2 Way Broadband Combiner from 20 MHz to 1 GHz SMA

RF Combiners Technical Data Sheet

Features
- 20 to 1000 MHz Frequency
- 100 watt max power
- Insertion Loss: < 0.60 dB
- Phase Balance: ±5 degrees
- Amplitude Balance: ±0.3 dB
- Isolation: >15 dB
- High Power Handling Capability

Applications
- Communications Systems
- Power Combining
- PCS, GSM, LTE, Cellular
- Amplifier Systems
- Amplifier Power Combining
- Wireless Infrastructures
- Defence Applications

Description
PE20S0001 is a passive 2 way High Power Broadband RF Combiner with 50 ohm SMA connectors operating from 20 to 1000 MHz, with max power at 100 watts. The PE20S0001 has greater than 15 dB typical isolation, less than 0.60 dB typical low insertion loss and a Max VSWR of 1.30:1; along with a phase balance of ±5 degrees and an amplitude balance of ±0.3 dB. The RF Combiner operates in a temperature range from -55°C to 85°C, with a footprint of 3.25"x2"x1.10".

Electrical Specifications

Design
Number of Input Ports 2

<table>
<thead>
<tr>
<th>Description</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>20</td>
<td>1,000</td>
<td></td>
<td>MHz</td>
</tr>
<tr>
<td>Impedance</td>
<td>50</td>
<td></td>
<td></td>
<td>Ohms</td>
</tr>
<tr>
<td>Output VSWR</td>
<td></td>
<td>1.3:1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insertion Loss</td>
<td>0.6</td>
<td></td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Isolation</td>
<td>15</td>
<td></td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Amplitude Balance</td>
<td>±0.3</td>
<td></td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Phase Balance</td>
<td>±5</td>
<td></td>
<td></td>
<td>Degrees</td>
</tr>
<tr>
<td>Power Handling (CW)</td>
<td></td>
<td>100</td>
<td></td>
<td>Watts</td>
</tr>
</tbody>
</table>

**See Electrical Notes

Electrical Specification Notes:
The device is intended for coherent signal combining.

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: 2 Way Broadband Combiner from 20 MHz to 1 GHz SMA PE20S0001
2 Way Broadband Combiner from 20 MHz to 1 GHz SMA

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### Mechanical Specifications

<table>
<thead>
<tr>
<th>Size</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>3.25 in [82.55 mm]</td>
</tr>
<tr>
<td>Width</td>
<td>1.1 in [27.94 mm]</td>
</tr>
<tr>
<td>Height</td>
<td>2 in [50.8 mm]</td>
</tr>
<tr>
<td>Weight</td>
<td>0.546 lbs [247.66 g]</td>
</tr>
</tbody>
</table>

**Housing Material and Plating**

- Aluminum Alloy

### Configuration

- **Input Connector**: SMA Female
- **Output Connectors**: SMA Female

### Environmental Specifications

- **Temperature**
  - Operating Range: -55 to +85 deg C

### Compliance Certifications

(see [product page](#) for current document)

### Plotted and Other Data

**Notes:**

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