

Flatpack Two-Way Power Divider 5-1000 MHz

Rev. V3

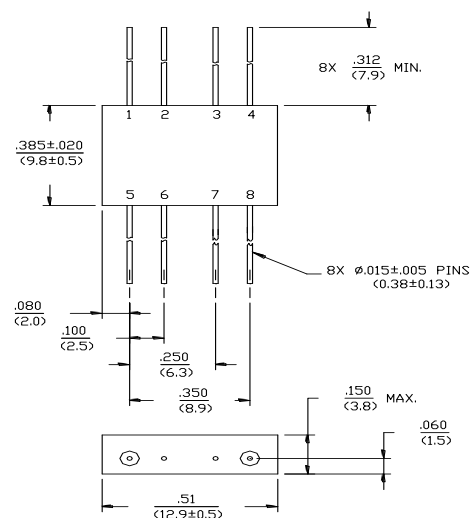
Features

- n Broadband, IN Phase Divider
- n Low Loss: 0.3 dB Typical
- n Amplitude Balance: 0.05 dB Typical
- n Impedance: 50 Ohms Nominal
- n Maximum Power Rating or Input Power: 1 Watt Max.
- n Internal Load Dissipation: 0.05 Watts Max.
- n MIL-STD-883 Screening Available

Description

A Power Divider is ideally a loss less reciprocal device which can also perform vector summation of two or more signals and thus is sometimes called a power combiner or summer.

Functional Schematic



Pin Configuration³

| Pin No. | Function | Pin No. | Function |
|---------|----------|---------|----------|
| 1 | Σ | 11 | GND |
| 2 | GND | 12 | GND |
| 3 | GND | 13 | GND |
| 4 | Output C | 14 | Output D |

Ordering Information^{1,2}

| Part Number | Package |
|-------------|---------|
| DS-327 PIN | FP-2 |

1. Reference Application Note M513 for reel size information.
2. All sample boards include x loose parts.

3. MACOM recommends connecting unused package pins to ground.
4. The exposed pad centered on the package bottom must be connected to RF, DC and thermal ground.

* Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

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Electrical Specifications¹: $T_A = -55^{\circ}\text{C}$ to $+85^{\circ}\text{C}$

| Parameter | Test Conditions | Frequency | Units | Min | Typ | Max |
|-------------------|-----------------|----------------|-------|-----|-----|-------|
| Insertion Loss | Less Coupling | 5 - 500 MHz | dB | — | — | 0.5 |
| | | 500 - 1000 MHz | dB | — | — | 1.0 |
| Isolation | — | 5 - 500 MHz | dB | 25 | — | — |
| | | 500 - 1000 MHz | dB | 20 | — | — |
| Amplitude Balance | — | 5 - 1000 MHz | dB | — | — | 0.2 |
| Phase Balance | — | 5 - 500 MHz | ° | — | — | 2 |
| | | 500 - 1000 MHz | ° | — | — | 3 |
| VSWR | Input Output | 10 - 500 MHz | Ratio | — | — | 1.3:1 |
| | | 5 - 1000 MHz | Ratio | — | — | 1.5:1 |

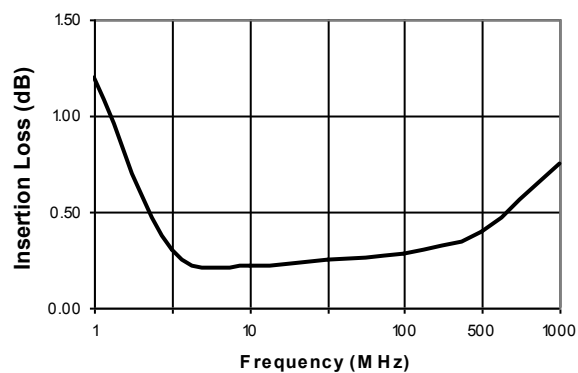
1. All specifications apply with 50 ohm source and load impedance.

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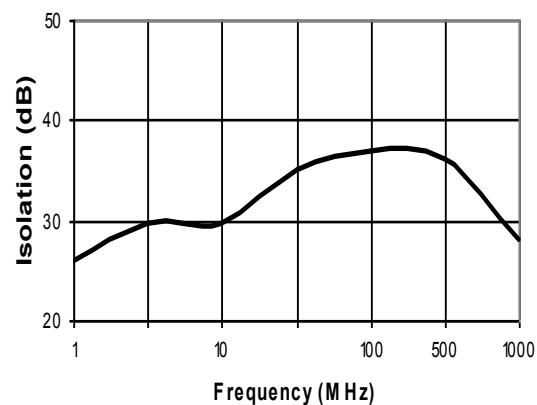
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Typical Performance Curves

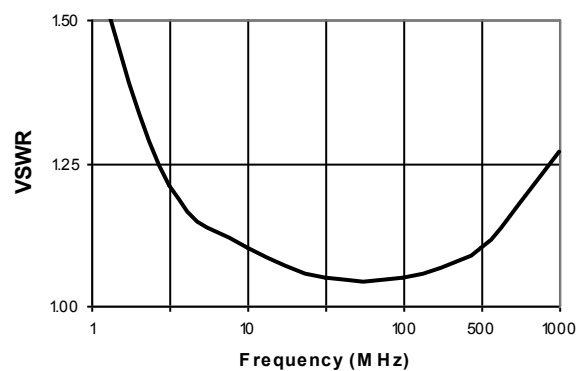
Insertion Loss



Isolation



VSWR



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