MAPD-011018

2-Way 90° Power Splitter
5 - 250 MHz

Features
- 2-Way 90°
- Surface Mount Package
- Available on Tape & Reel
- 260°C Reflow Compatible
- RoHS Compliant, Lead-Free
- Excellent Temperature Stability
- Suitable for all CATV, Broadband and FTTx Applications

Description
The MAPD-011018 is a 2 way 90° power splitter in a surface mount package. Ideally suited for all broadband CATV applications.

Electrical Specifications: Freq. = 5 - 250 MHz, $T_A = 25°C$, $Z_0 = 75 \Omega$, $P_{IN} = 0 \text{ dBm}$

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test Frequency (MHz)</th>
<th>Units</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
</tr>
</thead>
</table>
| Insertion Loss (pin 1 - pin 7) | 5 - 85  
85 - 250 | dB     | 1.5  | 1.2 | 1.9 |
| Insertion Loss (pin 1 - pin 8) | 5 - 85  
85 - 250 | dB     | 1.16 | 1.02 | 1.4 |
| Amplitude Balance          | 5 - 85  
85 - 250 | dB     | 0.4  | 0.2 | ±0.8 |
| Phase Balance              | 5 - 85  
85 - 100  
100 - 250 | °     | 90.0 | 94.3 | ±3 |
| Input Return Loss (pin 1)  | 5 - 85  
85 - 250 | dB     | 9    | 10.3 | — |
| Output Return Loss (pin 7) | 5 - 85  
85 - 250 | dB     | 6    | 7.7  | — |
| Output Return Loss (pin 8) | 5 - 85  
85 - 250 | dB     | 14   | 16.2 | — |
| Isolation (pin 7 - pin 8)  | 5 - 85  
85 - 250 | dB     | 15   | 19.4 | — |

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAPD-011018</td>
<td>400 piece reel</td>
</tr>
<tr>
<td>MAPD-011018-TB</td>
<td>sample board</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
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</thead>
<tbody>
<tr>
<td>Input RF Power</td>
<td>250 mW</td>
</tr>
<tr>
<td>DC Current</td>
<td>200 mA</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to +85°C</td>
</tr>
</tbody>
</table>
2-Way 90° Power Splitter
5 - 250 MHz

Typical Performance Curves: $T_A = 25^\circ C$, $Z_0 = 75 \Omega$, $P_{IN} = 0$ dBm
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5 - 250 MHz

Application Schematic

Outline Drawing

Recommended Footprint

Tape & Reel Information

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Value</th>
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<tbody>
<tr>
<td>Qty per reel</td>
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<td>400</td>
</tr>
<tr>
<td>Reel Size</td>
<td>mm</td>
<td>330</td>
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<tr>
<td>Tape Width</td>
<td>mm</td>
<td>44</td>
</tr>
<tr>
<td>Pitch</td>
<td>mm</td>
<td>20</td>
</tr>
<tr>
<td>Ao</td>
<td>mm</td>
<td>21</td>
</tr>
<tr>
<td>Bo</td>
<td>mm</td>
<td>12</td>
</tr>
<tr>
<td>Ko</td>
<td>mm</td>
<td>6.40</td>
</tr>
<tr>
<td>Orientation</td>
<td></td>
<td>F30</td>
</tr>
</tbody>
</table>

Reference Application Note ANI-019 for orientation

1. Dimensions in mm.
2. Tolerance: ±0.2 mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Plating finish: ENIG

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