

FB-2400

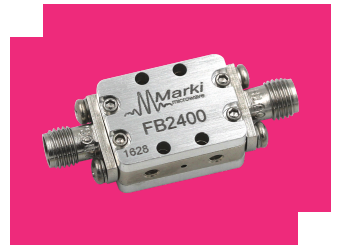
24 GHz Bandpass Filter

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-2400	24 GHz Bandpass Filter	<u>Standard</u>	Non-RoHS	Released	EAR99

Table Of Contents

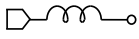
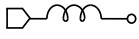
- **Device Overview**
 - General Description
 - Features
 - Applications
 - Functional Block Diagram
- **Port Configuration and Functions**
 - Port Functions
- **Revision History**
- **Specifications**
 - Package Information
 - Electrical Specifications
 - Typical Performance Plots
 - Typical Performance Plot
- **Mechanical Data**
 - Outline Drawing

Revision History

Revision Code	Revision Date	Comment
D	2020-03-01	RoHS Assembly

Port Configuration and Functions

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

Package Information

Parameter	Details	Rating
Weight	-	15g
Dimensions	-	20.32 x 14.99 mm

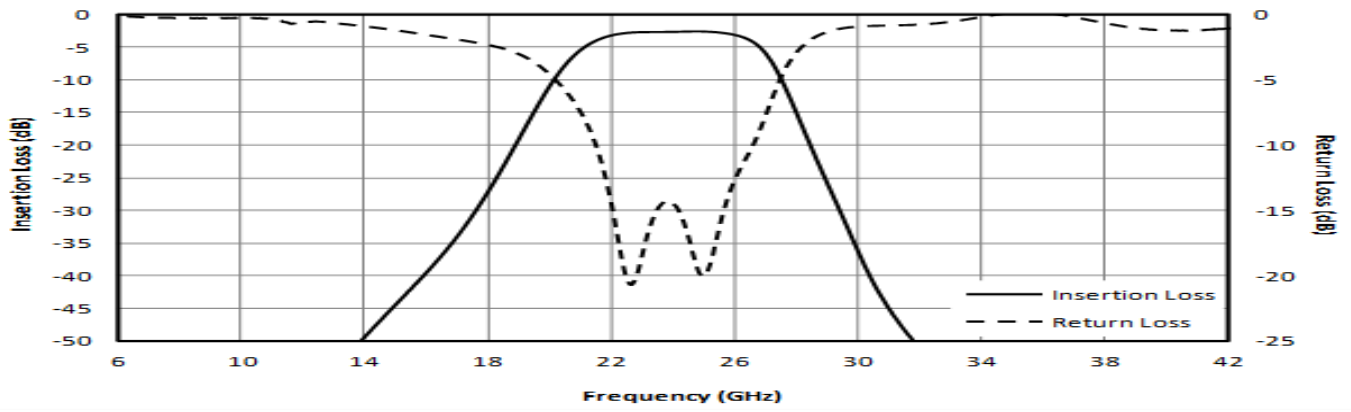
Electrical Specifications

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

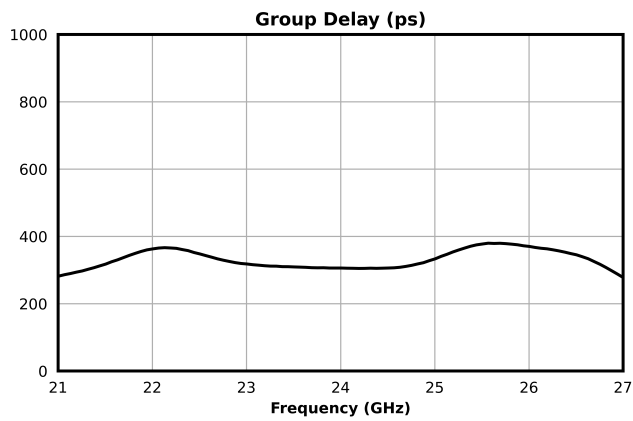
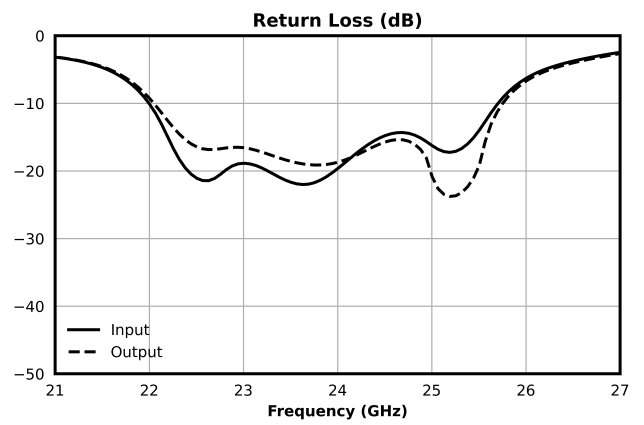
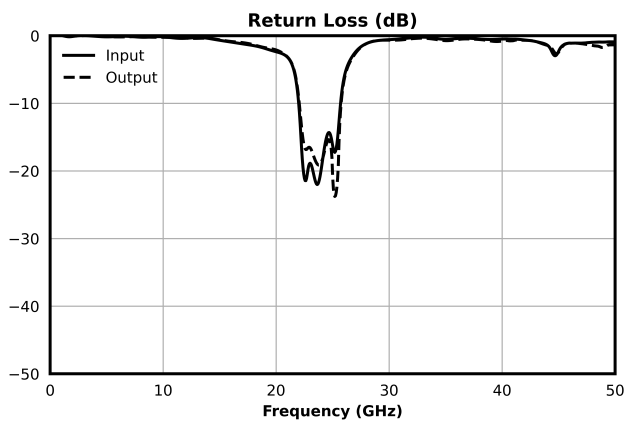
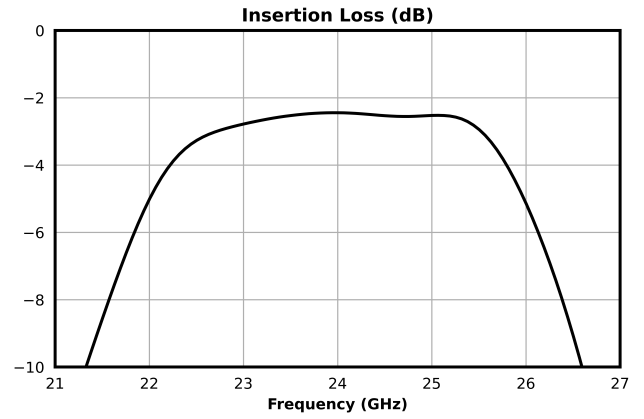
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
1 dBc Passband ¹	Configuration A, Temp = 25°C	22.44	25.63	-	-	-	GHz
3 dBc Passband ²	Configuration A, Temp = 25°C	21.94	26	-	-	-	GHz
30 dBc Rejection Point ³	Configuration A, Temp = 25°C	18.94	28.5	-	-	-	GHz
Center Freq ⁴	Configuration A, Temp = 25°C	-	-	-	23.98	-	GHz
Insertion Loss @ fc ⁵	Configuration A, Temp = 25°C	-	-	-	2.5	-	dB
Passband Return Loss ⁶	Configuration A, Temp = 25°C	-	-	-	17	-	dB
Group Delay ⁷	Configuration A, Temp = 25°C	-	-	-	314	-	ps
Impedance ⁸	Configuration A, Temp = 25°C	-	-	-	50	-	Ω
Impedance	-	-	-	-	50	-	Ω
Passband	22.4-25.6 GHz (± 6.5% of fc)	22.4	25.6	22.4	-	25.6	GHz
Passband Return Loss	22.4-25.6 GHz	22.4	25.6	10	15	-	dB
RF Power	-	-	-	-	-	1	W
Stopband Suppression	13.7, 32 GHz	13.7	32	40	50	-	dB
Stopband Suppression	17.2, 29.6 GHz	17.2	29.6	25	30	-	dB

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

Typical Performance Plots



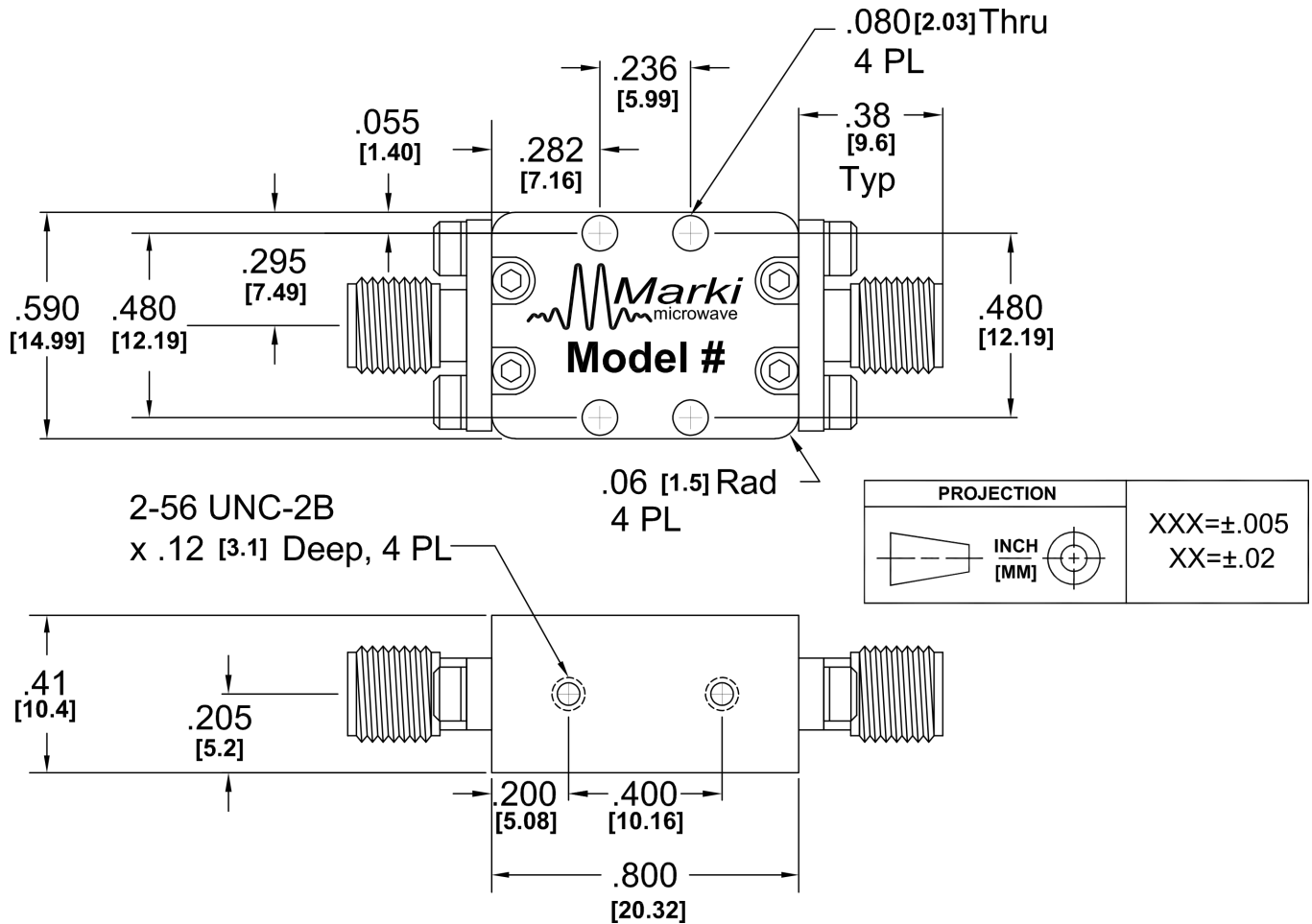
Typical Performance Plot



Mechanical Data

Outline Drawing

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



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