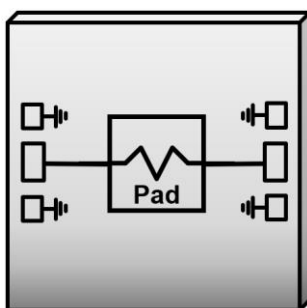


Typical Applications

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

Series Features

- Frequency Range: DC to 50GHz
- 50Ω Matched DC coupled RF Ports
- Attenuator values from 0-10dB
- Die Size: 1.00 x 0.75 x 0.1 mm; Matches AGLPFxxx, AGBPFxxx, AGBSFxxx, and AGTRMxxx series MMICs



AGATNxx Series Parts

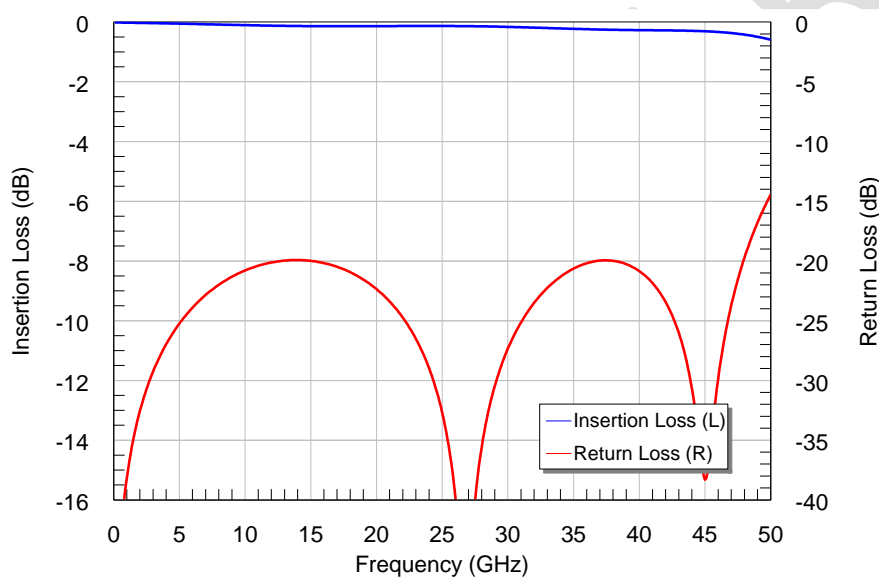
Part Number	Description	Page No.
AGATN00	0dB Fixed Attenuator (Thru Line)	2
AGATN02	2dB Fixed Attenuator	3
AGATN03	3dB Fixed Attenuator	4
AGATN06	6dB Fixed Attenuator	5
AGATN10	10dB Fixed Attenuator	6

Features

- Frequency Range: DC to 50GHz
- 50Ω Matched DC coupled RF Ports
- Insertion Loss: 0.13dB @ 25GHz

Performance Graphs

Insertion and Return Loss (Simulated)



Electrical Specifications (TA = +25°C)

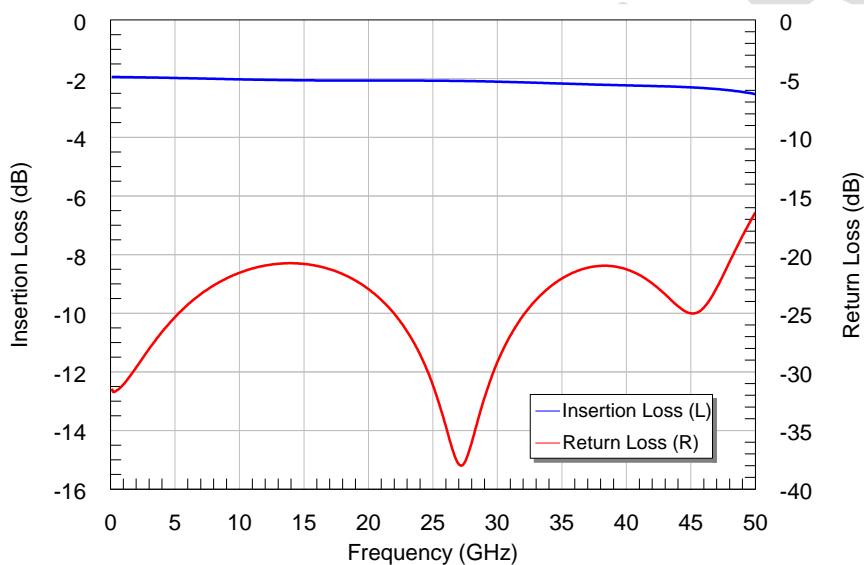
Parameter	Units	Minimum	Typical	Maximum
Frequency	GHz	DC		50
Insertion Loss	dB		0.13	0.59
Return Loss	dB	14	25	
Package Type			Die	

Features

- Frequency Range: DC to 50GHz
- 50Ω Matched DC coupled RF Ports
- Insertion Loss: 2.07dB @ 25GHz

Performance Graphs

Insertion and Return Loss (Simulated)



Electrical Specifications (TA = +25°C)

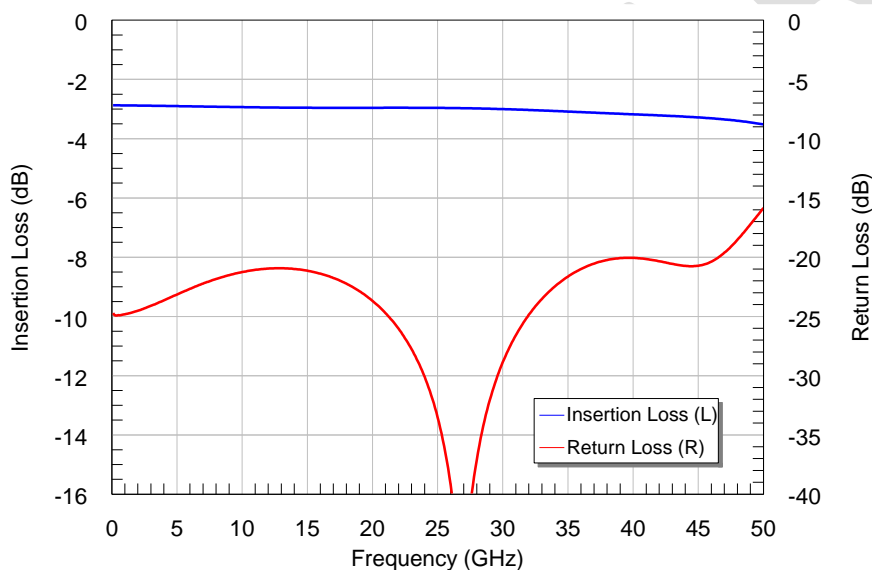
Parameter	Units	Minimum	Typical	Maximum
Frequency	GHz	DC		50
Insertion Loss	dB		2.07	2.53
Return Loss	dB	16	25	
Package Type			Die	

Features

- Frequency Range: DC to 50GHz
- 50Ω Matched DC coupled RF Ports
- Insertion Loss: 2.96dB @ 25GHz

Performance Graphs

Insertion and Return Loss (Simulated)



Electrical Specifications (TA = +25°C)

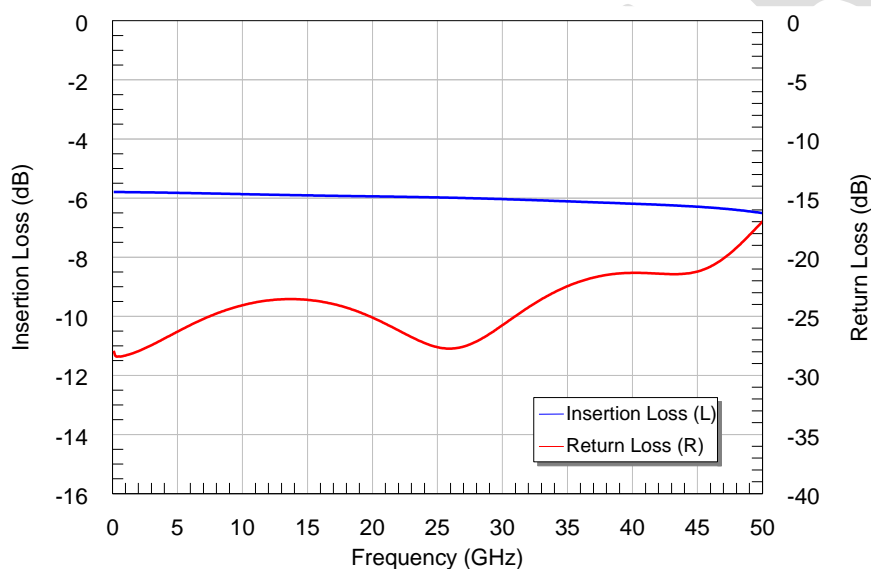
Parameter	Units	Minimum	Typical	Maximum
Frequency	GHz	DC		50
Insertion Loss	dB		2.96	3.52
Return Loss	dB	16	25	
Package Type			Die	

Features

- Frequency Range: DC to 50GHz
- 50Ω Matched DC coupled RF Ports
- Insertion Loss: 5.98dB @ 25GHz

Performance Graphs

Insertion and Return Loss (Simulated)



Electrical Specifications (TA = +25°C)

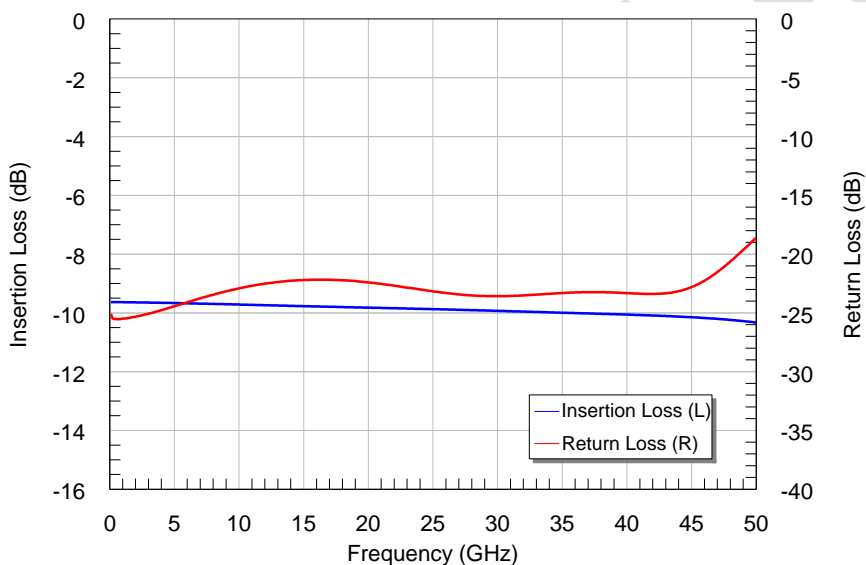
Parameter	Units	Minimum	Typical	Maximum
Frequency	GHz	DC		50
Insertion Loss	dB		5.98	6.51
Return Loss	dB	17	25	
Package Type			Die	

Features

- Frequency Range: DC to 50GHz
- 50Ω Matched DC coupled RF Ports
- Insertion Loss: 9.87dB @ 25GHz

Performance Graphs

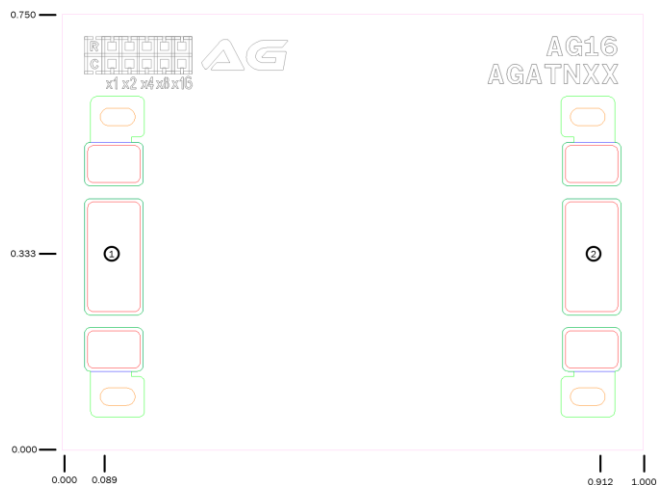
Insertion and Return Loss (Simulated)



Electrical Specifications (TA = +25°C)

Parameter	Units	Minimum	Typical	Maximum
Frequency	GHz	DC		50
Insertion Loss	dB		9.87	10.33
Return Loss	dB	18	23	
Package Type			Die	

Outline Drawing (dimensions in mm)



Pad Descriptions

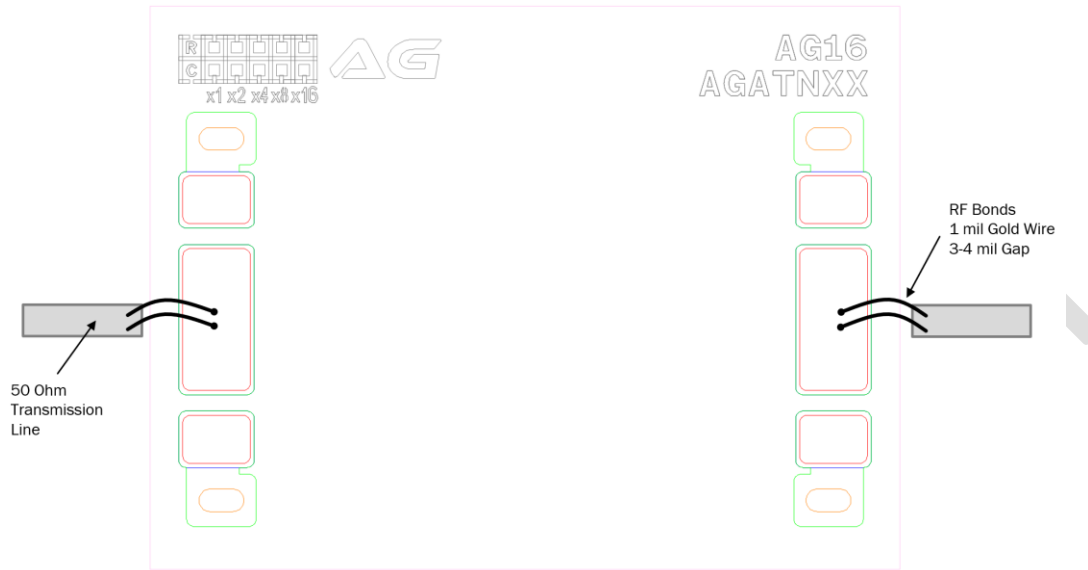
Pad	Function	Pad Size	Description
1	RFIN	101x200 μ m	DC coupled 50 Ω Matched
2	RFOUT	101x200 μ m	DC coupled 50 Ω Matched
Die Bottom	GND	Backside	Epoxy/Solder to Baseplate

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 100 μ m
2. Bondpad metallization: 7 μ m gold
3. Backside metallization: 4.5 μ m gold
4. Silver Epoxy or AuSn Eutectic attach MMIC



Die Packaging Information

- GP-4 (Gel-Pak)