Two-Way Power Divider,
750 - 1500 MHz

Features
- Phase Balance: 2° Typical
- Isolation: 20 dB Typical Midband
- Input VSWR: 1.5:1 Typical Midband
- Impedance: 50 Ohms Nominal
- Maximum Power Rating or Input Power: 1 Watt Max.
- Internal Load Dissipation: 0.1 Watts Max.
- MIL-STD-202 Screening Available

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

Ordering Information
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS-331 PIN</td>
<td>TO-8-2</td>
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</tbody>
</table>

Pin Configuration

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
<th>Pin No.</th>
<th>Function</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Output D</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>GND</td>
<td>8</td>
<td>GND</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>9</td>
<td>Output C</td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>GND</td>
<td>12</td>
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</tbody>
</table>

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

This product contains elements protected by United States Patent Number 3,428,920.

For further information and support please visit:
https://www.macom.com/support
## Electrical Specifications

$T_A = -55^\circ C$ 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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</thead>
<tbody>
<tr>
<td>Insertion Loss</td>
<td>Less Coupling</td>
<td>750 - 1500 MHz</td>
<td>dB</td>
<td>—</td>
<td>—</td>
<td>0.4</td>
</tr>
<tr>
<td>Isolation</td>
<td>—</td>
<td>750 - 1500 MHz</td>
<td>dB</td>
<td>10</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Amplitude Balance</td>
<td>—</td>
<td>750 - 1500 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>750 - 1500 MHz</td>
<td>°</td>
<td>—</td>
<td>—</td>
<td>6</td>
</tr>
<tr>
<td>VSWR</td>
<td>Input, Output</td>
<td>750 - 1500 MHz</td>
<td>Ratio</td>
<td>—</td>
<td>—</td>
<td>1.7:1</td>
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<tr>
<td></td>
<td></td>
<td>750 - 1500 MHz</td>
<td>Ratio</td>
<td>—</td>
<td>—</td>
<td>1.3:1</td>
</tr>
</tbody>
</table>

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Typical Performance Curves

**Insertion Loss**

![Insertion Loss Graph]

**Isolation**

![Isolation Graph]

**VSWR**

![VSWR Graph]
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