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

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Σ</td>
<td>11</td>
<td>GND</td>
</tr>
<tr>
<td>2</td>
<td>GND</td>
<td>12</td>
<td>GND</td>
</tr>
<tr>
<td>3</td>
<td>GND</td>
<td>13</td>
<td>GND</td>
</tr>
<tr>
<td>4</td>
<td>Output C</td>
<td>14</td>
<td>Output D</td>
</tr>
</tbody>
</table>

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

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

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

**Insertion Loss**

![Insertion Loss Graph](image)

**Isolation**

![Isolation Graph](image)

**VSWR**

![VSWR Graph](image)
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