LEAD-FREE / RoHS-COMPLIANT

DIRECTIONAL COUPLER C17-0R506

The C17-0R506 is a high power, broadband bidirectional coupler capable of operation to 6 GHz. The multisection stripline design exhibits excellent coupling flatness and VSWR at all ports. This coupler is available with SMA and APC-7 connector option.

Features

- Low Insertion Loss
- High Power Handling
- Broadband Performance
- High Directivity
- Low VSWR
- Microwave Power Dividers & Couplers App Note

Electrical Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency Range (GHz)</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Line Insertion Loss (dB)</td>
<td>0.5</td>
<td>0.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Coupling (dB)</td>
<td>6</td>
<td>0.4</td>
<td></td>
<td>1</td>
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<tr>
<td>Amplitude Flatness (dB)</td>
<td>0.5-6</td>
<td>±0.6</td>
<td>±1.2</td>
<td></td>
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<tr>
<td>VSWR</td>
<td></td>
<td>1.2</td>
<td>1.45</td>
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<tr>
<td>Directivity (dB)</td>
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<td>15</td>
<td>20</td>
<td></td>
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<tr>
<td>Average Power (W)</td>
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<td></td>
<td></td>
<td>120</td>
</tr>
<tr>
<td>Weight (g)</td>
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<td></td>
<td></td>
<td>600</td>
</tr>
</tbody>
</table>

1Specifications guaranteed when operated in a 50Ω system.
2Deviation from average coupling.
3Weight listed is for SMA connectorized package. Each APC-7 connector is an additional 50 grams.

Model Number | Description
---|---
C17-0R506 | 0.5-6 GHz 17.5 dB Directional Coupler with SMA connectors

Default is SMA female connectors. Use suffix ‘A’ for APC-7 version. Consult factory for other connector options.
Typical Performance

Fig. 1. Direct line insertion loss.

Fig. 2. Typical port return loss.

Fig. 3. Coupled port power.

Fig. 4. Typical directivity.

Fig. 5. Low frequency coupled port power

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