

FB-1050SM

10.5 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, $\pm 8.5\%$
- 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-1050SM	10.5 GHz Surface Mount Bandpass Filter	SM	Non-RoHS	Released	EAR99

Table Of Contents

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

Revision History

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

Specifications

Absolute Maximum Ratings

Parameter	Maximum Rating	Unit
RF Power Handling	1	W

Package Information

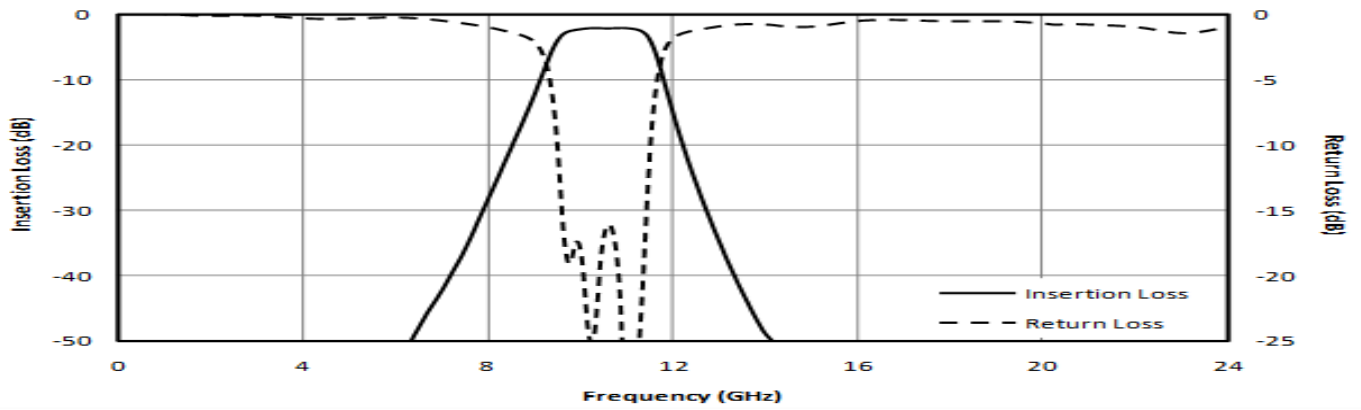
Parameter	Details	Rating
Dimensions	-	40.64 x 8.13 mm
Moisture Sensitivity Level	-	MSL 3

Electrical Specifications

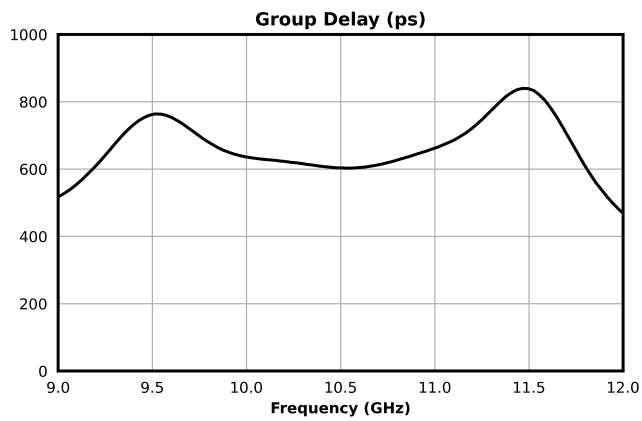
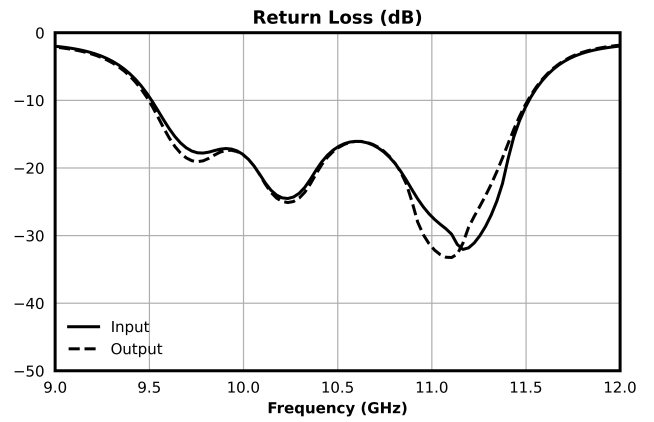
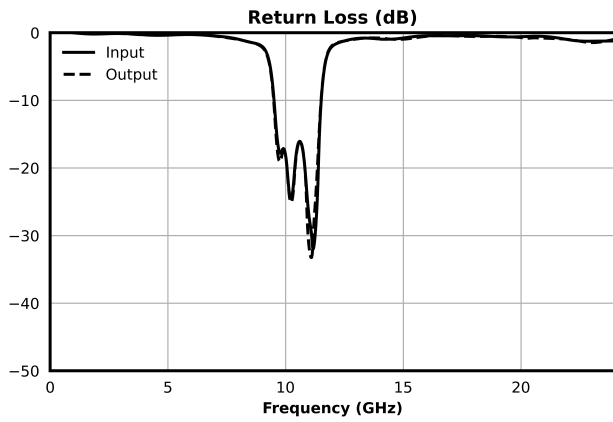
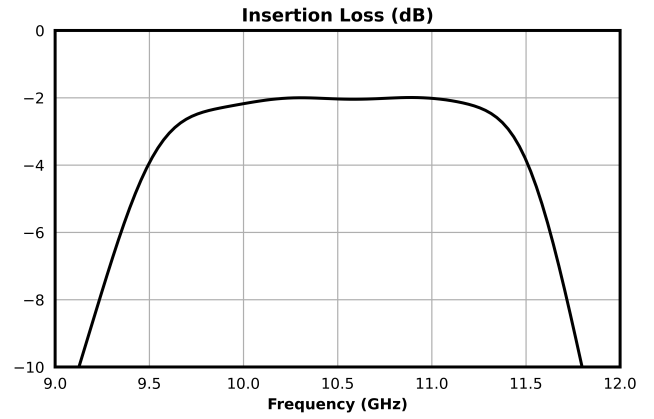
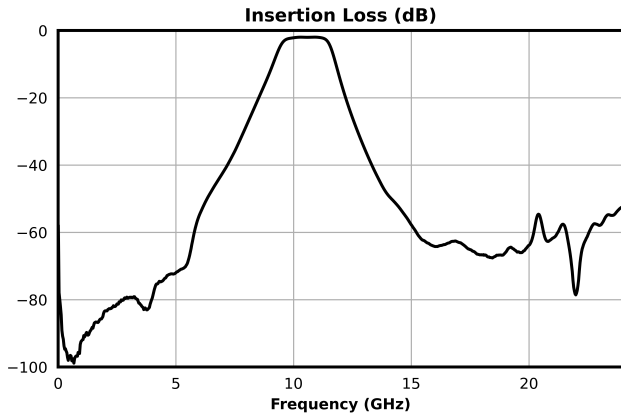
Specifications guaranteed from -55 to +100°C, measured in a 50Ω system.

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
1 dBc Passband	Configuration A, Temp = 25°C	9.64	11.41	-	-	-	GHz
3 dBc Passband	Configuration A, Temp = 25°C	9.43	11.56	-	-	-	GHz
30 dBc Rejection Point	Configuration A, Temp = 25°C	7.78	12.81	-	-	-	GHz
Center Freq	Configuration A, Temp = 25°C	-	-	-	10.48	-	GHz
Insertion Loss @ fc	Configuration A, Temp = 25°C	-	-	-	2.0	3.0	dB
Passband Return Loss	Configuration A, Temp = 25°C	-	-	-	20	-	dB
Group Delay	Configuration A, Temp = 25°C	-	-	-	639	-	ps
Impedance	Configuration A, Temp = 25°C	-	-	-	50	-	Ω
Stopband Suppression	Configuration A, 25°C	6.3	14.4	-	50	-	dB
Stopband Suppression	Configuration A, 25°C	7.6	13.2	-	35	-	dB

Typical Performance Plots



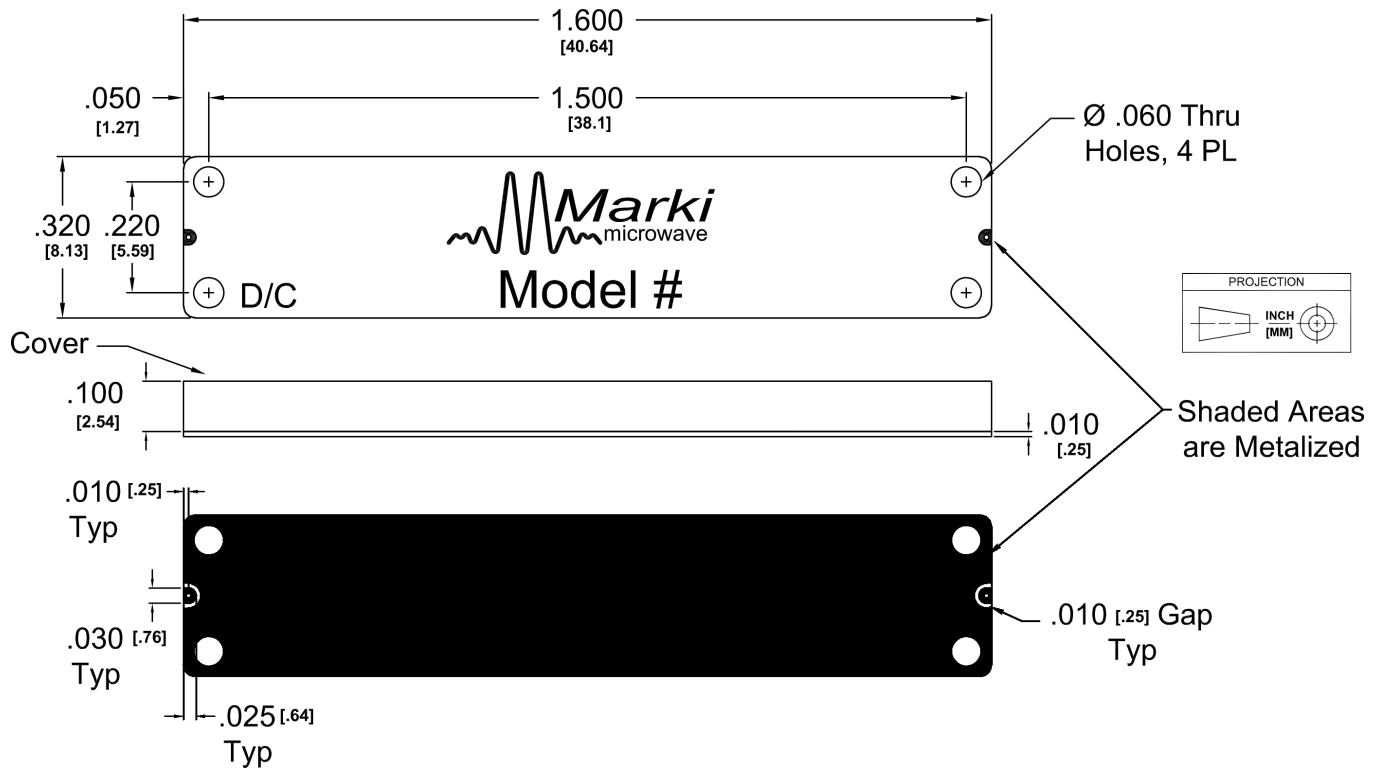
Typical Performance Plot



Mechanical Data

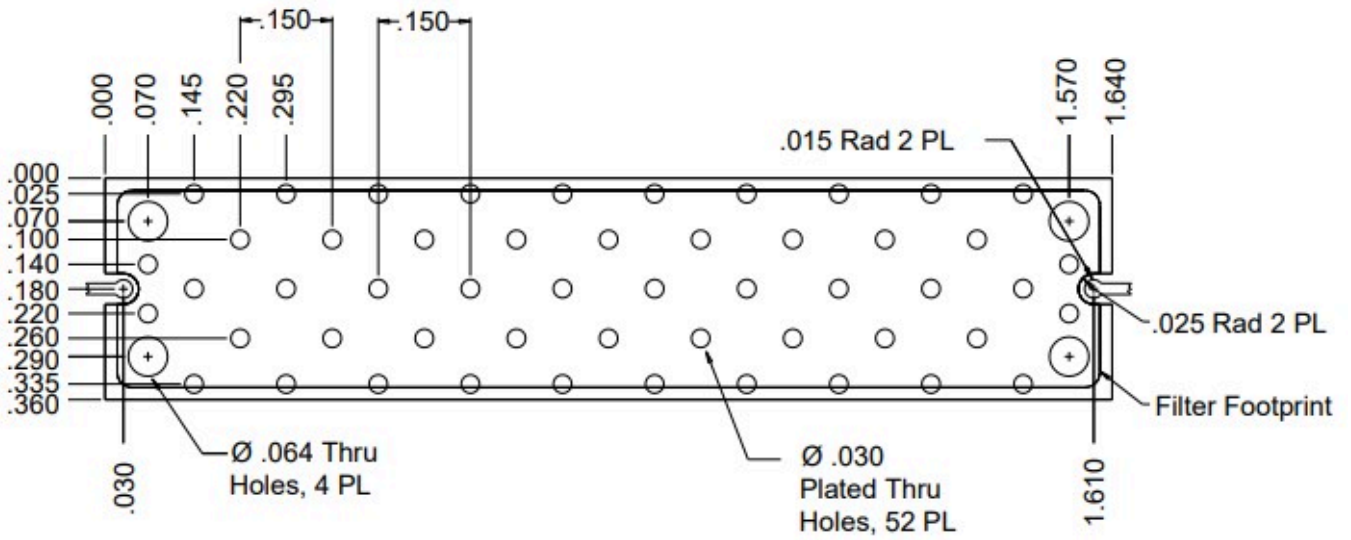
Outline Drawing

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



Footprint Image

Download : [Footprint Drawing](#)



DISCLAIMER

MARKI MICROWAVE, INC., ("MARKI") PROVIDES TECHNICAL SPECIFICATIONS AND DATA (INCLUDING DATASHEETS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, AND OTHER INFORMATION AND RESOURCES "AS IS" AND WITH ALL FAULTS. MARKI DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. These resources are intended for developers skilled in the art designing with Marki products. You are solely responsible for (1) selecting the appropriate products for your application, (2) designing, validating, and testing your application, and (3) ensuring your application meets applicable standards and other requirements. Marki makes no guarantee regarding the suitability of its products for any particular purpose, nor does Marki assume any liability whatsoever arising out of your use or application of any Marki product.

Marki grants you permission to use these resources only for development of an application that uses Marki products. Other reproduction or use of these resources is strictly prohibited. No license is granted to any other Marki intellectual property or to any third-party intellectual property. Marki reserves the right to make changes to the product(s) or information contained herein without notice.

MARKI MICROWAVE and T3 MIXER are trademarks or registered trademarks of Marki Microwave, Inc. All other trademarks used are the property of their respective owners.

© 2016, Marki Microwave, Inc