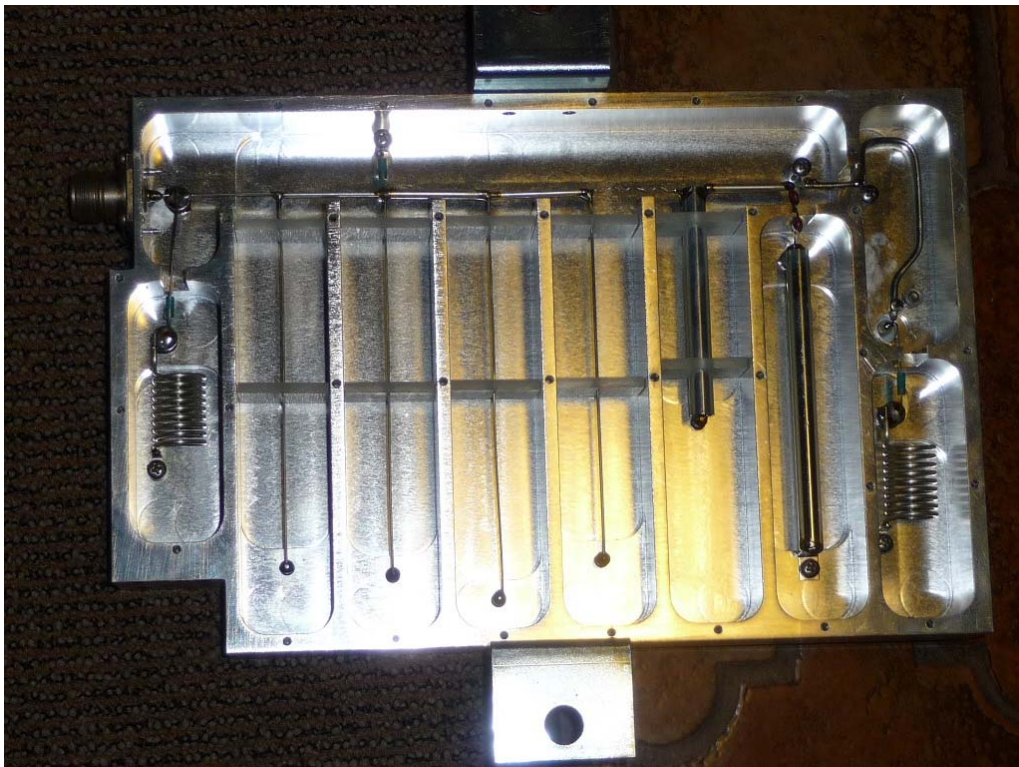


## Low Pass – Stop Band Filter

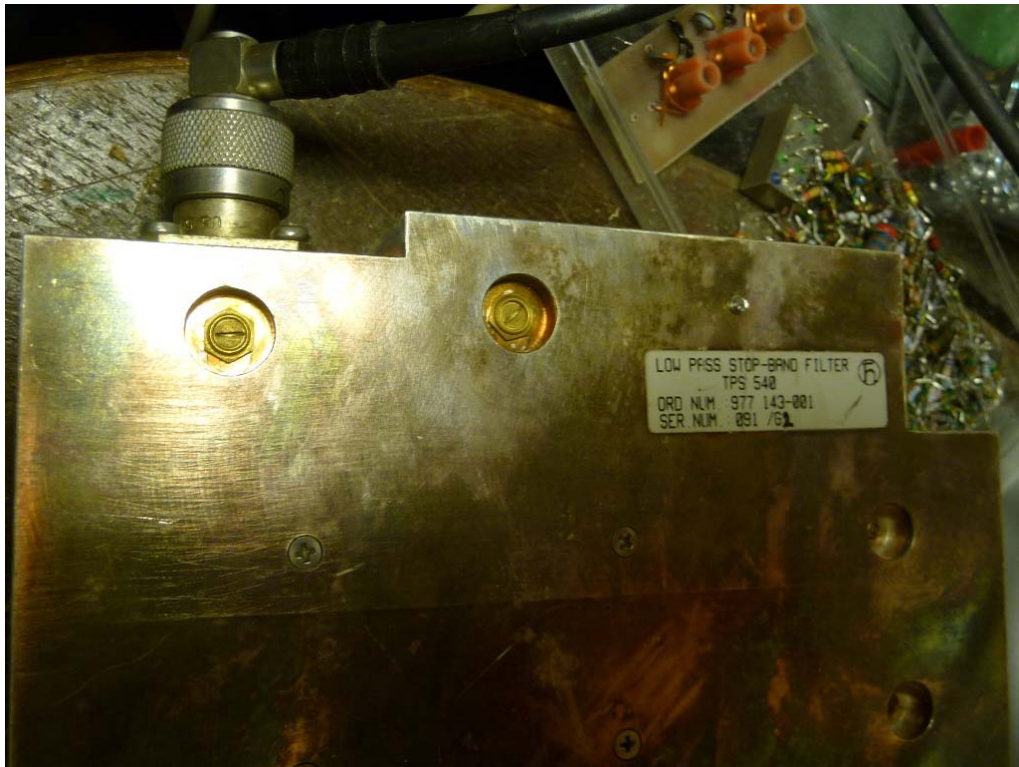
Searching for some components for my new 70cm transverter I discovered a strange silver plated box in my stock. I cannot remember which dustbin it comes from but I am quite sure that I saved it because of the ceramic capacitors which I could see in the case.



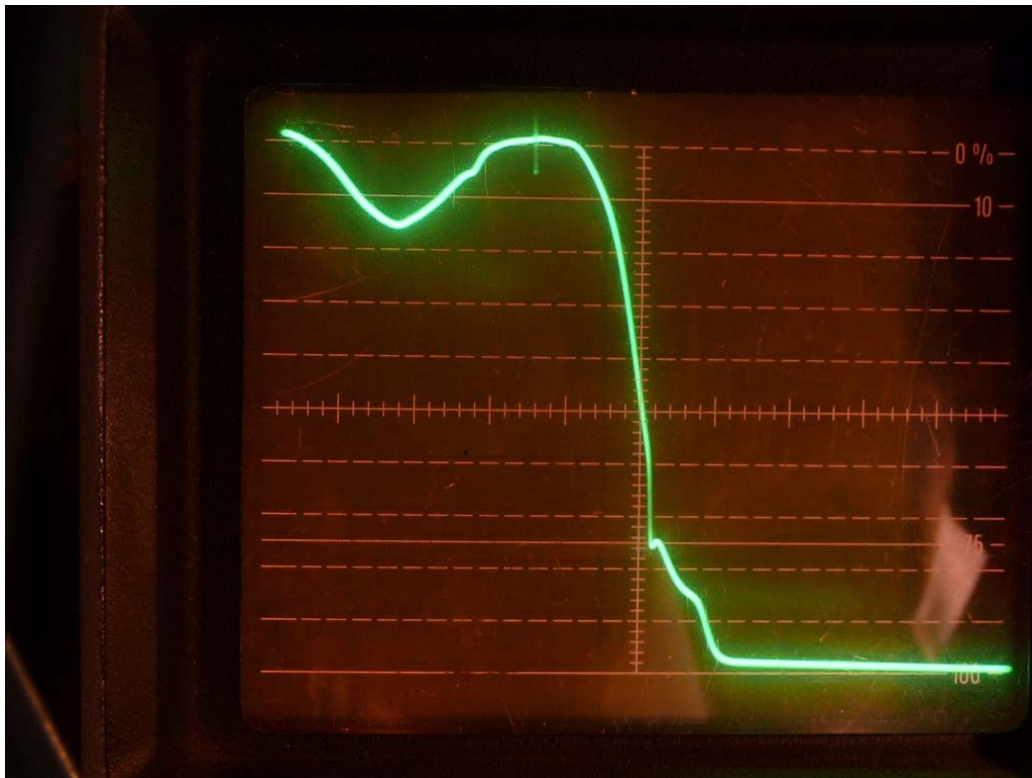
After opening the bottom I could recognize a nice filter.

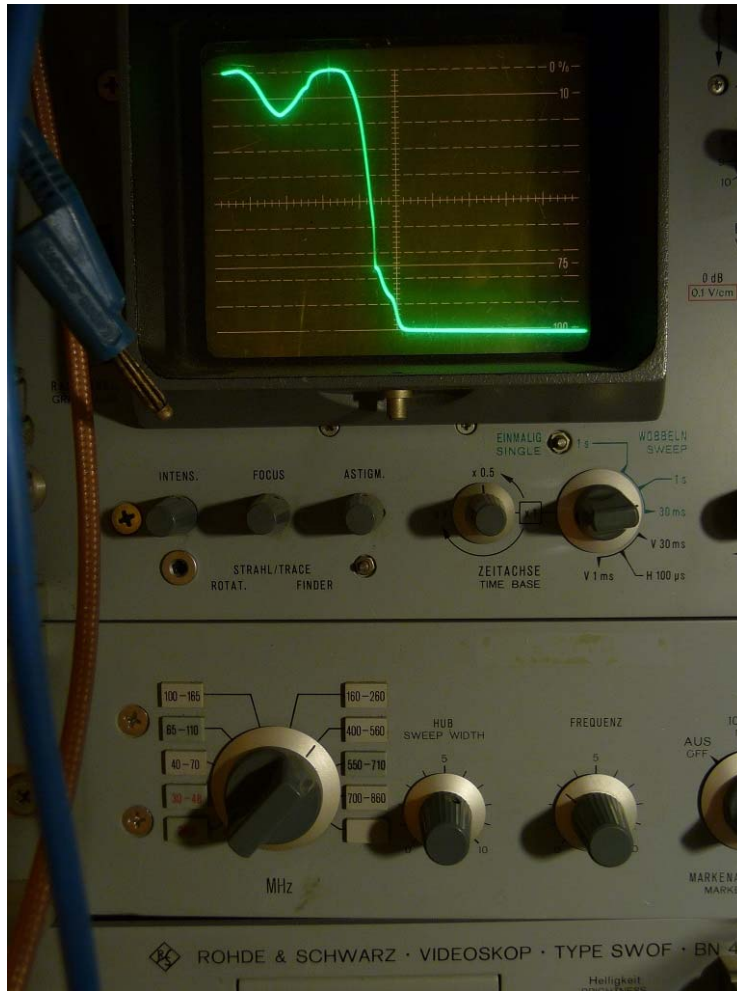


Replacing the original connectors to N- type I connected it to my SWOF.

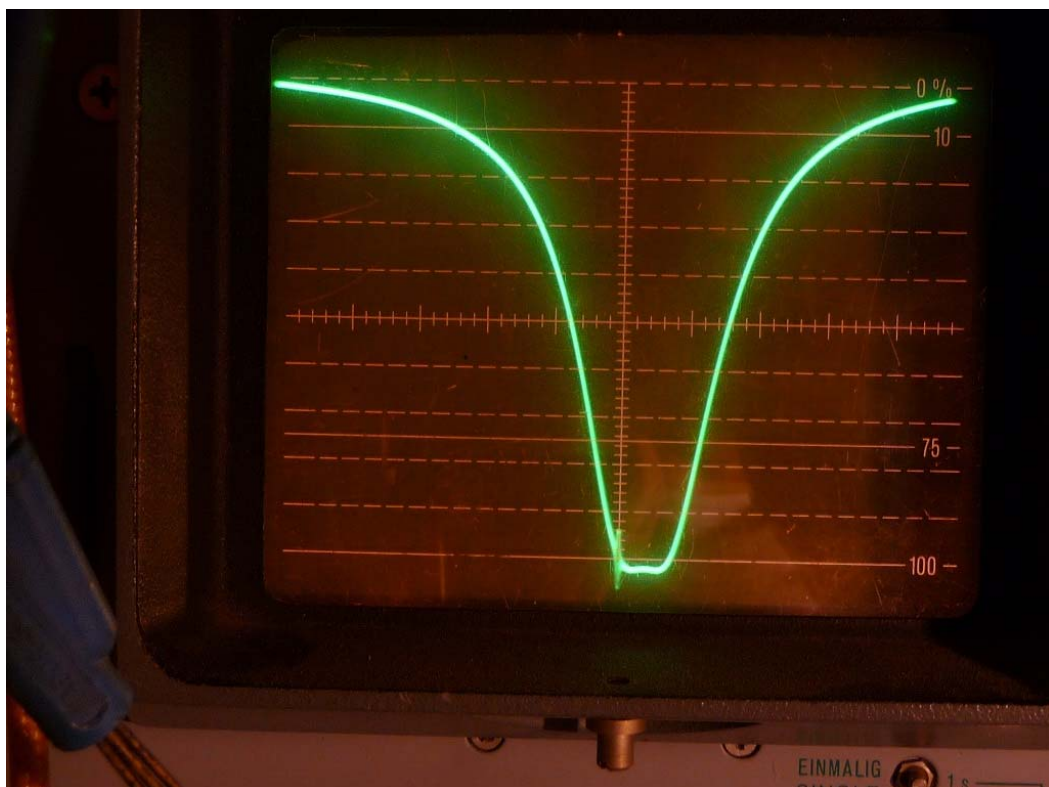


Doing some experiments I was able to tune the filter as it is shown in the next two pictures. The frequency marker is at 432MHz.



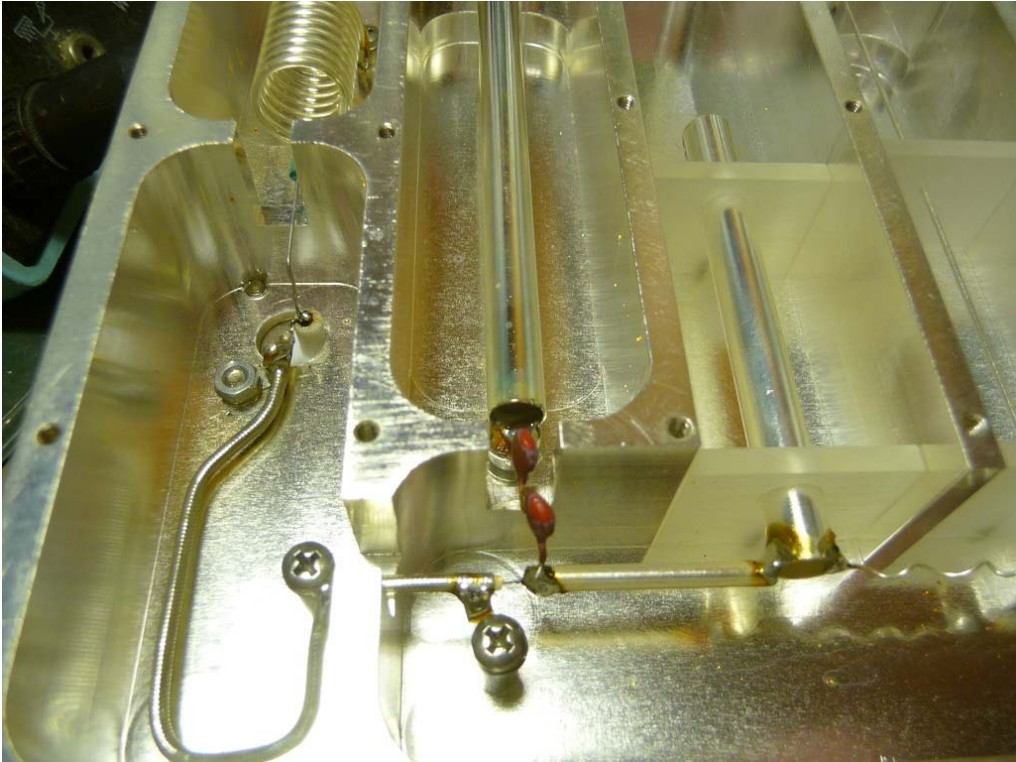
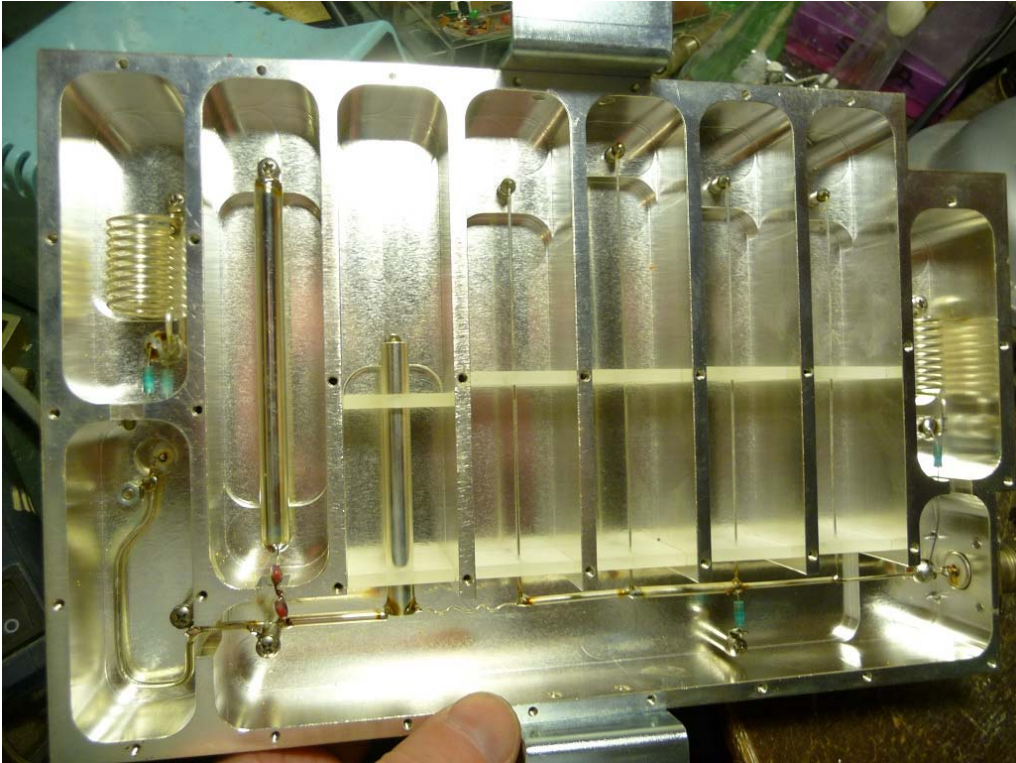


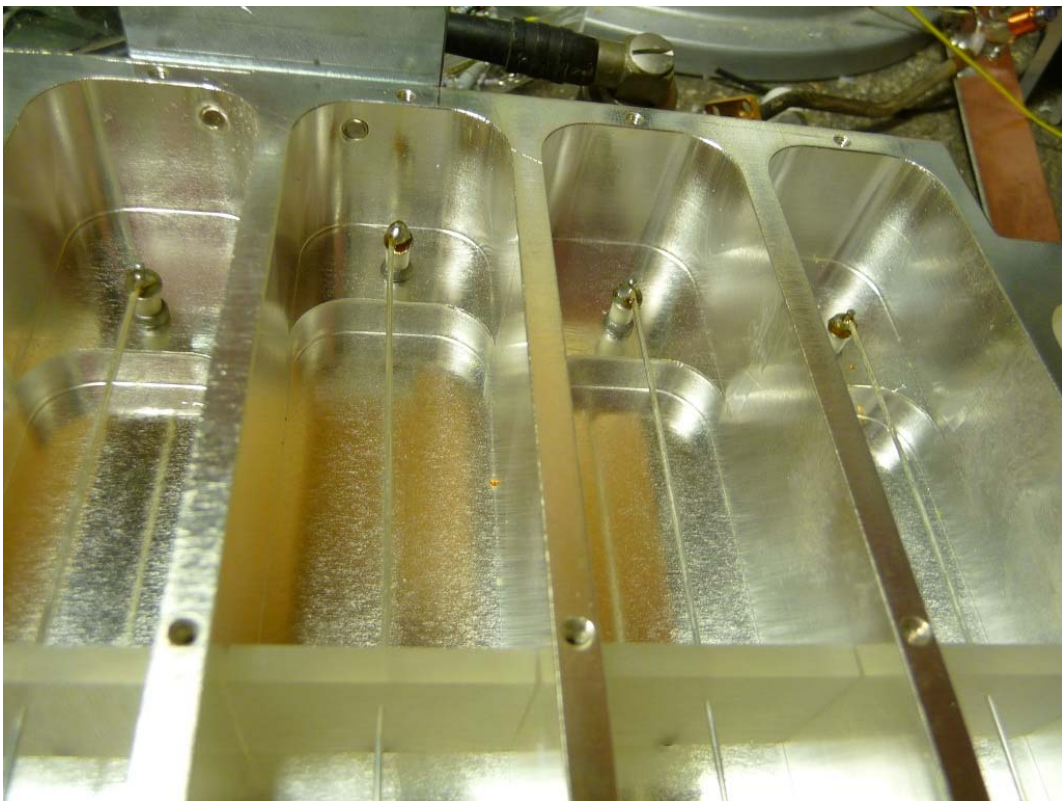
It is very interesting that the filter includes also two Notch- filters which I was able to tune them to 144MHz.



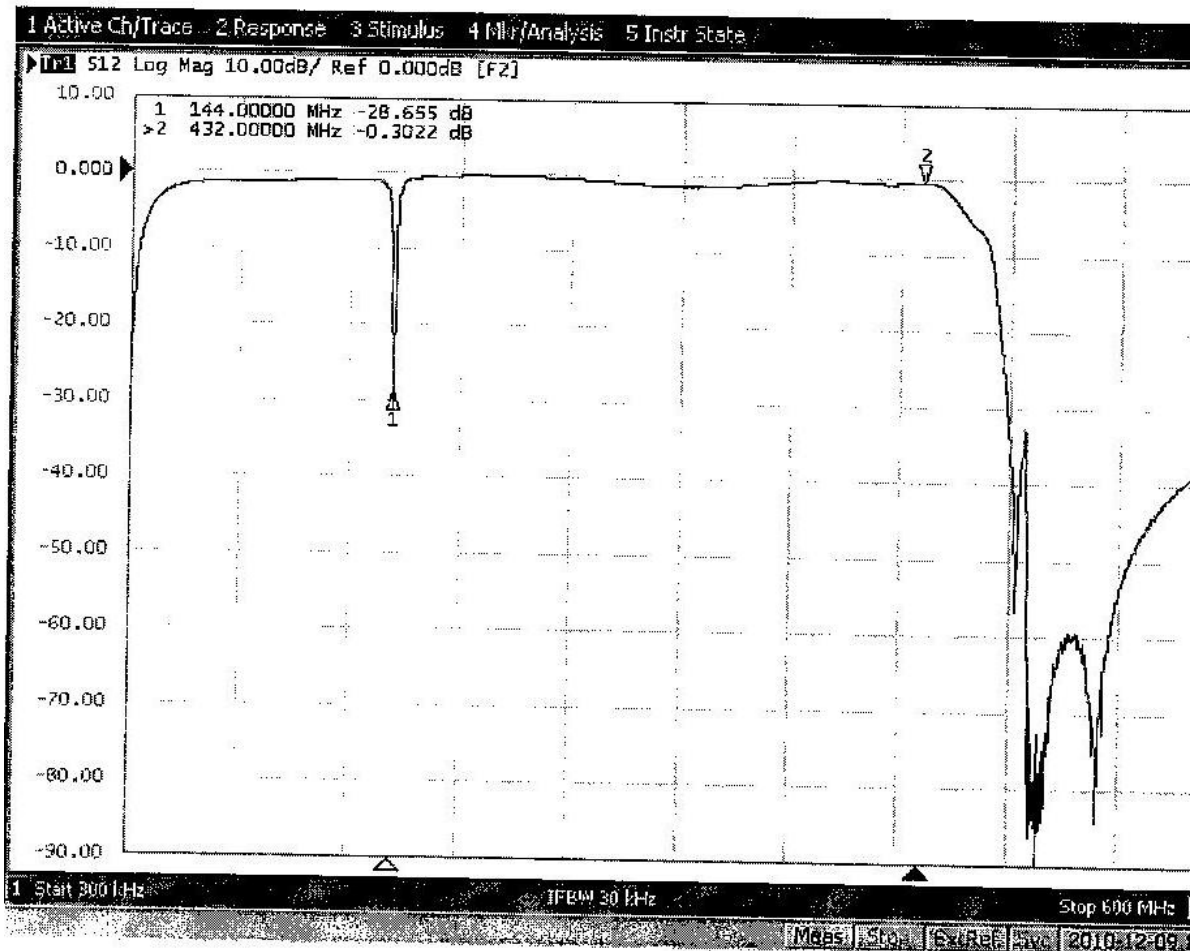
Sometimes it could be a great help to reduce the rf- field strength from the 2m transmitter at the 70cm front end if the station is working at the same time on both frequencies. As I am using for each band a separate tower with the antennas sometimes I get problems if the 2m antenna looks directly to the 70cm array.

The following pictures are showing the details from the filter after my modifications.





As I am not able to sweep the whole frequency- range between 0 and 1000MHz in one step, I asked my friend Mike, DB6NT, to do this at his company where his ufb equipment is available. I have to say thanks to him for the plot from the results which shows the next picture!



The measured insertion loss at 432MHz is only 0.3dB, the attenuation at 144MHz reaches 28dB and at the frequencies higher than 460MHz it is somewhere between 60- and 80dB. If in the neighbourhood is a TV- transmitter working, also the filter is able to relieve the preamp.

At last I made a sketch from the mechanical details

