Features
- Small Size (2×2mm DFN package)
- Passive RF IC, no need external DC power supply
- No need external 100 Ω resistor
- Very Low Loss
- Tight Amplitude Balance
- High Isolation
- Low VSWR
- Good Repeatability
- Tape & Reel
  Operating Temperature -40°C~85°C
Power handling
  - 2 Watts as a divider
  - 1 Watts as a combiner

Applications
- Wireless communications
- WLAN / WiMax
- SAT Radio
- ISM band instrument
- Information System for Automotive Safety

Notes:
1. This part has passed through 100% RF test.
2. Suggest to add Capacitors of DC Blocker between Pins(with black color) and external circuit to prevent DC signal entry to guarantee parts normal work.
3. Suggest to add a TVS Diode in parallel between Electrode (with black color) and Capacitor of DC Blocker to provide ESD protection for the product. TVS Diode use ON Semiconductor's ESD9101 is recommended.

ESD Rating
Human Body Model (HBM): \( \leq 800V \) in accordance with ANSI/ESD STM 5.1 - 2001
Machine Model (MM): \( \leq 100V \) in accordance with ANSI/ESD STM 5.2 - 1999

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For detailed performance specs & shopping online see Yantel web site: www.yantel-corp.com

Rev A4.0
Data Sheet
PD1500U03-140
Power Divider/Combiner
2-Way 0° 50Ω 1.35-1.65 GHz

Electrical Specifications at 25° C

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>FR</td>
<td>1350</td>
<td>1650</td>
<td>MHz</td>
<td></td>
</tr>
<tr>
<td>Insertion Loss (Above 3dB)</td>
<td>IL</td>
<td>0.25</td>
<td>0.35</td>
<td>dB</td>
<td></td>
</tr>
<tr>
<td>Phase balance</td>
<td>Φ</td>
<td>bal</td>
<td>1.10</td>
<td>1.50</td>
<td>deg</td>
</tr>
<tr>
<td>Amplitude balance</td>
<td>Abal</td>
<td>0.05</td>
<td>0.1</td>
<td>dB</td>
<td></td>
</tr>
<tr>
<td>Input VSWR</td>
<td></td>
<td>1.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output VSWR</td>
<td></td>
<td>1.1</td>
<td>1.2</td>
<td>1.35</td>
<td></td>
</tr>
</tbody>
</table>

Typical Performance (-40°C, 25°C, 85°C, 125°C: 1350-1650 MHz)

Insertion Loss VS. Frequency

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Phase Balance VS. Frequency  
Amplitude Balance VS. Frequency  
Isolation VS. Frequency  

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Return Loss VS.Frequency(In/Sum)

Return Loss VS.Frequency(Port1)

Return Loss VS.Frequency(Port2)

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2-Way 0° 50Ω 1.35-1.65 GHz

Outline Drawing

TOP VIEW

BOTTOM VIEW

SIDE VIEW

Land Pattern

Pin Out

Recommended Land Pattern
Top View

Notes: All dimensions show in millimeters

Notes:
1. Require to add Capacitors of DC Blocker between Pins (with black color) and external circuit to prevent DC signal entry to guarantee parts normal work.
2. This part has passed through 100% RF test.

<table>
<thead>
<tr>
<th>Pin #</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GND</td>
</tr>
<tr>
<td>2</td>
<td>IN</td>
</tr>
<tr>
<td>3</td>
<td>GND</td>
</tr>
<tr>
<td>4</td>
<td>OUT</td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
</tr>
<tr>
<td>6</td>
<td>OUT</td>
</tr>
</tbody>
</table>