Standard Circuit

GPD - 0206B-CQ4

GaAs MMIC Monolithic Integrated 0 Degree Power Divider , 2-6 GHz

Performance characteristics

- Range : 2-6GHz
- Insertion loss : 1.2 dB
- Isolation: 23dB
- Phase imbalance:1.5°
- Amplitude imbalance: 0.1dB
- 50Ohm input / output
- Chip size: QFN 4X4

Product Introduction

The GPD-0206B-CQ4 monolithic integrated 0 degree power divider has low insertion loss, good isolation , low phase amplitude imbalance, low amplitude imbalance and other characteristics in the frequency range of 2 ~ 6 GHz , and is very suitable for microwave hybrid integrated circuits and multi-chip modules. The power divider adopts a 4X4 mm surface-mount leadless ceramic tube shell to achieve airtight packaging, and the surface of the pin pad is treated with gold plating technology, which is suitable for reflow soldering installation process.

Use restriction parameter [1]	
Maximum input power	+40dBm
Operating temperature	-55 ~ +85°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		2-6		GHz
Insertion loss (excluding inherent loss)	-	1.2	-	dB
Insertion loss fluctuation		± 0.35		dB
Isolation	-	23	-	dB
Phase imbalance	-	1.5	-	degree
Amplitude imbalance	-	0.1	-	dB
Input return loss	-	15	-	dB
Output return loss	-	15	-	dB

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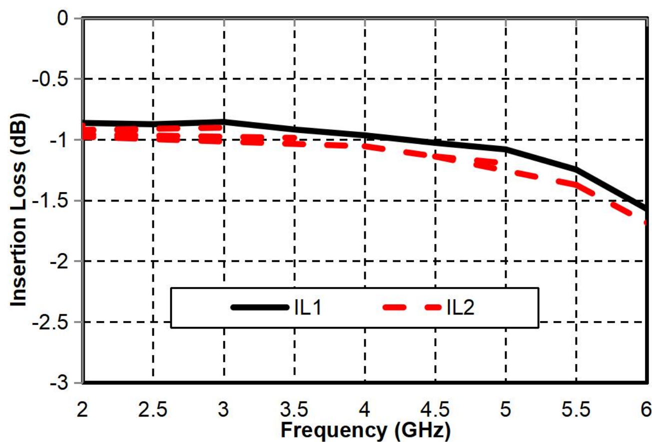
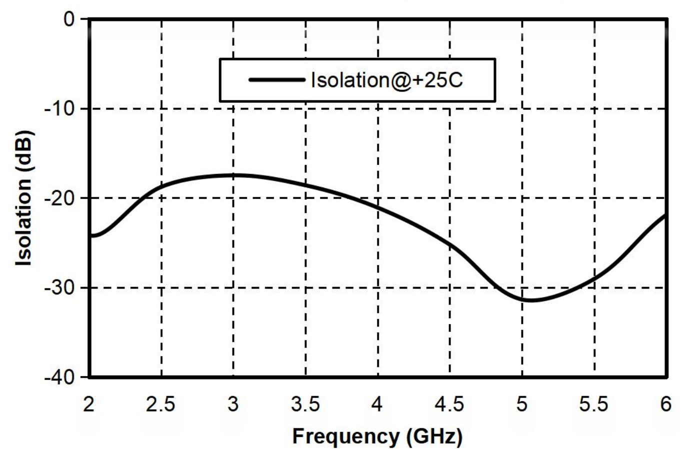
Main index test curve

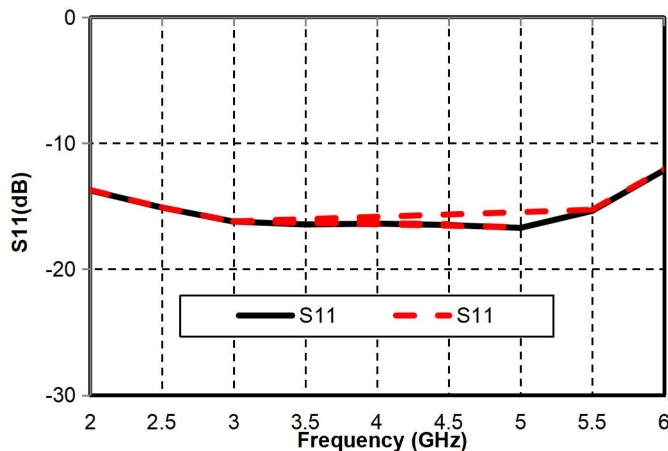
Insertion Loss vs. Operating Frequency



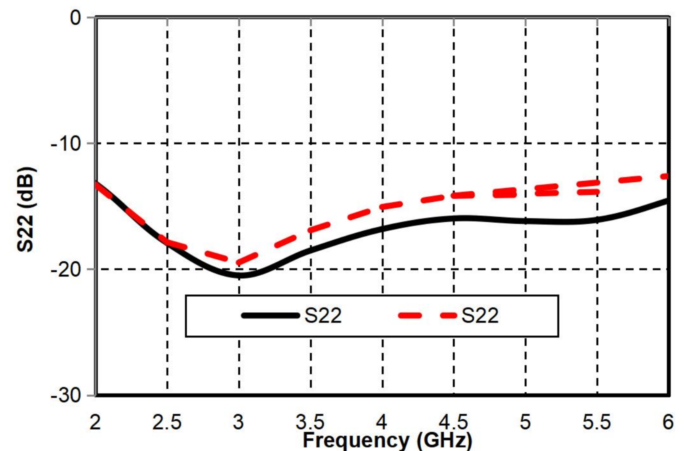
Isolation vs. Operating Frequency



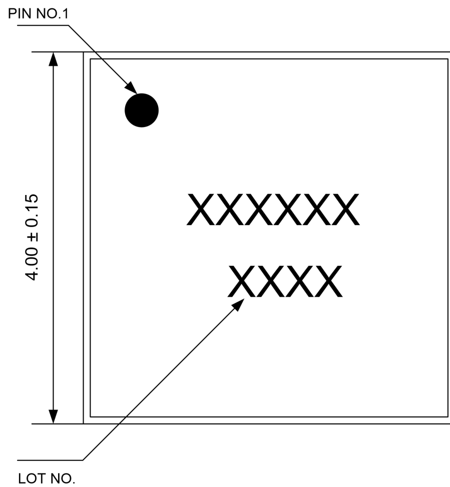
Input Return Loss vs. Operating Frequency



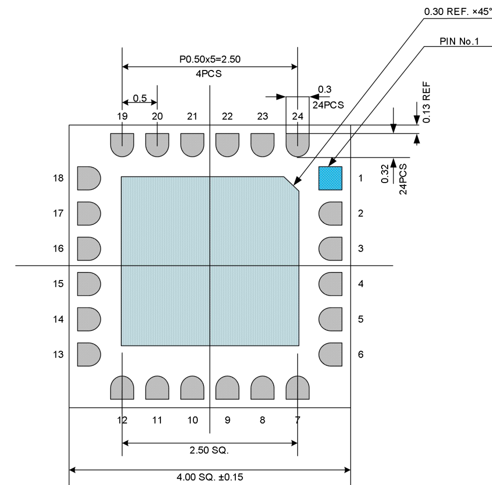
Output Return Loss vs. Operating Frequency



Appearance structure



Top view



Bottom view

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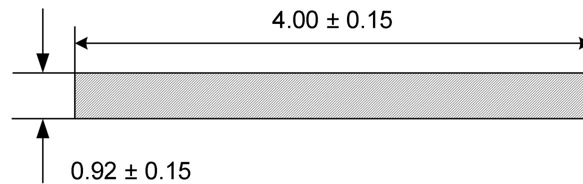

Side View

Solder point number	Function Symbol	Functional Description
3	RFIN	RF signal input terminal
10 , 2 1	RFOUT1 , RFPUT2	RF signal output terminal
Chip bottom	GND	The bottom of the chip needs to be well grounded to RF and DC
Other	NC	No welding required , can be grounded

All units in the figures are millimeters .

Recommended assembly drawing

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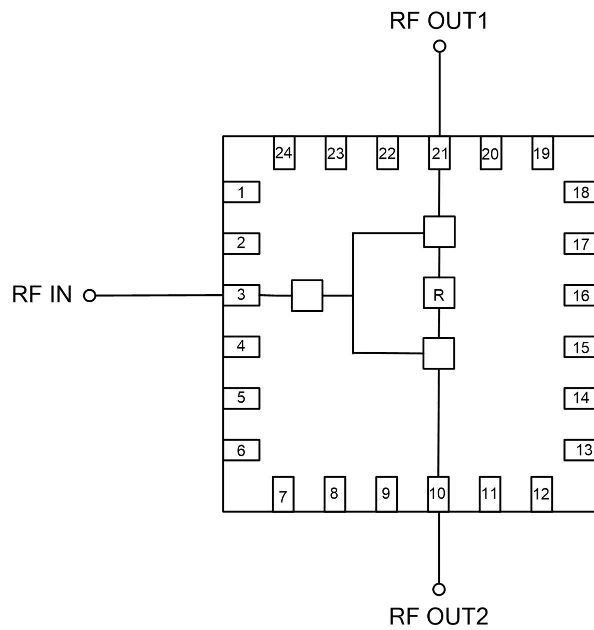

Precautions for use

- Sealing material: Ceramic material that meets ROSH standards
- Lead frame material: copper alloy
- Lead surface plating: gold, gold layer thickness 0.3um MIN
- Maximum reflow peak temperature: 260 ℃