

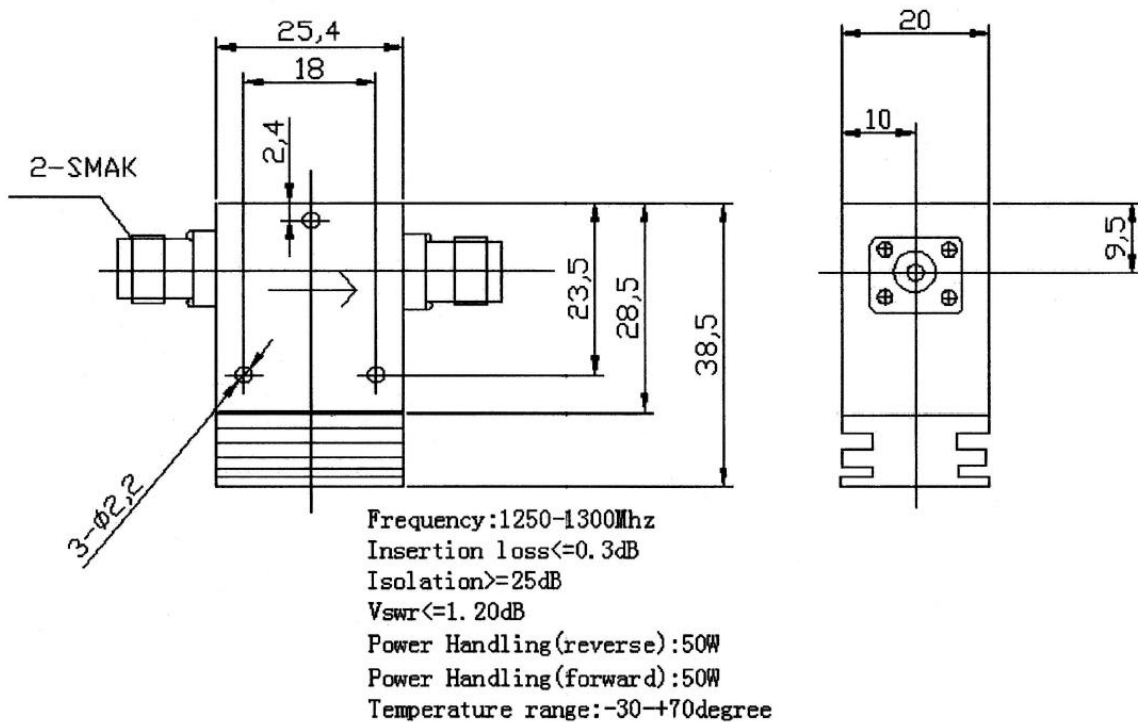
23cm band isolator N70522768 from Xiangyu Communications in China

Matthias, DD1US, November 17th 2019

Hello,

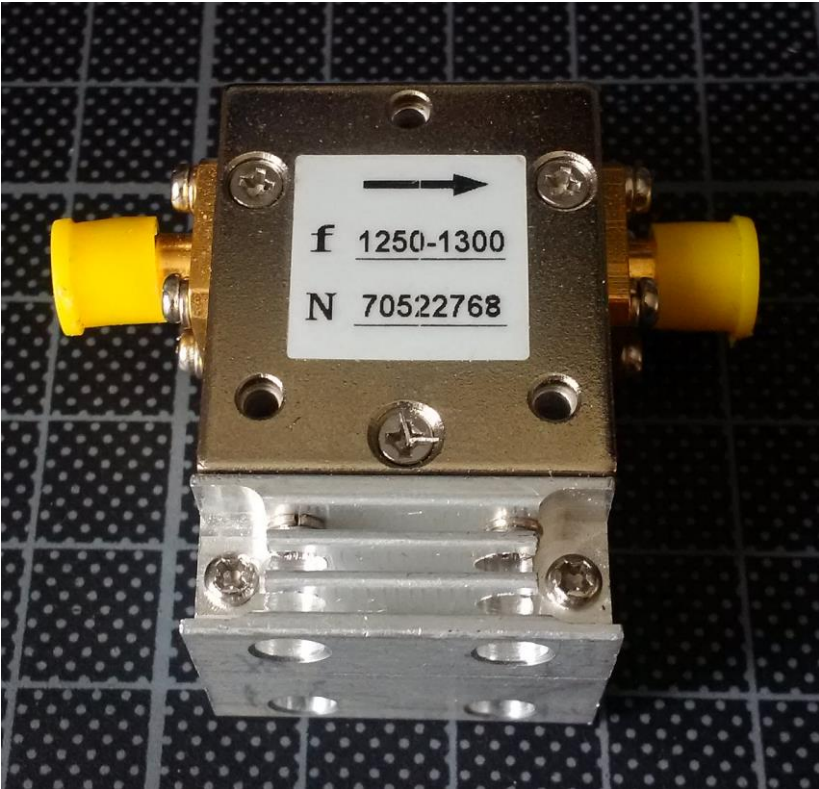
at a recent ham radio flea market, I was able to acquire an unused isolator for the 13cm band for very little money. The unit is from a company called Xiangyu Communications based in China. The part number printed on the unit is: N70522768.

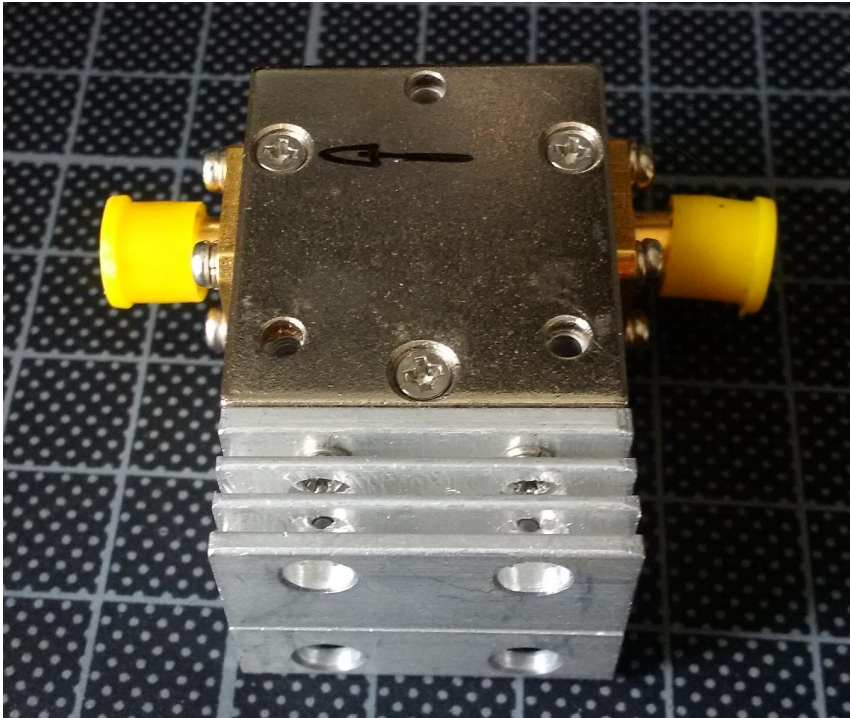
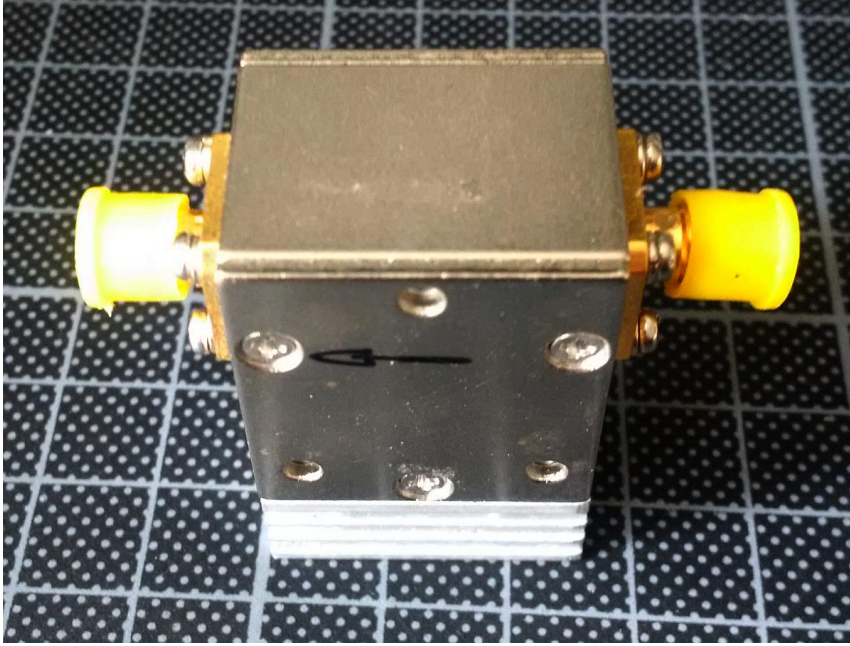
The seller provided me kindly the following datasheet:



The isolator has female SMA connectors at the input and output port. The internal resistor is attached to a little heatsink. Even though it is specified to handle 50W mode in both directions I am not sure that this can be sustained in CW mode for a longer period of time in case of a complete mismatch at the output.

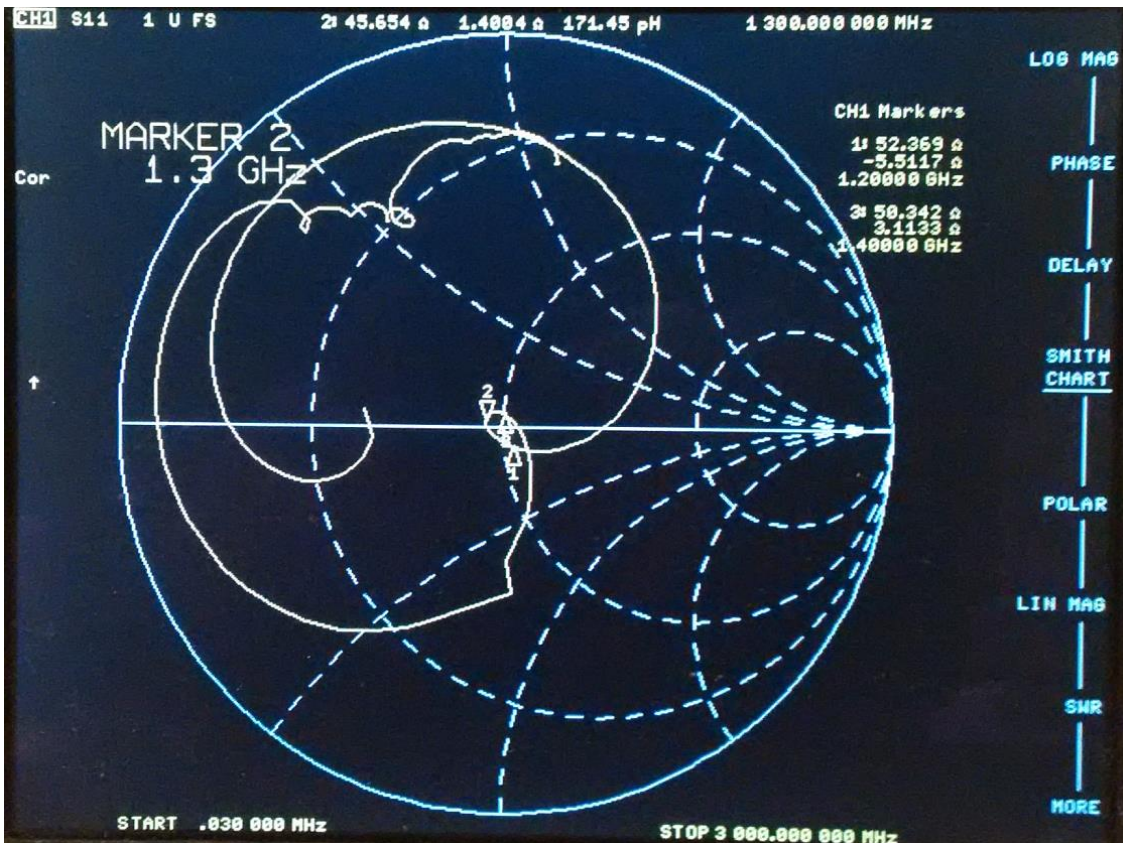
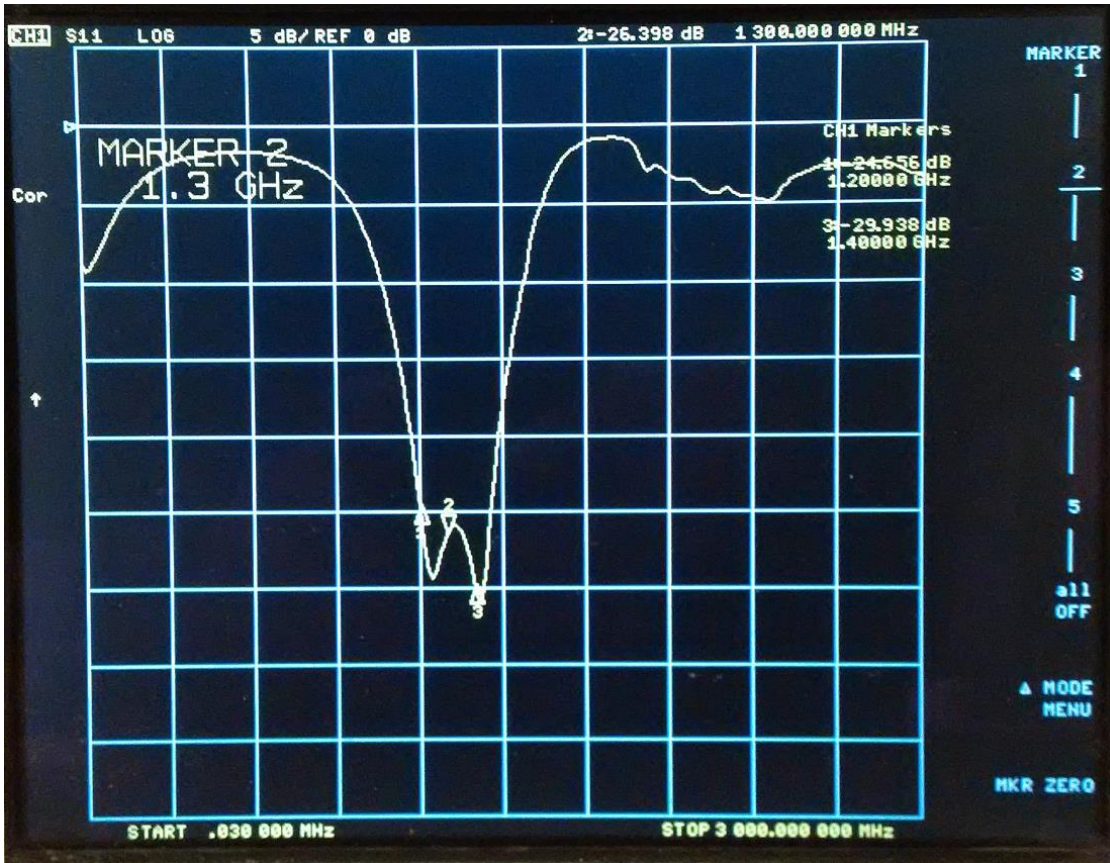
Here are some pictures of the isolator:



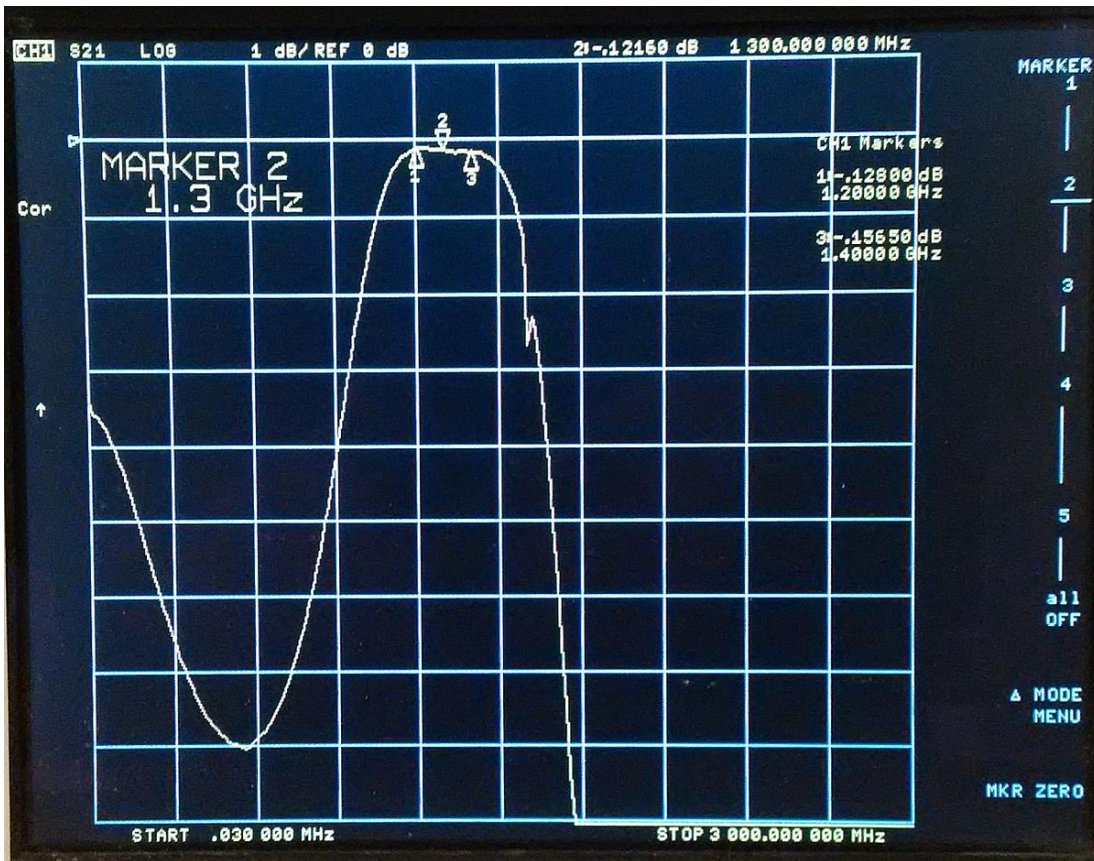


Next I made some measurements, below please find the measurement results of this 23cm isolator:

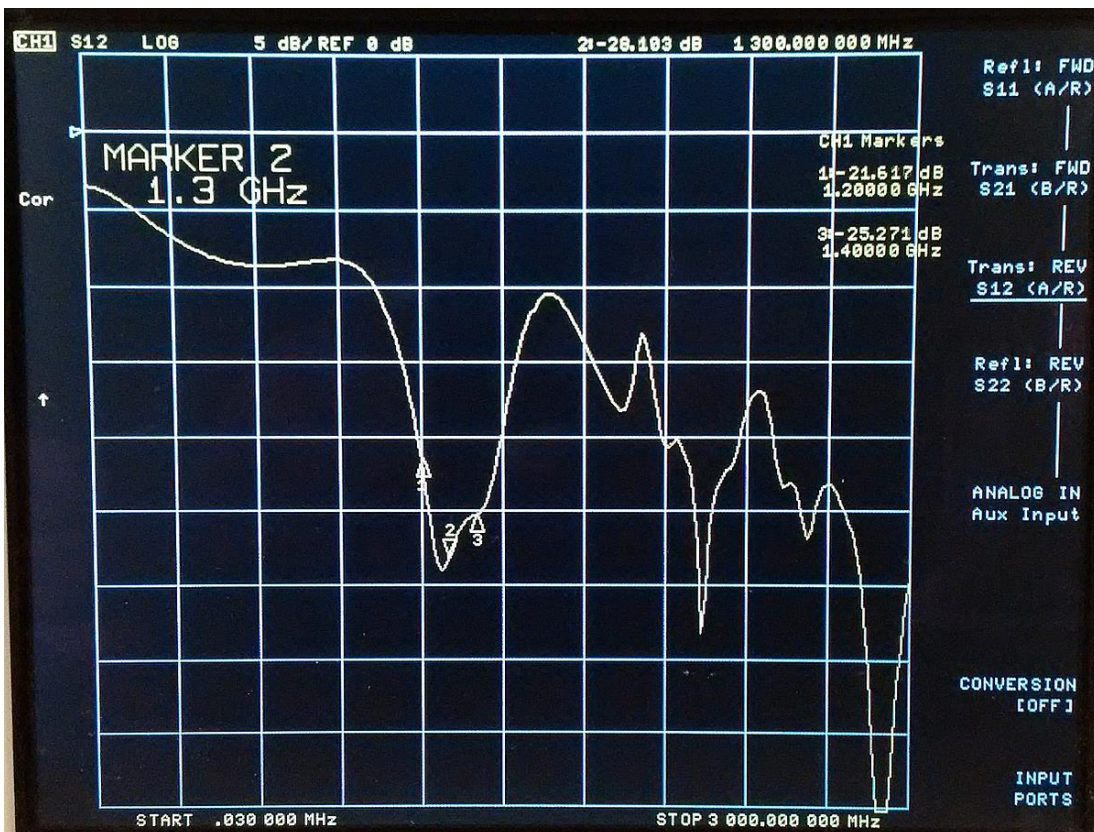
S11 input matching (return loss at 1300 MHz is -26 dB, smith chart looks perfect)



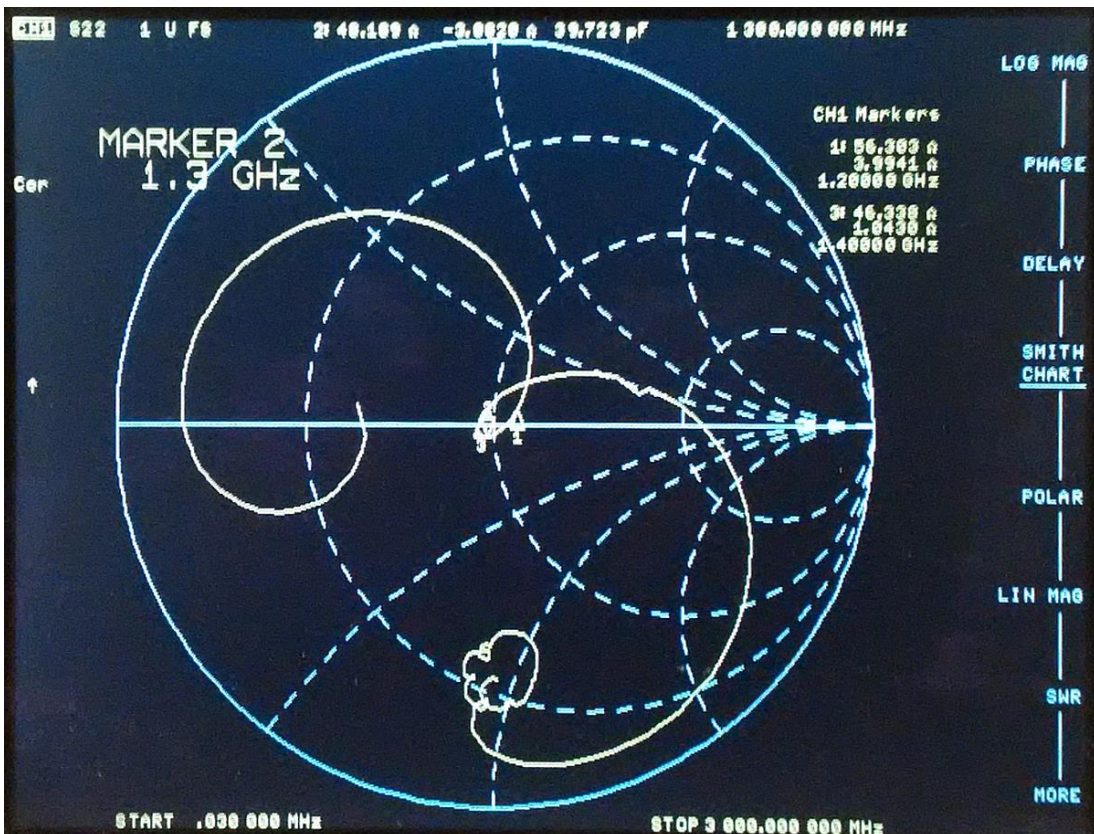
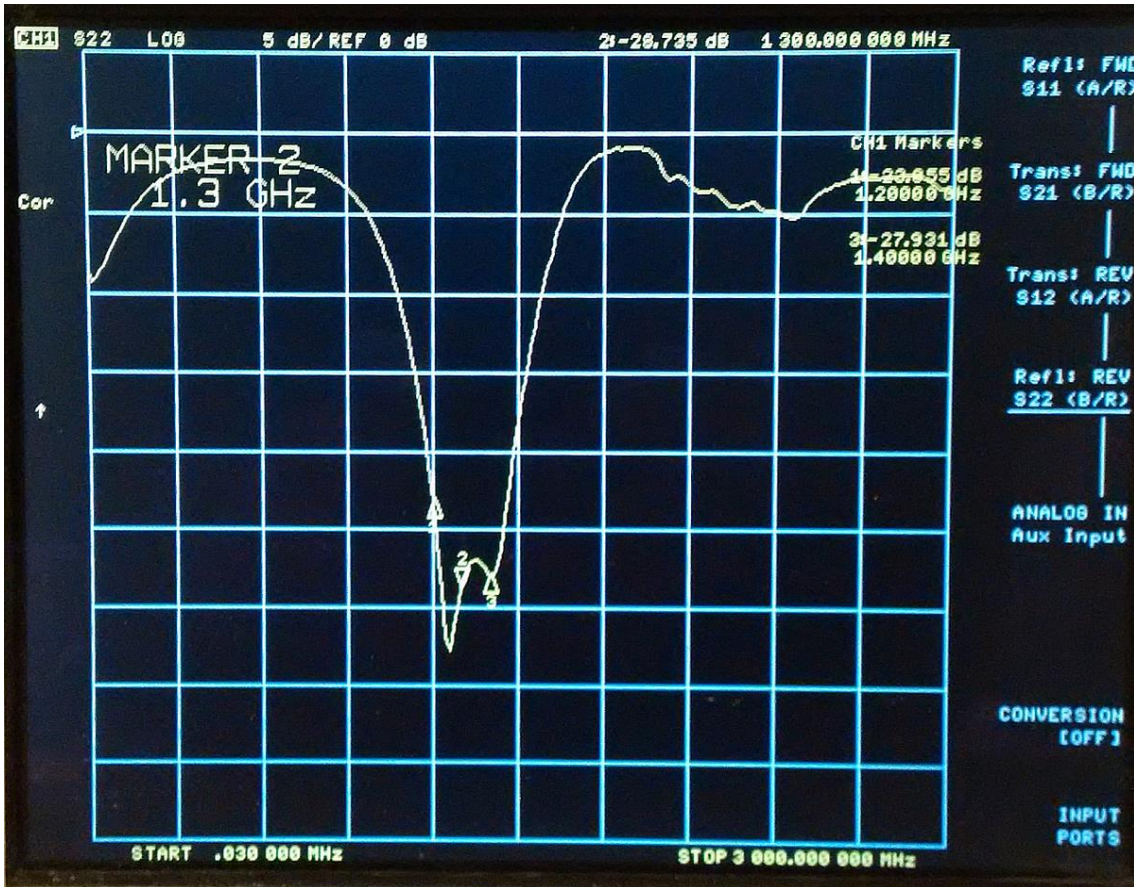
S21 forward transmission (insertion loss at 1300 MHz is 0.12dB)



S12 reverse transmission (isolation at 1300 MHz is -28dB)



S22 output matching (return loss at 1300 MHz is -29dB, smith chart looks perfect)



All measured parameters were better than specified in the datasheet:

Parameter	Specified	Measured
S11 VSWR	<1:1.2	1:1.11
S11 RL	>21dB	26dB
S21 IL	<0.3dB	0.12dB
S12 ISOL	>25dB	28dB
S22 VSWR	<1:1.2	1:1.08
S22 RL	>21dB	29dB

I always appreciate feedback. Many thanks in advance.

Best regards

Matthias DD1US

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