Bandpass Cavity Filter Operating from 2.1 GHz to 3.8 GHz with a 2 GHz Passband Bandwidth with SMA Female Connectors

FMFL1030

Features

- Passband Bandwidth of 2 GHz
- High Rejection
- Cavity filter design
- Min rejection 45 dB at DC to 1.7 GHz
- Min rejection 45 dB at 4.6 GHz to 7 GHz
- Maximum insertion loss of 1 dB
- Female SMA connectors

Applications

- Test and Measurement
- Lab Instrumentation
- Antenna Systems

Description

The FMFL1030 is a ten section band pass filter that is used for filtering for test and measurement, lab instrumentation, and antenna systems uses. The passband bandwidth is 2 GHz. Implementing a cavity design, the filter has excellent rejection of 45 dB at 1.7 GHz and 4.6 GHz. It has a maximum insertion loss of 1 dB. The FMFL1030 has SMA female connectors.

Electrical Specifications

Description	Min	Typ	Max	Units
Passband Frequency	2.1		3.8	GHz
Impedance		50		Ohms
Insertion Loss		0.7	1	dB
Passband VSWR		1.4:1	1.6:1	
Rejection at 1.7 GHz	45	50		dB
Rejection at 4.6 GHz	45	55		dB
Passband Ripple		0.5	0.8	dB
Input Power, CW			15	Watts
Input Power, Peak at 10% Duty Cycle 1µs Pulse Width			100	Watts

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

Mechanical Specifications

Size

Length	3.07 in [77.98 mm]
Width	0.47 in [11.94 mm]
Height	1.3 in [33.02 mm]
Weight	0.206 lbs [93.44 g]
Body Material and Plating	Aluminum
Finish	Grey Paint

Configuration

Number of Sections	10
Connector 1	SMA Female
Connector 2	SMA Female

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Environmental Specifications

Temperature	
Operating Range	-55 to +85 deg C
Storage Range	-55 to +125 deg C
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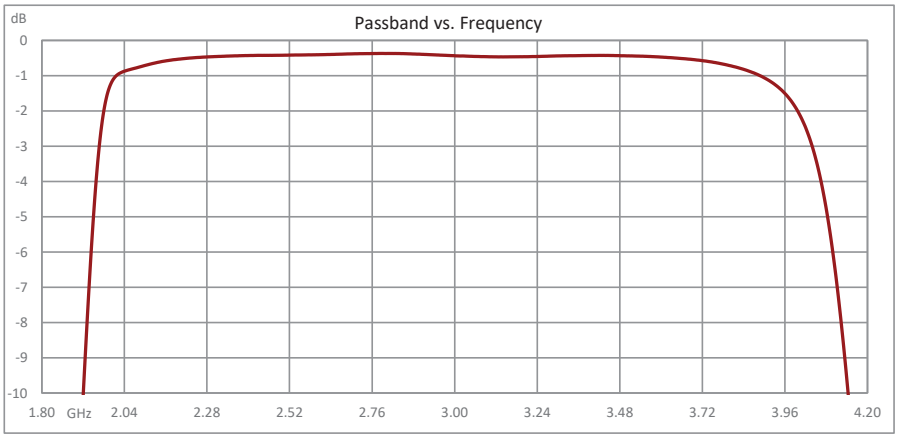
Environment	
Humidity	100% RH at 35°C, 95% RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Altitude	30,000 ft. (Epoxy Sealed Controlled Environment)

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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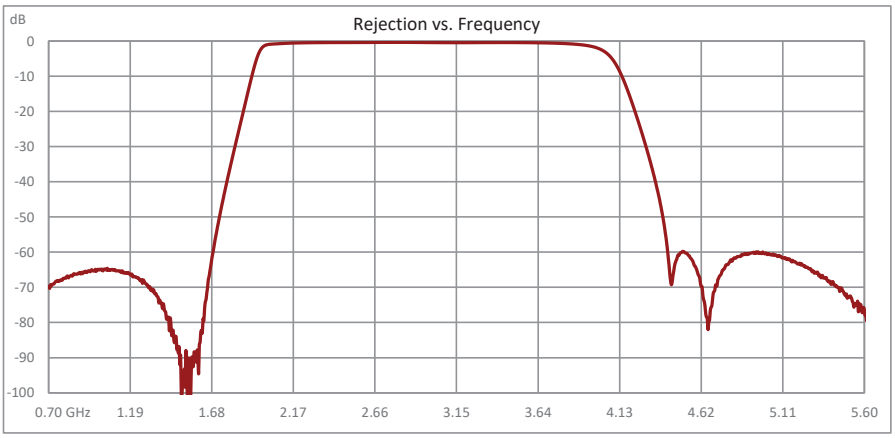

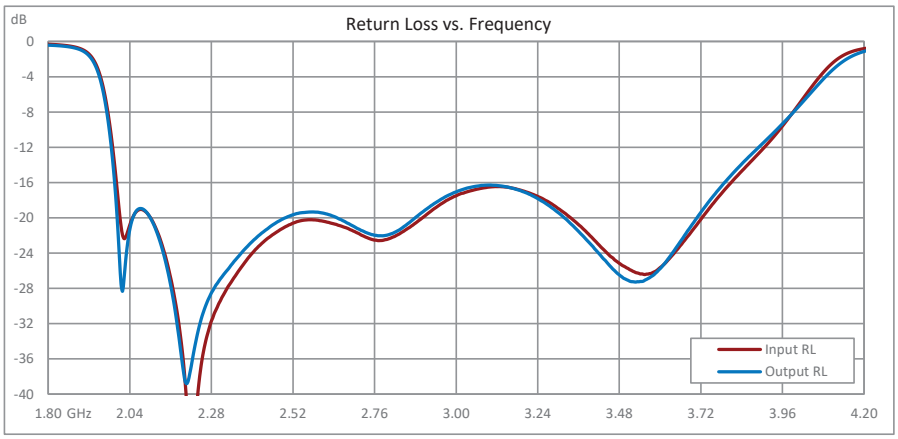

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For additional information on this product, please click the following link: Bandpass Cavity Filter Operating from 2.1 GHz to 3.8 GHz with a 2 GHz Passband Bandwidth with SMA Female Connectors FMFL1030

URL: https://www.fairviewmicrowave.com/bandpass-cavity-filter-2.1-3.8-ghz-sma-female-connectors-fmfl1030-p.aspx

FMFL1030 CAD Drawing

Bandpass Cavity Filter Operating from 2.1 GHz to 3.8 GHz with a 2 GHz Passband Bandwidth with SMA Female Connectors