

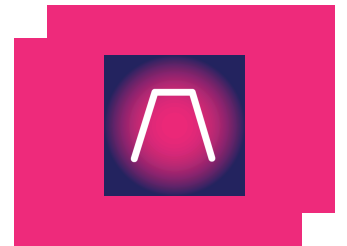
MFBP-00062CSP3

Passive GaAs MMIC 27.5 - 30 GHz Bandpass Filter

DEVICE OVERVIEW

General Description

The MFBP-00062CSP3 passive MMIC surface mount bandpass filter is an ideal solution for small form factor, high rejection filtering. Passive GaAs MMIC technology allows production of smaller filter constructions that replace larger form factor circuit board constructions. Tight fabrication tolerances allow for less unit-to-unit variation than traditional filter technologies. The MFBP-00062CSP3 is available as a 3.5 mm CSP3. Low unit to unit variation allows for accurate simulations using the provided S2P file taken from measured production units.



Features

- Excellent Return Loss
- High Stop Band Suppression
- Wide Stop Band with Fast Roll-Off
- This product embodies Marki Microwave's U.S. Pat. 11,869,858.

Applications

N/A

Functional Block Diagram



Part Ordering Options

Part Number	Description	Package	Green Status	Product Lifecycle	Export Classification
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Revision History

Revision Code	Revision Date	Comment
G0	2024-04-22	Pre-Release

MFBP-00062CSP3**Passive GaAs MMIC 27.5 - 30 GHz
Bandpass Filter****Specifications****Absolute Maximum Ratings**

The Absolute Maximum Ratings indicate limits beyond which damage may occur to the device. If these limits are exceeded, the device may be inoperable or have a reduced lifetime.

Parameter	Maximum Rating	Unit
Maximum Operating Temperature	100	°C
Maximum Storage Temperature	125	°C
Minimum Operating Temperature	-55	°C
Minimum Storage Temperature	-65	°C

Package Information

Parameter	Details	Rating
Dimensions	-	3.50 x 3.50 mm
Moisture Sensitivity Level	-	MSL 3

PRE-RELEASE

Electrical Specifications

The electrical specifications apply at TA=+25°C in a 50Ω system. Typical data shown is for the filter in a CSP3 package with a sine wave input applied to Pin 1. Min and Max limits are guaranteed at TA=+25°C.

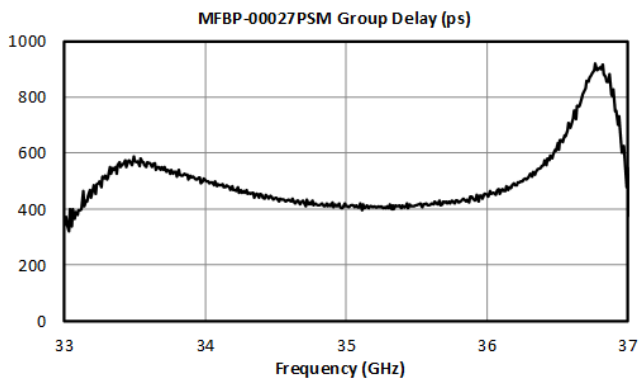
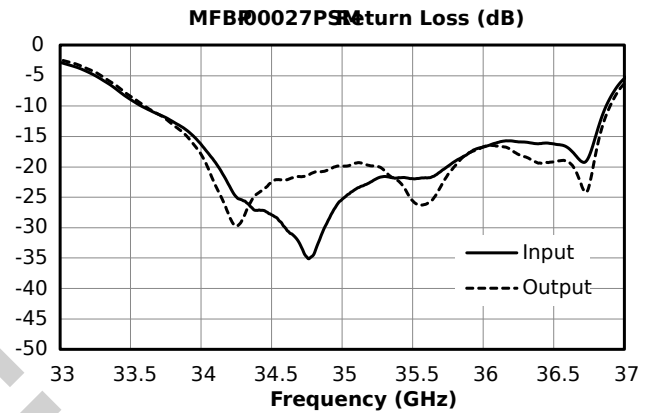
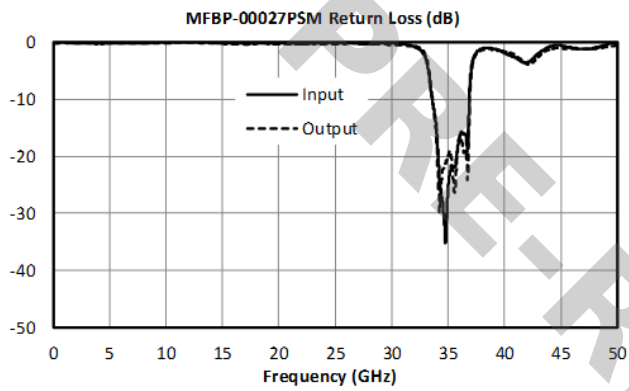
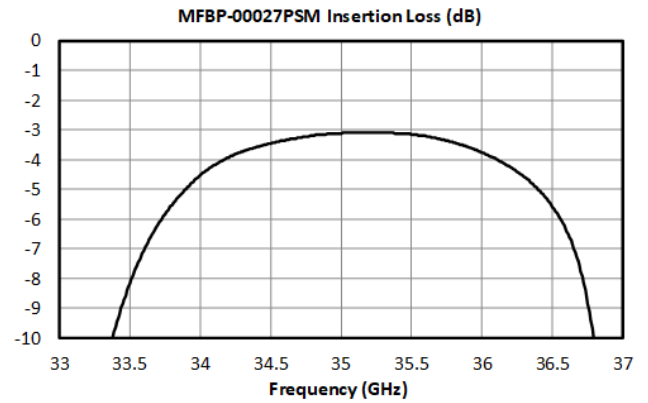
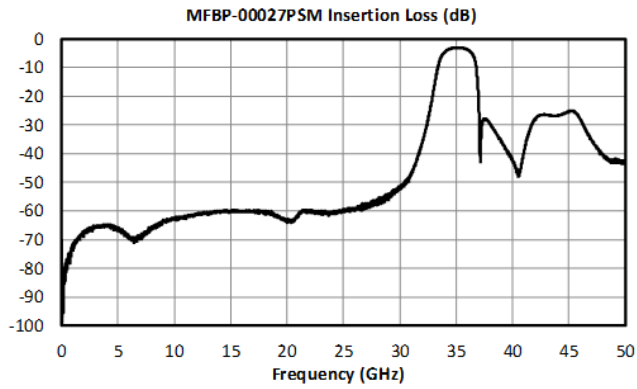
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
1 dBc Passband	-	34.14	36.13	-	-	-	GHz
Passband Return Loss	-	34.34	35.93	-	23	-	dB
Group Delay	-	-	-	-	418	-	ps
Impedance	-	-	-	-	50	-	Ω
Center Frequency, f ₀	-	-	-	-	35.12	-	GHz
Stopband Suppression	-	0	30.4	-	61	-	dB
3dBc Passband	-	33.72	36.56	-	-	-	GHz
Insertion Loss @ F ₀	-	35.12	35.12	-	3.09	-	dB
Stopband Suppression	-	38	40	-	41	-	dB

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Bandpass Filter

Typical Performance Plots



All measurements are de-embedded from the fixture with AFR.

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