AGLPFXXX

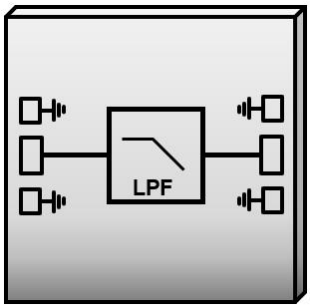
GaAs IPD MMIC
Lowpass Filter Series

Typical Applications

- Communication Systems
- Point to Point Radio
- Fiber Optics
- Test Equipment
- Wideband Military & Space

Series Features

- Cutoff frequencies from 4-10GHz
- 50Ω Matched DC coupled RF Ports
- Die Size: 1.00 x 0.75 x 0.1 mm; Matches AGATNxx, AGBPFxxx, AGBSFxxx, and AGTRMxxx series MMICs



AGLPFxxx Series Parts

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AGLPF040

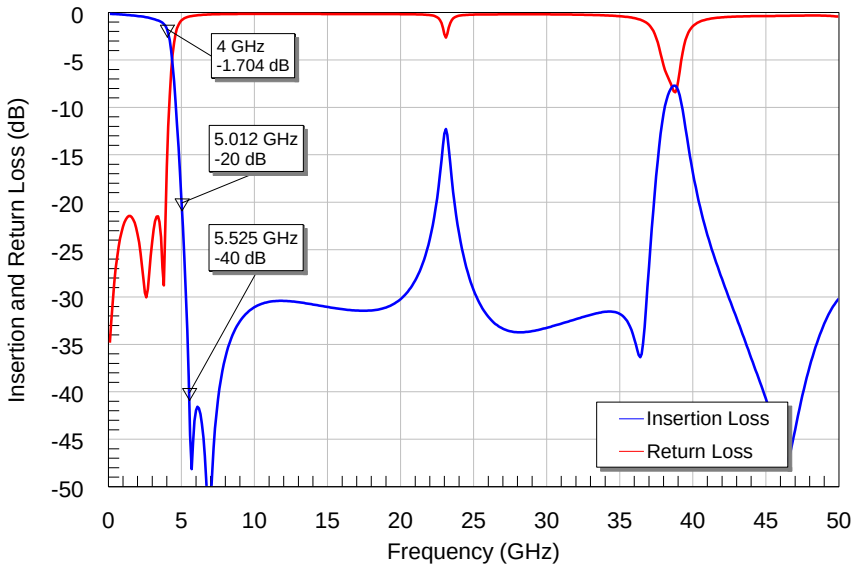
GaAs IPD MMIC
4GHz Lowpass Filter

Features

- Frequency Range: DC – 4GHz
- Passband Loss: 1.70dB @ 4GHz
- Rejection: 20dB @ 5.0GHz
- 50Ω Matched DC coupled RF Ports

Performance Graphs

Insertion and Return Loss (Simulated)



Electrical Specifications (TA = +25°C)

Parameter	Units	Minimum	Typical	Maximum
Frequency	**GHz**	**DC**		**4.0**
Passband Loss	**dB**			**1.70**
Passband Return Loss	**dB**		**25**	
Rejection 20dB Point	**GHz**		**5.0**	
Rejection 40dB Point	**GHz**		**5.5**	
Package Type			**Die**	

AGLPF080

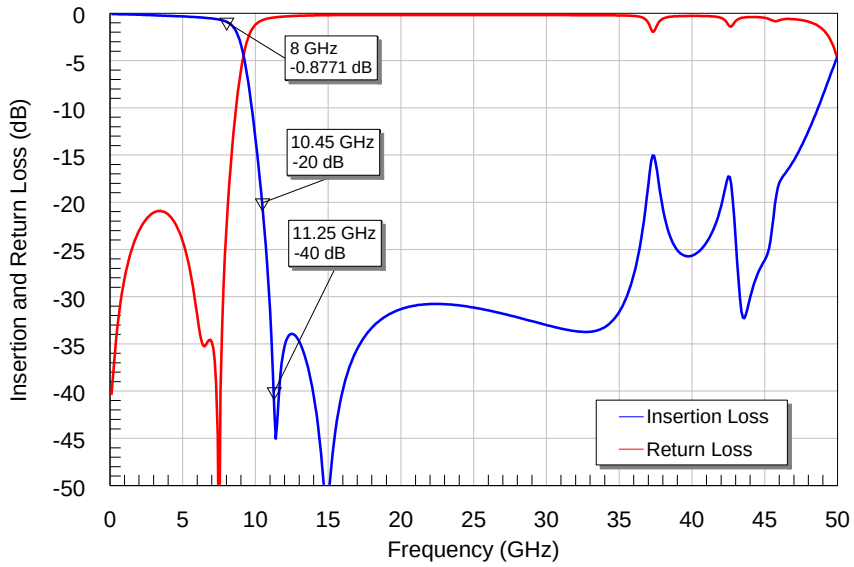
GaAs IPD MMIC
8GHz Lowpass Filter

Features

- Frequency Range: DC – 8GHz
- Passband Loss: 0.88dB @ 8GHz
- Rejection: 20dB @ 10.5GHz
- 50Ω Matched DC coupled RF Ports

Performance Graphs

Insertion and Return Loss (Simulated)



Electrical Specifications (TA = +25°C)

Parameter	Units	Minimum	Typical	Maximum
Frequency	**GHz**	**DC**		**8.0**
Passband Loss	**dB**			**0.88**
Passband Return Loss	**dB**		**25**	
Rejection 20dB Point	**GHz**		**10.5**	
Rejection 40dB Point	**GHz**		**11.3**	
Package Type			**Die**	

AGLPF100

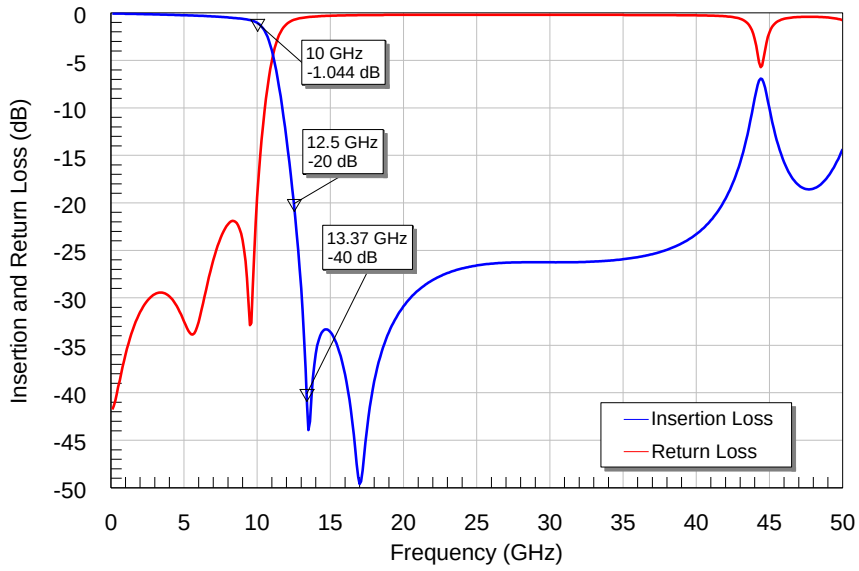
GaAs IPD MMIC
10GHz Lowpass Filter

Features

- Frequency Range: DC – 10GHz
- Passband Loss: 1.04dB @ 10GHz
- Rejection: 20dB @ 12.5GHz
- 50Ω Matched DC coupled RF Ports

Performance Graphs

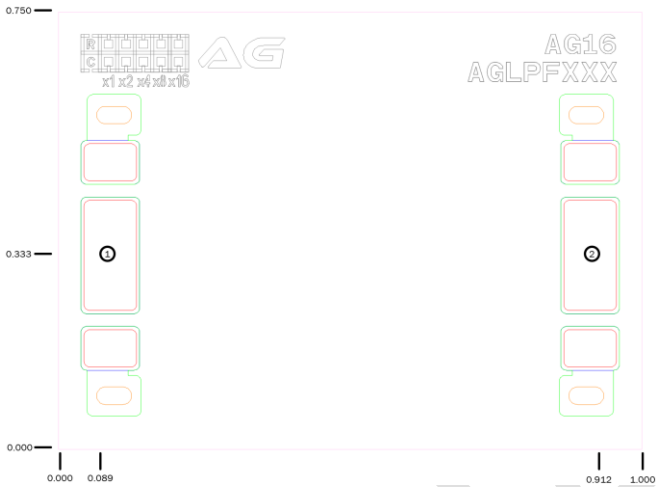
Insertion and Return Loss (Simulated)



Electrical Specifications (TA = +25°C)

Parameter	Units	Minimum	Typical	Maximum
Frequency	**GHz**	**DC**		**10.0**
Passband Loss	**dB**			**1.04**
Passband Return Loss	**dB**		**25**	
Rejection 20dB Point	**GHz**		**12.5**	
Rejection 40dB Point	**GHz**		**13.4**	
Package Type			**Die**	

Outline Drawing (dimensions in mm)



Pad Descriptions

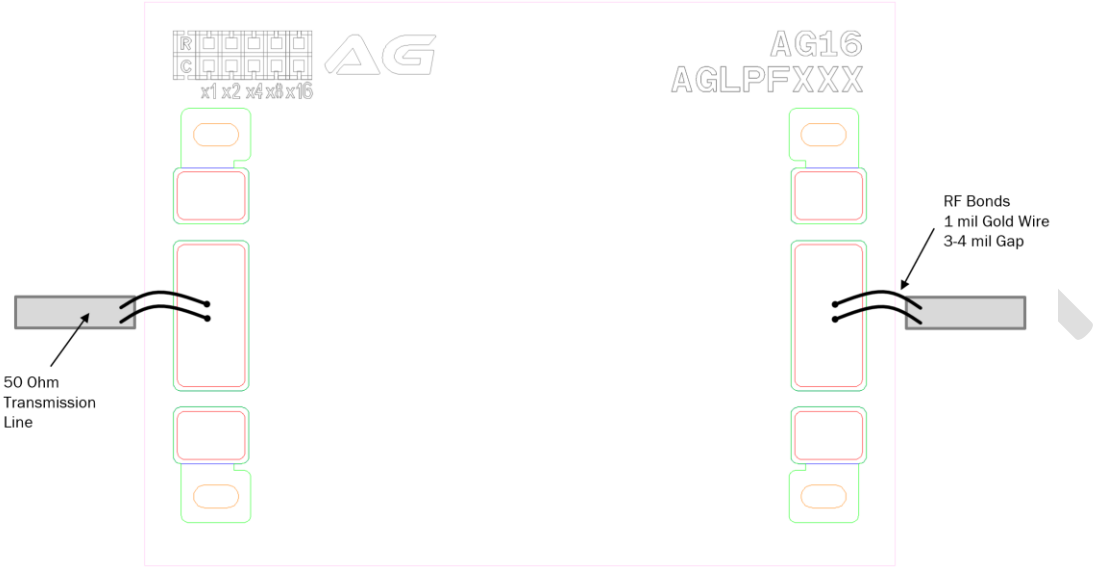
Pad	Function	Pad Size	Description
1	RFIN	101x200µm	DC coupled 50Ω Matched
2	RFOUT	101x200µm	DC coupled 50Ω Matched
Die Bottom	GND	Backside	Epoxy/Solder to Baseplate

Absolute Maximum Ratings

Parameter	Rating
Drain Bias Voltage (VDD)	No Bias
RF Input Power (RFIN)	+20dBm*
Channel Temperature	150°C
Storage Temperature	-65 to 150°C
Operating Temperature	-55 to 85°C

*To be tested

Assembly Diagrams



Assembly Notes:

1. Die Thickness is 100µm
2. Bondpad metallization: 7µm gold
3. Backside metallization: 4.5µm gold
4. Silver Epoxy or AuSn Eutectic attach MMIC

Die Packaging Information

- GP-4 (Gel-Pak)