

FB-0900SM

9 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	Green Status	Product Lifecycle	Export Classification
FB-0900SM	9 GHz Surface Mount Bandpass Filter	SM	Non-RoHS	Released	EAR99

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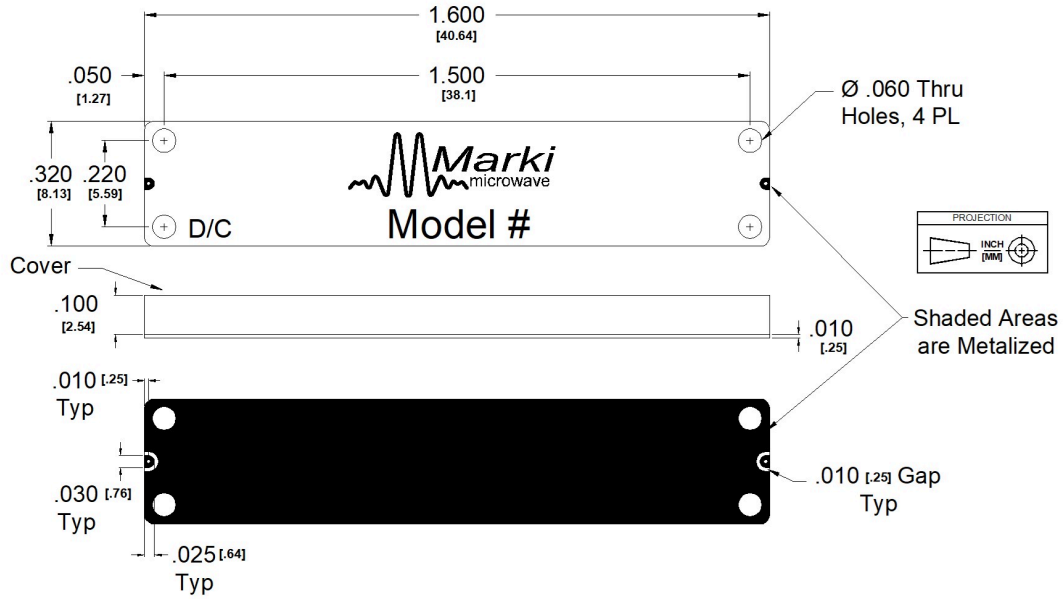
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Revision History

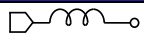

Revision Code	Revision Date	Comment
-	2016-02-09	Initial Date Release

Port Configuration and Functions

Port Diagram



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 and RF connectors.	
Port 2	Input/Output	Port 2 is DC open to Port 1 and GND. GND is provided through the case and RF connectors.	

Specifications

Package Information

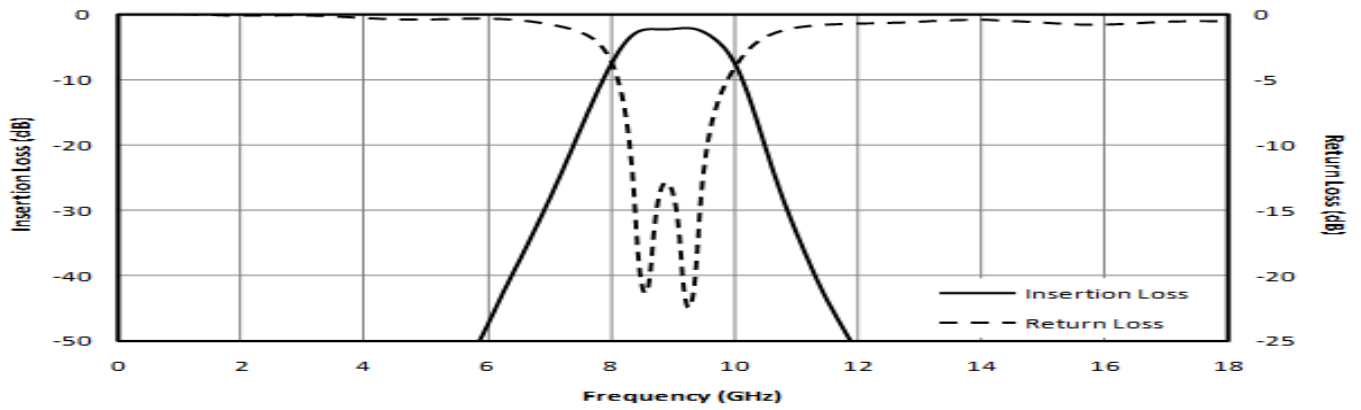
Parameter	Details	Rating
Dimensions	-	40.64 x 8.13 mm
Moisture Sensitivity Level	-	MSL 3

Electrical Specifications

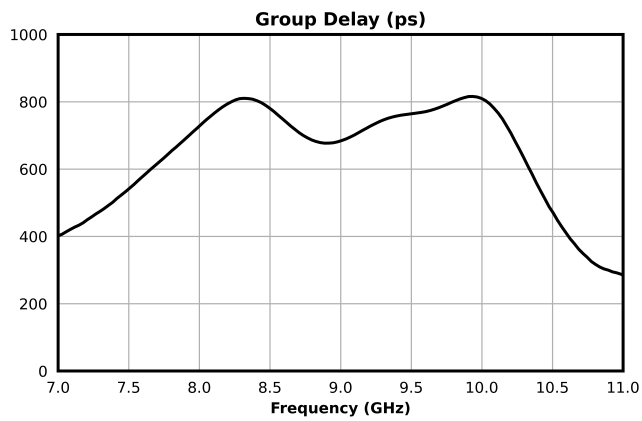
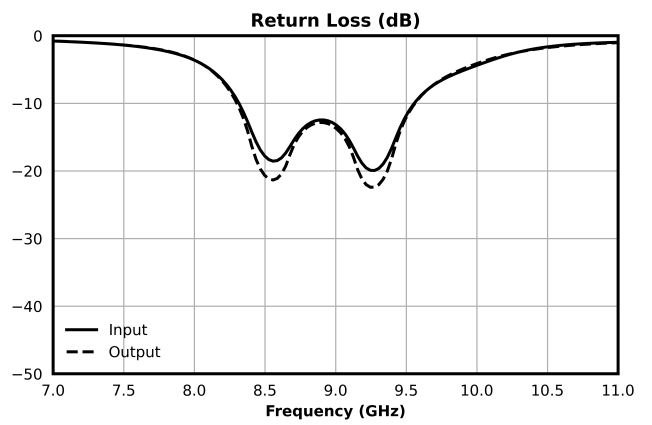
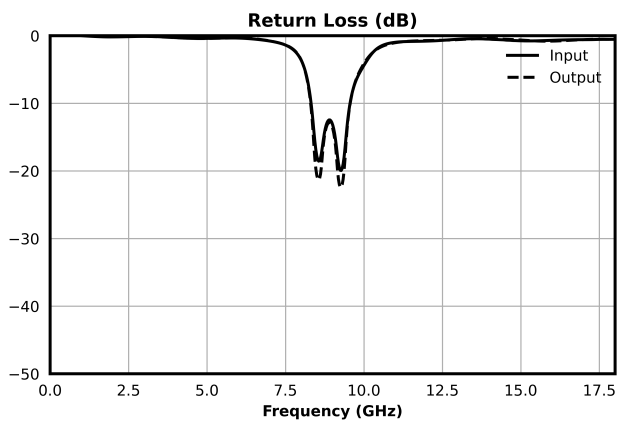
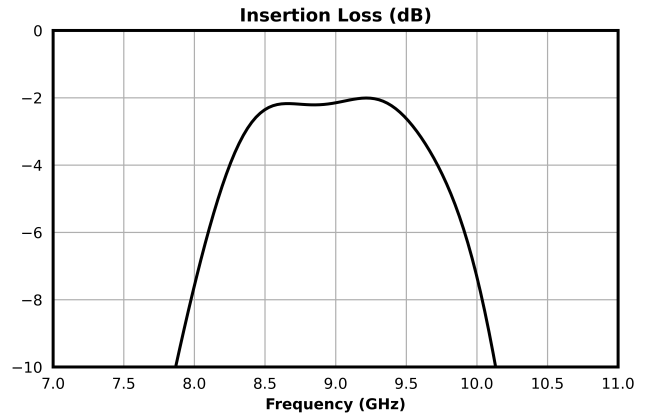
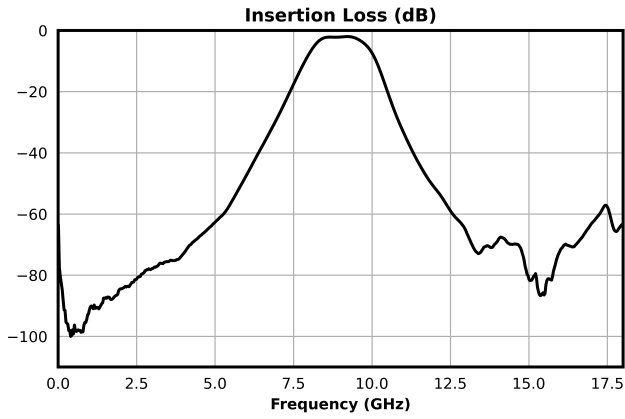
Specifications guaranteed from -55 to +100°C, measured in a 50Ω system.

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
1 dBc Passband	Configuration A, Temp = 25°C	8.38	9.58	-	-	-	GHz
3 dBc Passband	Configuration A, Temp = 25°C	8.2	9.82	-	-	-	GHz
30 dBc Rejection Point	Configuration A, Temp = 25°C	6.82	10.93	-	-	-	GHz
Center Freq	Configuration A, Temp = 25°C	-	-	-	8.96	-	GHz
Insertion Loss @ fc	Configuration A, Temp = 25°C	-	-	-	2.2	3.0	dB
Passband Return Loss	Configuration A, Temp = 25°C	-	-	-	16	-	dB
Group Delay	Configuration A, Temp = 25°C	-	-	-	735	-	ps
Impedance	Configuration A, Temp = 25°C	-	-	-	50	-	Ω
RF Power	-	-	-	-	-	1	W
Stopband Suppression, High Band	11.2	11.2	11.2	-	35	-	dB
Stopband Suppression, High Band	12.0	12	12	-	50	-	dB
Stopband Suppression, Low Band	5.8	5.8	5.8	-	50	-	dB
Stopband Suppression, Low Band	6.6	6.6	6.6	-	35	-	dB

Typical Performance Plots



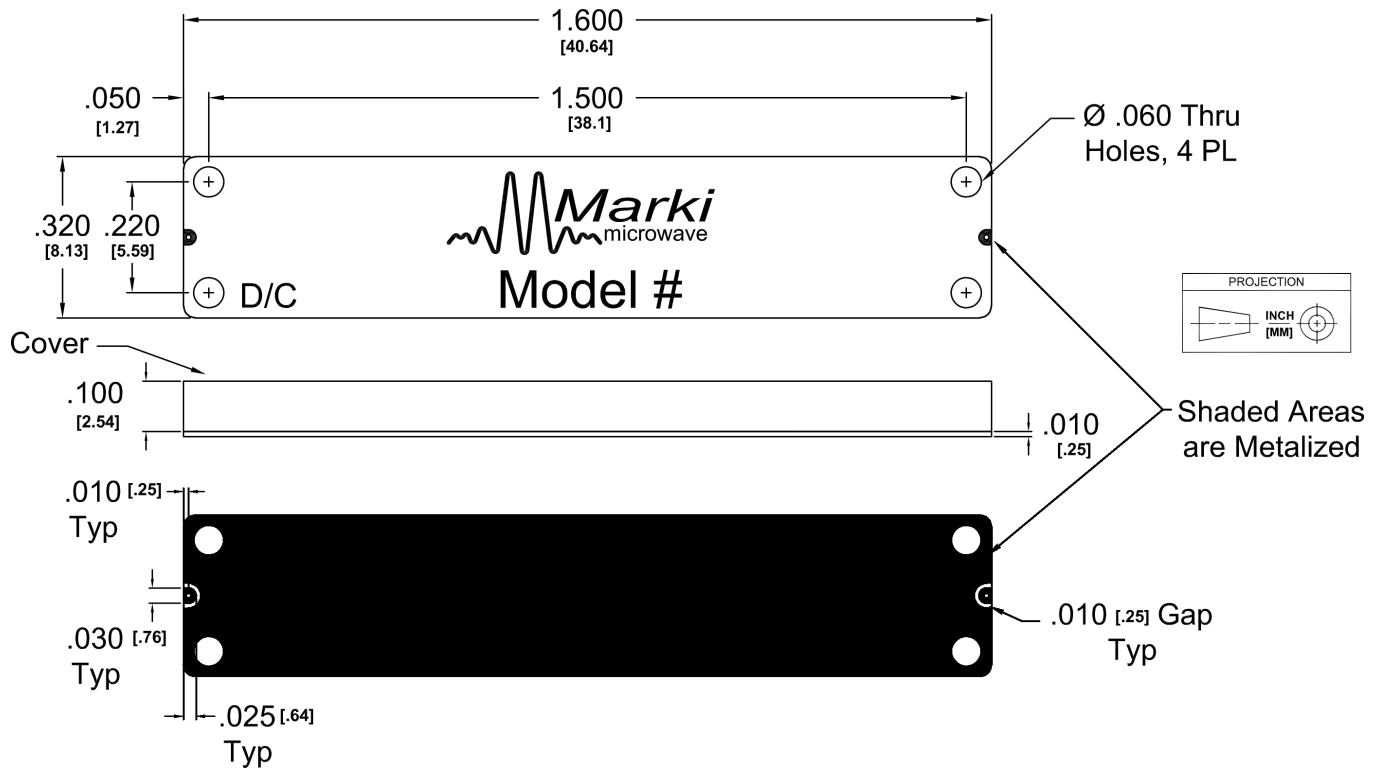
Typical Performance Plot



Mechanical Data

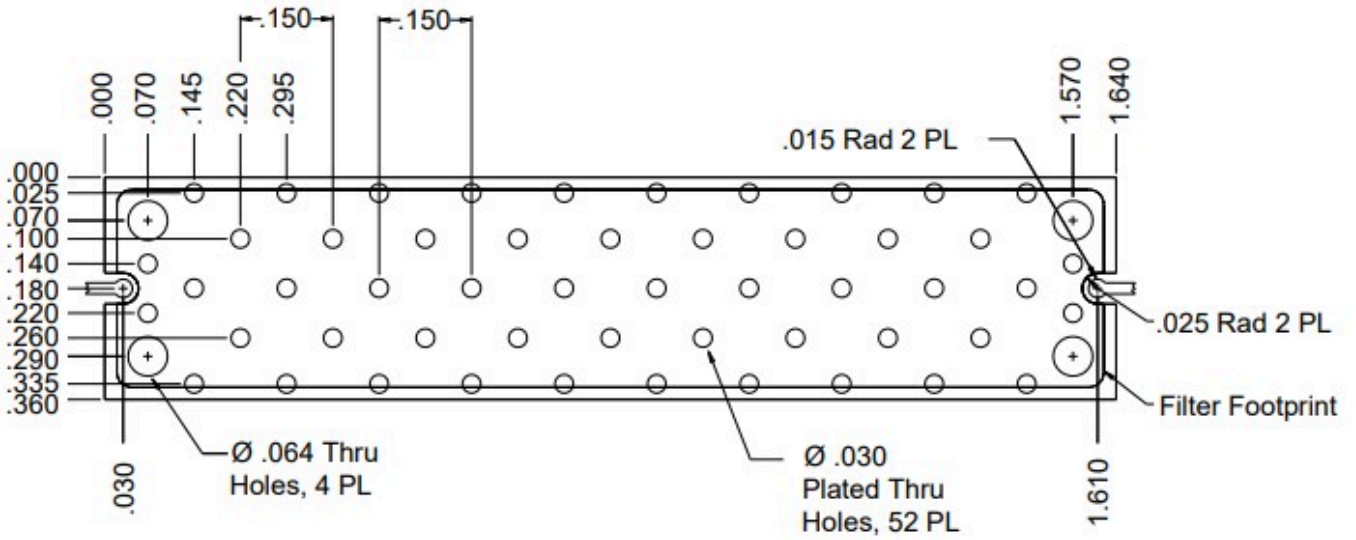
Outline Drawing

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



Footprint Image

Download : [Footprint Drawing](#)



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