

FB-1215

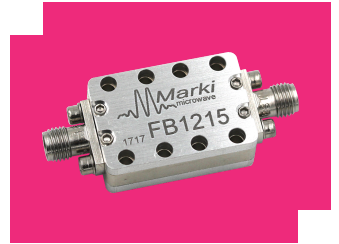
12.15 GHz Bandpass Filter

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-1215	12.15 GHz Bandpass Filter	<u>Standard</u>	Non-RoHS	Released	EAR99

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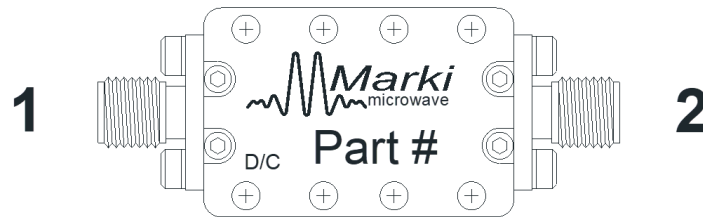
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Revision History


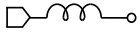
Revision Code	Revision Date	Comment
-	2012-06-06	Datasheet Initial Release

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	-	22g
Dimensions	-	27.94 X 18.80 mm

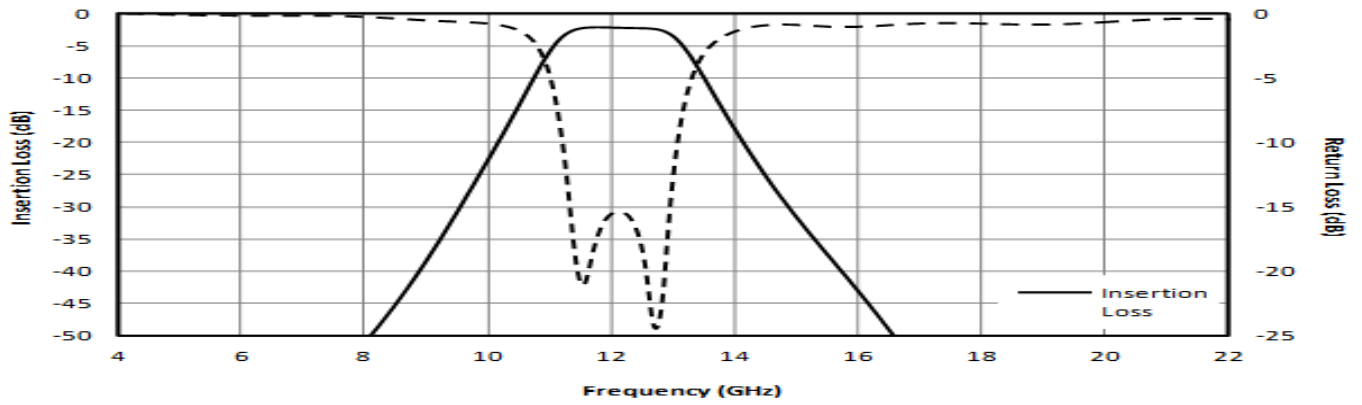
Electrical Specifications

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

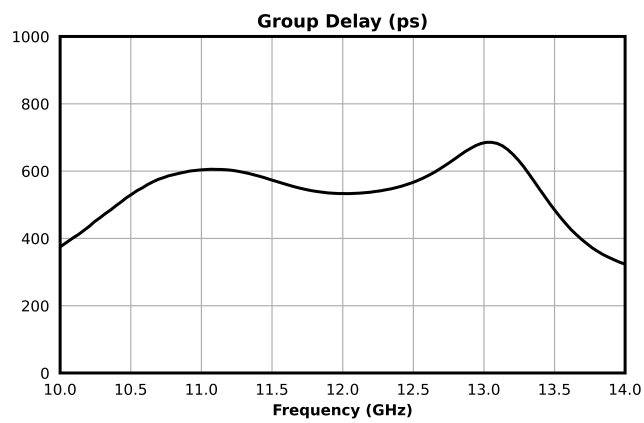
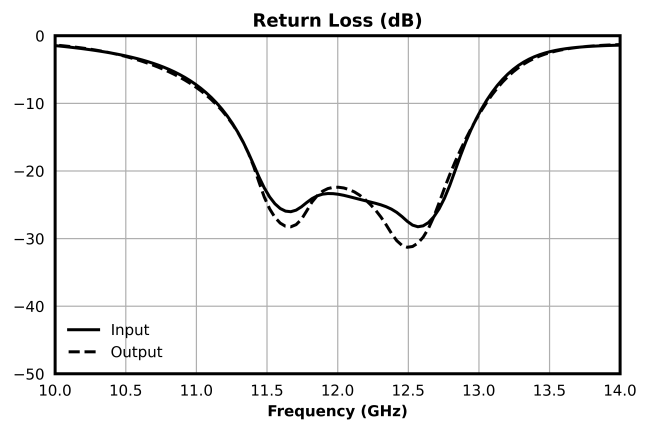
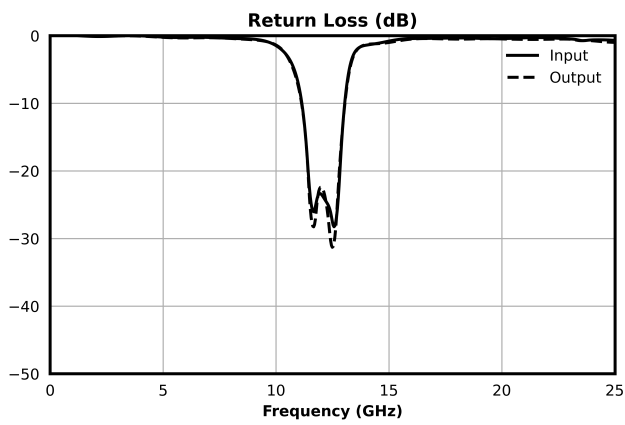
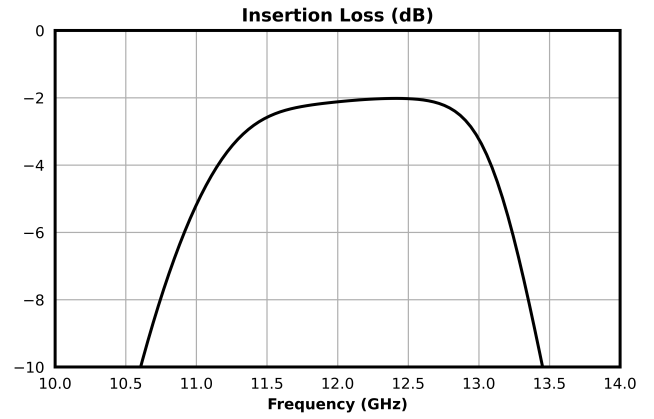
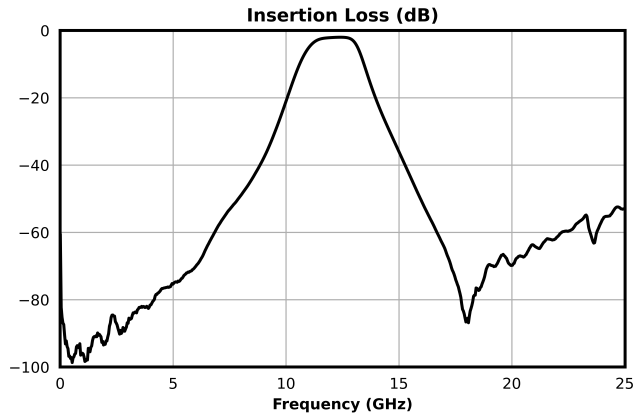
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
1 dBc Passband ¹	Configuration A, Temp = 25°C	11.37	12.94	-	-	-	GHz
3 dBc Passband ²	Configuration A, Temp = 25°C	11.03	13.17	-	-	-	GHz
30 dBc Rejection Point ³	Configuration A, Temp = 25°C	9.42	14.71	-	-	-	GHz
Center Freq ⁴	Configuration A, Temp = 25°C	-	-	-	12.13	-	GHz
Insertion Loss @ fc ⁵	Configuration A, Temp = 25°C	-	-	-	2.1	-	dB
Passband Return Loss ⁶	Configuration A, Temp = 25°C	-	-	-	25	-	dB
Group Delay ⁷	Configuration A, Temp = 25°C	-	-	-	557	-	ps
Impedance ⁸	Configuration A, Temp = 25°C	-	-	-	50	-	Ω
Center Freq	Configuration A, 25°C	-	-	-	12.15	-	GHz
Passband	Configuration A, 25°C	-	-	11.3	-	13	GHz
Passband Return Loss	Configuration A, 25°C	11.3	13	10	15	-	dB
Stopband Suppression	Configuration A, 25°C	9.5	15	25	30	-	dB
Stopband Suppression	Configuration A, 25°C	8	16.6	40	50	-	dB

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

Typical Performance Plots



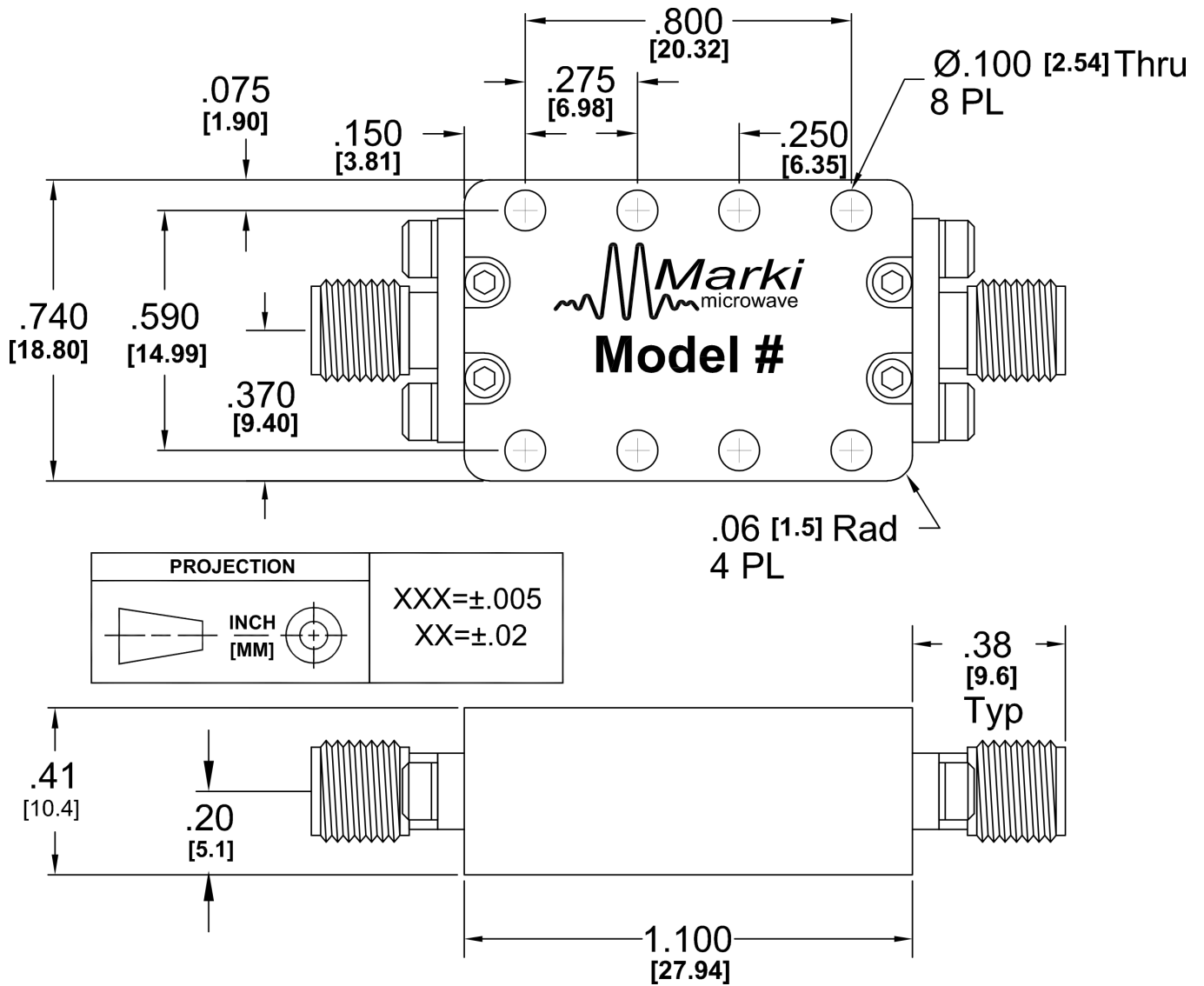
Typical Performance Plot



Mechanical Data

Outline Drawing

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



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