

Bandpass Cavity Filter Operating at 6 GHz with a 45 MHz Passband Bandwidth with SMA Female Connectors



FMFL1023

Features

- Passband Bandwidth of 45 MHz
- High Rejection
- Cavity filter design
- Min rejection 70 dB at 0.5 GHz to 5.5 GHz
- Min rejection 70 dB at 6.5 GHz to 11 GHz
- Maximum insertion loss of 1.8 dB
- Female SMA connectors
- Very high Q factor and high selectivity

Applications

- Test and Measurement
- Lab Instrumentation
- Antenna Systems

Description

The FMFL1023 is a four section band pass filter that is used for filtering for test and measurement, lab instrumentation, and antenna systems uses. The passband bandwidth is 45 MHz. Implementing a cavity design, the filter has excellent rejection of 70 dB at 5.5 GHz and 6.5 GHz. It has a maximum insertion loss of 1.8 dB. The FMFL1023 has SMA female connectors.

Electrical Specifications

Description	Min	Typ	Max	Units
Passband Center Frequency		6		GHz
Impedance		50		Ohms
Insertion Loss		1.2	1.8	dB
Passband VSWR		1.2:1	1.3:1	
Rejection at 5.5 GHz	70	80		dB
Rejection at 6.5 GHz	70	80		dB
Input Power, CW			50	Watts
Input Power, Peak			200	Watts

Electrical Specification Notes:
Values at 25°C, sea level.

Mechanical Specifications

Size

Length	2.29 in [58.17 mm]
Width	0.47 in [11.94 mm]
Height	0.91 in [23.11 mm]
Weight	0.113 lbs [51.26 g]
Body Material and Plating	Aluminum
Finish	Grey Paint

Configuration

Number of Sections	4
Connector 1	SMA Female
Connector 2	SMA Female

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Environmental Specifications

Temperature

Operating Range -20 to +70 deg C
Storage Range -40 to +85 deg C

Environment

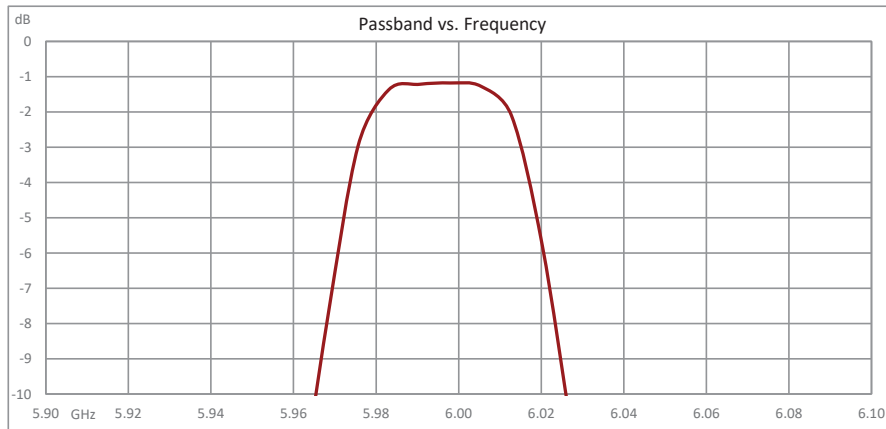
Humidity 100% RH at 35°C, 95% RH at 40°C
Shock 20G for 11msec half sine wave, 3 axis both directions
Vibration 25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Altitude 30,000 ft. (Epoxy Sealed Controlled Environment)

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:
Values at 25°C, sea level.

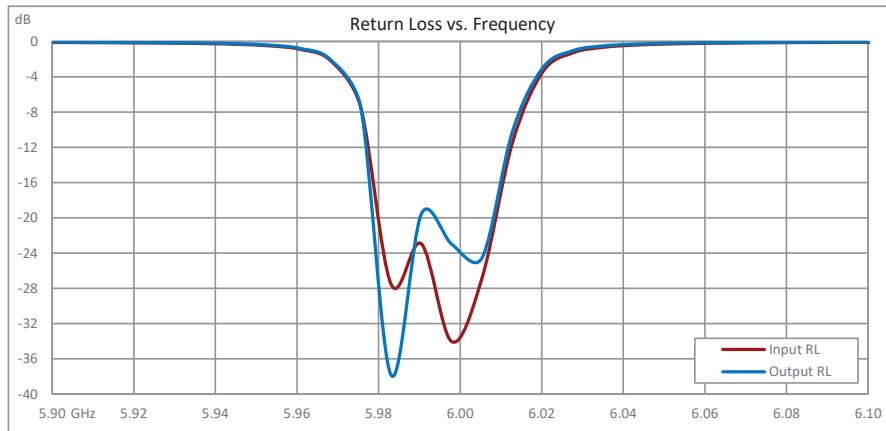
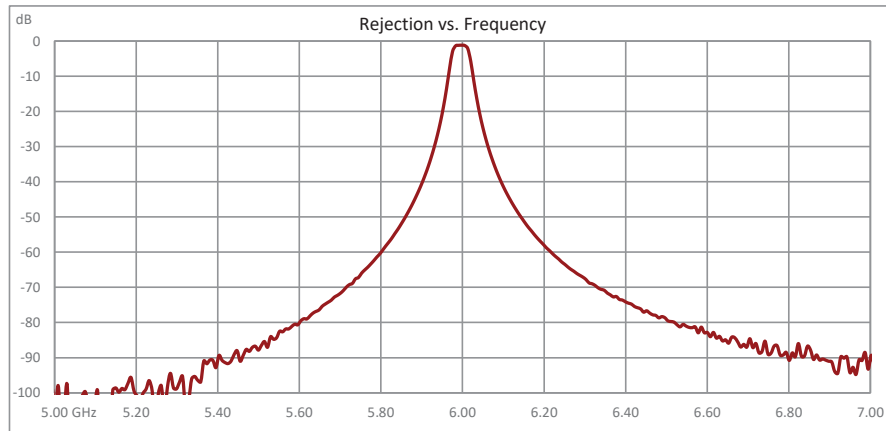
Typical Performance Data



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For additional information on this product, please click the following link: [Bandpass Cavity Filter Operating at 6 GHz with a 45 MHz Passband Bandwidth with SMA Female Connectors FMFL1023](https://www.fairviewmicrowave.com/bandpass-cavity-filter-6-ghz-sma-female-connectors-fmfl1023-p.aspx)

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FMFL1023 CAD Drawing

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