

FB-0785

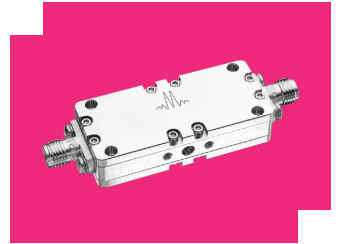
7.85 GHz Bandpass Filter

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-0785	7.85 GHz Bandpass Filter	<u>Standard</u>	Non-RoHS	Released	EAR99

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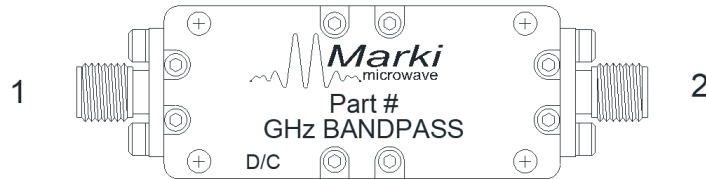
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Revision History


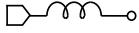
Revision Code	Revision Date	Comment
-	2012-09-26	Datasheet Initial Release

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

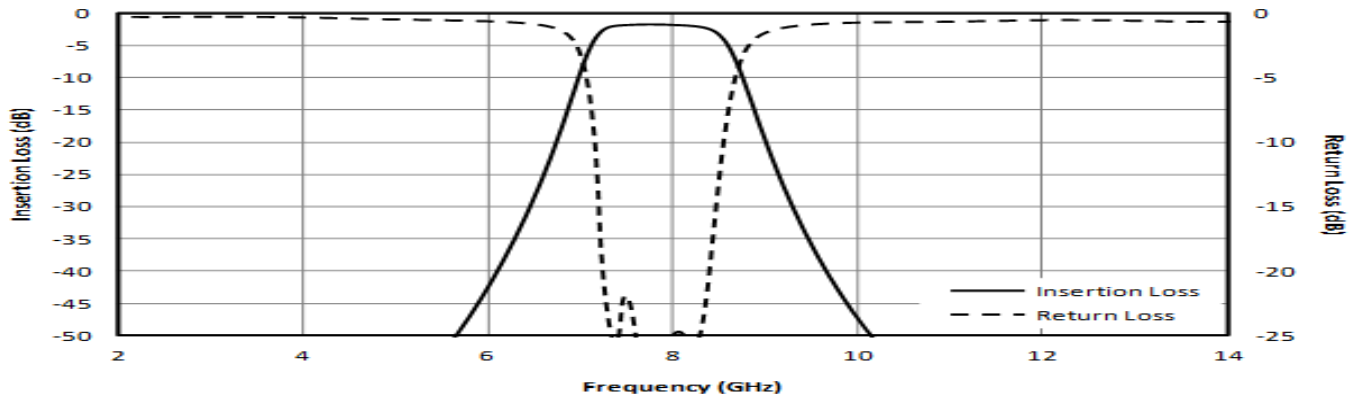
Parameter	Details	Rating
Weight	-	33g
Dimensions	-	43.18 x 18.8 mm

Electrical Specifications

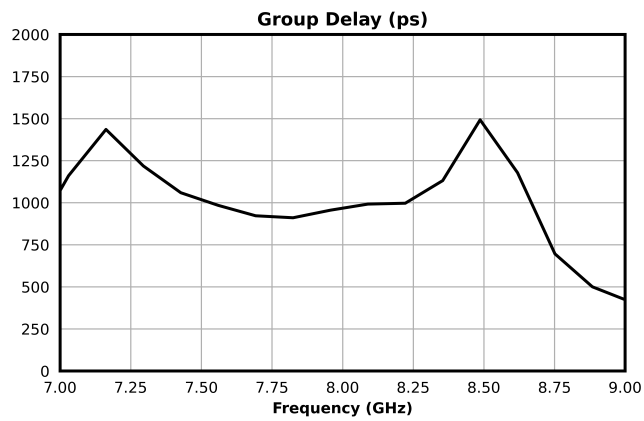
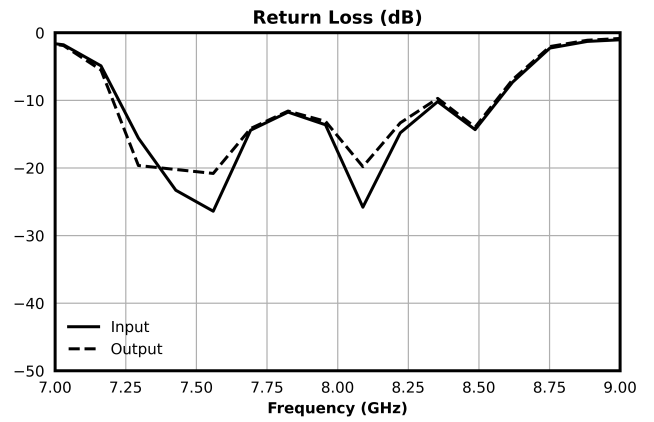
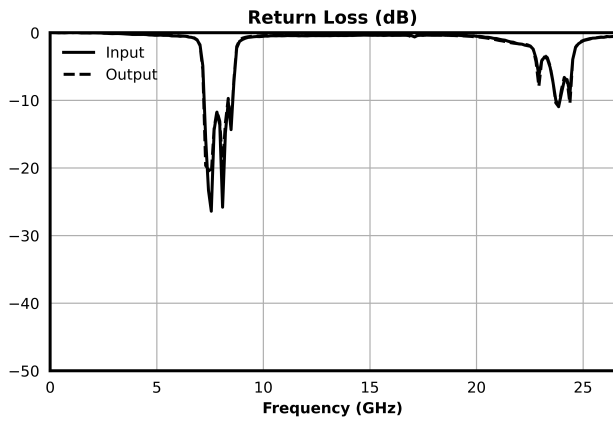
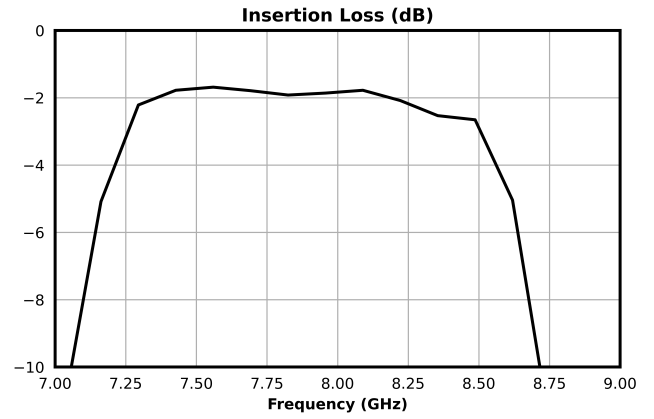
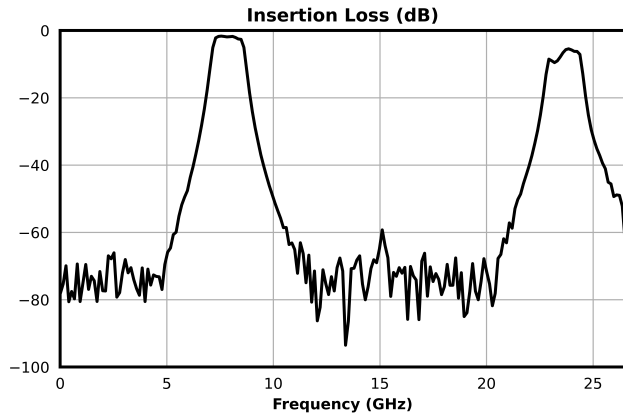
Specifications guaranteed from -55 to +100°C, measured in a 50Ω system

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
1 dBc Passband	Configuration A, Temp = 25°C	7.29	8.49	-	-	-	GHz
3 dBc Passband	Configuration A, Temp = 25°C	7.29	8.49	-	-	-	GHz
30 dBc Rejection Point	Configuration A, Temp = 25°C	6.63	9.15	-	-	-	GHz
Center Freq	Configuration A, Temp = 25°C	-	-	-	7.87	-	GHz
Insertion Loss @ fc	Configuration A, Temp = 25°C	-	-	-	1.9	3.0	dB
Passband Return Loss	Configuration A, Temp = 25°C	-	-	10	14	-	dB
Group Delay	Configuration A, Temp = 25°C	-	-	-	994	-	ps
Impedance	Configuration A, Temp = 25°C	-	-	-	50	-	Ω
Stopband Suppression	Configuration A, 25°C	6.3	9.4	25	-	30	dB
Stopband Suppression	Configuration A, 25°C	5.5	10.2	40	-	50	dB

Typical Performance Plots



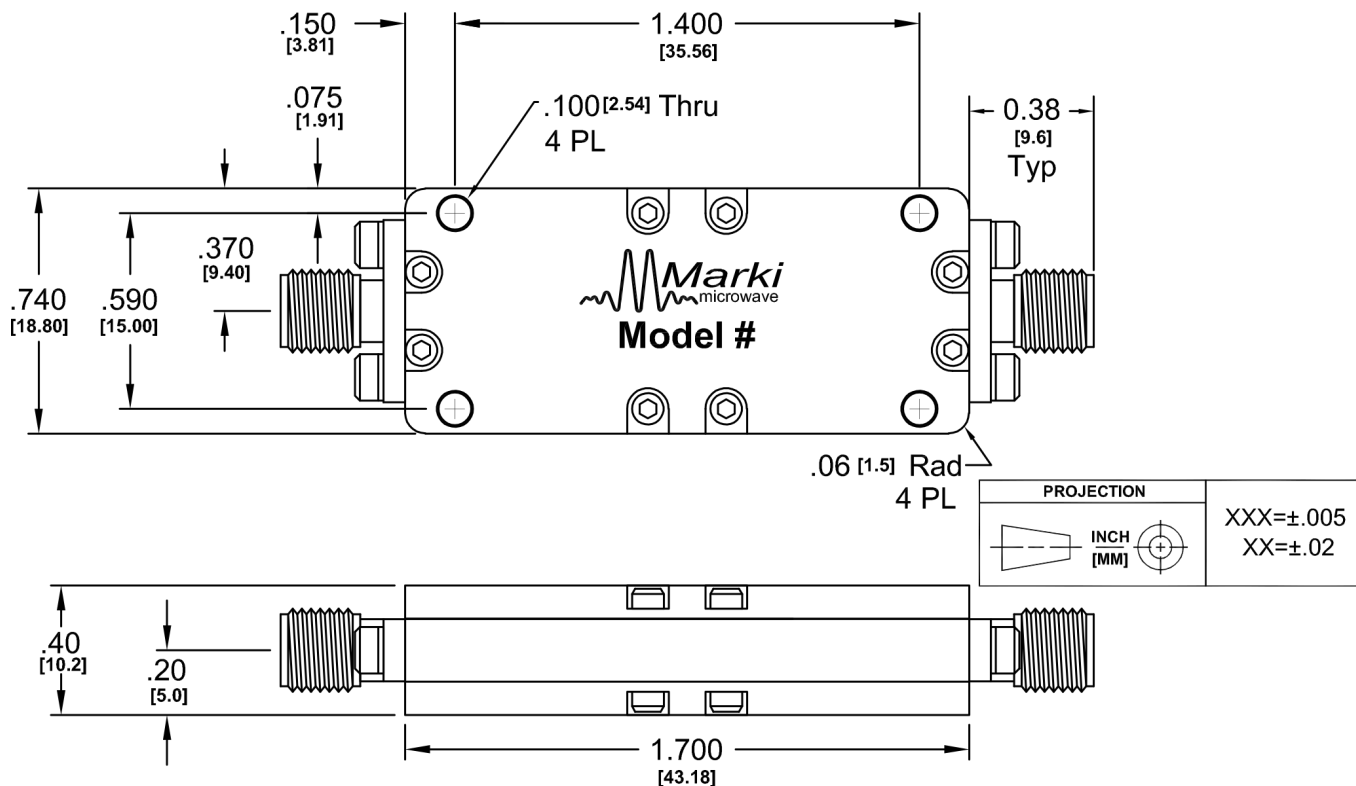
Typical Performance Plot



Mechanical Data

Outline Drawing

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



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