MACP-009011-C80370

E-Series 75 Ohm 8 dB Coupler
5 - 1200 MHz

Features
- Coupling 8dB Typical
- Surface Mount
- Low Profile
- Available on Tape and Reel
- Excellent Temperature Stability

Description
The MACP-009011-C80370 is a high performance 75 Ohm coupler, in a SM-55A low cost, surface mount package.

The MACP-009011-C80370 is designed for use in high volume CATV applications. Typical applications include set-top boxes, network interface units, broadband amplifiers and head-end equipment.

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACP-009011-C80370</td>
<td>900 parts per reel</td>
</tr>
<tr>
<td>MACP-009011-C803TB</td>
<td>Customer test board</td>
</tr>
</tbody>
</table>

Pin Configuration

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Output</td>
</tr>
<tr>
<td>2</td>
<td>Not Connected</td>
</tr>
<tr>
<td>3</td>
<td>Isolation, external 75-Ohm</td>
</tr>
<tr>
<td>4</td>
<td>Coupled</td>
</tr>
<tr>
<td>5</td>
<td>Ground</td>
</tr>
<tr>
<td>6</td>
<td>Input</td>
</tr>
</tbody>
</table>
E-Series 75 Ohm 8 dB Coupler  
5 - 1200 MHz  

Electrical Specifications:  Freq. = 5 - 1200 MHz, $T_A = 25°C$, $Z_0 = 75 \Omega$

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test Conditions</th>
<th>Units</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
</table>
| Mainline Loss              | 5 - 870 MHz  
870 - 1002 MHz  
1002 - 1200 MHz | dB    | 2.0   | 1.50  | —     |
| Coupling                   | 5 - 1002 MHz  
1002 - 1200 MHz | dB    | 8.5   | 8.3   | 7.5   |
| Coupling flatness          | 5 - 1200 MHz | dB    | —     | 0.5   | 0.8   |
| Directivity                | 5 - 870 MHz  
870 - 1200 MHz | dB    | 17.5  | 12.8  | 9     |
| Return Loss Input          | 5 - 50 MHz  
50 - 1200MHz | dB    | —     | 18.8  | 17.0  |
| Return Loss Output         | 5 - 50 MHz  
50 - 870 MHz  
870 - 1200 MHz | dB    | 31.3  | 33.5  | 23    |
| Return Loss Coupled        | 5 - 1200 MHz | dB    | —     | 18.5  | 16    |

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Power</td>
<td>250 mW</td>
</tr>
<tr>
<td>DC Current</td>
<td>30 mA</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-20°C to + 85°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-20°C to + 85°C</td>
</tr>
</tbody>
</table>
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Rev. V3

Typical Performance Curves: $T_A = 25^\circ C$, $Z_0 = 75 \Omega$

Mainline

![Mainline Graph]

Return Loss:

![Return Loss Graph]

Coupling

![Coupling Graph]

Return Loss: Output

![Return Loss: Output Graph]

Directivity

![Directivity Graph]

Return Loss: Coupling

![Return Loss: Coupling Graph]
Outline Drawing
E-Series 75 Ohm 8 dB Coupler
5 - 1200 MHz

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