MAPD-009278-5T1000

E-Series RF 2-Way 0° Power Divider
5-1000 MHz

Features
- 2-Way 0 Degree
- Surface Mount
- Tape and Reel Packaging Available
- 260°C Reflow Compatible
- RoHS Compliant
- Pb Free

Description
The MAPD-009278-5T1000 is a RoHS compliant 2-way 0 degree RF power divider in a low cost, surface mount package. Ideally suited for 50 Ω system. Two 1.5 pF capacitors and one 100 Ω resistor are required with this part.

The MAPD-009278-5T1000 is available in a SM-156 surface mount package and is designed to be utilized in both RoHS and standard reflow profiles. Parts are packaged in tape & reel.

Electrical Specifications: RF Freq. = 5 - 1000 MHz, $T_A = +25^\circ C$, $Z_0 = 50 \, \Omega$, $P_{IN} = 0 \, \text{dBm}$

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test Conditions</th>
<th>Units</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss</td>
<td>Above 3dB</td>
<td>dB</td>
<td>—</td>
<td>—</td>
<td>1.4</td>
</tr>
<tr>
<td>Amplitude Imbalance</td>
<td>—</td>
<td>dB</td>
<td>—</td>
<td>—</td>
<td>±0.6</td>
</tr>
<tr>
<td>Phase Imbalance</td>
<td>—</td>
<td>Degrees</td>
<td>—</td>
<td>—</td>
<td>±4</td>
</tr>
<tr>
<td>Input Return Loss</td>
<td>—</td>
<td>dB</td>
<td>16</td>
<td>19</td>
<td>—</td>
</tr>
<tr>
<td>Output Return Loss</td>
<td>—</td>
<td>dB</td>
<td>16</td>
<td>25</td>
<td>—</td>
</tr>
<tr>
<td>Isolation</td>
<td>—</td>
<td>dB</td>
<td>16</td>
<td>20</td>
<td>—</td>
</tr>
</tbody>
</table>

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAPD-009278-5T1000</td>
<td>2000 piece Reel</td>
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</table>

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
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</thead>
<tbody>
<tr>
<td>RF Power</td>
<td>250 mW</td>
</tr>
<tr>
<td>DC Current</td>
<td>240 mA</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to +85°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55°C to +125°C</td>
</tr>
</tbody>
</table>

1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

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Typical Performance Curves

**Insertion Loss**

![Insertion Loss Chart](chart1.png)

**Amplitude Balance**

![Amplitude Balance Chart](chart2.png)

**Phase Balance**

![Phase Balance Chart](chart3.png)

**Input Return Loss**

![Input Return Loss Chart](chart4.png)

**Output Return Loss**

![Output Return Loss Chart](chart5.png)

**Isolation**

![Isolation Chart](chart6.png)
Outline Drawing

Unless Otherwise specified dimensions in inches [mm]
Tolerance: x.xx ± 0.02, x.xxx ± 0.010
E-Series RF 2-Way 0° Power Divider
5-1000 MHz

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