

FB-1445SM

14.45 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	Packing Size	Green Status	Product Lifecycle	Export Classification
FB-1445SM	14.45 GHz Surface Mount Bandpass Filter	-	-	Non-RoHS	Released	EAR99

Table Of Contents

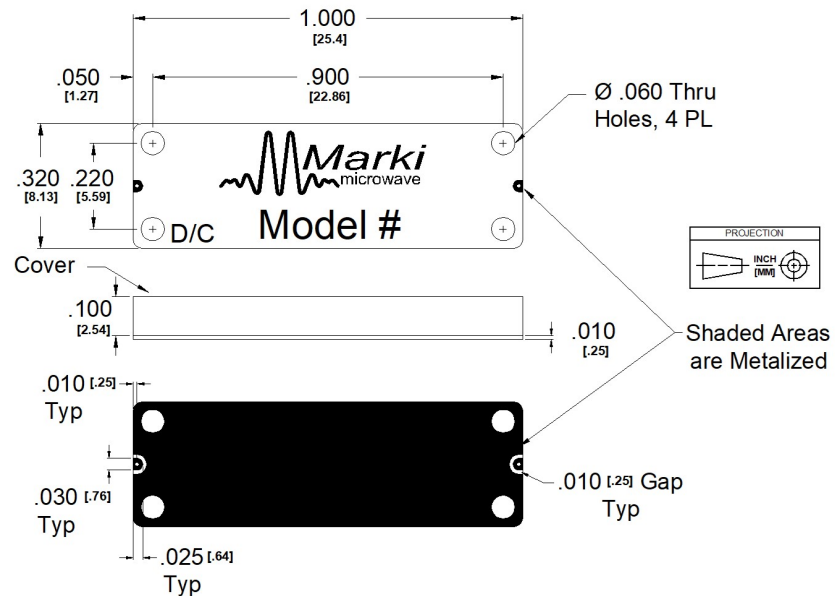
- **Device Overview**
 - General Description
 - Features
 - Applications
 - Functional Block Diagram
- **Port Configuration and Functions**
 - Port Diagram
 - Port Functions
- **Revision History**
- **Specifications**
 - Package Information
 - Electrical Specifications
 - Typical Performance Plots
-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

Revision History

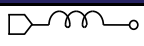
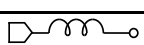
Revision Code	Revision Date	Comment
-	2016-02-09	Initial Date Release

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

FB-1445SM

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Specifications

Package Information

Parameter	Details	Rating
Dimensions	-	25.4 x 8.13 mm

Electrical Specifications

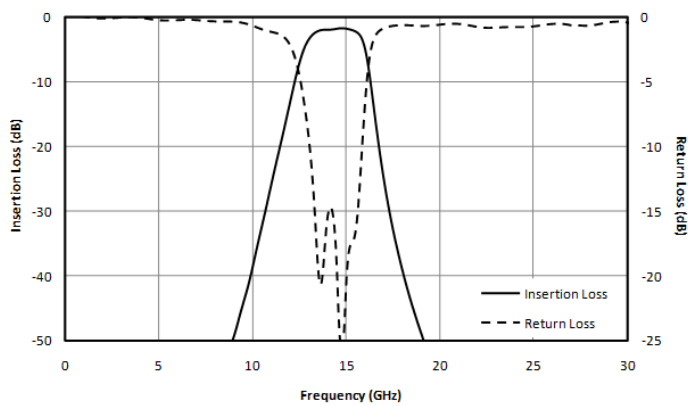
Specifications guaranteed from -55 to +100°C, measured in a 50Ω system.

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Passband	13.2-15.7	13.2	15.7	-	-	-	GHz
Insertion Loss	14.45	14.45	14.45	-	2	3	dB
Return Loss	13.2-15.7	13.2	15.7	-	15	-	dB
Impedance	-	-	-	-	50	-	Ω
RF Power	-	-	-	-	-	1	W
Stopband Suppression, Low Band	8.5	8.5	8.5	-	50	-	dB
Stopband Suppression, Low Band	9.7	9.7	9.7	-	35	-	dB
Center Frequency, f_c	14.45	14.45	14.45	-	14.45	-	GHz
Stopband Suppression, High Band	18.0	18	18	-	35	-	dB
Stopband Suppression, High Band	19.3	19.3	19.3	-	50	-	dB

FB-1445SM

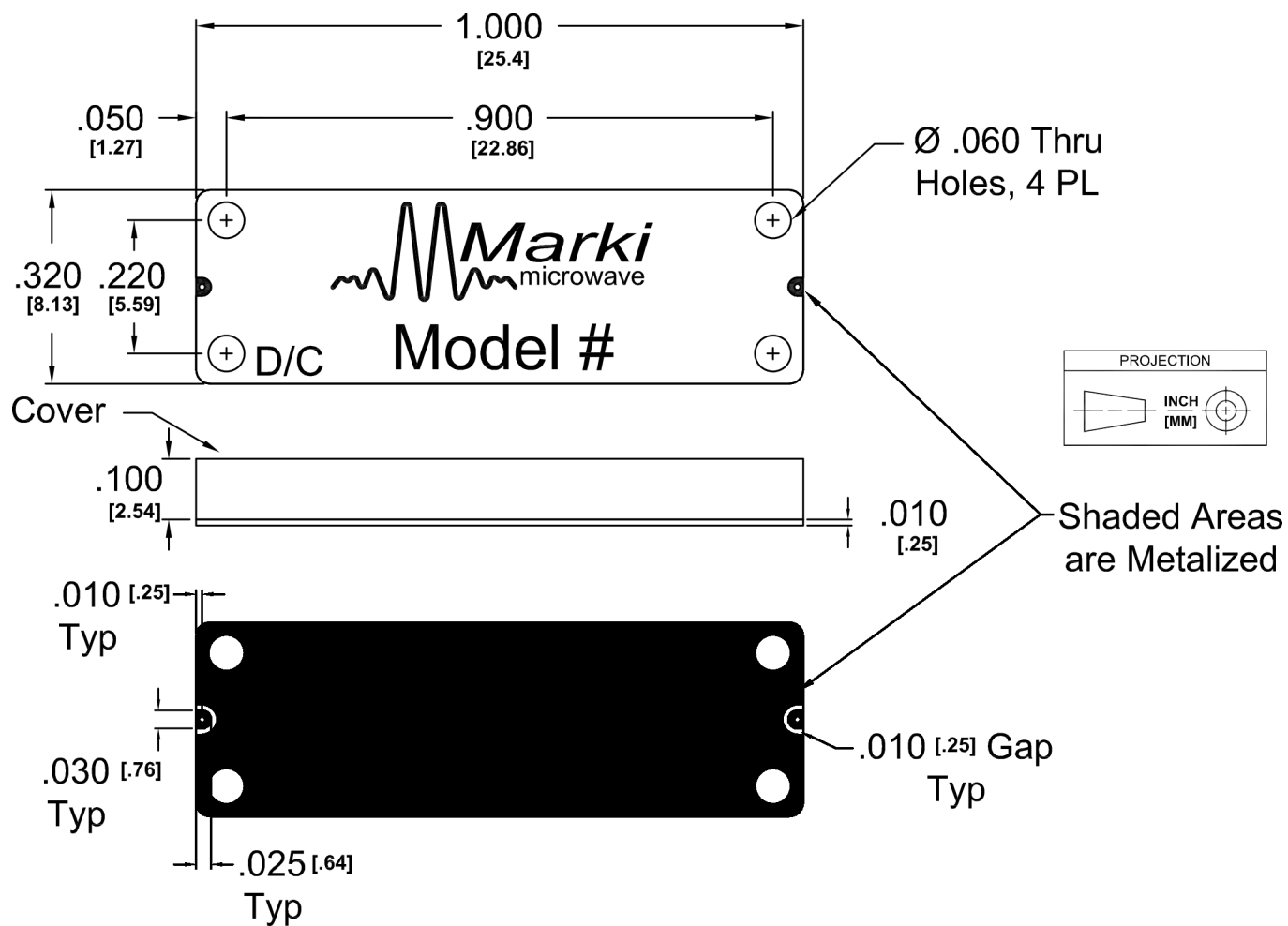
14.45 GHz Surface Mount Bandpass Filter

Typical Performance Plots



Mechanical Data

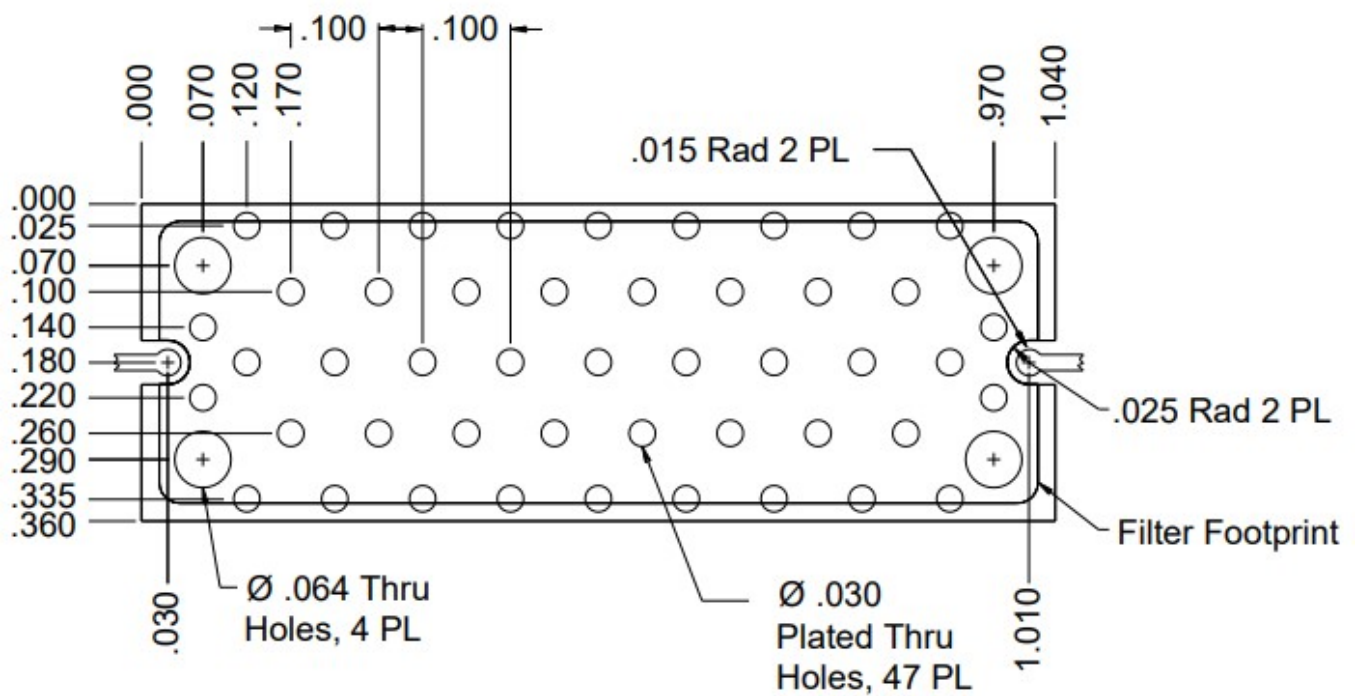
Outline Drawing



FB-1445SM

14.45 GHz Surface Mount Bandpass Filter

Footprint Image



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