VA6AM
TRIPLEXERS-DIPLEXERS-FILTERS

3.5-7 MHz Low Power Diplexer

SKU: LP-DIP-4080

Typical specification:

- Impedance: 50 Ohm
- Power Rating: 200W ICAS, max 2.5:1 SWR
- Band attenuation: **Please, see graphs below*
- Insertion Loss: < 0.1dB
- Return Loss/VSWR: > 26dB / < 1.1:1
- Connector: SO-239
- Dimensions (L x W x H) mm/inches: 178 x 127 x 75 mm /7" x 5" x 3"
- Net Weight, kg/lbs.: <0.8kg / <1.8lbs.

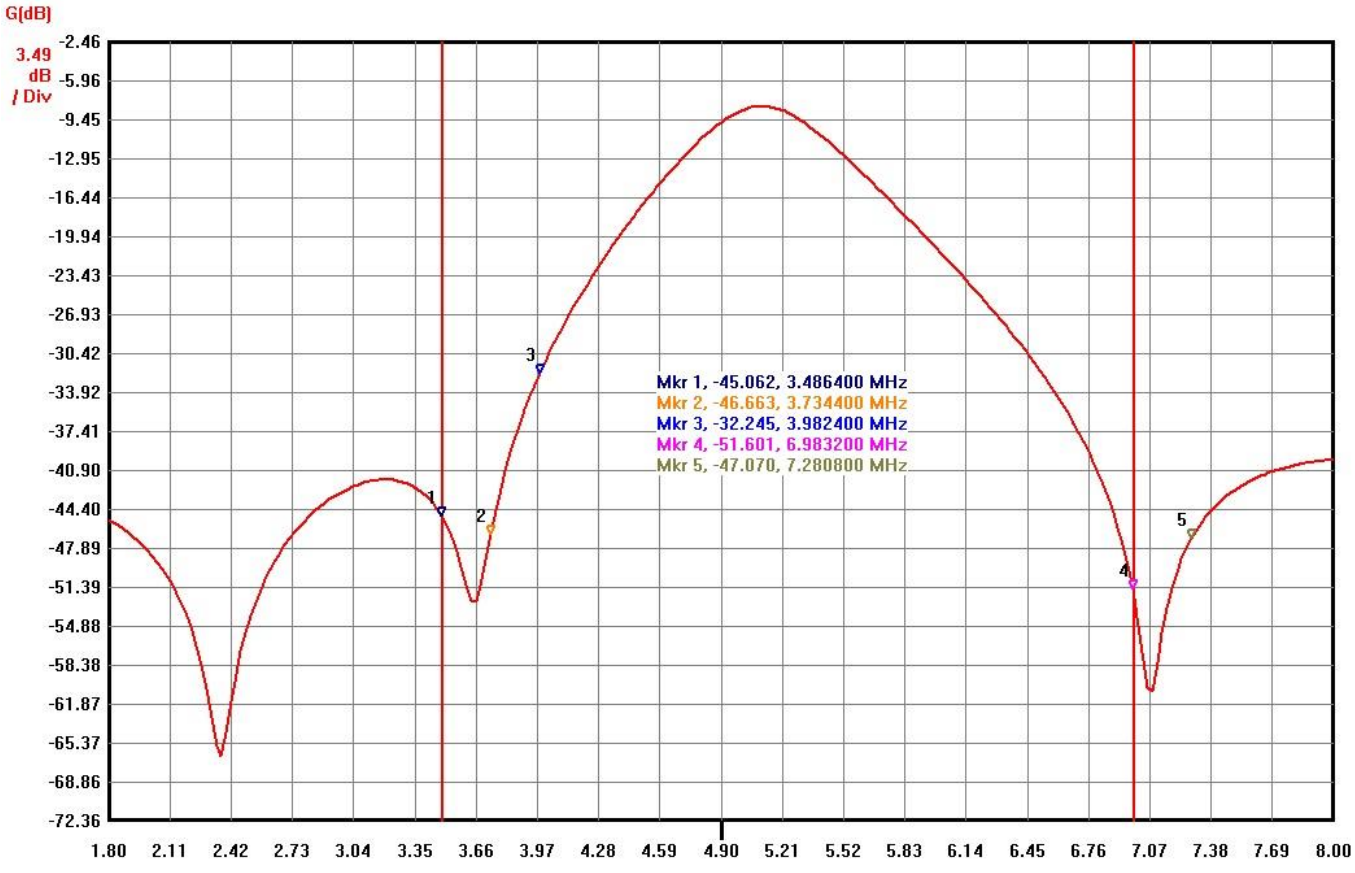
*ICAS – Intermittent Commercial and Amateur Service

Table1. Insertion Loss, Band Attenuation with unused band ports terminated by 50 Ohms:

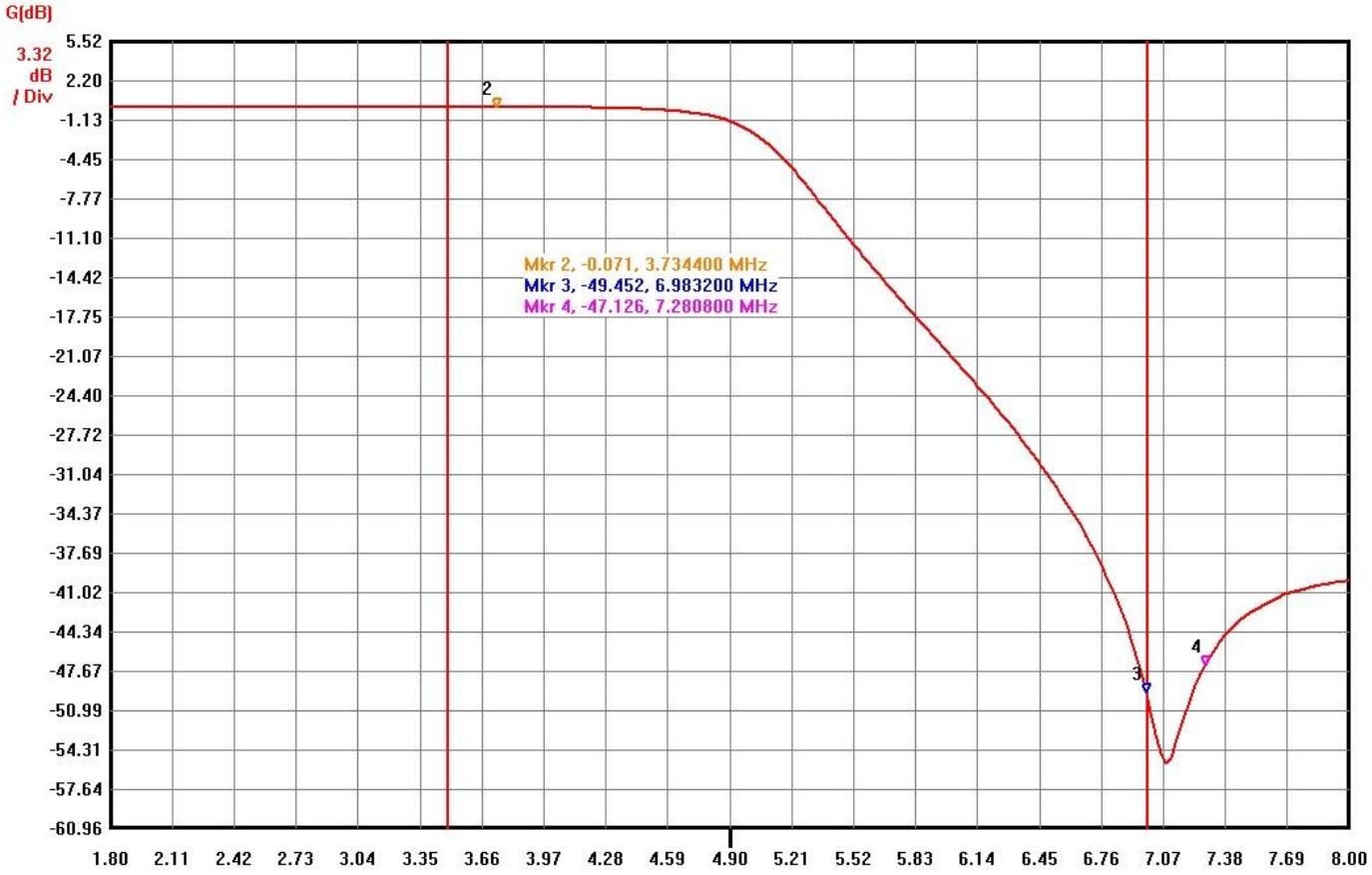
Input Bands	Insertion Loss/ Attenuation	
	80	**40**
80	<-0.1 dB	**>-45 dB**
40	**>-40 dB***	<-0.1

* - Attenuation is > -32dB on 3.8-4.0MHz range

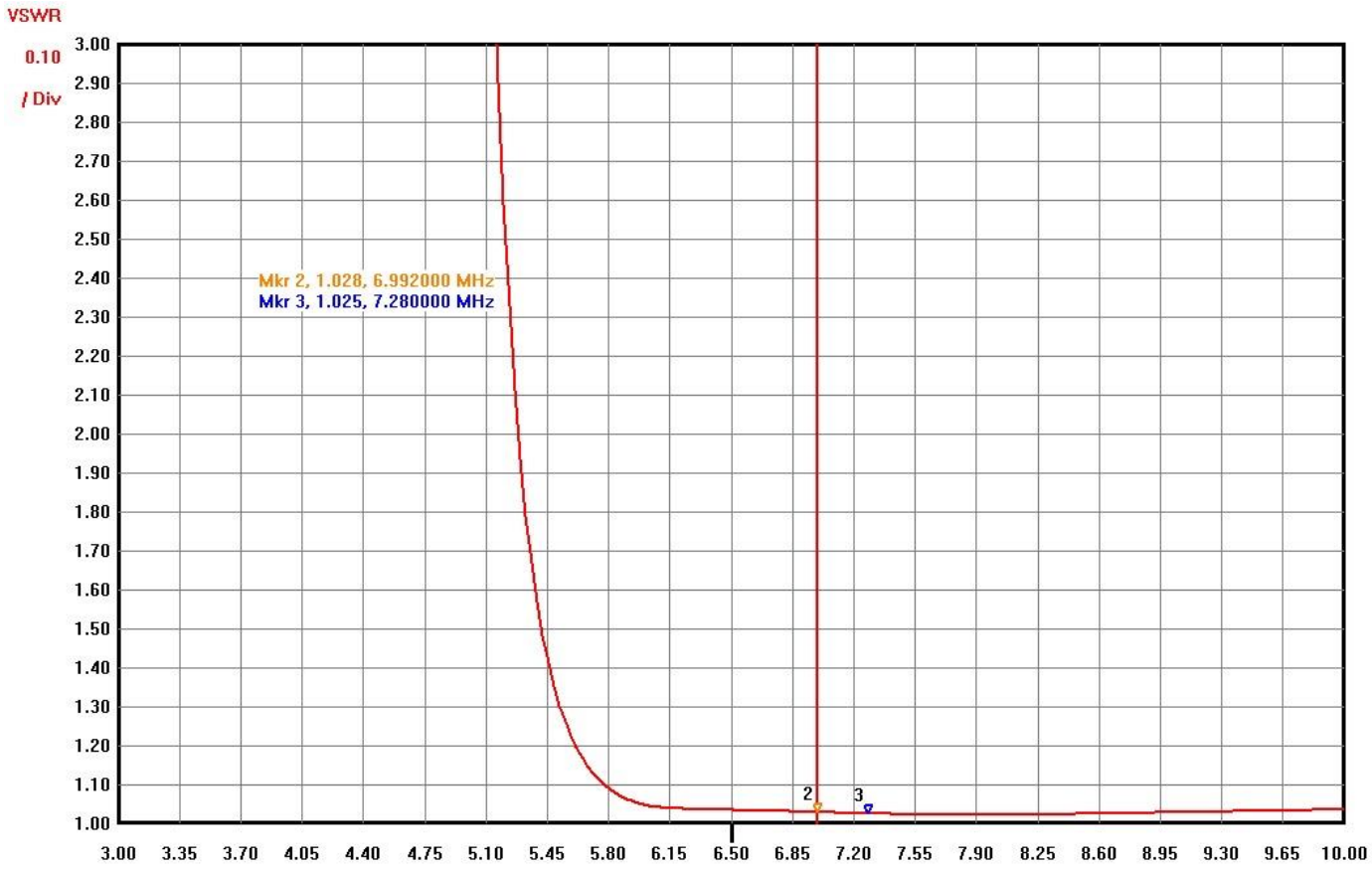
Graph 1. Band Attenuation between bands
(VNA connected to band ports, Antenna Port terminated by 50 Ohm loads)



Graph 2. 40M Band Attenuation
(VNA connected to the 80M band port, Unused ports are terminated by 50 Ohm loads)

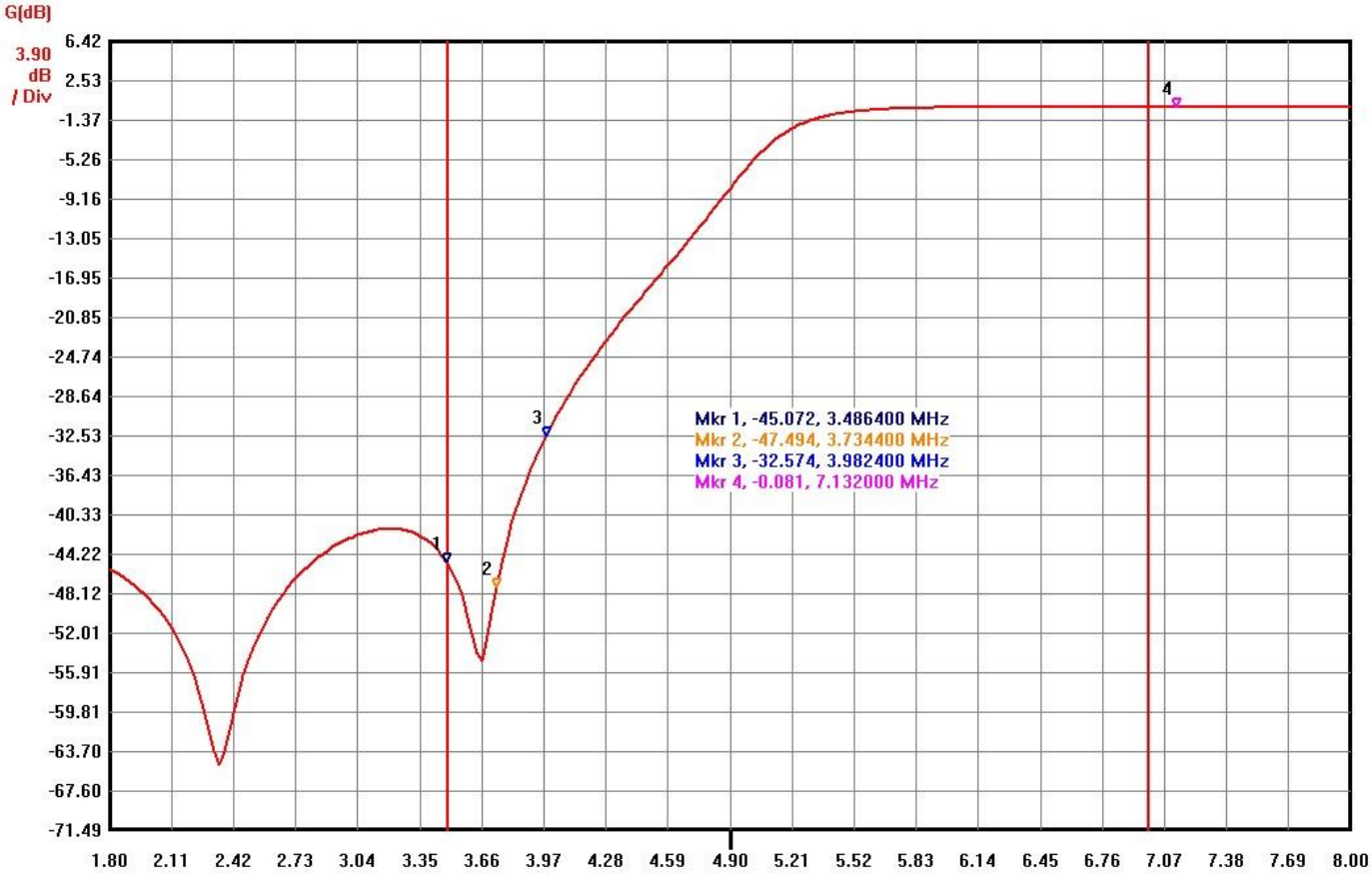


Graph 3. 40M VSWR In-Band
(VNA connected to the 40M band port, All ports are terminated by 50 Ohm loads)



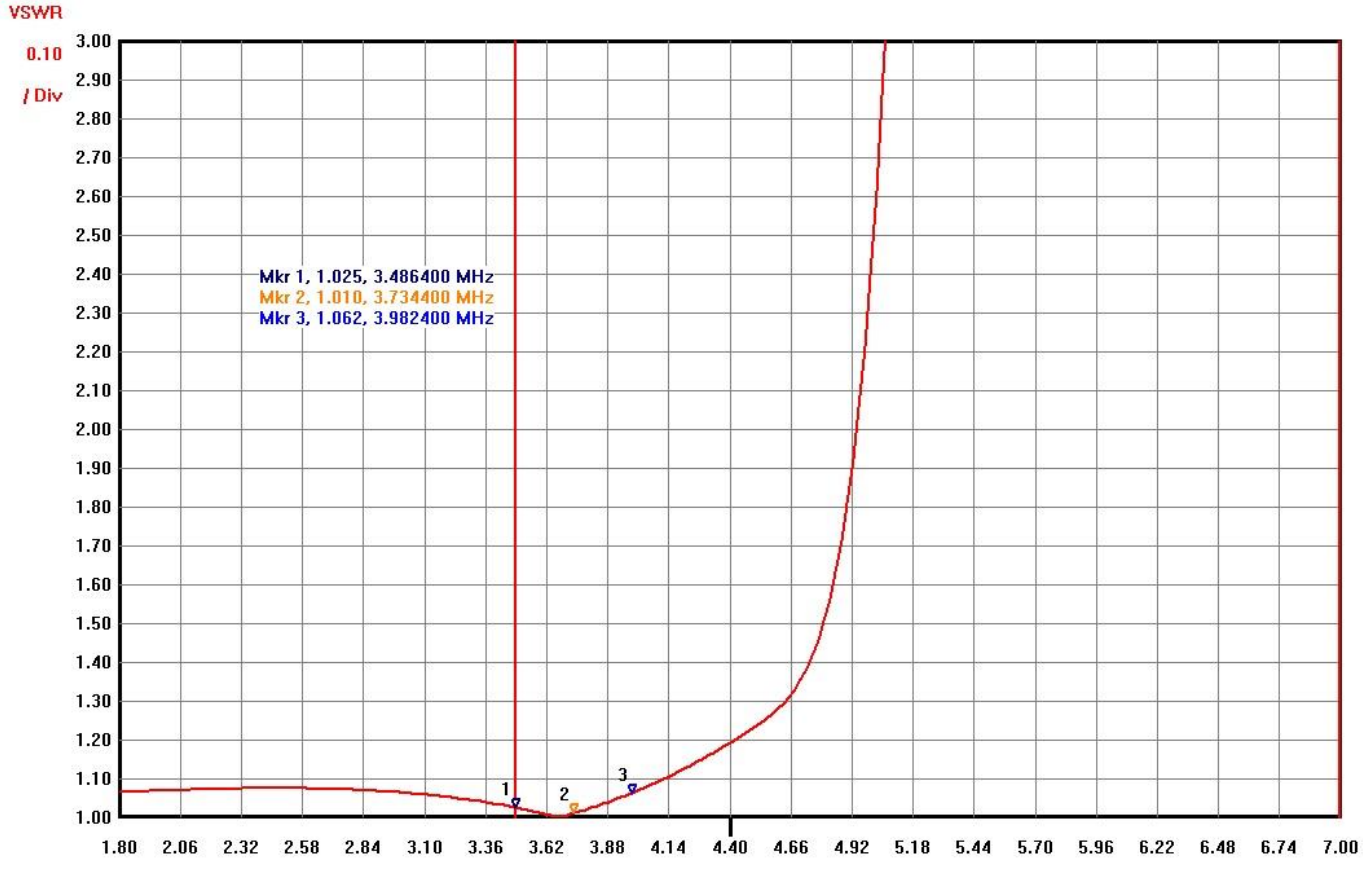
Graph 4. 80M Insertion Loss In-Band

(VNA connected to the 40M band port, Unused ports are terminated by 50 Ohm loads)



Graph 8. 80M VSWR In-Band

(VNA connected to the 80M band port, All ports are terminated by 50 Ohm loads)



The 40_80 band Low Power Diplexer design is the 5th order Chebyshev type LPF and HPF filter combination with increased band Attenuation and very low Insertion Loss, well below 0.01dB.

Together with VA6AM Low Power Band-pass filters it will bring a close to -100dB level of band isolation.

*Also, the 40_80 Diplexer as every other Multiplexer unit can be used in a reverse installation when used as an antenna switch between two antennas, 40 and 80 meter band antennas connected to a single radio with band isolation more than -40dB. Antennas are available to the radio all the time and do not require any manual or automated switching.