

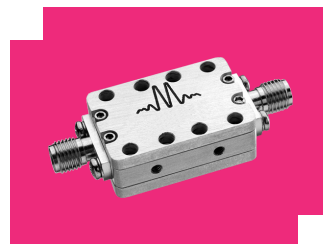
FB-1450

14.50 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.



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-1450	14.50 GHz Bandpass Filter	<u>Standard</u>	Non-RoHS	Released	EAR99

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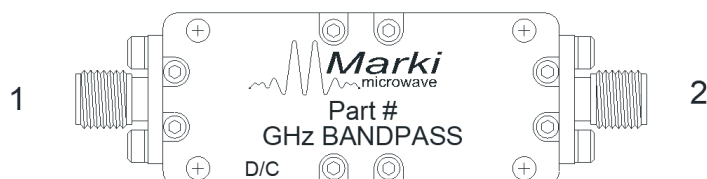
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Revision History

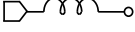
Revision Code	Revision Date	Comment
-	2014-07-11	Initial Date Release

Port Configuration and Functions

Port Diagram



Port Functions

Port	Function	Connector Type	Description	Equivalent Circuit for Package
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

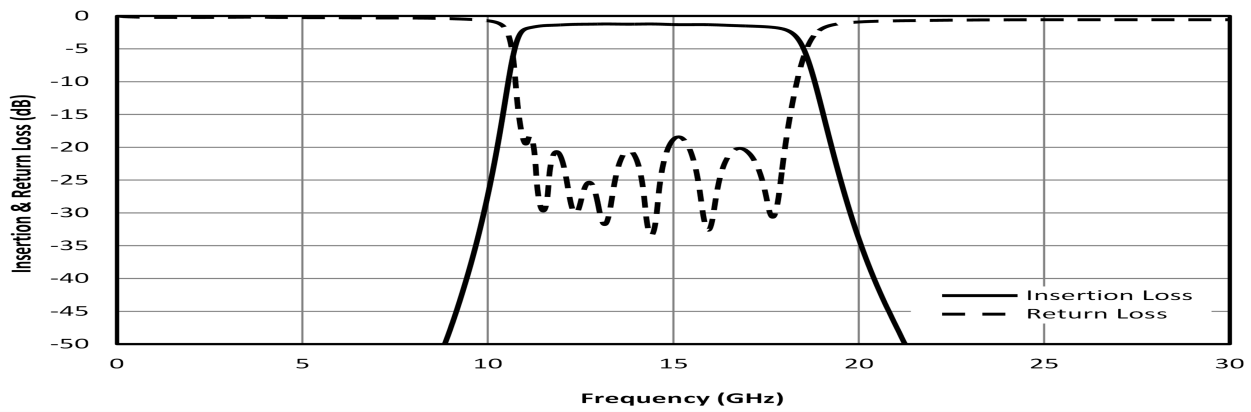
Package Information

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

Electrical Specifications

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
1 dBc Passband	Configuration A, 25°C	10.96	18.04	-	-	-	GHz
30 dBc Rejection Point	Configuration A, 25°C	9.87	19.8	-	-	-	GHz
3 dBc Passband	Configuration A, 25°C	10.77	18.42	-	-	-	GHz
Center Freq	Configuration A, 25°C	-	-	-	14.06	-	GHz
Center Frequency, f_c	14.50	14.5	14.5	-	14.5	-	GHz
Group Delay	Configuration A, 25°C	-	-	-	481.64	-	ps
Impedance	Configuration A, 25°C	-	-	-	50	-	Ω
Impedance	-	-	-	-	50	-	Ω
Insertion Loss @ f_c	Configuration A, 25°C	-	-	-	1.26	-	dB
Insertion Loss @ F_c	-	-	-	-	-	3	dB
Passband	11.1-17.9 ($\pm 23.5\%$ of f_c)	11.1	17.9	-	-	-	GHz
Passband Return Loss	11.1-17.9	11.1	17.9	15	20	-	dB
Passband Return Loss	Configuration A, 25°C	-	-	-	24	-	dB
RF Power	-	-	-	-	-	1	W
Stopband Suppression	8.6, 21.5	8.6	21.5	40	50	-	dB
Stopband Suppression	9.9, 19.8	9.9	19.8	25	30	-	dB

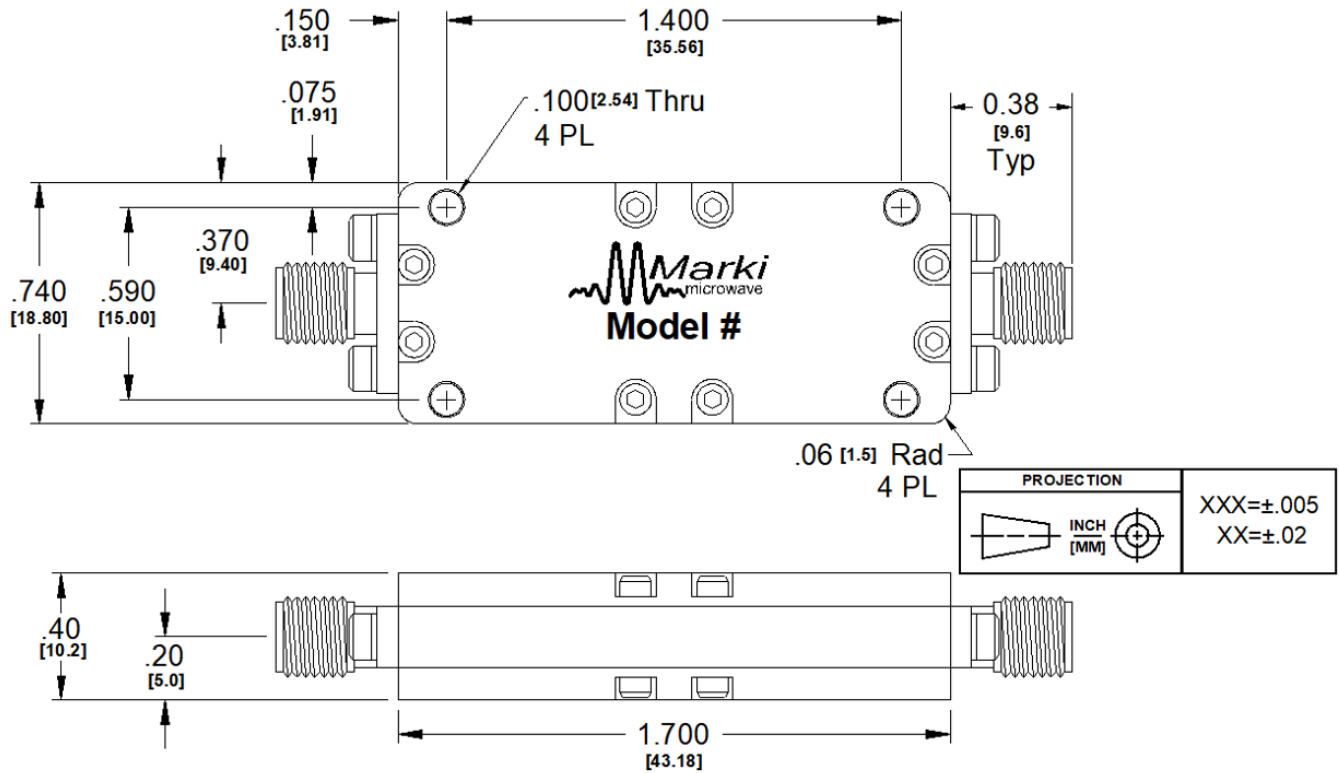
Typical Performance Plot



Mechanical Data

Outline Drawing

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



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