

GaAs MMIC Monolithic Integrated 0 Degree Quad Power Divider , 6-18 GHz

Performance characteristics

- Frequency range: 6-18 GHz
- Insertion loss : 2.1 dB
- Isolation: 20dB
- Amplitude imbalance : ± 0.2 dB
- Phase imbalance: 6 degrees
- 50Ohm input / output
- Chip size: QFN 4X4

Product Introduction

The GPD-06184-CQ4 monolithic integrated 0 -degree quad power divider has low insertion loss and good isolation in the frequency range of 6 to 18 GHz , making it very suitable for microwave hybrid integrated circuits and multi-chip modules. The chip is packaged in a 4 x 4 mm ceramic surface mount package, and the surface of the pin pad is gold-plated, which is suitable for reflow soldering installation.

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.

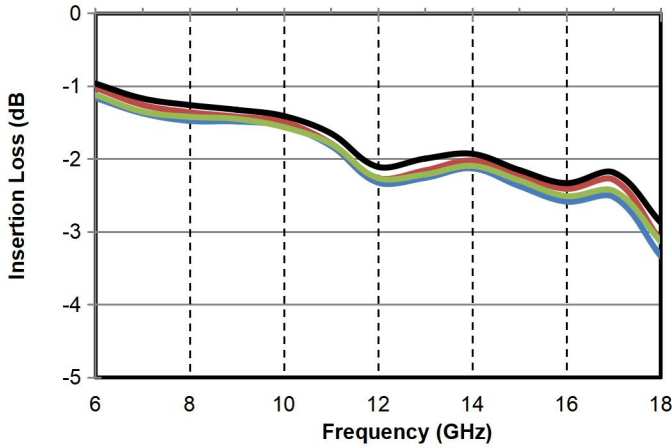
Electrical performance parameters (TA = +25°C)

Index	Minimum	Typical Value	Maximum	Unit
Frequency Range	6-18			GHz
Insertion loss	-	2.1	-	dB
Insertion loss fluctuation	-	2.2	-	dB
Isolation	-	20	-	dB
Amplitude imbalance	-	± 0.2	-	dB
Phase imbalance	-	6	-	degree
Input return loss	-	13	-	dB
Output return loss	-	14	-	dB

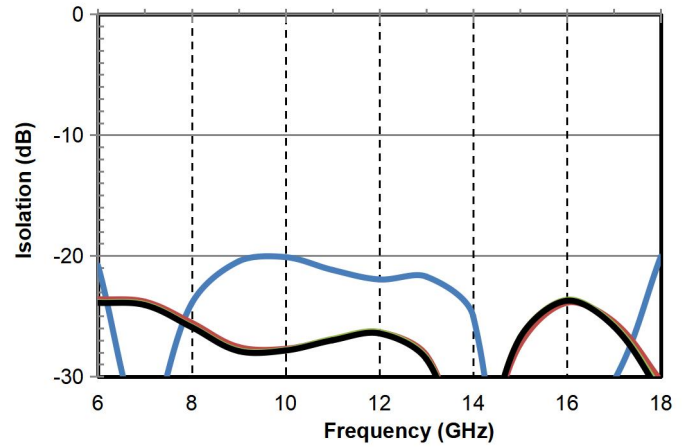
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Main index test curve

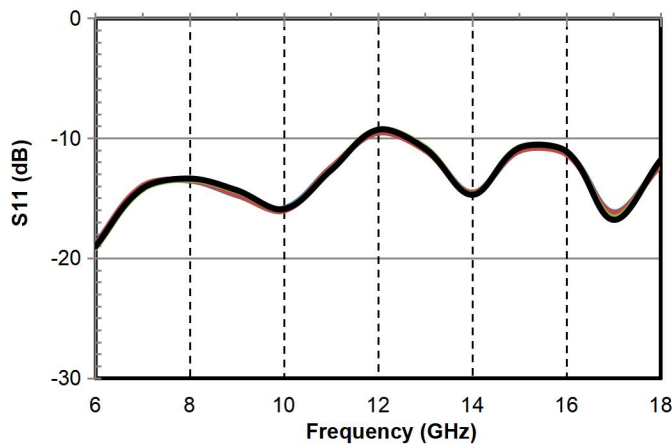
Insertion Loss vs. Operating Frequency



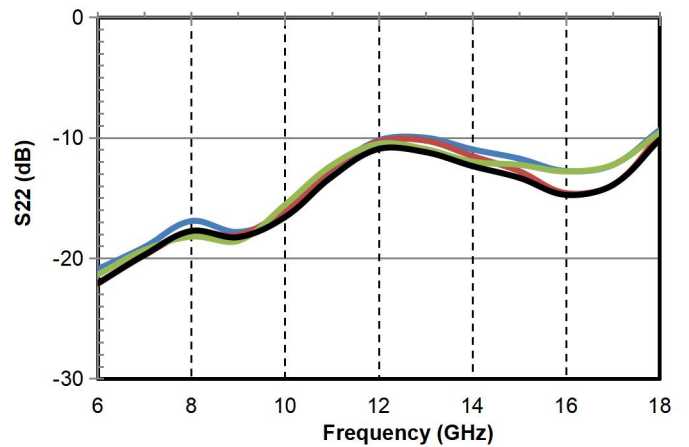
Isolation vs. Operating Frequency



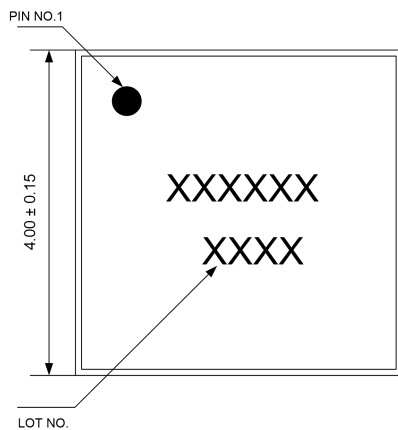
Input Return Loss vs. Operating Frequency



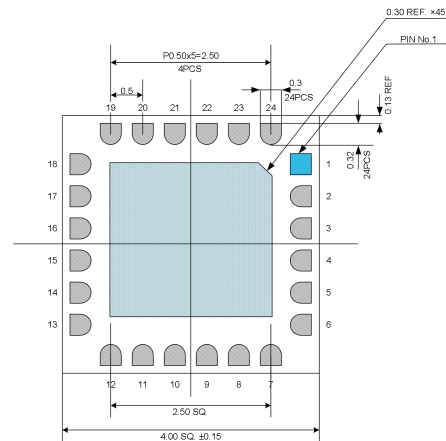
Output Return Loss vs. Operating Frequency



Appearance structure



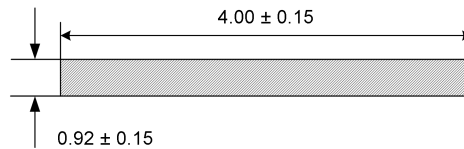
Top view



Bottom view

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Appearance structure

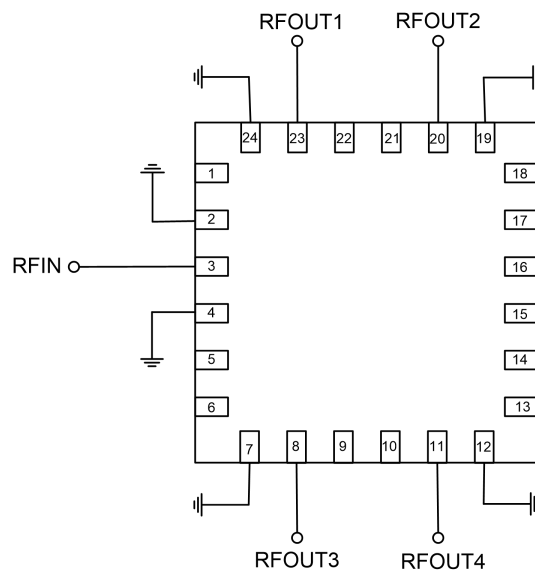


Side View

All units in the figures are millimeters .

Solder point number	Function Symbol	Functional Description
3	RF IN	RF signal input terminal
8, 11, 20, 23	RFOUT3/4/2/1	RF signal output terminal
2, 4, 7, 12, 19, 24, bottom of chip	GND	The bottom of the chip needs to be well grounded to RF and DC
Other	NC	No welding required , can be grounded

Recommended Circuit



Precautions for use

- Sealing material : Ceramic material that meets ROHS standards
- Lead surface plating: gold, gold layer thickness greater than 1.5um
- Maximum reflow peak temperature: 260 °C