GPD - 0109B-PQ4+

GaAs MMIC Monolithic Integrated 0 Degree Power Divider , 1-9 GHz

Performance characteristics

- Frequency range: 1-9 GHz
- Insertion loss : 1.5dB
- Isolation: 24dB
- Phase imbalance: 0.8 °
- Amplitude imbalance: 0.2dB
- 50Ohm input / output
- Chip size: QFN 4X4

Product Introduction

GPD-0109-PQ4+ monolithic integrated 0 degree power divider has low insertion loss and good isolation in the frequency range of 1 ~ 9 GHz , which is very suitable for microwave hybrid integrated circuits and multi-chip modules. This chip adopts 4 x 4 mm plastic surface mount package, and the surface of the pin pad is gold-plated, which is suitable for reflow soldering installation process.

Use restriction parameter [1]	
Maximum input power	+40dBm
Operating temperature	-55 ~ + 125 °C
Storage temperature	-65 ~ +150°C

【1】 Exceeding any of these maximum limits may cause permanent damage.

Electrical performance parameters (TA = +25°C)				
Index	Minimum	Typical Value	Maximum	Unit
Frequency Range		1-9		GHz
Insertion loss	-	1.6	-	dB
Insertion loss fluctuation		± 0.8		dB
Isolation	-	23	-	dB
Phase imbalance	-	0.8	-	degree
Amplitude imbalance	-	0.2	-	dB
Input return loss	-	17	-	dB
Output return loss	-	17	-	dB

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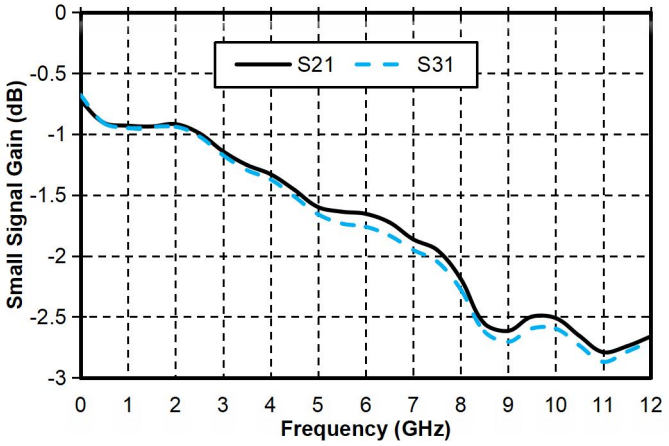
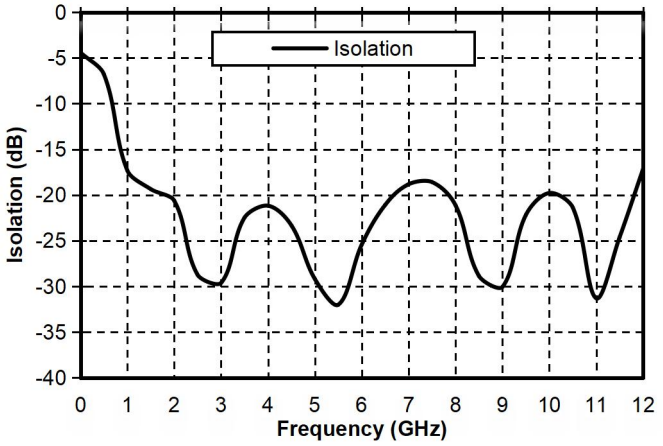
Main index test curve

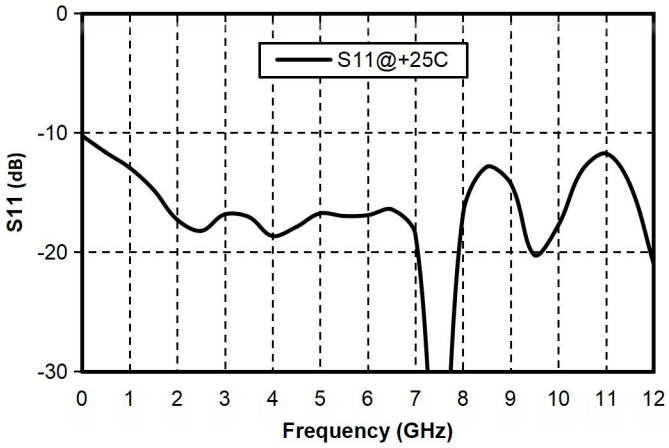
Insertion Loss vs. Operating Frequency



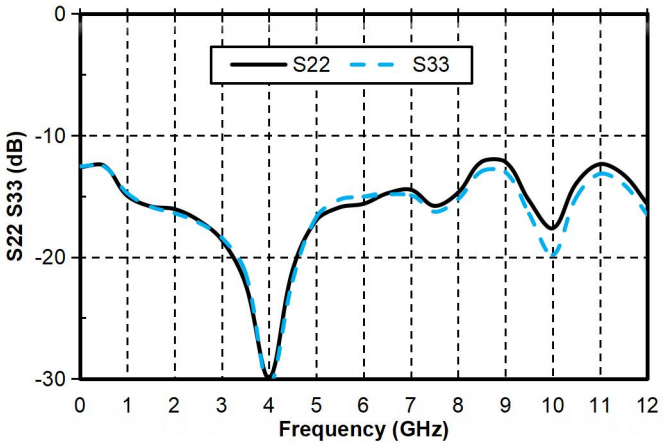
Isolation vs. Operating Frequency



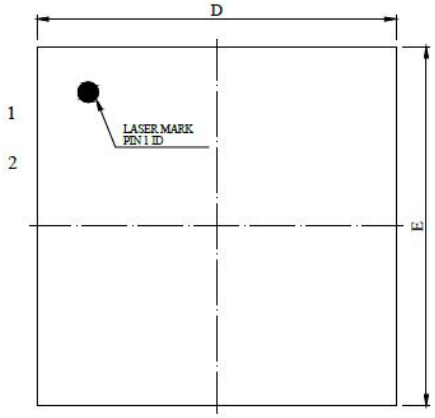
Input Return Loss vs. Operating Frequency

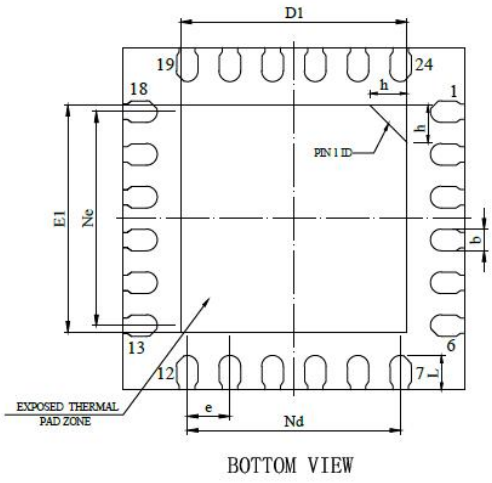


Output Return Loss vs. Operating Frequency



Appearance structure





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Top view Bottom view

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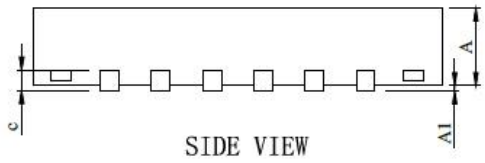
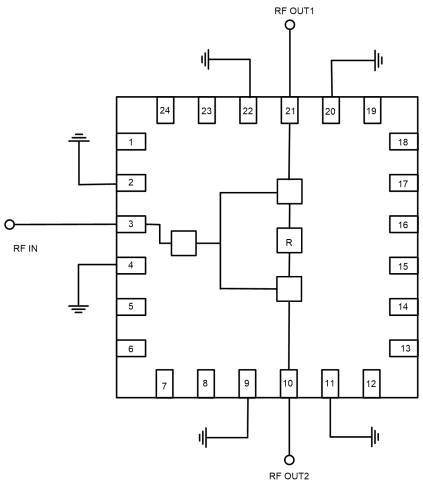


Side View

structure size							
Annotation	Minimum	Standard	Maximum	Annotation	Minimum	Standard	Maximum
A	0.70	0.75	0.80	e	0.50BSC		
A1	-	0.02	0.05	Ne	2.50BSC		
b	0.20	0.25	0.30	Nd	2.50BSC		
c	0.203REF			E	3.90	4.00	4.10
D	3.90	4.00	4.10	E1	2.60	2.70	2.80
D1	2.60	2.70	2.80	L	0.3 5	0.40	0.45
				h	0.30	0.35	0.40
All units in the figures are millimeters .							

Recommended assembly drawing



Pin Definition		
Pin Definition	Function Symbol	Functional Description
3	RFIN	RF signal input terminal
10, 21	RFOUT1, RFOUT2	RF signal output terminal
2, 4, 9, 11, 20, 22	GND	The bottom of the chip needs to be well grounded to RF and DC
Other	NC	No welding required

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