MAPD-008762-ES0001

E-Series 2-Way, 90° Power Divider
120 - 160 MHz

Rev. V2

Features
- 2-way
- 90 Degree
- Surface Mount
- Tape and reel packaging available
- 260°C Reflow Compatible
- RoHS* compliant version of the MAPDES0001

Description
The MAPD-008762-ES0001 is a 2-way 90° power divider in a SM-87 surface mount package. This devise is designed to be utilized in both RoHS and standard reflow profiles.

Ideally suited for high volume cellular, wireless applications.

Pin Configuration

<table>
<thead>
<tr>
<th>Pin #</th>
<th>Function</th>
<th>Pin #</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Input</td>
<td>4</td>
<td>External 50 Ω</td>
</tr>
<tr>
<td>2,5</td>
<td>Not Connected</td>
<td>6</td>
<td>Port 2</td>
</tr>
<tr>
<td>3</td>
<td>Port 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Insertion Loss (above 3 dB) dB
- Min.: —
- Typ.: 0.5
- Max.: 1.0

Isolation dB
- Min.: 20
- Typ.: 25
- Max.: —

Amplitude Unbalance dB
- Min.: —
- Typ.: 1.0
- Max.: 1.6

Phase Unbalance °
- Min.: —
- Typ.: 1
- Max.: 3

Electrical Specifications: Freq. = 120 - 160 MHz, $T_A = 25^\circ C$, $Z_0 = 50 \Omega$

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss (above 3 dB)</td>
<td>dB</td>
<td>—</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Isolation</td>
<td>dB</td>
<td>20</td>
<td>25</td>
<td>—</td>
</tr>
<tr>
<td>Amplitude Unbalance</td>
<td>dB</td>
<td>—</td>
<td>1.0</td>
<td>1.6</td>
</tr>
<tr>
<td>Phase Unbalance</td>
<td>°</td>
<td>—</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impedance</td>
<td>50 Ω nominal</td>
</tr>
<tr>
<td>RF Power</td>
<td>1 W</td>
</tr>
<tr>
<td>Internal Load Dissipation</td>
<td>0.125 W</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.


For further information and support please visit: https://www.macom.com/support
Typical Performance Curves

**Insertion Loss Port 1**

![Insertion Loss Port 1 graph](image1)

**Insertion Loss Port 2**

![Insertion Loss Port 2 graph](image2)

**Amplitude Unbalance**

![Amplitude Unbalance graph](image3)

**Phase Unbalance**

![Phase Unbalance graph](image4)

**Isolation**

![Isolation graph](image5)
Outline (Non-Hermetic SM-87)
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