

FB-1215SM

12.15 GHz Surface Mount 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

- Chebyshev Response
- Typical 3 dB Bandwidth, $\pm 6.5\%$
- 50 dB Stop Band Suppression
- 5 Section Filter
- Reflow Solderable

Applications

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

Functional Block Diagram



Part Ordering Options

Part Number	Description	Package	Packing Size	Green Status	Product Lifecycle	Export Classification
FB-1215SM	12.15 GHz Surface Mount Bandpass Filter	SM	-	Non-RoHS	Released	EAR99

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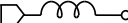
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Revision History

Revision Code	Revision Date	Comment
-	2016-02-09	Datasheet Initial Release

Port Configuration and Functions

Port Functions

Port	Function	Description	Equivalent Circuit for Package
Port 1	Input/Output	Port 1 is DC open to Port 2 and GND. GND is provided through the case.	
Port 2	Input/Output	Port 2 is DC open to Port 1 and GND. GND is provided through the case.	

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Specifications

Package Information

Parameter	Details	Rating
Dimensions	-	25.4 x 8.13 mm

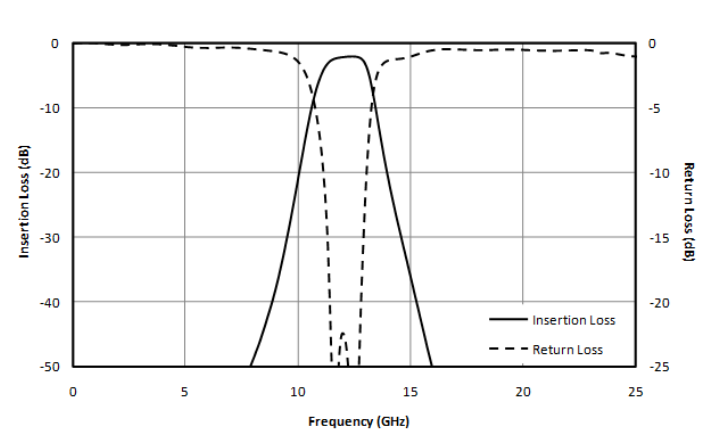
Electrical Specifications

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
Passband	11.35-12.95 GHz	11.35	12.95	-	-	-	GHz
Insertion Loss	12.15 GHz	12.15	12.15	-	2	3	dB
Return Loss	11.35-12.95 GHz	11.35	12.95	-	15	-	dB
Impedance	-	-	-	-	50	-	Ω
RF Power	-	-	-	-	-	1	W
Stopband Suppression, Low Band	7.85 GHz	7.85	7.85	-	50	-	dB
Stopband Suppression, Low Band	9.15 GHz	9.15	9.15	-	35	-	dB
Center Frequency, f_c	12.15 GHz	12.15	12.15	-	12.15	-	GHz
Stopband Suppression, High Band	15.0 GHz	15	15	-	35	-	dB
Stopband Suppression, High Band	16.0 GHz	16	16	-	50	-	dB

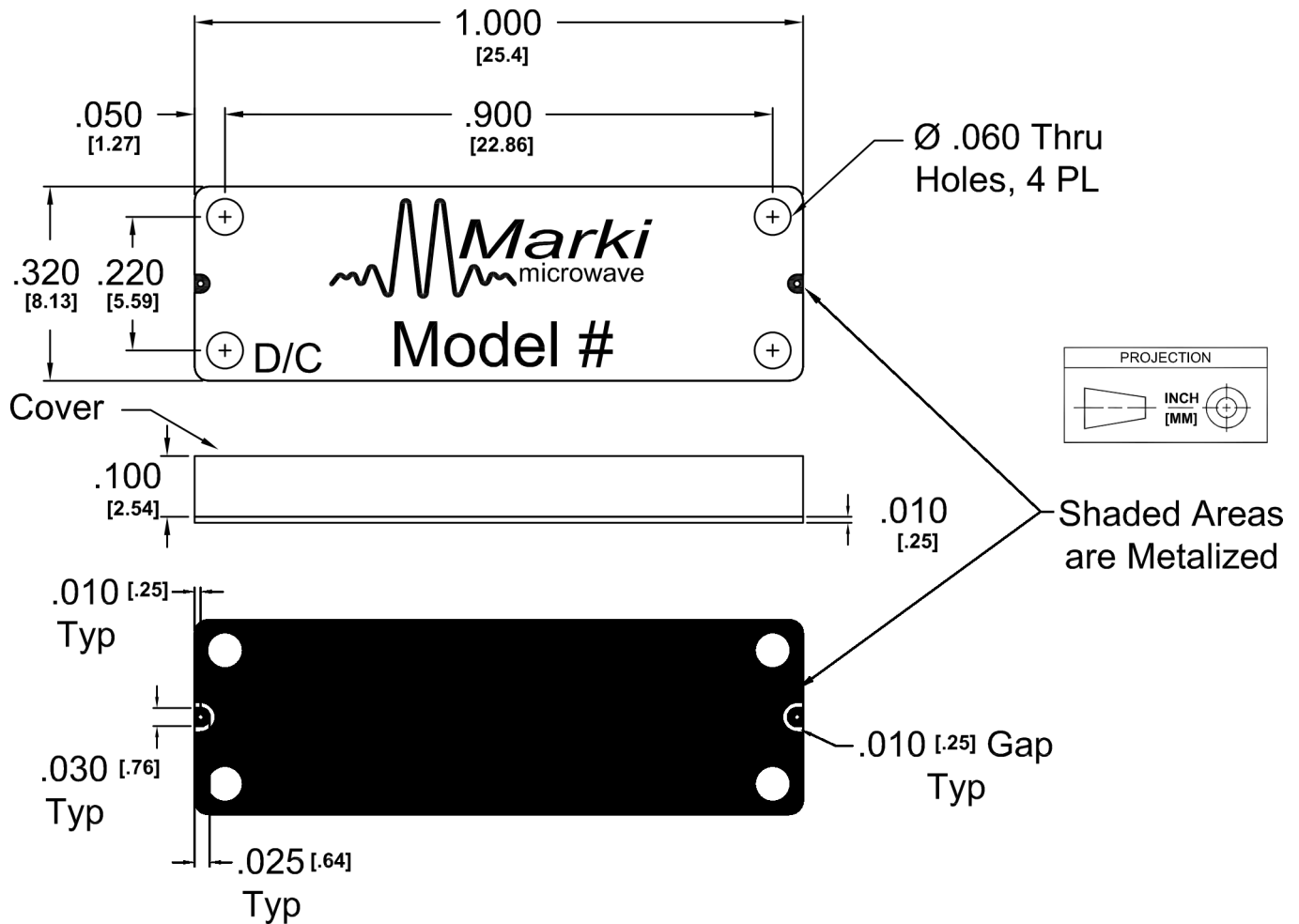
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Typical Performance Plots



Mechanical Data

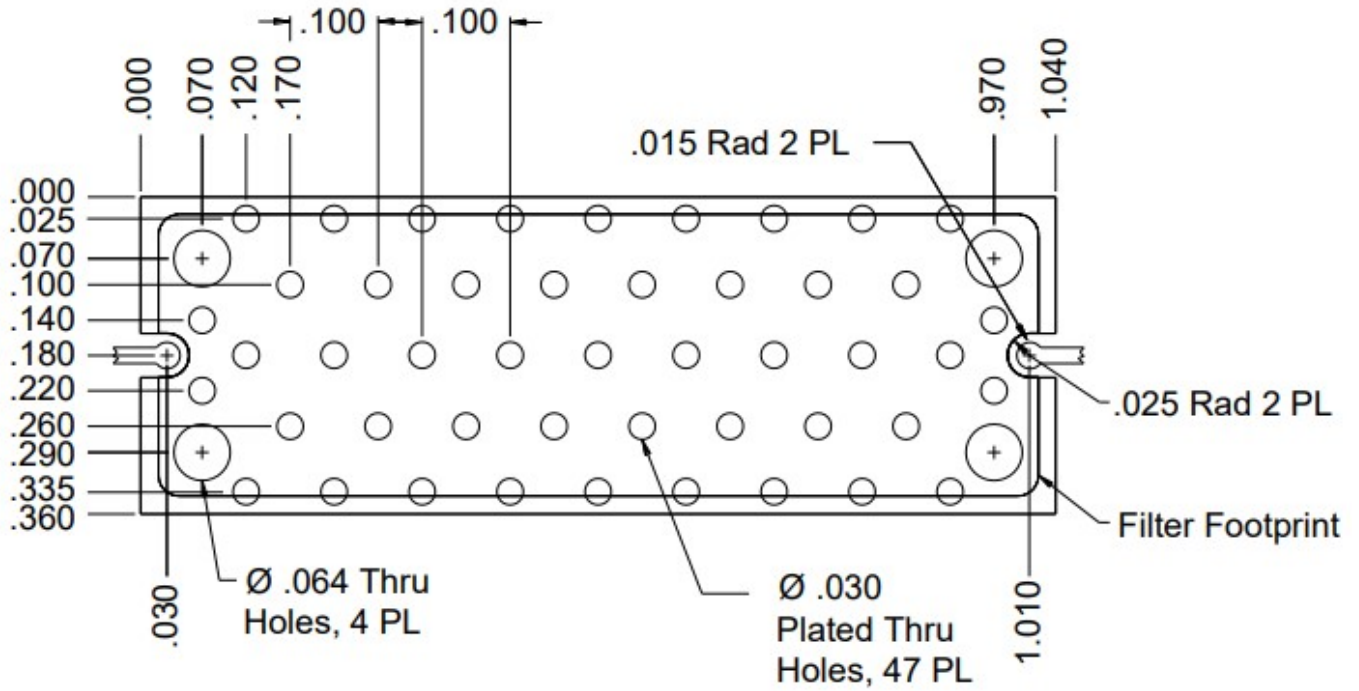
Outline Drawing



FB-1215SM

12.15 GHz Surface Mount Bandpass Filter

Footprint Image



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