Flatpack Two-Way Power Divider
5-1000 MHz

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

Ordering Information

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.

## Electrical Specifications\(^1\): \( T_A = -55^\circ C \) to \(+85^\circ C \)

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

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

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Typical Performance Curves

**Insertion Loss**

![Insertion Loss Graph]

**Isolation**

![Isolation Graph]

**VSWR**

![VSWR Graph]
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