

## GaAs MMIC Monolithic Integrated 0 Degree Power Divider , 2-18 GHz

### Performance characteristics

- Frequency range: 2-18 GHz
- Insertion loss : 1.2 dB
- Isolation: 26dB
- Phase imbalance: 0.5 °
- Amplitude imbalance: 0.2dB
- 50Ohm input / output
- Chip size: QFN 4X4

### Product Introduction

The GPD-0218-PQ4 monolithic integrated 0- degree power divider has low insertion loss, good isolation, and low phase and amplitude imbalance in the frequency range of 2 ~ 18 GHz , and is very suitable for microwave hybrid integrated circuits and multi-chip modules. The chip adopts a 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 <sup>1</sup>

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.

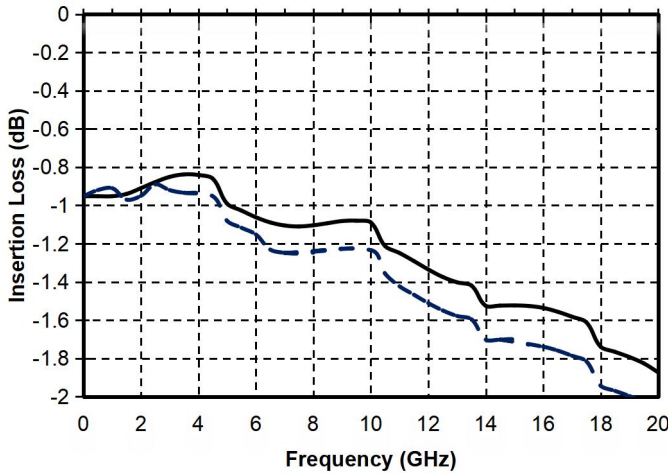
#### Electrical performance parameters ( TA = +25°C)

Index	Minimum	Typical Value	Maximum	Unit
Frequency Range	6-18			GHz
Insertion loss	-	1.2	1.8	dB
Insertion loss fluctuation		± 0.25		dB
Isolation	15	26	-	dB
Phase imbalance	-	0.5	0.8	degree
Amplitude imbalance	-	-	0.2	dB
Input return loss	-	17	-	dB
Output return loss	-	18	-	dB

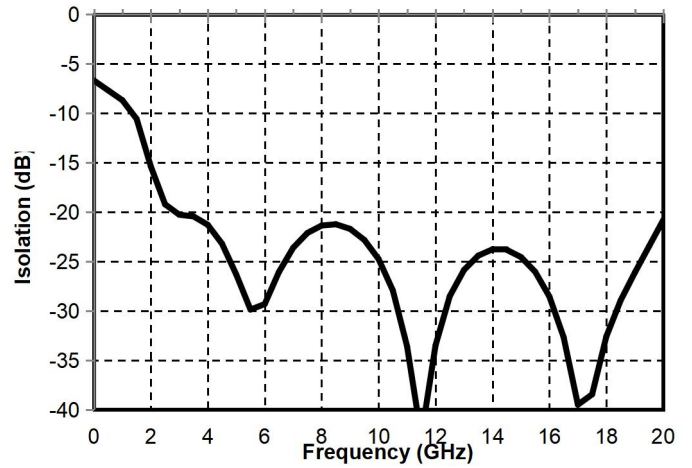
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Main index test curve

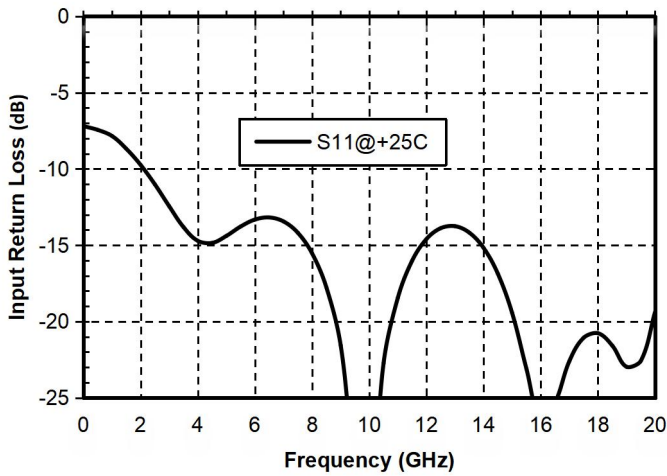
Insertion Loss vs. Operating Frequency



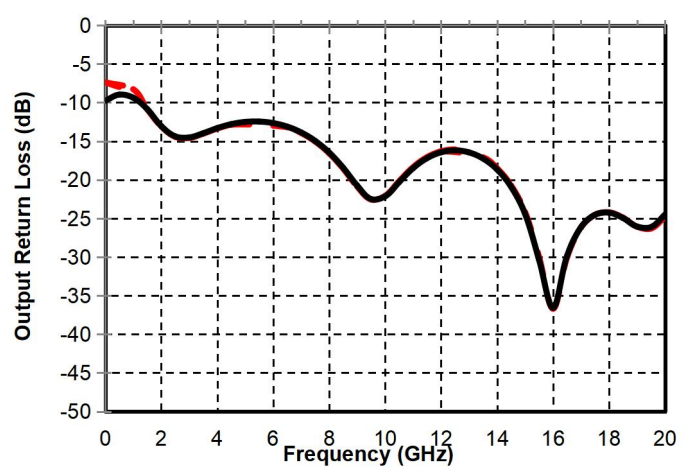
Isolation vs. Operating Frequency



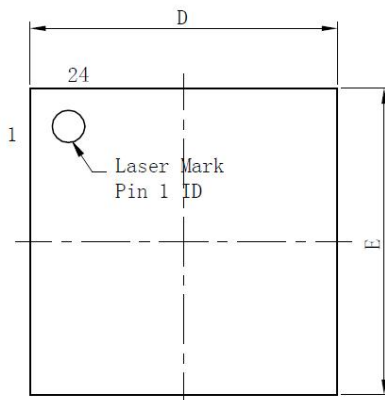
Input Return Loss vs. Operating Frequency



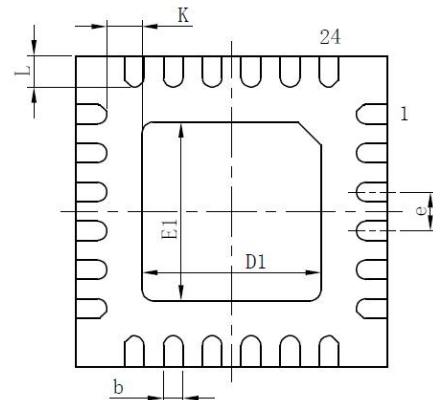
Output Return Loss vs. Operating Frequency



Appearance structure

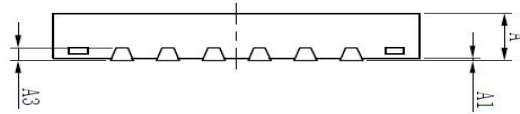


Top view



Bottom view

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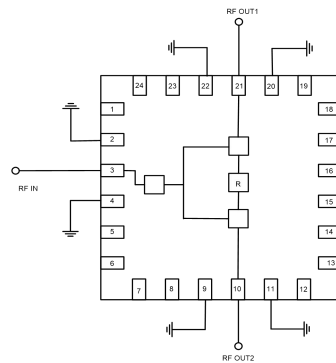
Side View

### Structure size

Annotation	Minimum	Standard	Maximum	Annotation	Minimum	Standard	Maximum
A	0.70	0.75	0.80	D1	2.20	2.30	2.40
A1	0.00	-	0.05	E1	2.20	2.30	2.40
A3	0.203REF			e	0.5TYP		
b	0.20	0.25	0.30	K	0.20	-	-
D	3.90	4.00	4.10	L	0.30	0.40	0.50
E	3.90	4.00	4.10				

All units in the figures are millimeters .

### Recommended assembly drawing



### Pin Definition

Bonding point number	Function Symbol	Functional Description
3	RFIN	RF signal input terminal, no DC blocking capacitor required
10, 21	RFOUT1,2	RF signal output terminal, no DC blocking capacitor required
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, can be grounded