

MFLP-00042GSM2

Passive Glass 0.7 GHz Surface Mount Lowpass Filter

DEVICE OVERVIEW

General Description

The MFLP-00042GSM2 surface-mount lowpass filter is an ideal solution for extremely small form factor, high rejection filtering. The MFLP-00042GSM2 features a 0.7 GHz 3 dBc cutoff and 22 dB passband return loss. Its advanced glass substrate technology allows production of smaller filter constructions that replace larger form factor circuit board constructions. Tight fabrication ensures tighter unit-to-unit consistency than legacy filter technologies, supporting accurate simulation with the provided S2P data. The MFLP-00042GSM2 is offered in a 4.27 × 4.00 mm package.



[Download s-parameters here](#)

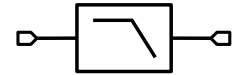
Features

- Low Passband Insertion Loss with Fast Roll-off
- 22 dB Return Loss
- High Stop Band Suppression

Applications

N/A

Functional Block Diagram



Part Ordering Options

Part Number	Description	Package	Green Status	Product Lifecycle	Export Classification
MFLP-00042GSM2	Passive Glass 0.7 GHz Surface Mount Lowpass Filter	GSM2	RoHS	Released	-
EVB-MFLP-00042G	EVB-MFLP-00042G	GSM		Released	-

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Revision History

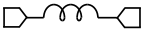
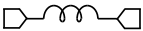
Revision Code	Revision Date	Comment
-	2025-12-10	Initial Release
A	2025-12-17	3D Models Updated.

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Port Configuration and Functions

Port Functions

Port	Function	Description	DC Equivalent Circuit
Pin 1	RF Input	Pin 1 is DC Open to GND and DC Short to Pin 2	
Pin 2	RF Output	Pin 2 is DC Open to GND and DC Short to Pin 1	

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Specifications

Absolute Maximum Ratings

Parameter	Maximum Rating	Unit
Maximum Operating Temperature	100	°C
Maximum Storage Temperature	125	°C
Minimum Operating Temperature	-55	°C
Minimum Storage Temperature	-65	°C
RF Power Handling	5	W
DC Current	2	A

Package Information

Parameter	Details	Rating
ESD	250 to < 500 Volts	HBM Class 1A
Dimensions	-	4.25 x 4.00 mm
Moisture Sensitivity Level	-	MSL 1

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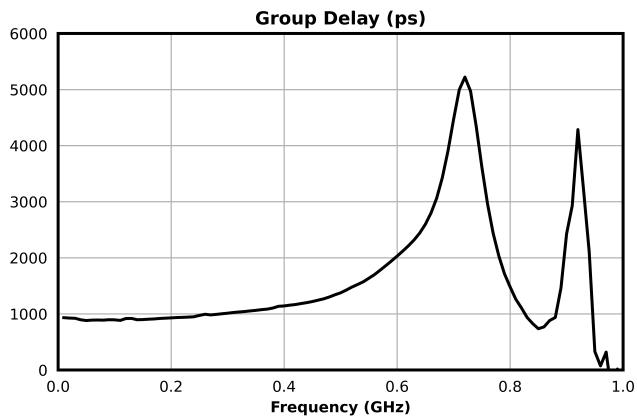
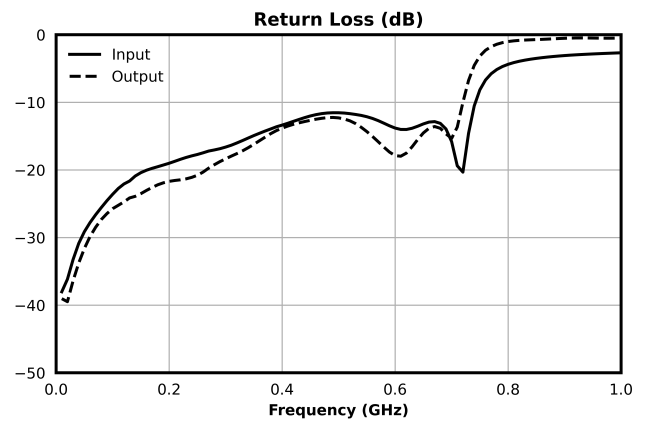
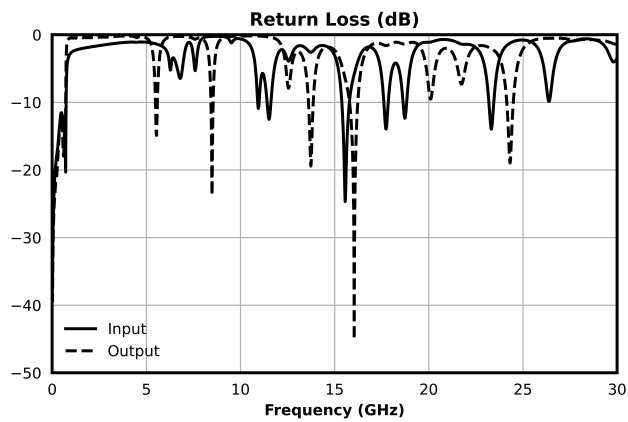
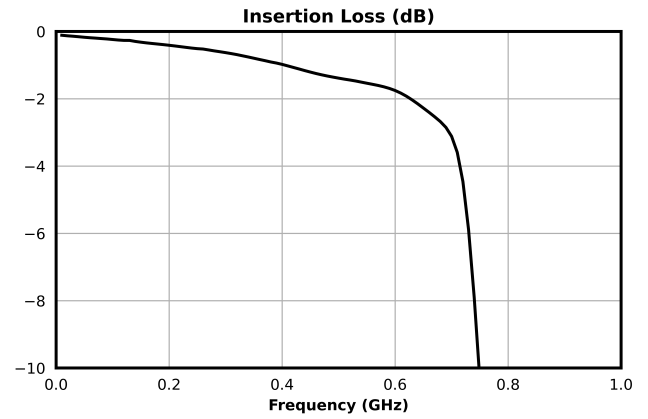
Electrical Specifications

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
1 dBc Passband	Configuration A, Temp = 25°C	-	0.42	-	-	-	GHz
3 dBc Passband	Configuration A, Temp = 25°C	-	0.69	-	-	-	GHz
30 dBc Rejection Point	Configuration A, Temp = 25°C	-	0.81	-	-	-	GHz
Center Freq	Configuration A, Temp = 25°C	-	-	-	0.21	-	GHz
Passband Return Loss	Configuration A, Temp = 25°C	-	-	-	22	-	dB
Group Delay	Configuration A, Temp = 25°C	-	-	-	936	-	ps

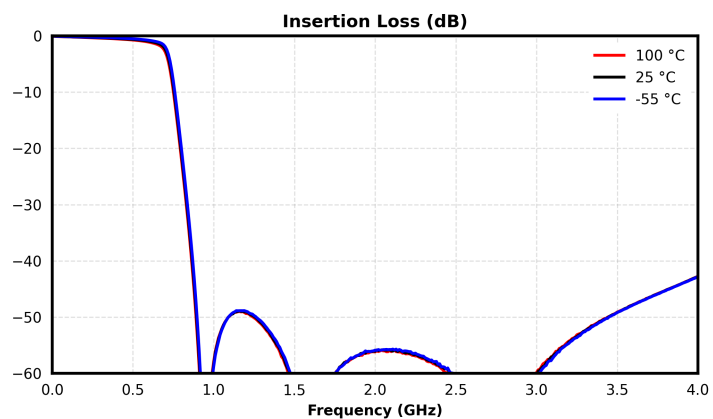
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Typical Performance Plot



Performance Over Temperature

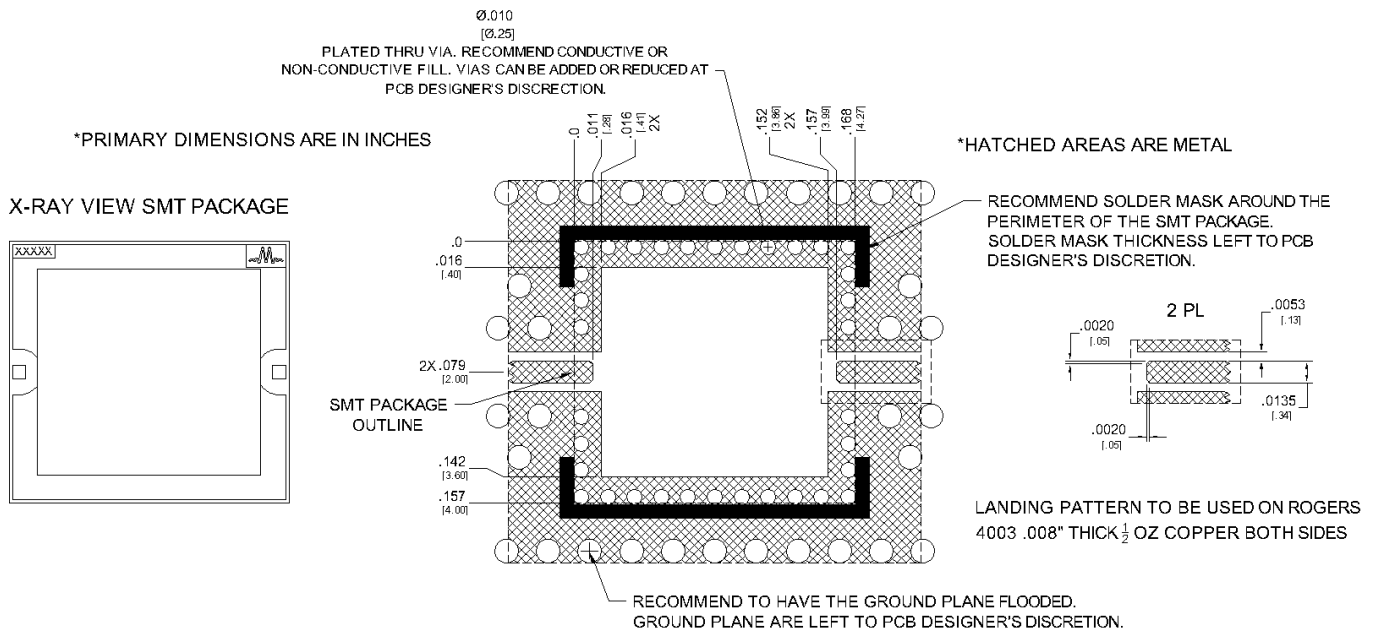


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Footprint Image

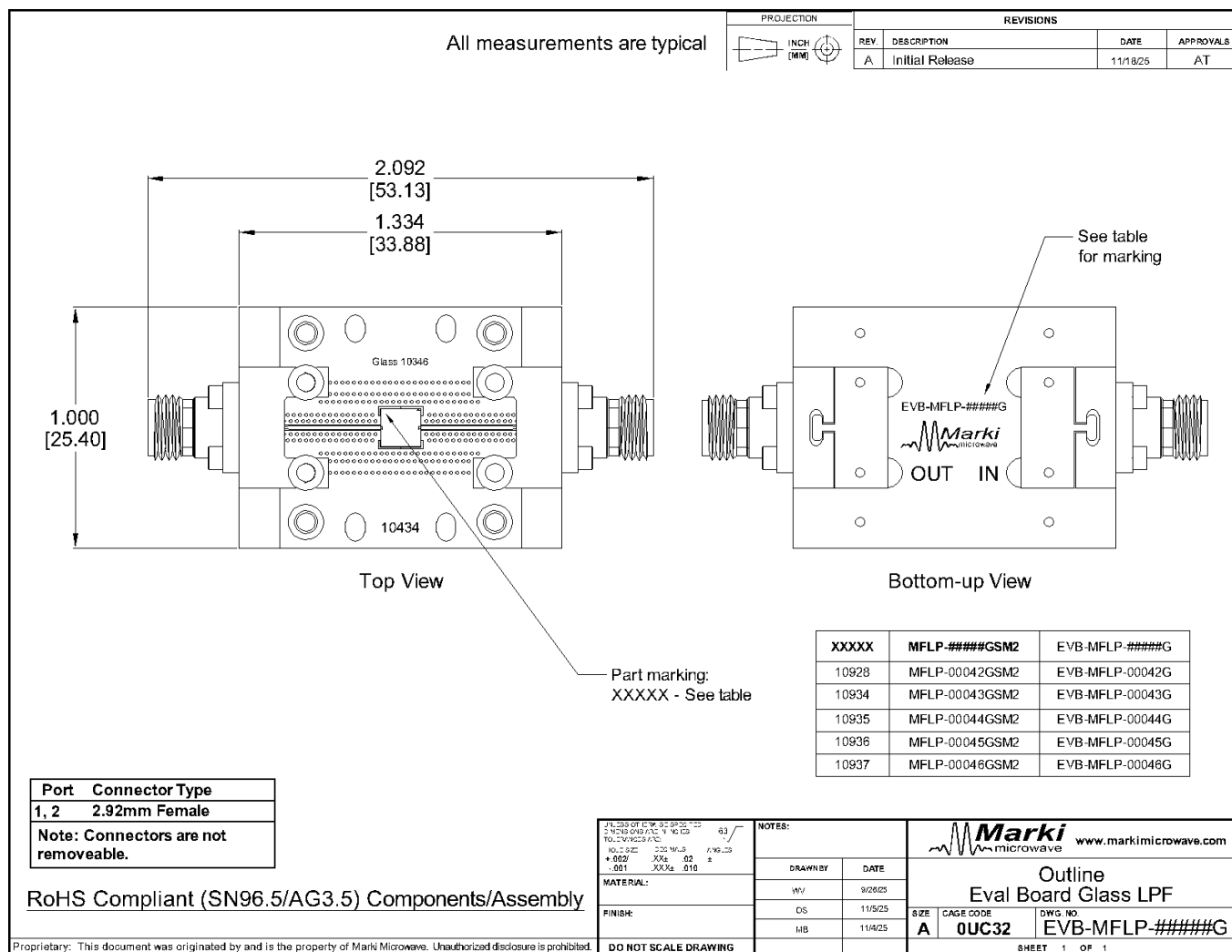
Download : [Footprint Drawing](#)



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Evaluation Board - Outline Drawing



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