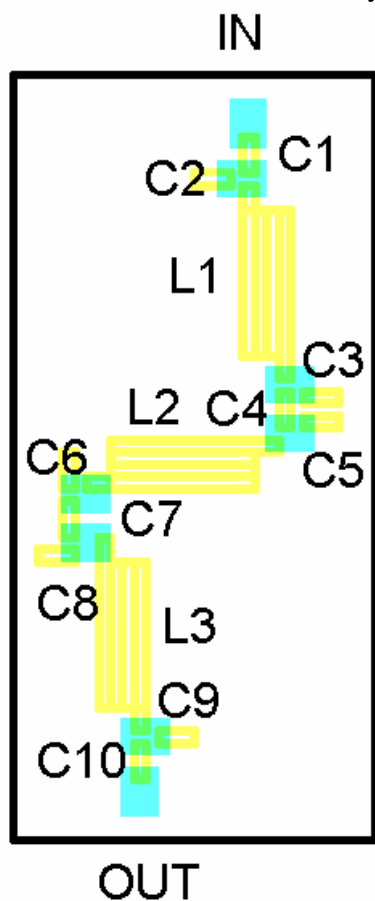


Band Pass Filters for 6m

Dipl ing Tasić Siniša –Tasa YU1LM/QRP

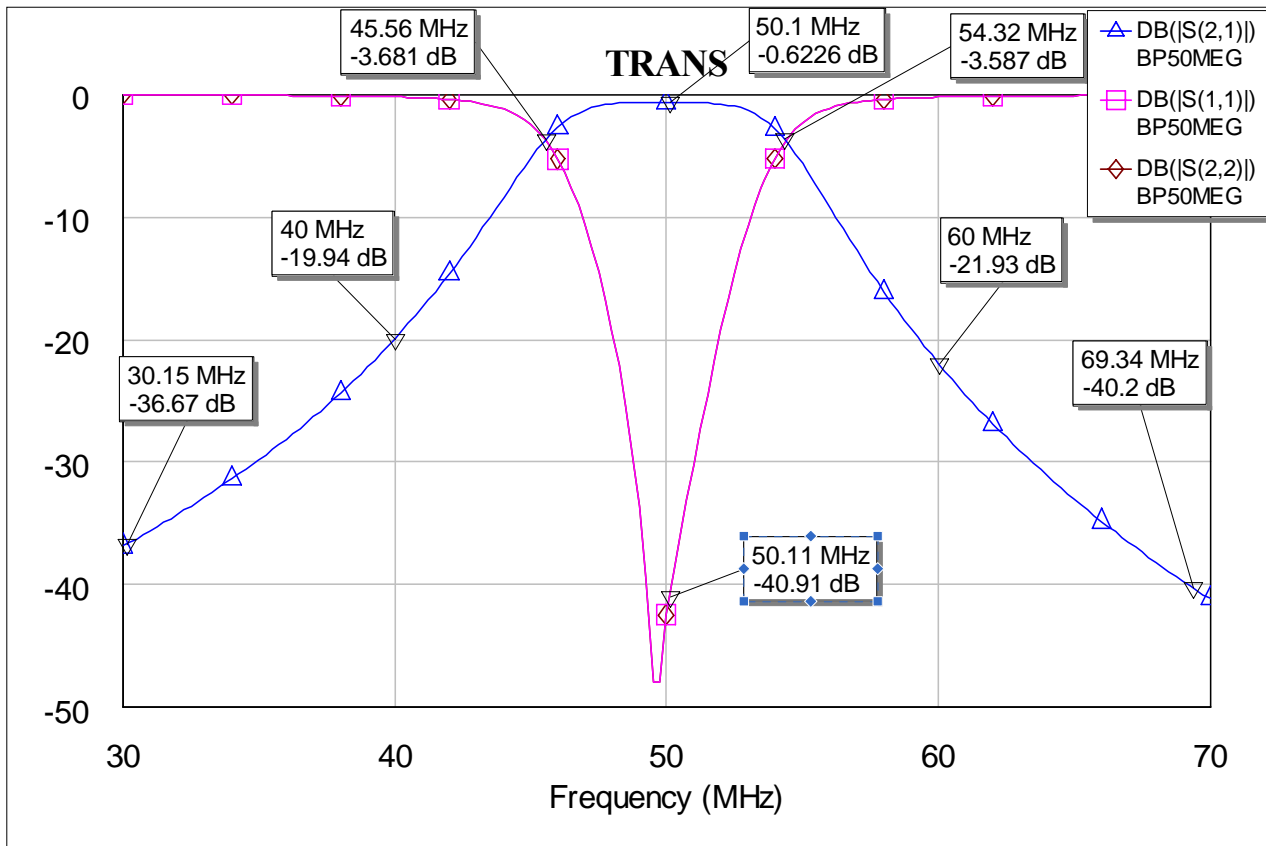
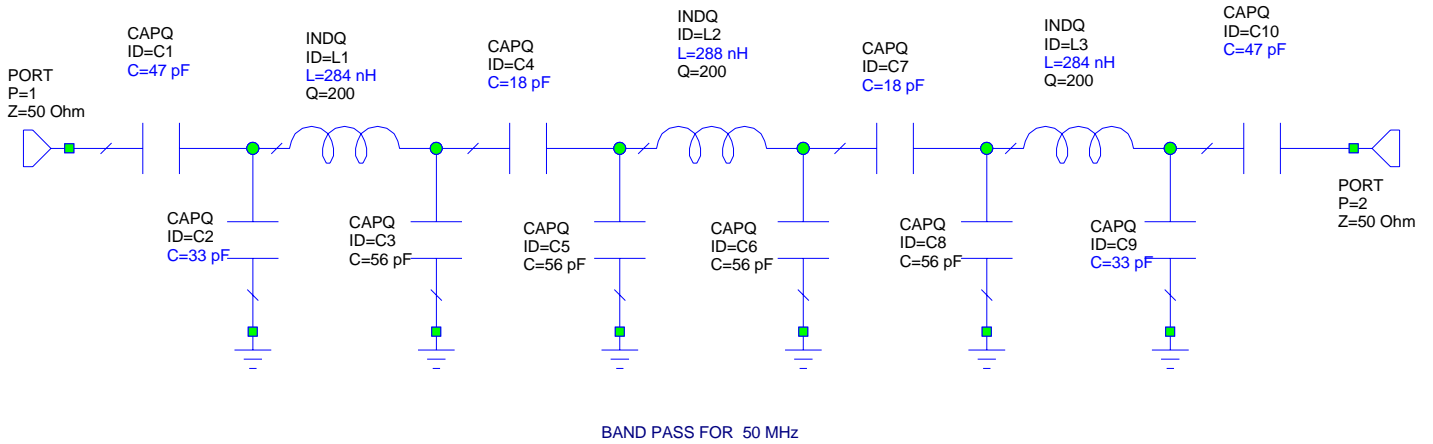
At local HAM forum BalkanDX was discussion about BP (band pass) filters for the 6m few years ago. Here are my proposals band pass filters for 6m band. First filter is with minimum IL (insertion loss) lower than 0.7 dB. This filter is possible to use except in the receiver and also in the transmitter chain. Second filter is with moderate IL loss less than 1.5 dB. The third filter is with max selectivity and IL is less than 2.5 dB. Realization is a very simple and non-critical. Please take care only about physical coils placement. It is necessary to prevent mutual coupling between coils or this coupling has to be minimized. This unwanted coupling will destroy out of band selectivity. Best way for montage is free space construction but it is possible make a PCB. Take care that coils are perpendicular one to each other. See my proposal down please

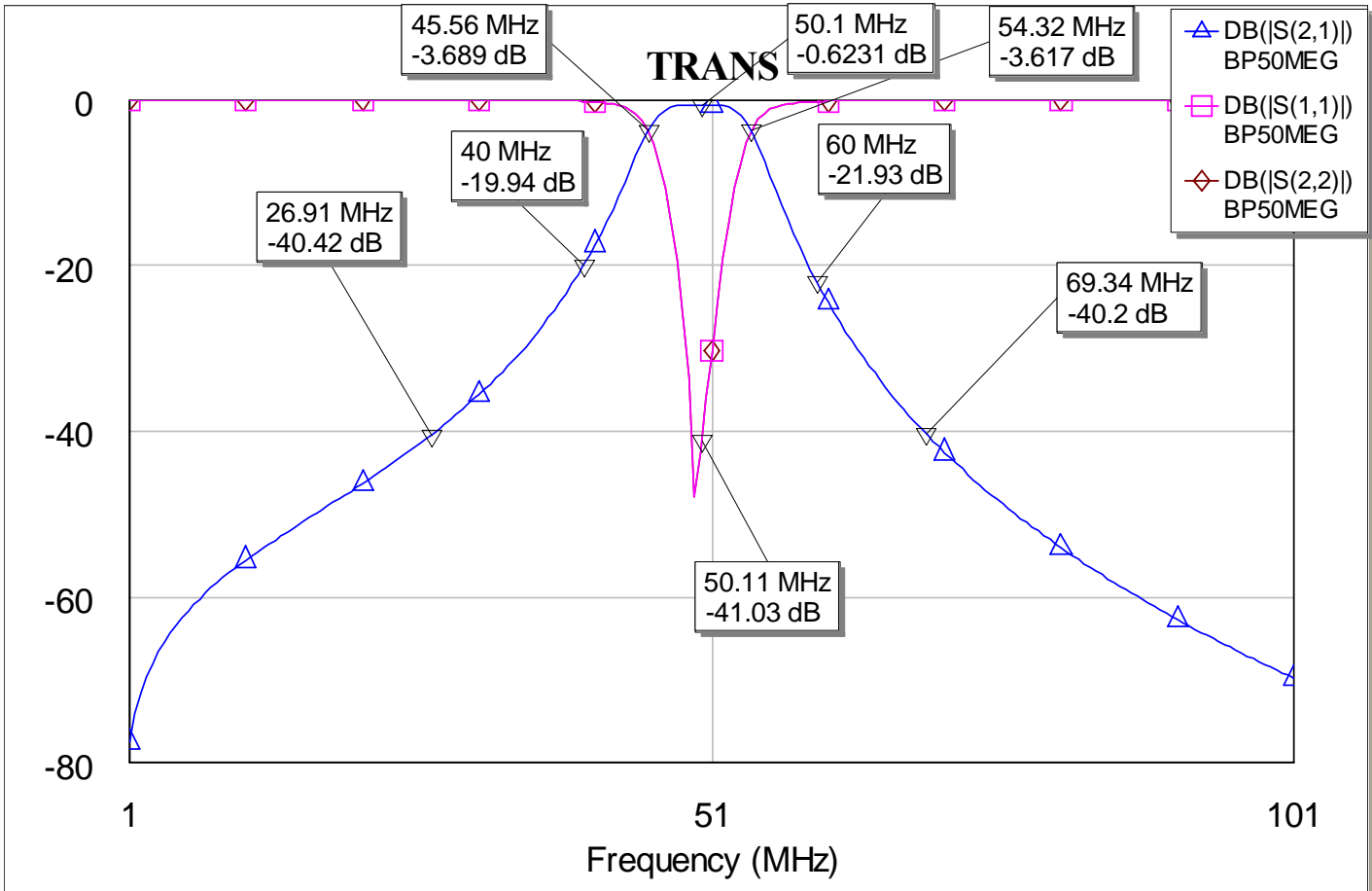


PCB DIMENSION 40 X 80 mm

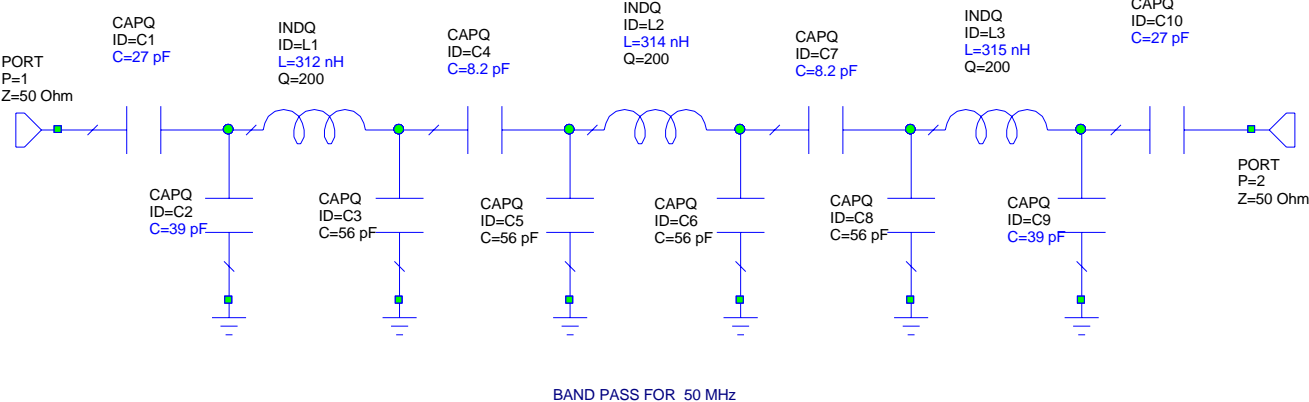
All coils are equal and wound with isolated copper (Cu) wire diameter 1.2 mm (AVG18) without support on body diameter 14 mm. Coils length is 5 mm with 4 turns. For coils with smaller inductivity than 320 nH it is necessary only to make carefully space between wounds.

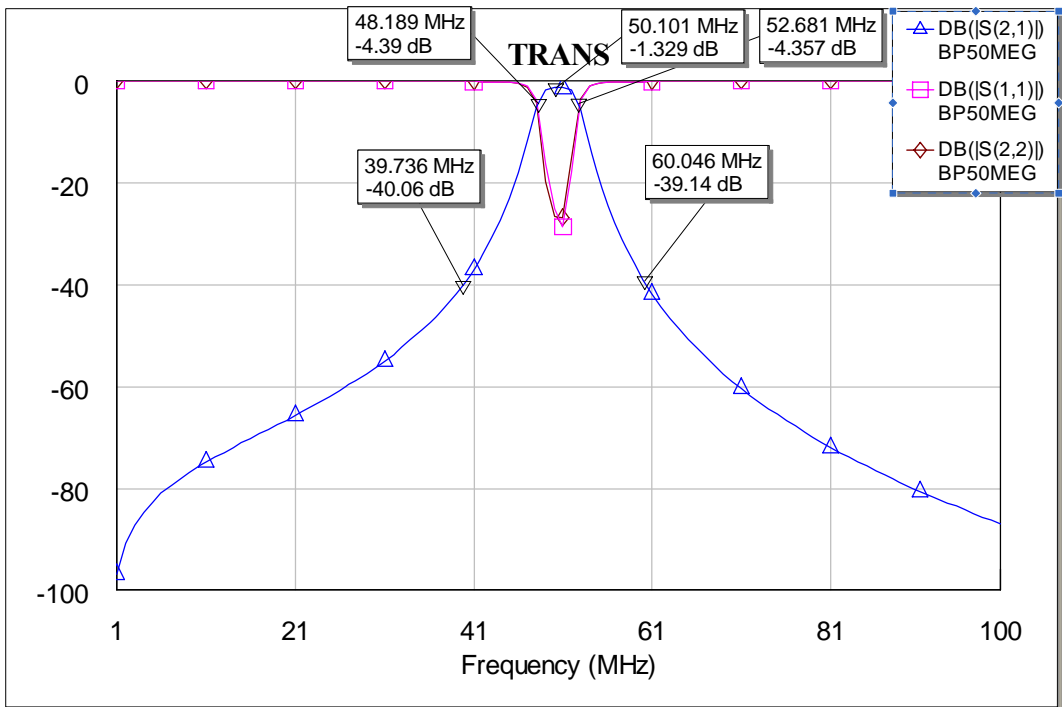
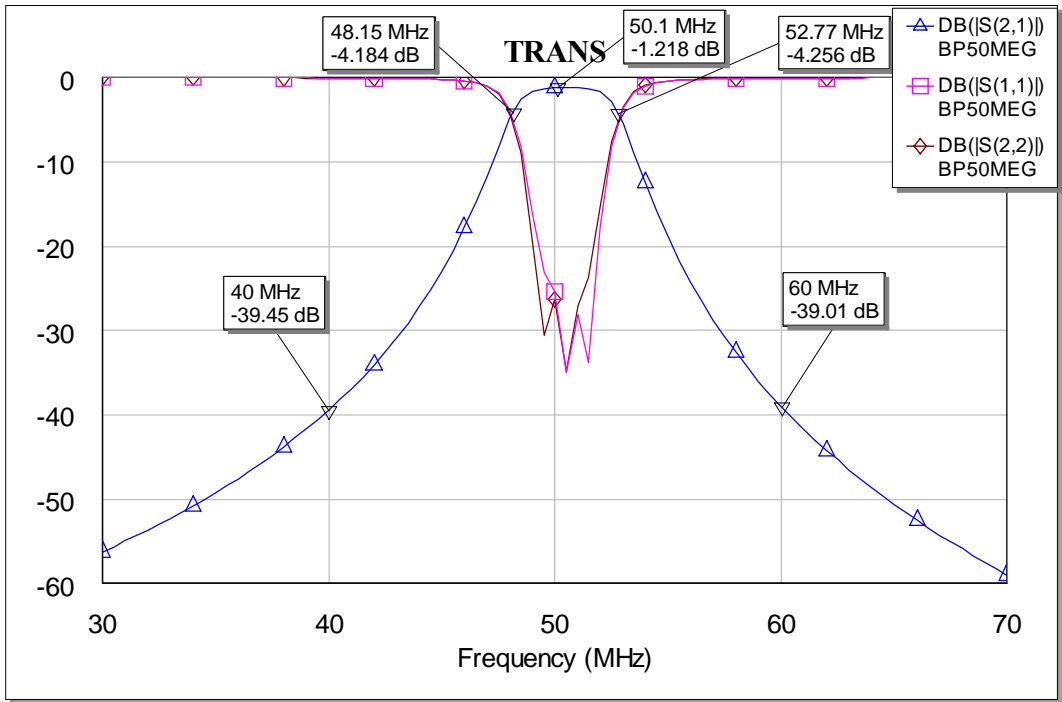
1. Minimum IL 6 m BP filter –This filter can be at RX input or TX output. BP Bandwidth is 8.7 MHz (-3 dB)



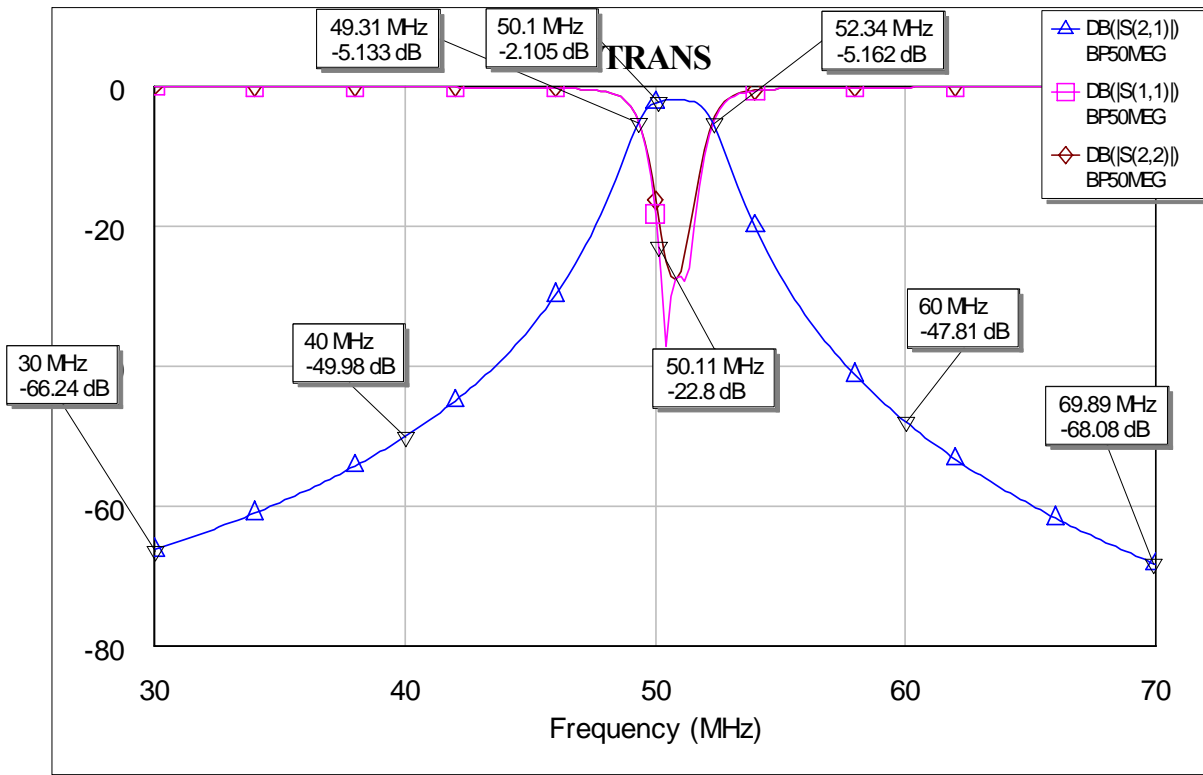
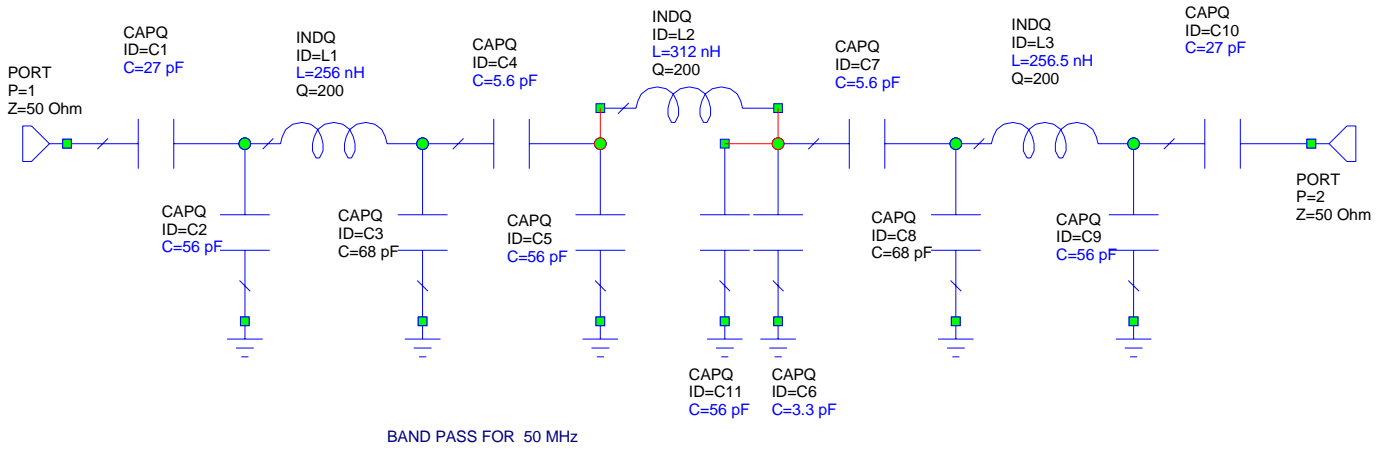


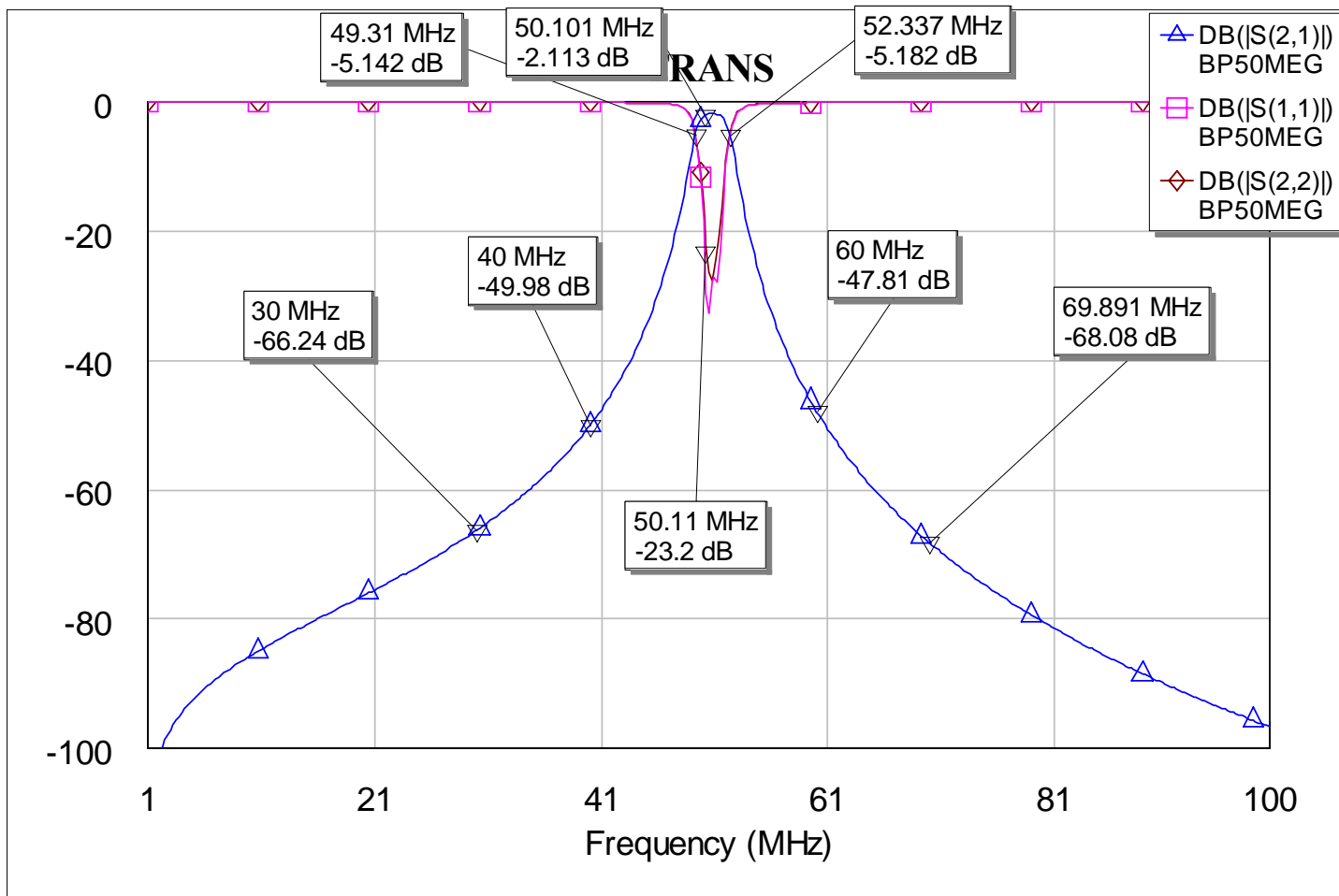
2. BP filter for 6 m with moderate IL. This filter can be used in receiver and transmitter chain also. Bandwidth is 4.6 MHz (-3 dB)





3. Very narrow 6m BP filter, adjustment for this filter realization is relatively critical. Filter's bandwidth is 3 MHz (-3 dB).





Practical BP realization gave results similar compared to this simulations obtained curves. I wish you successfully realization BP filters for 6m.

VY 73/72 Tasa YU1LM/QRP
Belgrade, September 2006