HIGH ISOLATION POWER COMBINER

PBR-0003

Features

- 300kHz to 3 GHz Power Combiner
- 45 dB Typ Isolation
- Applications: IP3 Measurement and High Isolation Test Set-ups
- Microwave Power Dividers & Couplers App Note

Electrical Specifications - Specifications guaranteed from -55 to +100°C, measured in a 50Ω system.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency Range</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Power Splitting (dB)</td>
<td>300 kHz to 3 GHz</td>
<td>6</td>
<td></td>
<td></td>
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<tr>
<td>Amplitude Balance (dB)</td>
<td>300 kHz to 3 GHz</td>
<td>±0.5</td>
<td>±1</td>
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<tr>
<td>Excess Insertion Loss (dB)¹</td>
<td>300 kHz to 3 GHz</td>
<td>1.25</td>
<td>2.5</td>
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<td>Common Port VSWR</td>
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<td>1.3</td>
<td>1.7</td>
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<tr>
<td>Isolation (dB)</td>
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<td>300 kHz to 10 MHz</td>
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<tr>
<td>Power (W)</td>
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<tr>
<td>Weight (g)</td>
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</tbody>
</table>

¹Excess Insertion Loss = (Input Port to Common Port Insertion) – 6 dB.

Model Number | Description
---|---
PBR-0003 | 300 kHz – 3 GHz Power Combiner with SMA connectors¹

Default is SMA female connectors. Consult factory for other connector options.
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**IP3 measurement using high isolation power combiner**

**Fig. 1.** Mixer IP3 measurement

**Fig. 2.** Amplifier IP3 measurement

**Typical Performance**

**Fig. 3.** Input port to common port insertion loss.

**Fig. 4.** Return loss for input and common ports.

**Fig. 5.** Amplitude balance between input ports.

**Fig. 6.** Isolation between input ports.

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