

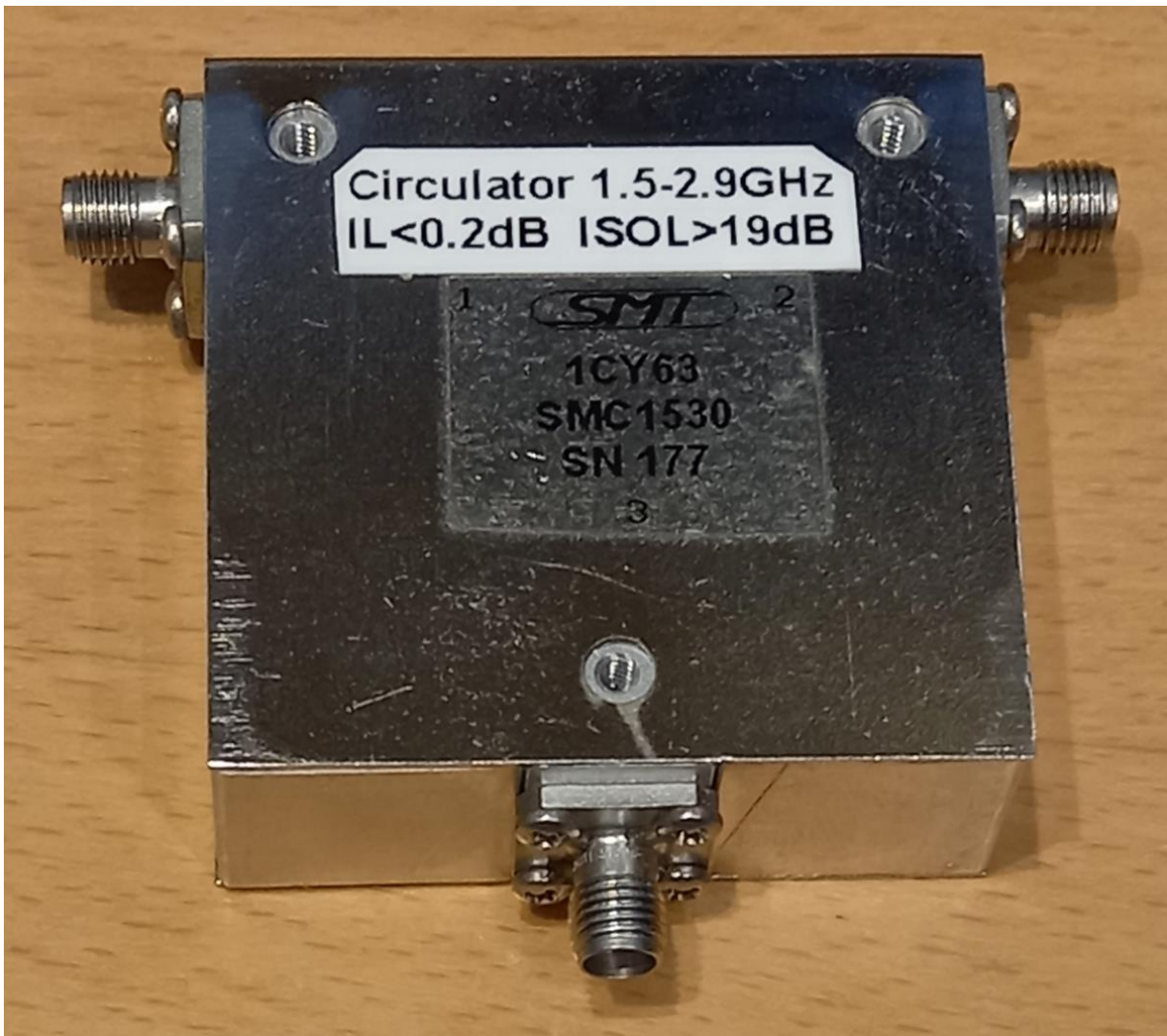
13cm band circulator SMT 1CY63 SMC1530

Matthias, DD1US, November 24th 2021

Hello,

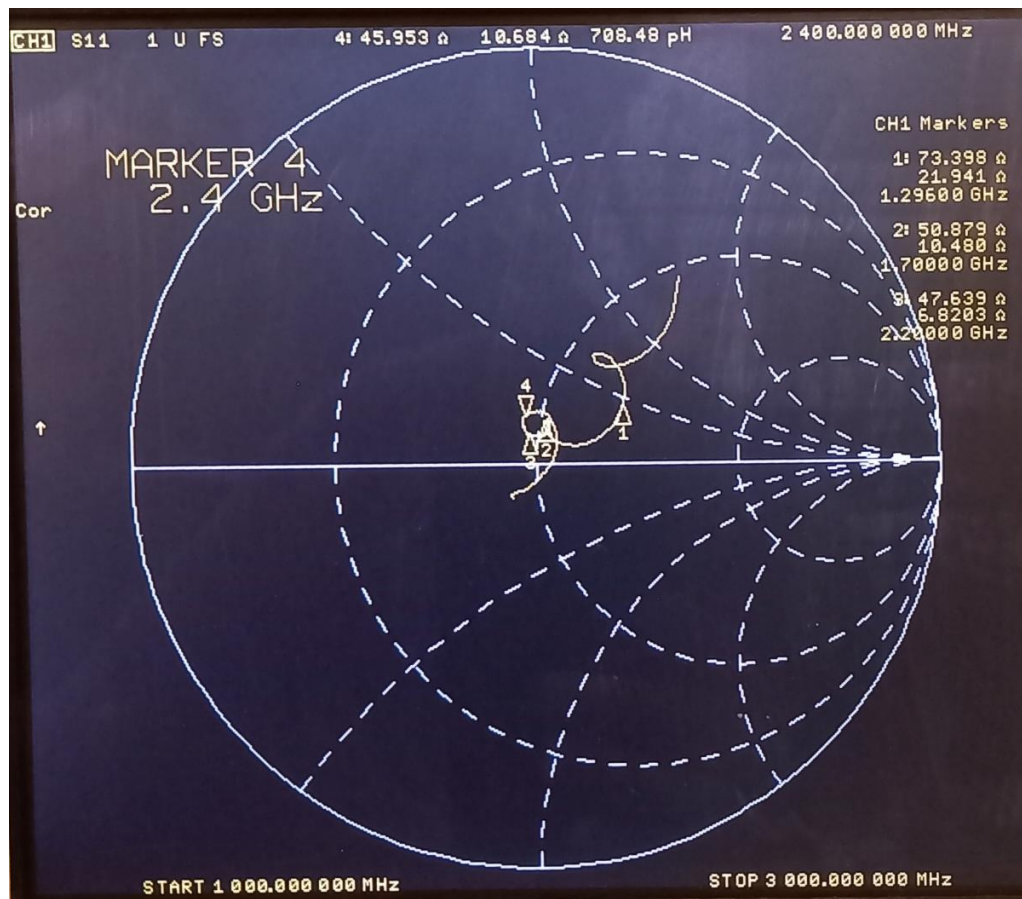
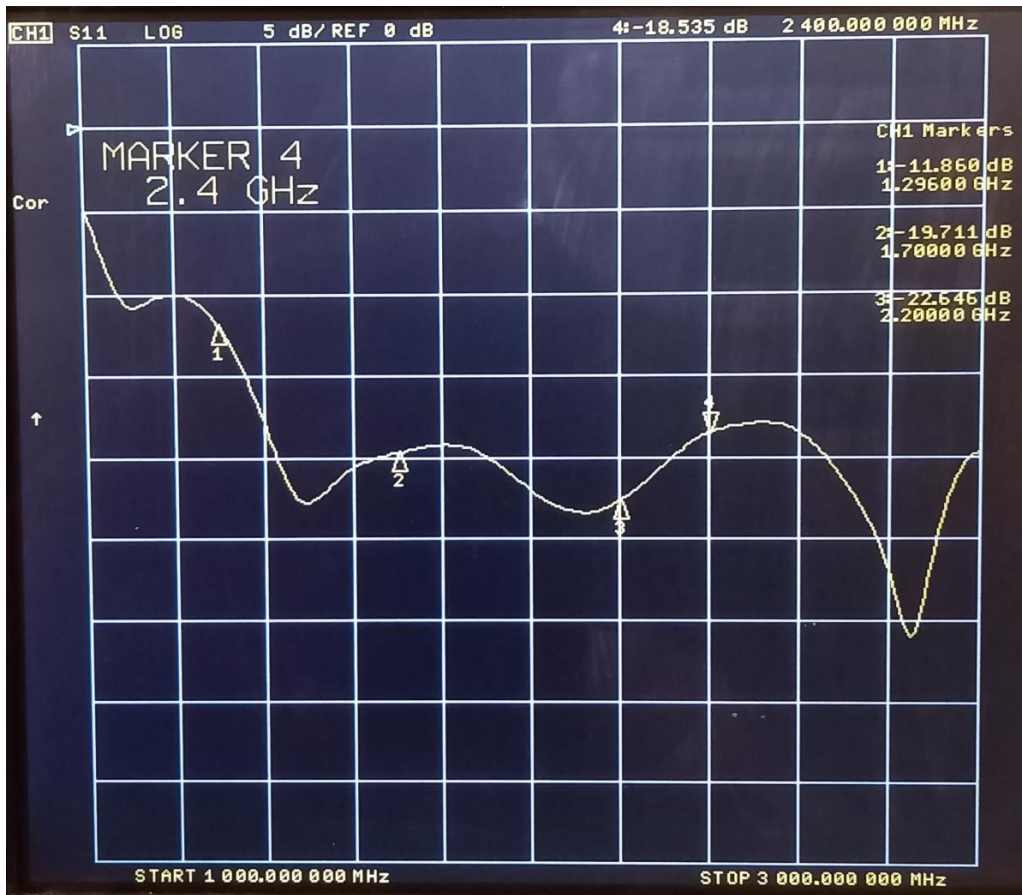
Recently I was able to acquire a surplus circulator for the S-band. The unit has the following marking: SMT 1CY63 SMC1530 SN177. The circulator has female SMA connectors at all three ports. The white label is from me.

Here is a picture of the circulator:

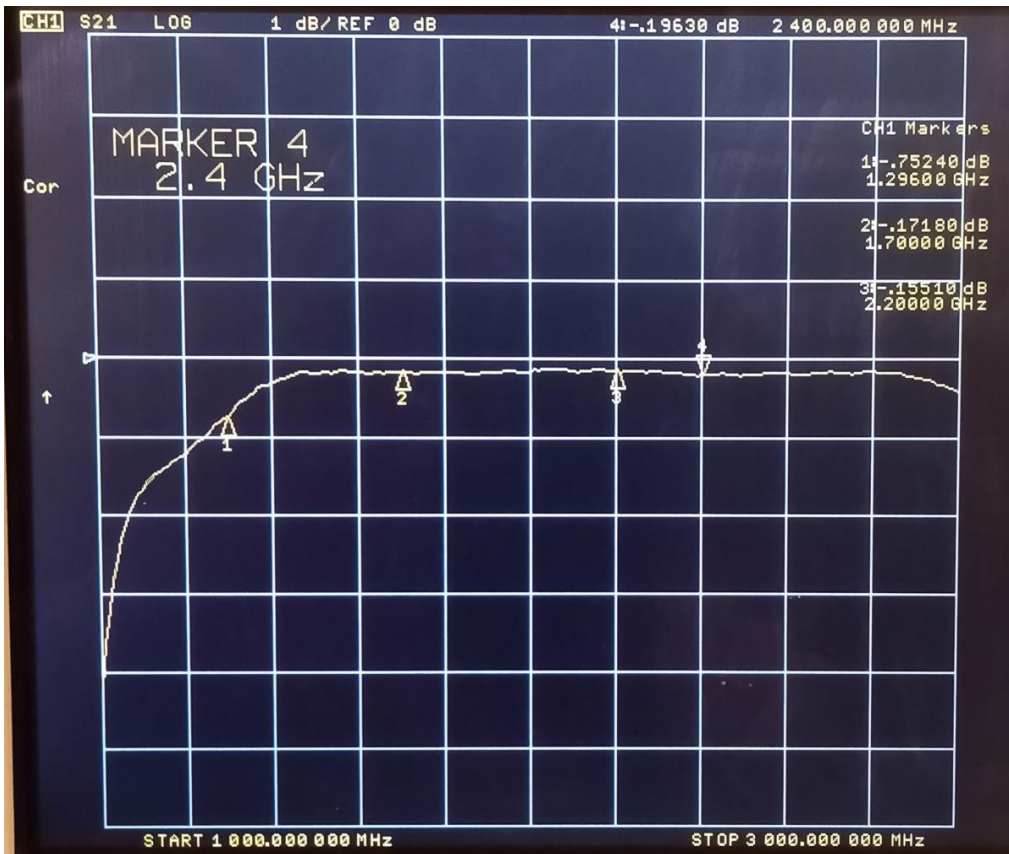


Below you will find some measurement results of this circulator for the 13cm band. During all measurements the 3rd port was terminated with 50 Ohms.

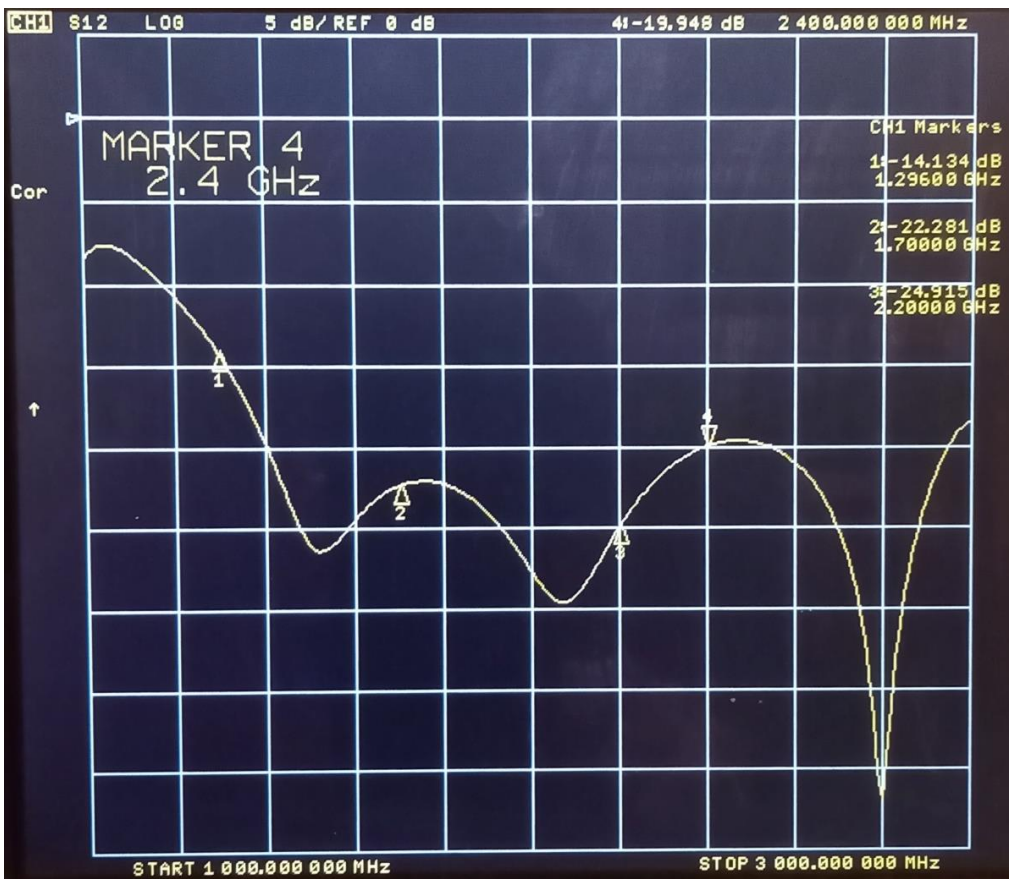
S11 input matching (return loss 19dB@2400MHz)



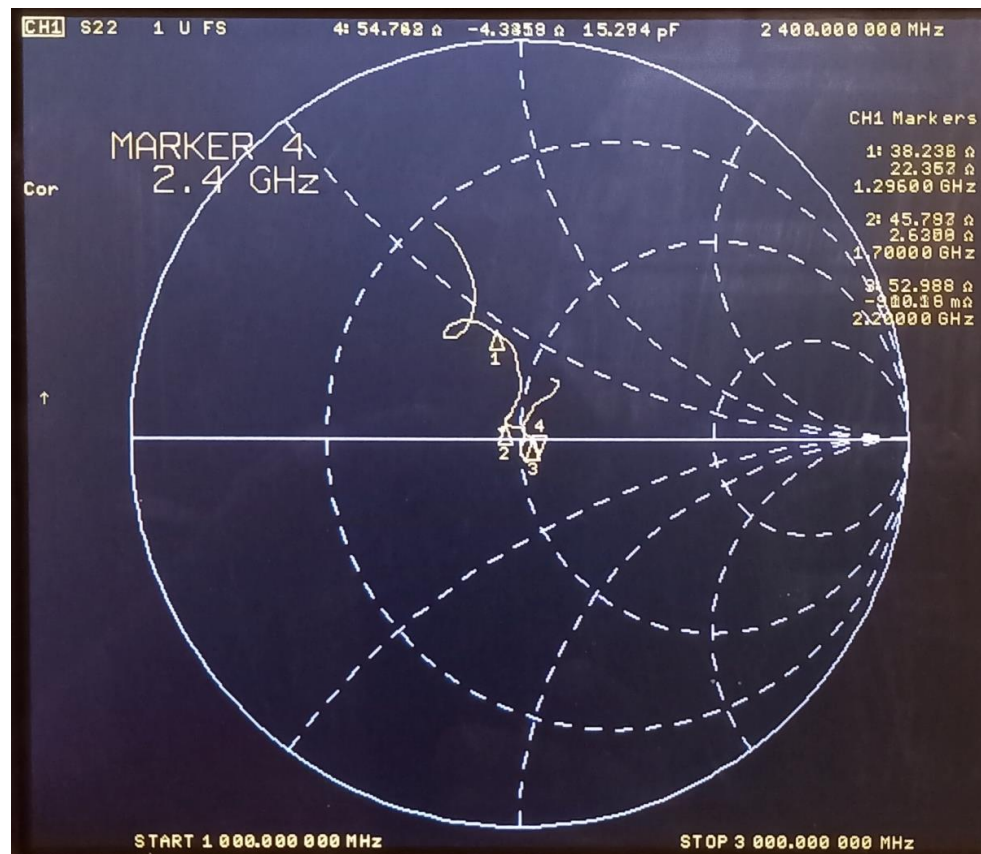
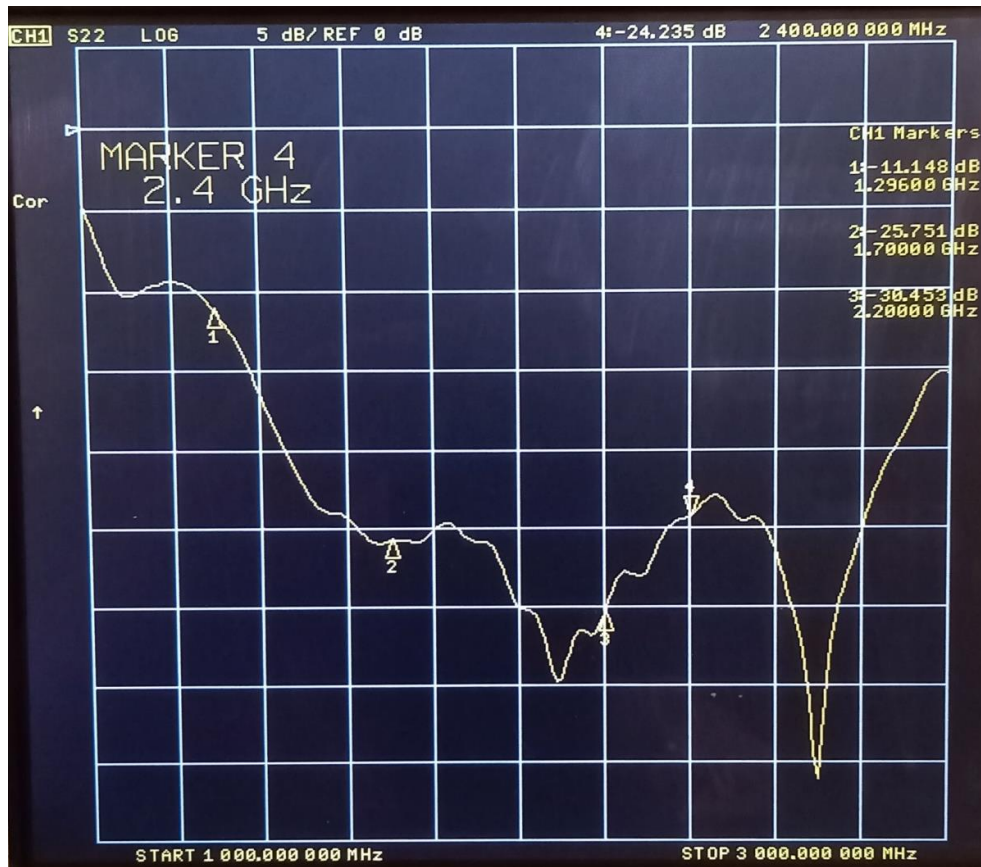
S21 forward transmission (insertion loss at 0.2dB@2400MHz)



S12 reverse transmission (isolation is 20dB@2400MHz)



S22 output matching (return loss is 24dB@2400MHz)



This circulator shows very good performance in the 13cm ham radio band. Especially the insertion loss of 0.2dB is excellent which means that only 5% of the inserted power is dissipated in the device.

I wonder what the maximum power is, which this device can handle. I estimate that at least 50Watt, probably 100W should be possible as the termination load is externally.

If you might have a datasheet of this isolator, I appreciate getting an electronic copy.

I will be happy to answer questions and always appreciate feedback. Many thanks in advance.

Best regards

Matthias DD1US

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