

# FB-1050

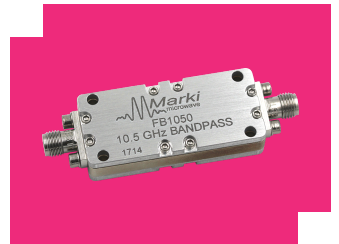
## 10.5 GHz Bandpass Filter

### DEVICE OVERVIEW

#### General Description

The FB series bandpass filters are CAD-optimized microstrip filter designs built on a low-loss substrate. These filters feature low insertion loss, excellent return loss and are suitable for high rejection filtering.

[Download s-parameters here](#)



#### Features

- Low Insertion Loss
- Excellent Return Loss
- High Stop Band Suppression
- Wide Stop Band
- Sharp Roll-Off

#### Applications

- Test and Measurement Equipment
- SATCOM
- Radar
- RF Transceivers

#### Functional Block Diagram



#### Part Ordering Options

Part Number	Description	Connectors	Green Status	Product Lifecycle	Export Classification
FB-1050	10.5 GHz Bandpass Filter	<u>Standard</u>	<u>Consult Factory</u>	Released	EAR99

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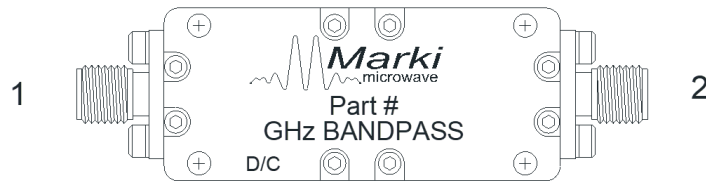
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## Revision History


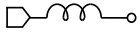
Revision Code	Revision Date	Comment
-	2012-11-29	Initial Date Release

**Port Configuration and Functions**

**Port Diagram**



**Port Functions**

Port	Function	Connector Type	Description	DC Equivalent Circuit
Port 1	Input/Output	SMAF	Port 1 is DC open to Port 2 and GND. GND is provided through the case and RF connectors.	
Port 2	Input/Output	SMAF	Port 2 is DC open to Port 1 and GND. GND is provided through the case and RF connectors.	

**Specifications**

**Absolute Maximum Ratings**

Parameter	Maximum Rating	Unit
RF Power Handling	1	W

**Package Information**

Parameter	Details	Rating
Weight	-	33g
Dimensions	-	43.18 x 18.8 mm

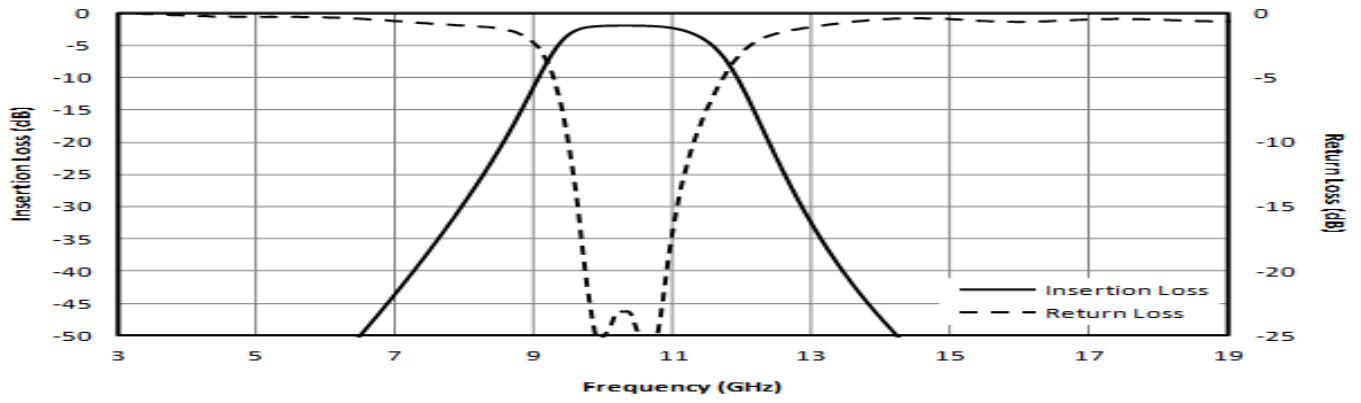
**Electrical Specifications**

Specifications guaranteed from -55 to +100°C, measured in a 50Ω system.

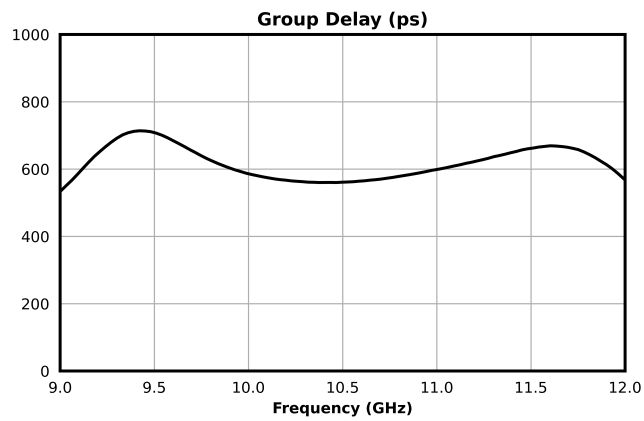
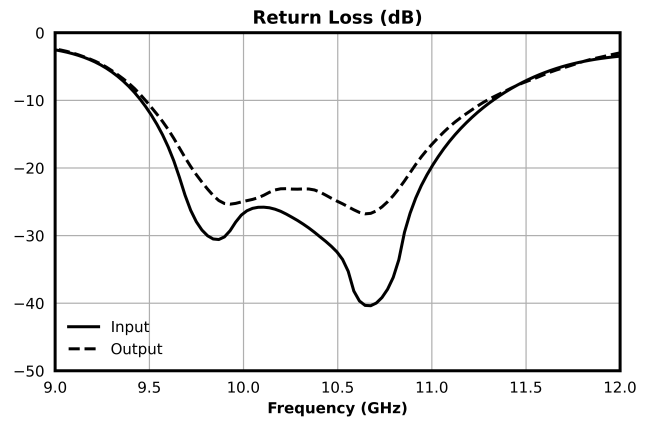
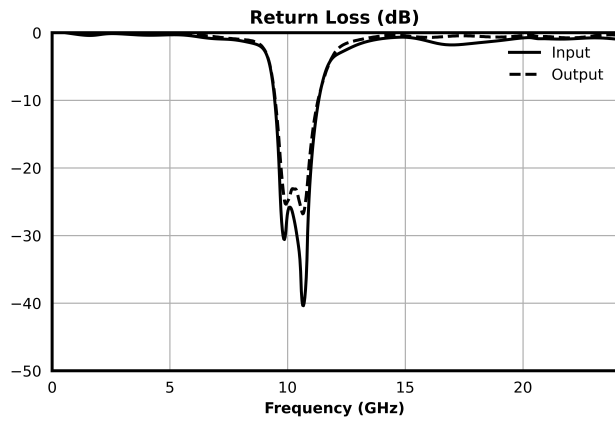
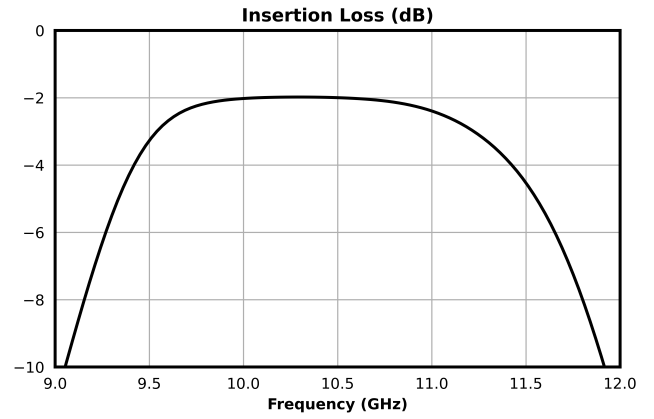
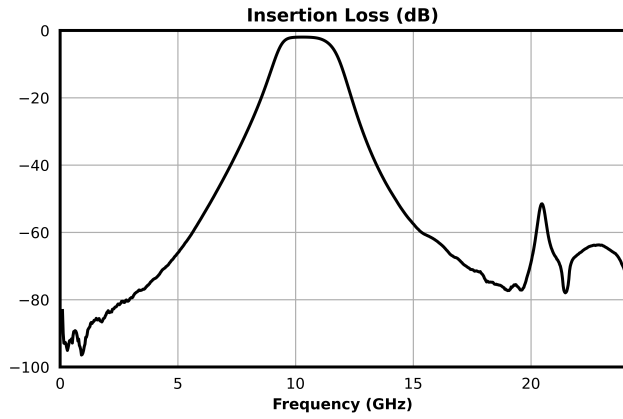
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
1 dBc Passband <sup>1</sup>	Configuration A, Temp = 25°C	9.57	11.21	-	-	-	GHz
3 dBc Passband <sup>2</sup>	Configuration A, Temp = 25°C	9.36	11.54	-	-	-	GHz
30 dBc Rejection Point <sup>3</sup>	Configuration A, Temp = 25°C	7.84	12.95	-	-	-	GHz
Center Freq <sup>4</sup>	Configuration A, Temp = 25°C	-	-	-	10.36	-	GHz
Insertion Loss @ fc <sup>5</sup>	Configuration A, Temp = 25°C	-	-	-	2.0	-	dB
Passband Return Loss <sup>6</sup>	Configuration A, Temp = 25°C	-	-	-	23	-	dB
Group Delay <sup>7</sup>	Configuration A, Temp = 25°C	-	-	-	583	-	ps
Impedance <sup>8</sup>	Configuration A, Temp = 25°C	-	-	-	50	-	Ω
3 dBc Passband	Configuration A, 25°C	9.33	11.57	-	-	-	GHz
Center Freq	Configuration A, 25°C	-	-	-	10.5	-	GHz
Passband	Configuration A, 25°C	-	-	9.75	-	11.25	GHz
Passband Return Loss	Configuration A, 25°C	9.75	11.25	10	15	-	dB
Stopband Suppression	Configuration A, 25°C	5.95	15.1	40	50	-	dB
Stopband Suppression	Configuration A, 25°C	7.55	13.35	25	30	-	dB

[1][2][3][4][5][6][7][8] No

**Typical Performance Plots**



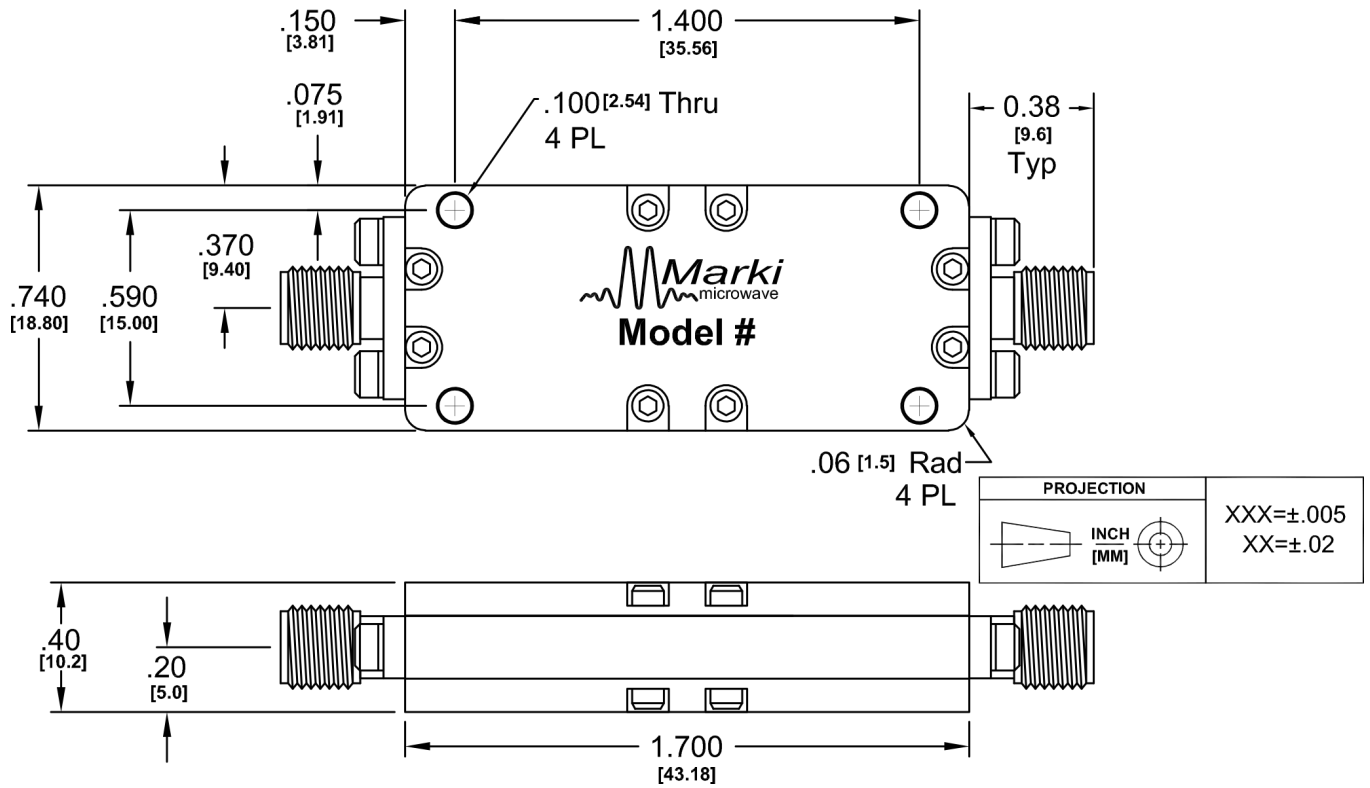
**Typical Performance Plot**



**Mechanical Data**

**Outline Drawing**

Download : [Outline 2D Drawing](#) | [Outline 3D Drawing](#) | [Outline 3D STP](#)



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