

FLP-5000

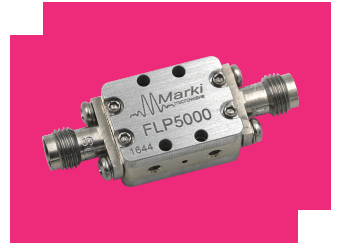
50 GHz Lowpass Filter

DEVICE OVERVIEW

General Description

This general purpose low pass filter offers high stop band suppression and low insertion loss in the passband. These filters can be used to eliminate unwanted side bands during frequency conversion or for removing spurious interference and noise.

[Download s-parameters here](#)



Features

- Low Insertion Loss
- Excellent Return Loss
- High Stop Band Suppression
- 19th Order Filter

Applications

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

Functional Block Diagram



Part Ordering Options

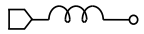
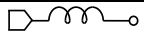
Part Number	Description	Connectors	Green Status	Product Lifecycle	Export Classification
FLP-5000	50 GHz Lowpass Filter	<u>Standard</u>	Non-RoHS	Released	EAR99

Table Of Contents

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

Port Configuration and Functions

Port Functions

Port	Function	Connector Type	Description	DC Equivalent Circuit
Port 1	Input/Output	2.4F	Port 1 is DC short to Port 2 and DC open to GND. GND is provided through the case and RF connectors.	
Port 2	Input/Output	2.4F	Port 2 is DC short to Port 1 and DC open to GND. GND is provided through the case and RF connectors.	

Specifications

Package Information

Parameter	Details	Rating
Weight	-	16.5g
Dimensions	-	20.31 x 14.99 mm

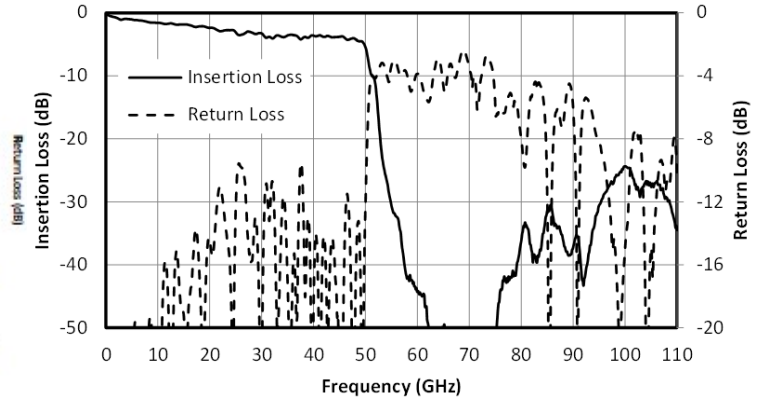
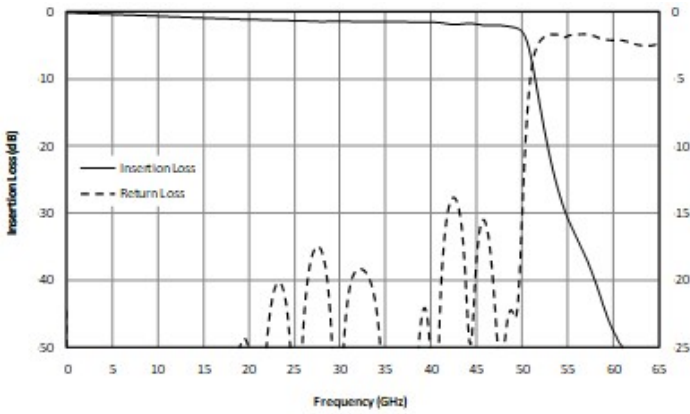
Electrical Specifications

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

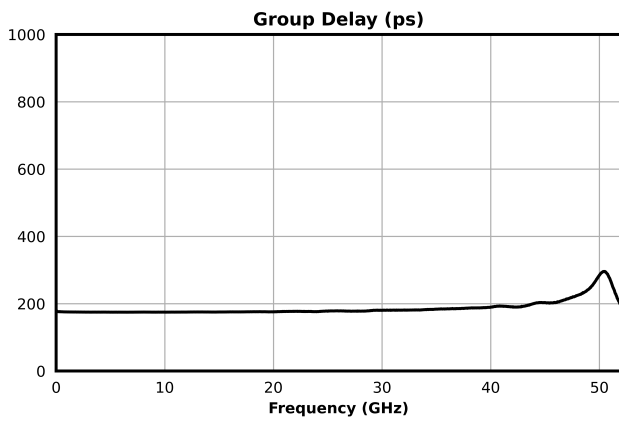
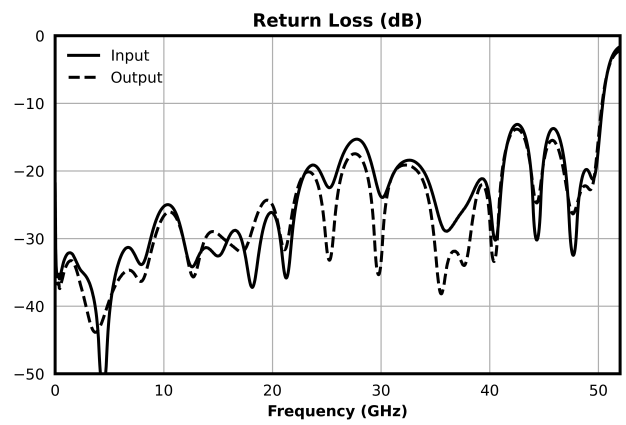
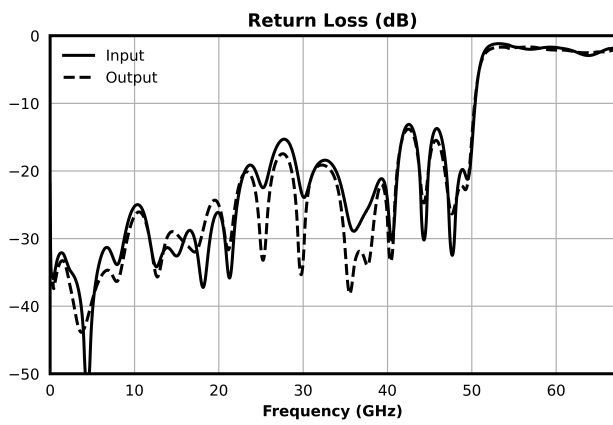
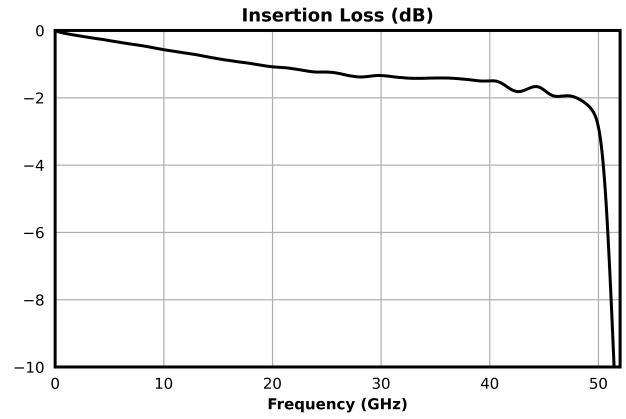
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
1 dBc Passband ¹	Configuration A, Temp = 25°C	-	17.97	-	-	-	GHz
3 dBc Passband ²	Configuration A, Temp = 25°C	-	50.04	-	-	-	GHz
30 dBc Rejection Point ³	Configuration A, Temp = 25°C	-	54.77	-	-	-	GHz
Center Freq ⁴	Configuration A, Temp = 25°C	-	-	-	8.99	-	GHz
Passband Return Loss ⁵	Configuration A, Temp = 25°C	-	-	-	34	-	dB
Group Delay ⁶	Configuration A, Temp = 25°C	-	-	-	175	-	ps
Impedance ⁷	Configuration A, Temp = 25°C	-	-	-	50	-	Ω
Impedance	-	-	-	-	50	-	Ω
Passband Insertion Loss	DC-49.4 GHz	0	49.4	-	2	-	dB
Passband Return Loss	DC-49.4 GHz	0	49.4	10	15	-	dB
RF Power	-	-	-	-	-	1	W
Stopband Suppression	56 GHz	56	56	25	30	-	dB
Stopband Suppression	>62 GHz	-	62	40	50	-	dB

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

Typical Performance



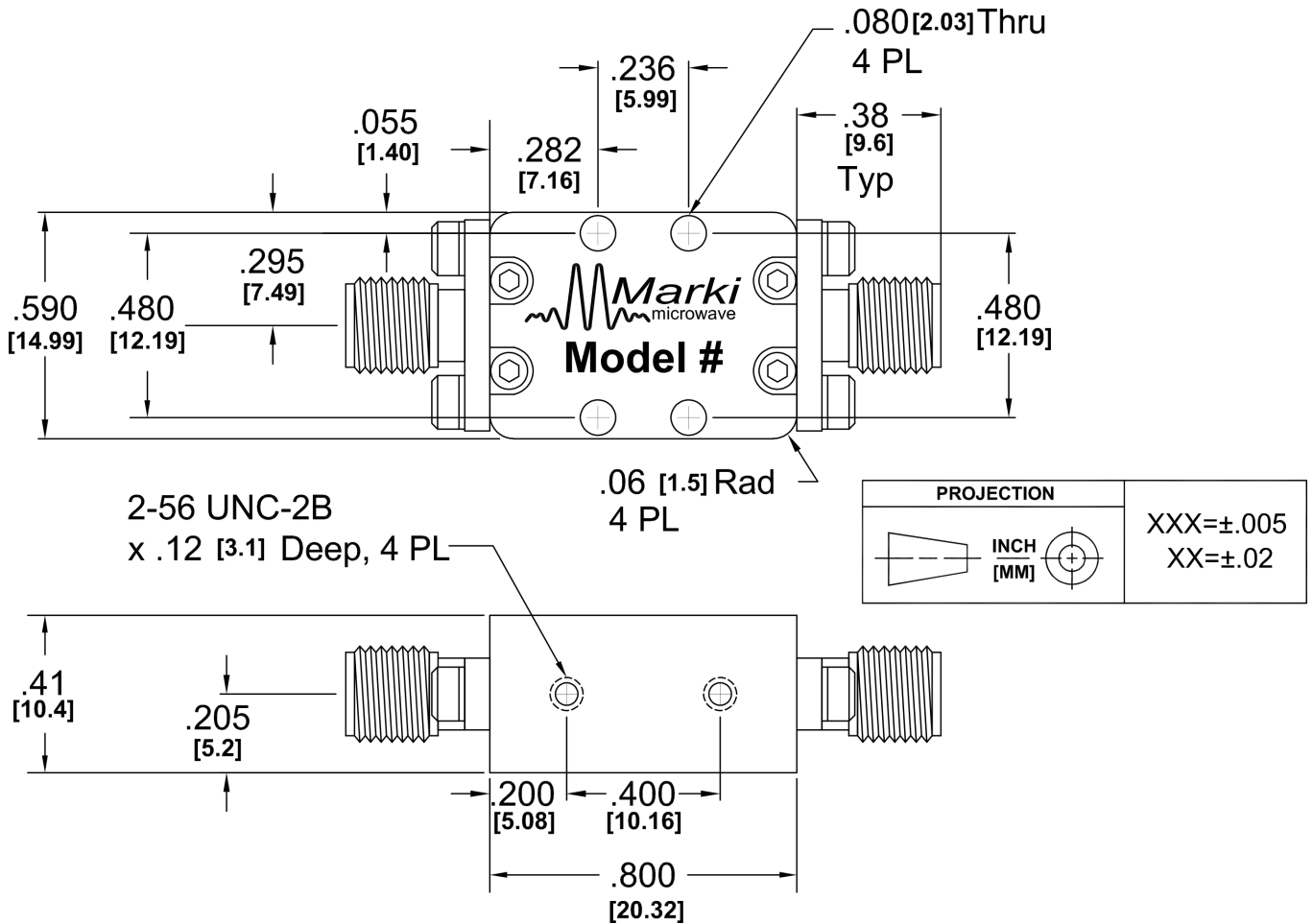
Typical Performance Plot



Mechanical Data

Outline Drawing

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



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