

GaAs MMIC monolithic integrated 0 degree power divider, DC-8GHz

Performance characteristics

- Frequency range: DC-8GHz
- Insertion loss: 4.5dB
- Isolation: 23dB
- Phase unbalance: 3.5°
- Amplitude unbalance: 0.1dB
- Input/Output: 50Ohm
- Chip size: QFN 4X4

Product Introduction

GPD-0008D-CQ4 single chip integrated 0 degree power divider has low insertion loss, good isolation, low phase amplitude unbalance, low amplitude unbalance and other characteristics in the frequency range of DC~8GHz, which is very suitable for application in microwave hybrid integrated circuits and multi-chip modules. The power divider adopts 4X4mm surface pasted leadless ceramic shell, and the surface of the pin pad is treated with gold plating technology, which is suitable for reflow installation technology.

Usage limit parameter ¹	
Maximum input power	+36dBm
Operating temperature	-55 ~ +85°C
Storage temperature	-65 ~ +150°C

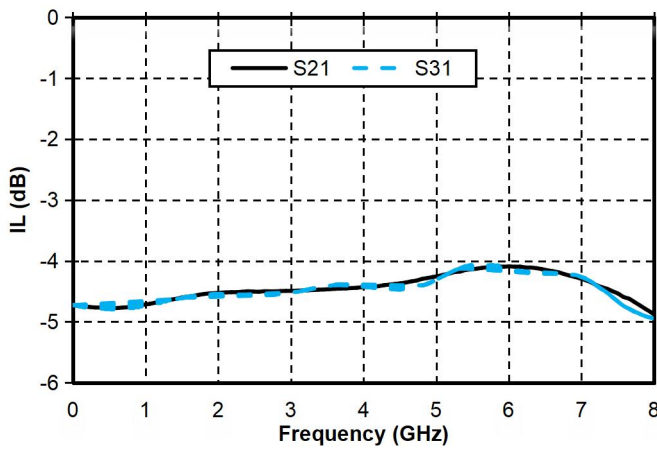
【1】 Exceeding any of these maximum limits may cause permanent damage.

Electrical property parameter (T _A = +25°C)				
Index	Minimum value	Typical value	Maximum value	Unit
Frequency range	DC-8			GHz
Insertion loss (net of inherent loss)	-	4.5	-	dB
Insertion loss fluctuation		±0.5		dB
Isolation	-	23	-	dB
Phase unbalance	-	3.5	-	degree
Amplitude unbalance	-	0.1	-	dB
Input return loss	-	16	-	dB
Output return loss	-	20	-	dB

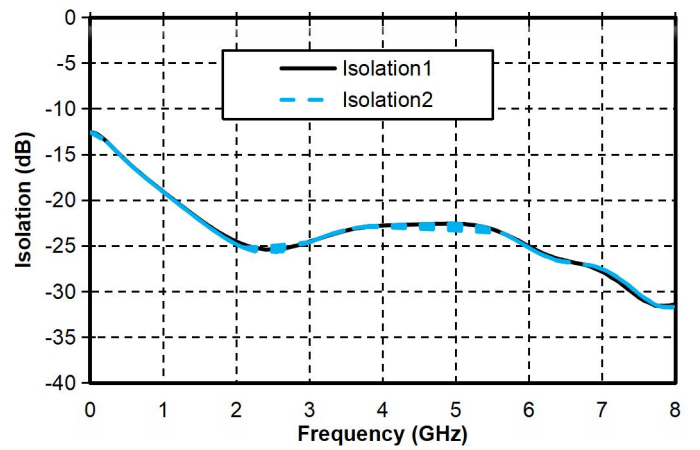
GaAs MMIC monolithic integrated 0 degree power divider, DC-8GHz

Main index test curve

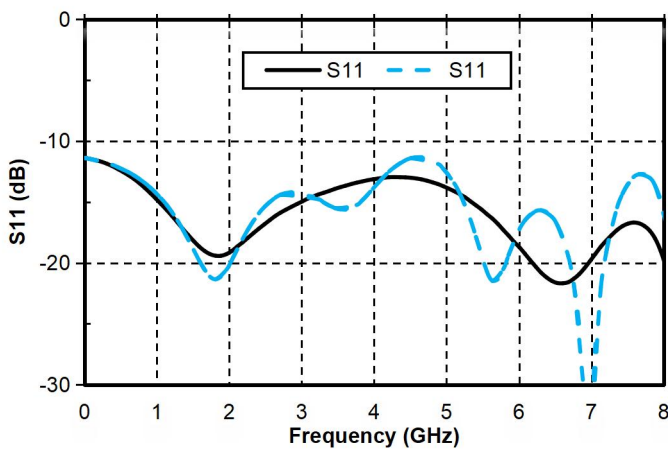
Insertion loss vs. Operating frequency



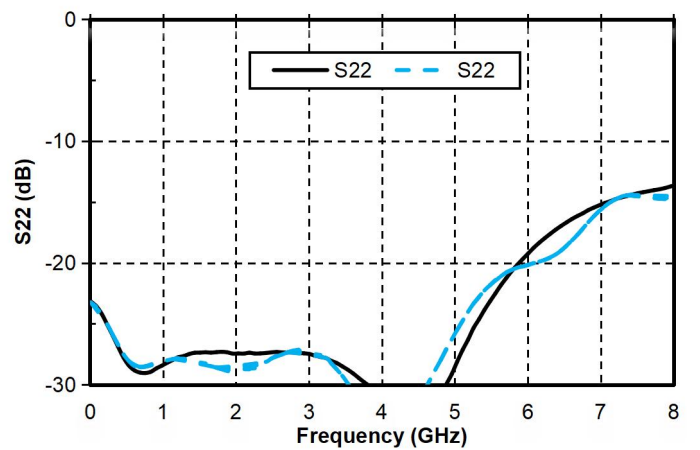
Isolation vs. Frequency range



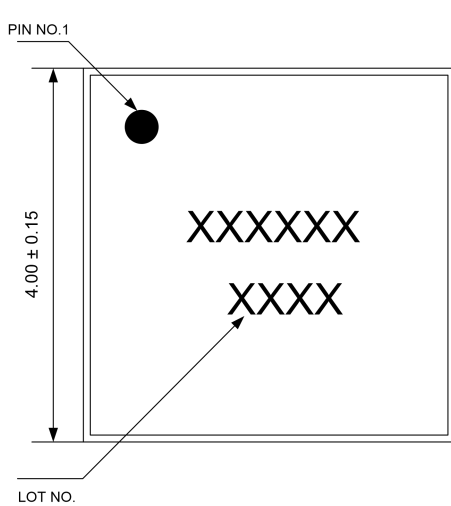
Input return loss vs. Frequency range



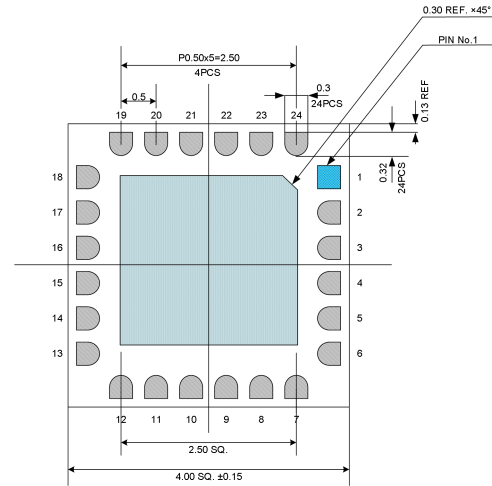
Output return loss vs. Frequency range



Exterior structure

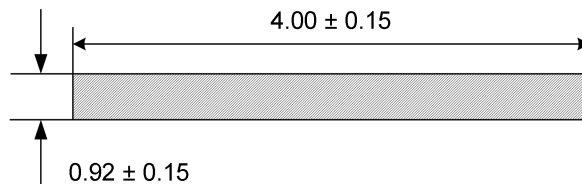


Top view



Upward view

GaAs MMIC monolithic integrated 0 degree power divider, DC-8GHz

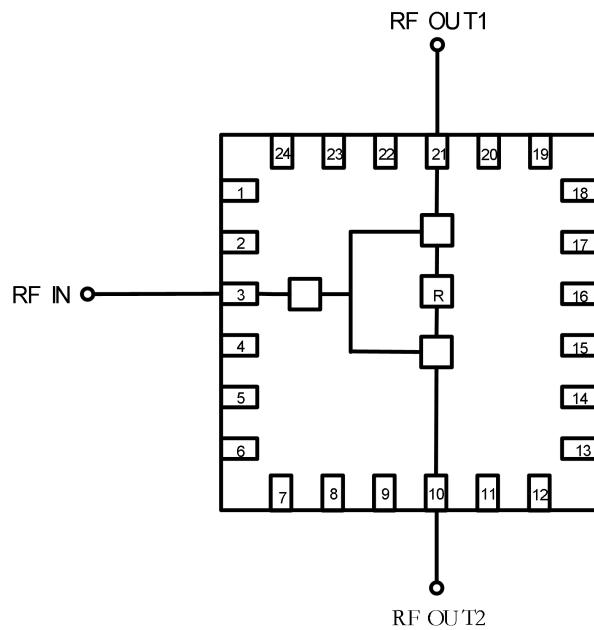


Side view

Pin definition		
Pin definition	Functional symbol	Function description
3	RFIN	Radio frequency signal input
10、 21	RFOUT2、 RFPUT1	Rf signal output
2、 4、 9、 11、 20、 22 And chip bottom	GND	The bottom of the chip must be properly grounded to the RF and DC
Other	NC	No welding required, can be grounded

The units in the figure are millimeters.

Recommended circuit



Precautions for use

- Seal material: ROHS compliant ceramic material
- Lead frame material: copper alloy
- Lead surface coating: gold, gold layer thickness 0.3um MIN
- Maximum reflow peak temperature: 260°C