

FB-1655

16.55 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-1655	16.55 GHz Bandpass Filter	Standard	Consult Factory	Released	EAR99

Table Of Contents

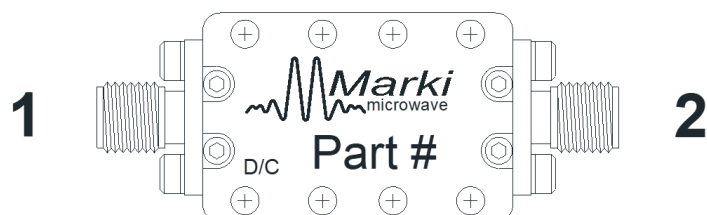
- **Device Overview**
 - General Description
 - Features
 - Applications
 - Functional Block Diagram
- **Port Configuration and Functions**
 - Port Diagram
 - Port Functions
- **Revision History**
- **Specifications**
 - Absolute Maximum Ratings
 - Package Information
 - Electrical Specifications
 -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

Revision History

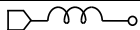
Revision Code	Revision Date	Comment
-	2012-06-06	Datasheet Initial Release

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

Absolute Maximum Ratings

Parameter	Maximum Rating	Unit
Power Handling	1	W

Package Information

Parameter	Details	Rating
Weight	-	22g
Dimensions	-	27.94 X 18.80 mm

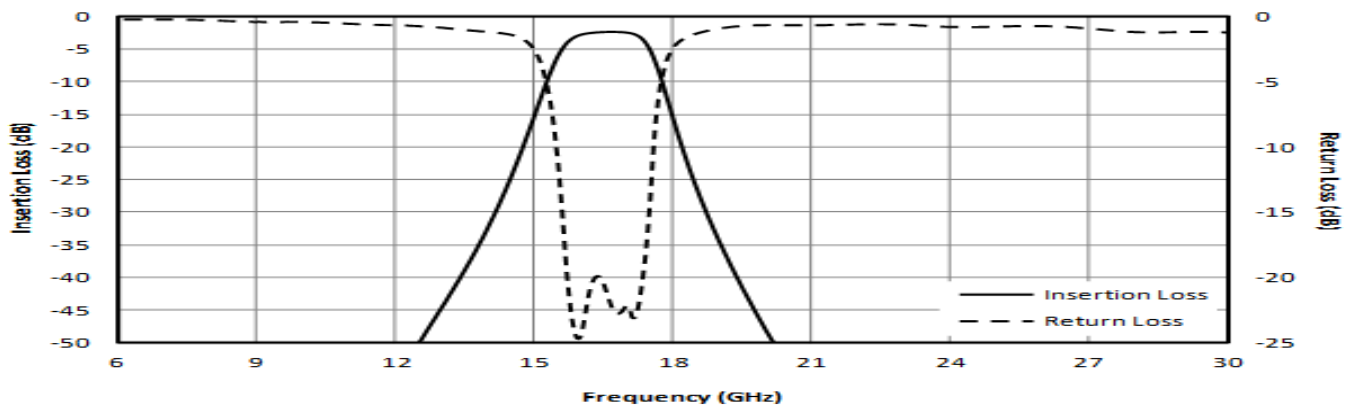
Electrical Specifications

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

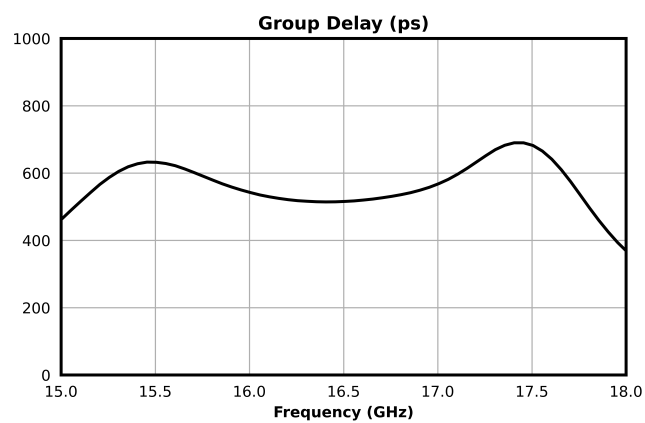
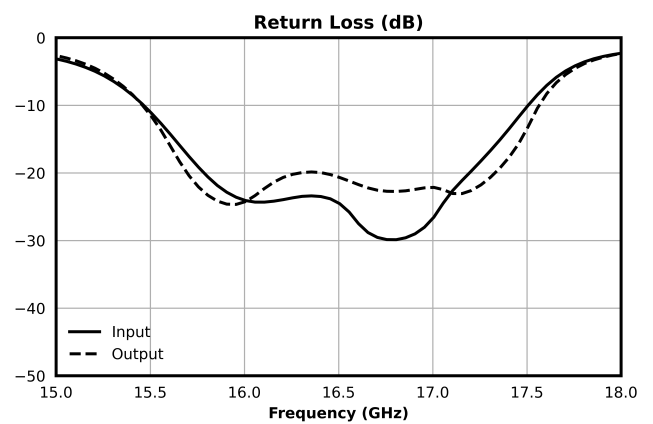
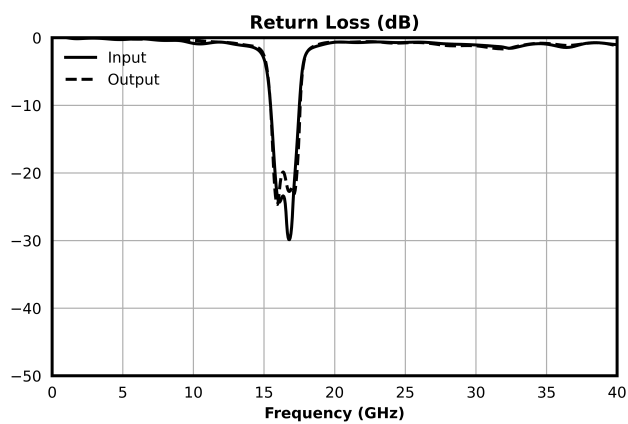
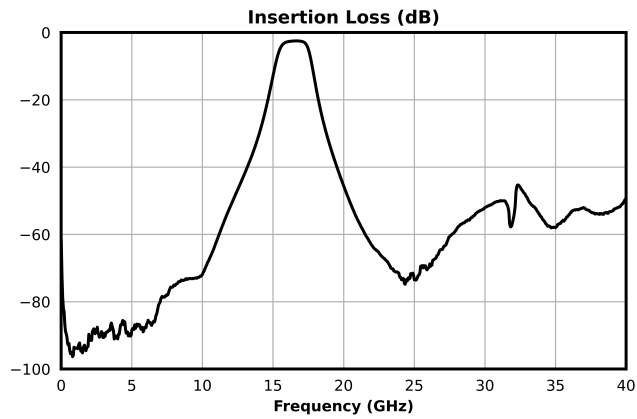
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
1 dBc Passband ¹	Configuration A, Temp = 25°C	15.71	17.31	-	-	-	GHz
3 dBc Passband ²	Configuration A, Temp = 25°C	15.46	17.51	-	-	-	GHz
30 dBc Rejection Point ³	Configuration A, Temp = 25°C	13.86	18.91	-	-	-	GHz
Center Freq ⁴	Configuration A, Temp = 25°C	-	-	-	16.49	-	GHz
Insertion Loss @ f _c ⁵	Configuration A, Temp = 25°C	-	-	-	2.5	-	dB
Passband Return Loss ⁶	Configuration A, Temp = 25°C	-	-	-	22	-	dB
Group Delay ⁷	Configuration A, Temp = 25°C	-	-	-	542	-	ps
Impedance ⁸	Configuration A, Temp = 25°C	-	-	-	50	-	Ω
Center Freq	Configuration A, 25°C	-	-	-	16.55	-	GHz
Insertion Loss @ F _c	Configuration A, 25°C	-	-	-	2.5	3	dB
Passband	Configuration A, 25°C	-	-	15.8	-	17.3	GHz
Passband Return Loss	Configuration A, 25°C	15.8	17.3	10	15	-	dB
Stopband Suppression	Configuration A, 25°C	12.15	20.4	40	50	-	dB
Stopband Suppression	Configuration A, 25°C	14	18.8	25	30	-	dB

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

Typical Performance Plots



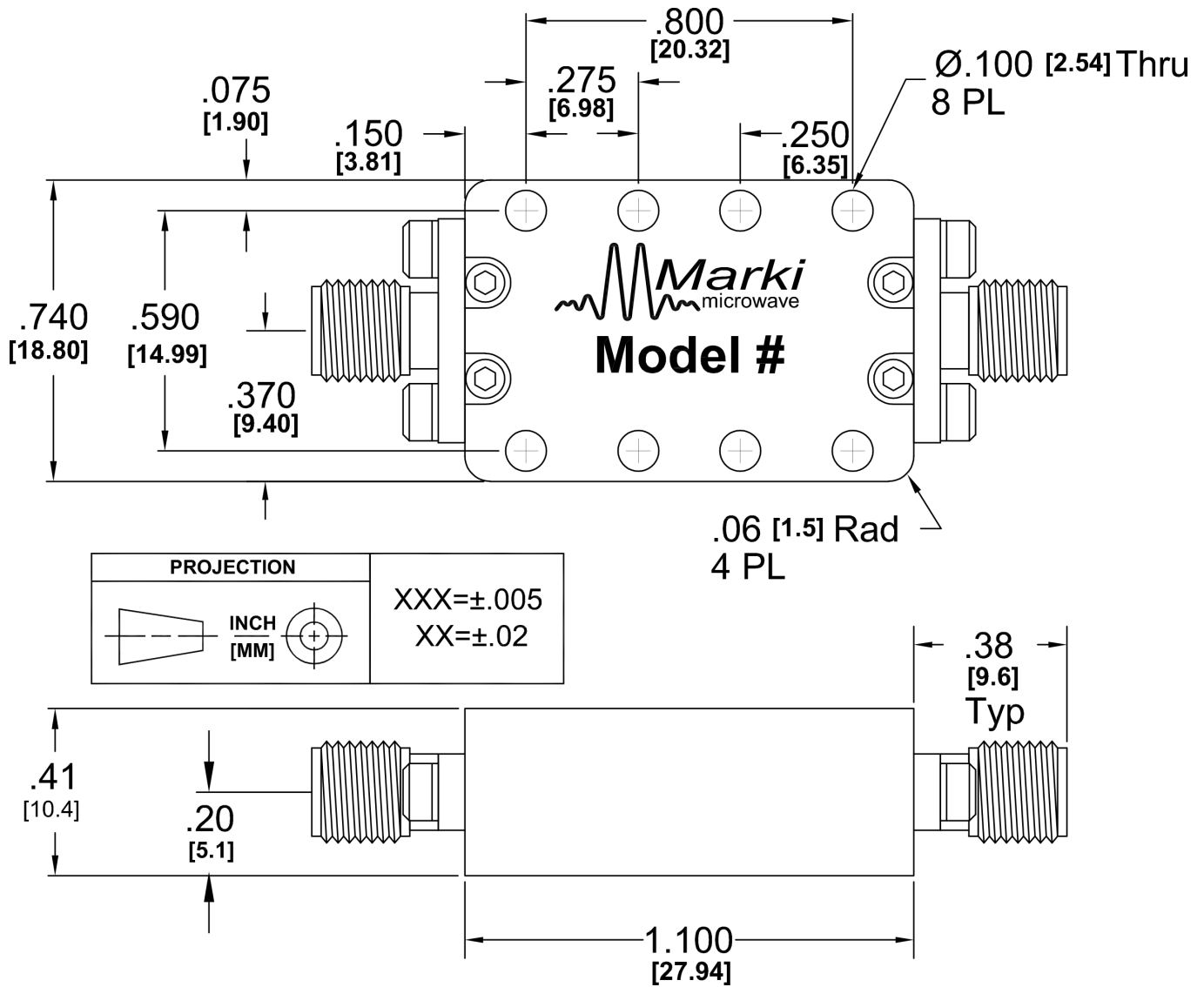
Typical Performance Plot



Mechanical Data

Outline Drawing

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



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.

© 2012, Marki Microwave, Inc