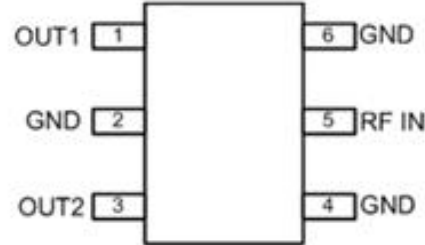


GaAs MMIC monolithic integrated 0 degree power divider , 1700-2300M Hz

Performance characteristics

- Frequency range: 1700-2300 MHz
- Insertion loss : 0.9 dB
- Isolation: 24dB
- Phase imbalance: 0.7°
- Amplitude imbalance: 0.1 dB
- 50Ohm input / output
- Chip size: SOT23

Functional Block Diagram



Product Introduction

GPD-017023A-ST23 monolithic integrated 0 degree power divider has low insertion loss, good isolation, and low phase and amplitude imbalance in the frequency range of 1700 ~ 2300MHz , which is very suitable for microwave hybrid integrated circuits and multi-chip modules. This chip adopts SOT23 plastic surface mount package, and the surface of the pin pad is tinned, which is suitable for reflow soldering installation process.

Electrical performance parameters (TA = +25°C)

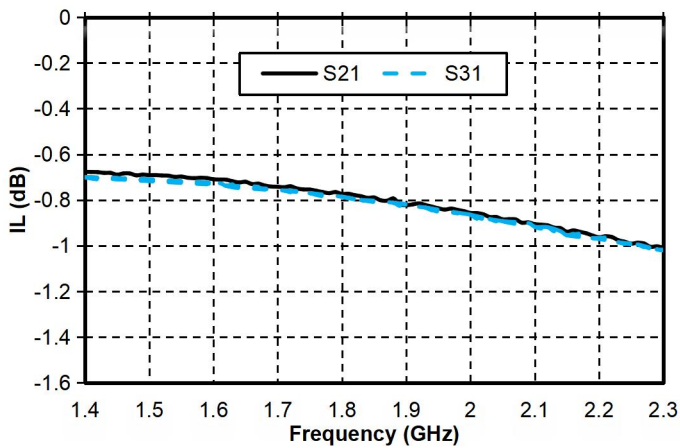
Index	Minimum	Typical Value	Maximum	Test frequency	Unit
Insertion loss*/isolation	-	0.7 / 19	-	1700 MHz	dB
	-	0.8 / 21	-	1800 MHz	dB
	-	0.8 / 24	-	1900 MHz	dB
	-	0.9 / 26	-	2100 MHz	dB
	-	1.0 / 26	-	2300 MHz	dB
Phase imbalance/amplitude imbalance	-	0.6 / 0.1	-	1700 MHz	Deg ./ dB
	-	0.7 / 0.1	-	1800 MHz	Deg ./ dB
	-	0.6 / 0.1	-	1900 MHz	Deg ./ dB
	-	0.6 / 0.1	-	2100 MHz	Deg ./ dB
	-	0.7 / 0.1	-	2300 MHz	Deg ./ dB
Input return loss / output return loss	-	19 / 29	-	1700 MHz	dB
	-	18 / 30	-	1800 MHz	dB
	-	18 / 29	-	1900 MHz	dB
	-	17 / 27	-	2100 MHz	dB
	-	17 / 23	-	2300 MHz	dB

* The inherent loss of the power divider has been deducted .

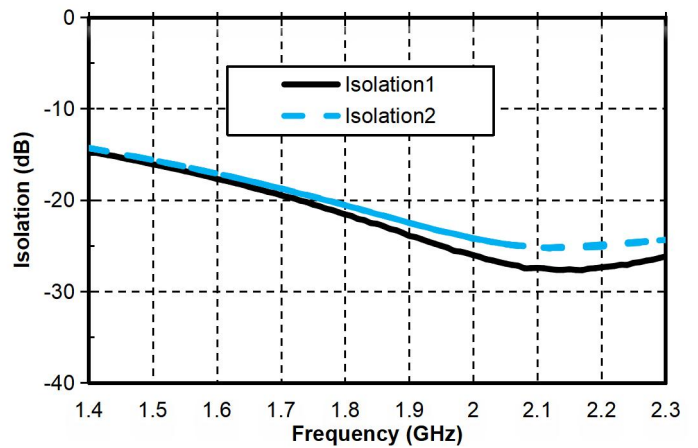
GaAs MMIC monolithic integrated 0 degree power divider , 1700-2300M Hz

Main index test curve

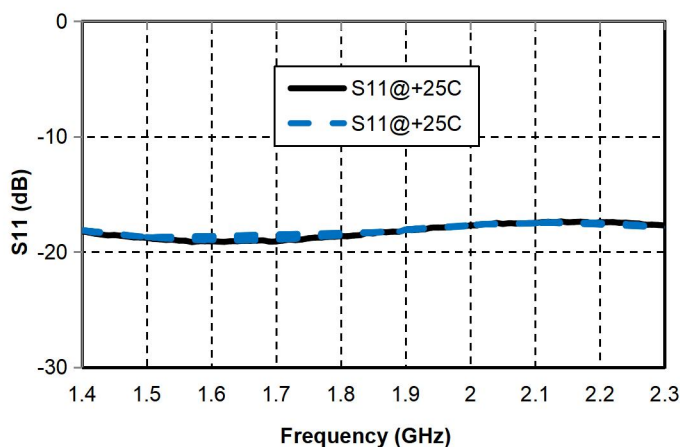
Insertion Loss vs. Operating Frequency



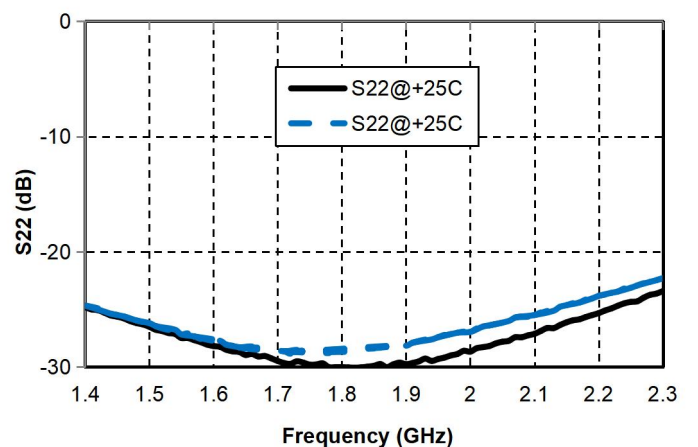
Isolation vs. Operating Frequency



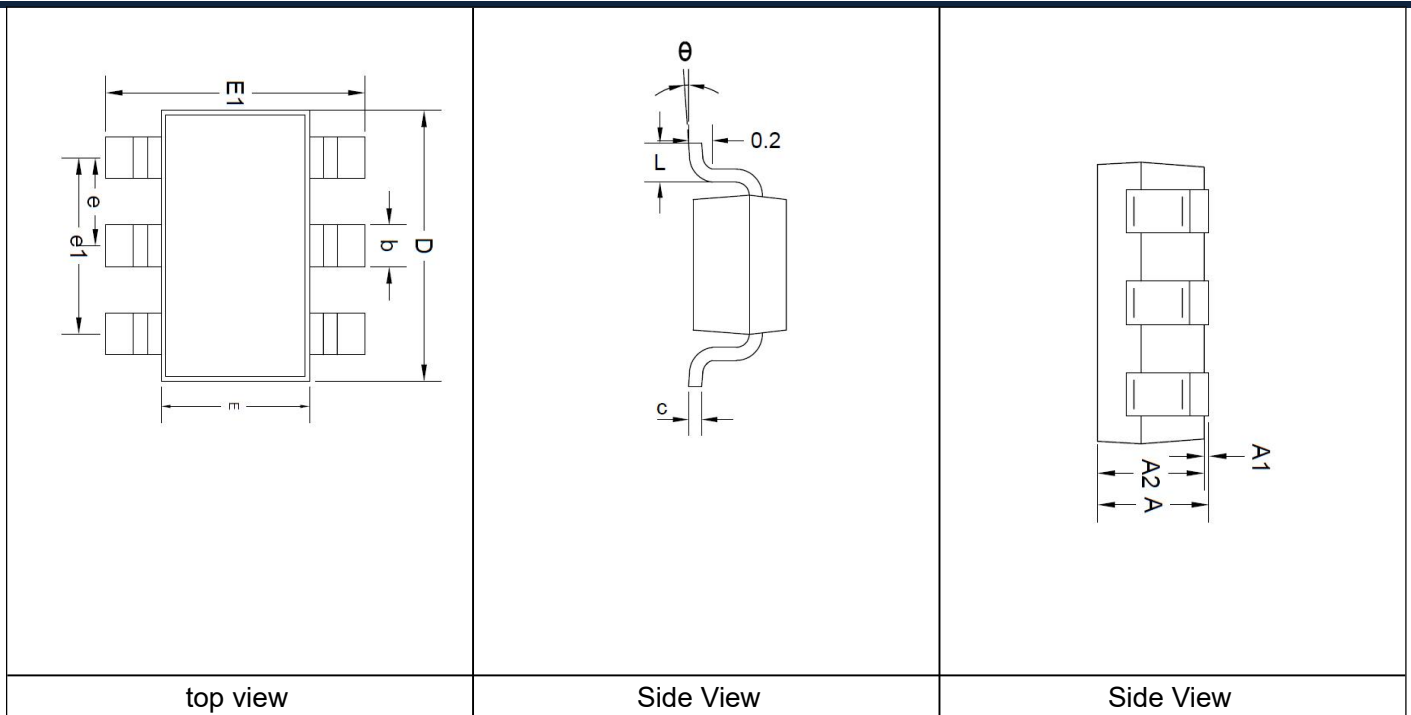
Input Return Loss vs. Operating Frequency



Output Return Loss vs. Operating Frequency



Dimensions



GaAs MMIC monolithic integrated 0 degree power divider , 1700-2300M Hz

Structure size

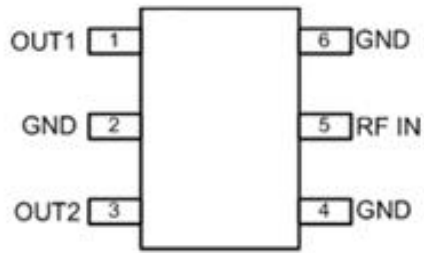
Annotation	Minimum	Standard	Maximum	Annotation	Minimum	Standard	Maximum
A	1.050	1.150	1.250	E	1.500	1.600	1.700
A1	0.00	0.05	0.100	E1	2.650	2.800	2.950
A 2	1.050	1.150	1.250	e	0.950BSC		
b	0.300	0.400	0.500	e1	1.800	1.900	2.000
c	0.100	0.150	0.200	L	0.30 0	0.450	0.600
D	2. 820	2.920	3. 020	θ	0 °	4 °	8 °

The unit in the figure is mm. If no tolerance is specified, it is ± 0.05 .

Pin Definition

Bonding point number	Function Symbol	Functional Description
5	RFIN	RF signal input terminal
1,3	RFOUT	RF signal output terminal
2, 4, 6	GND	The bottom of the chip needs to be well grounded to RF and DC

Assembly diagram



Precautions for use

- Sealing material : Low-pressure injection molding plastic that meets ROHS specifications
- Lead frame material: copper alloy
- Lead surface plating: 100% matte tin
- Maximum reflow peak temperature: 260 °C

Use restriction parameter ¹

Maximum input power	+30dBm (CW)
Operating temperature	-40 ~ + 100 °C
Storage temperature	-65 ~ +150°C

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