

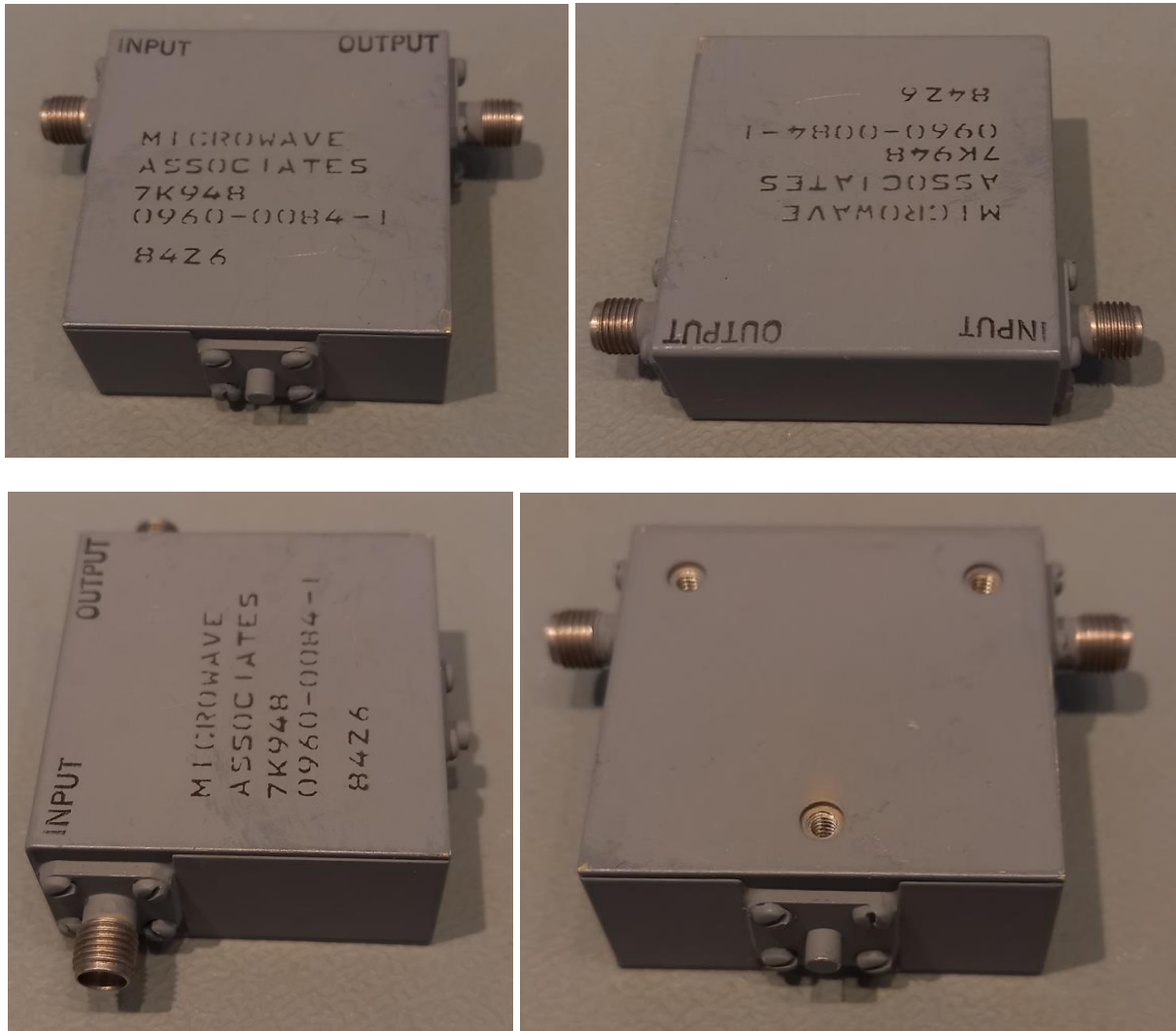
S-band isolator Microwave Associates 7K948

Matthias, DDIUS, June 14th 2021

Hello,

recently I acquired an isolator for S-band and today I measured it to see how well it works for the 2.4 GHz uplink of QO-100-

Here are some pictures of the device:



The isolator is housed in a solid metal case and has female SMA connectors at the input and output port.

The following data is printed on the device: Microwave Associates 7K948 0960-0084-1 84Z6

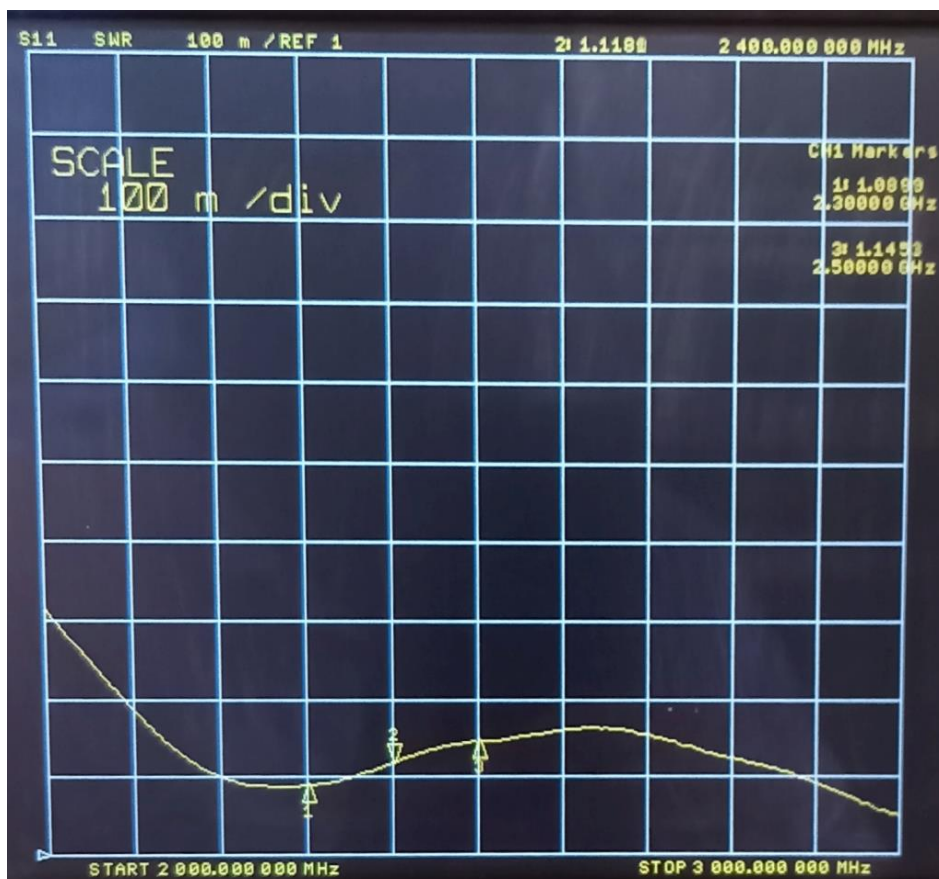
I have not found data from the supplier on the internet.

Below you will find some measurement results of this S-band isolator. All measurements were done in the frequency range 2GHz to 3GHz.

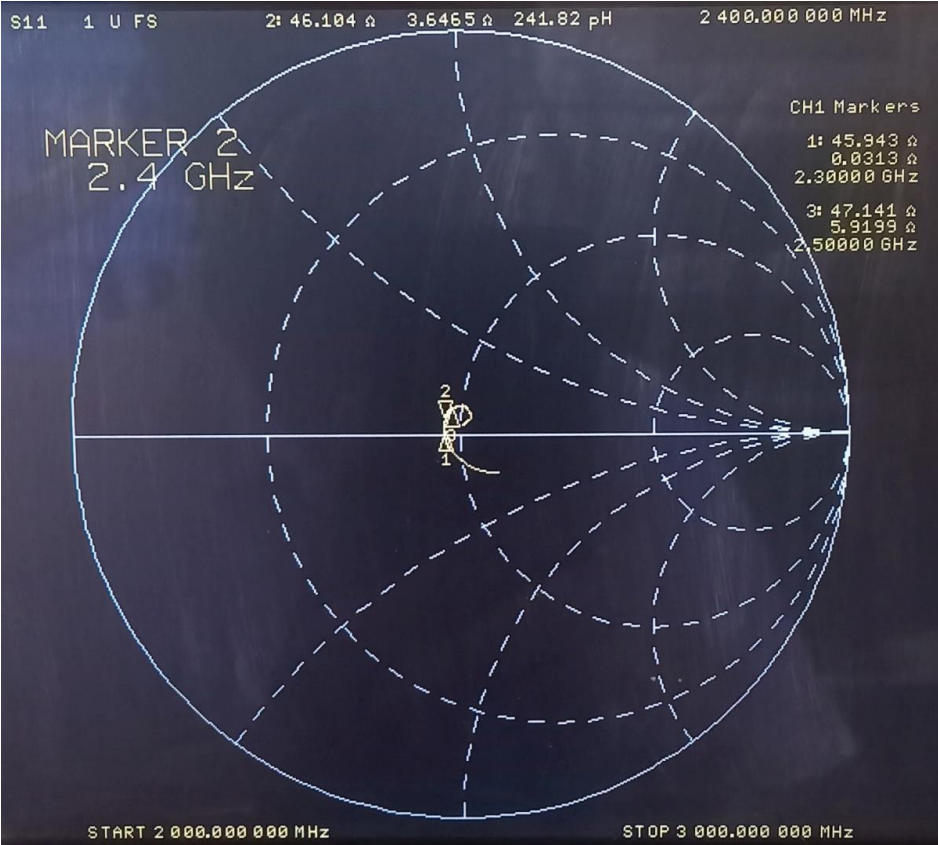
S11 input matching / return loss at 2400MHz is 25dB



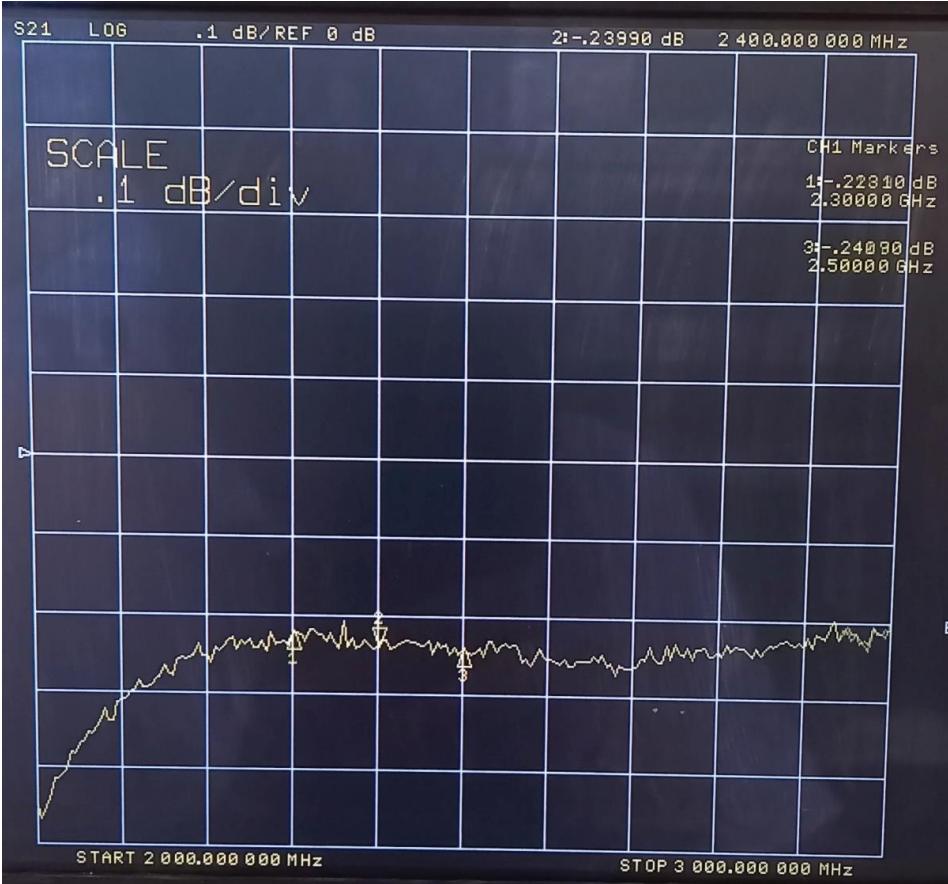
S11 input matching / input VSWR is 1.12



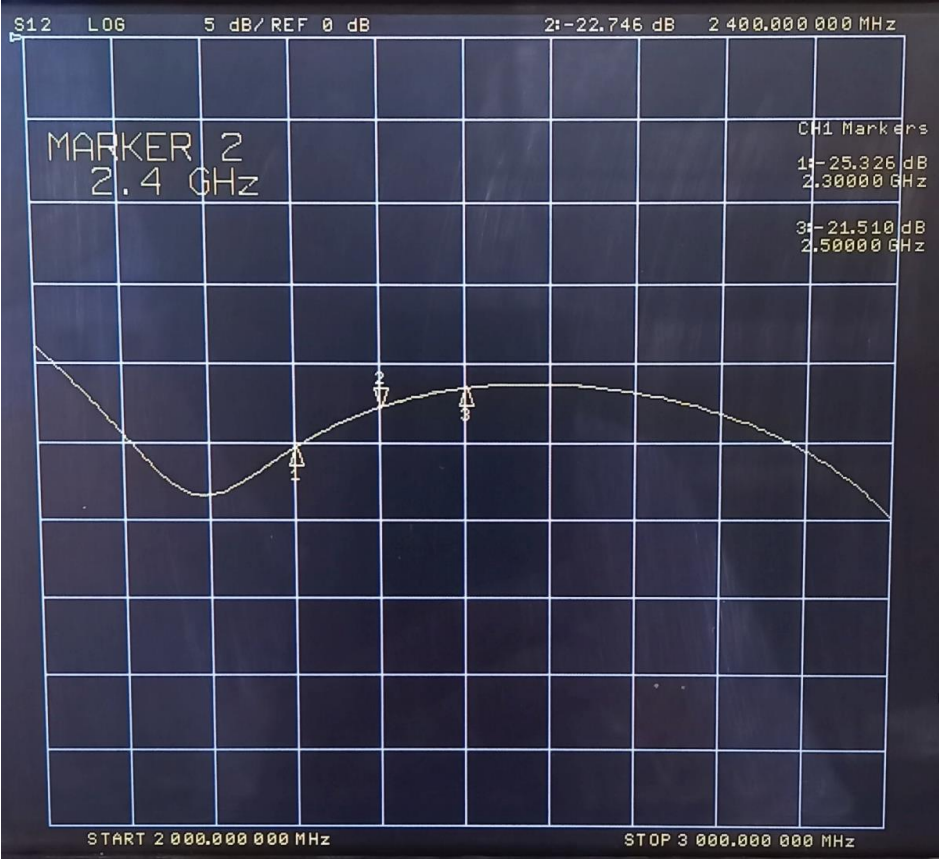
S11 input matching / Smith Chart shows almost perfect matching at 2400MHz



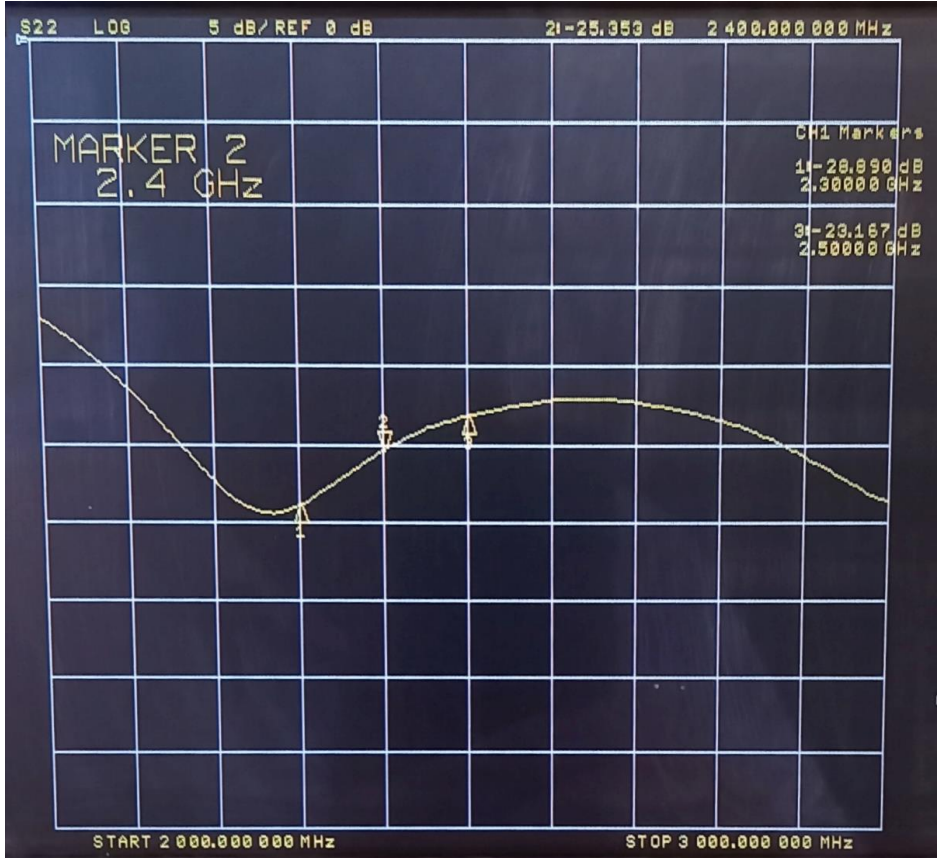
S21 forward transmission / insertion loss at 2400MHz is 0.24dB



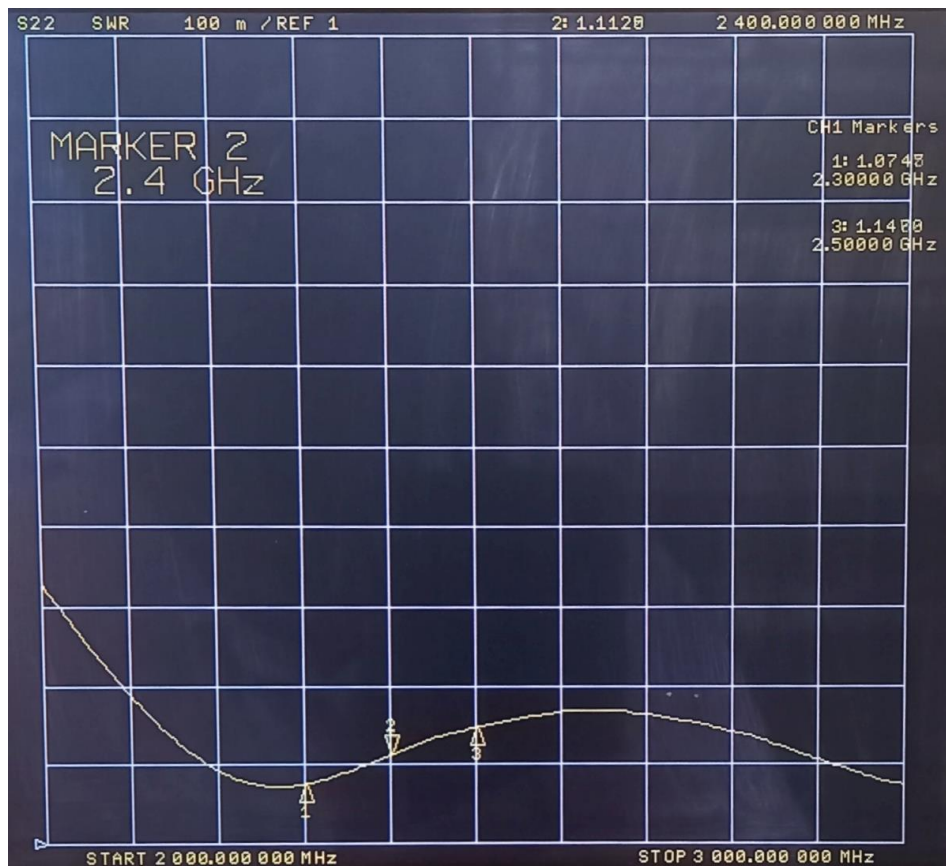
S12 reverse transmission / isolation at 2400MHz is 22.7dB



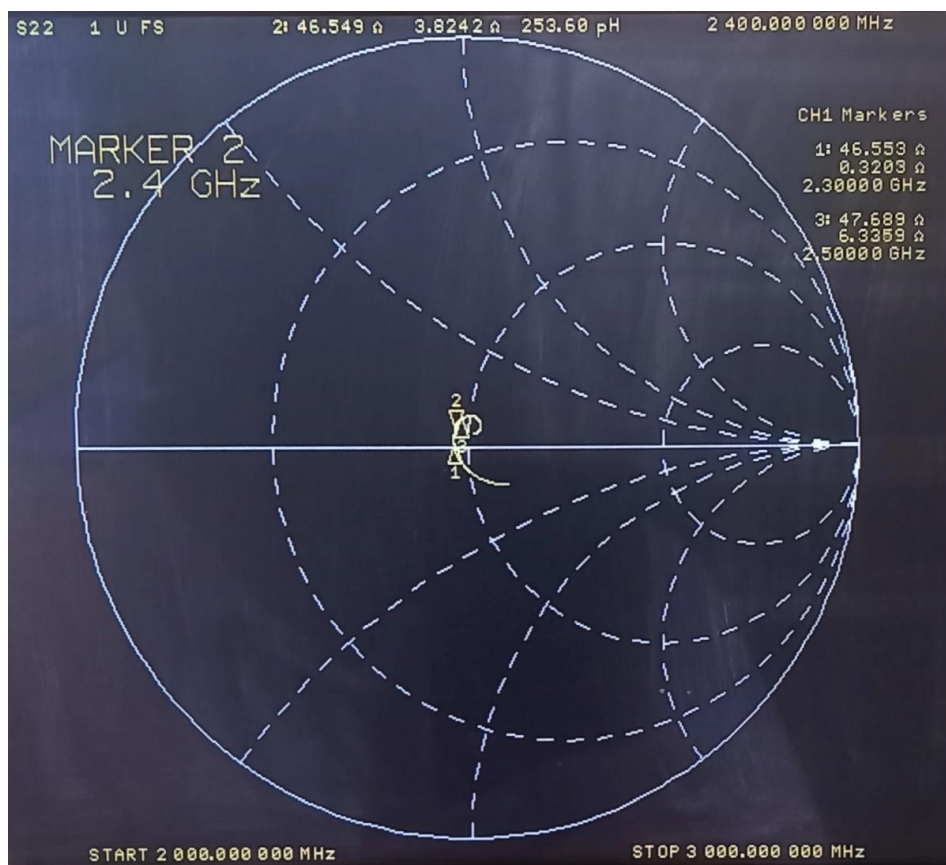
S22 output matching / return loss at 2400MHz is 25dB



S22 output matching / output VSWR is 1.11



S22 output matching / Smith Chart shows almost perfect matching at 2400MHz



The measurements show that this isolator is very well suited for 2.4GHz.

I wonder what the maximum power handling of this isolator might be.

If anyone has more data then please let me know.

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

Best regards

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