

# MAPD-008108-C202C0

2-Way 0° Power Divider  
5 to 1000 MHz

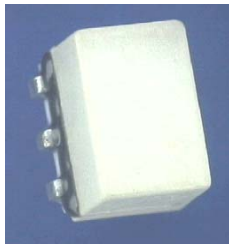
M/A-COM Products  
Released, Rev. V2

## Features

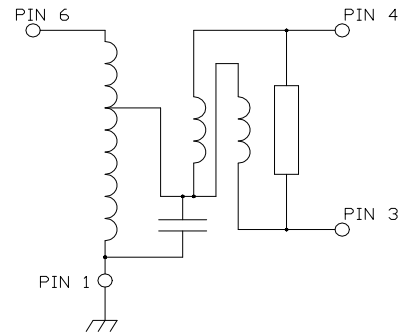
- Surface Mount, hermetically sealed
- 2 Way, 0 Degree
- 260°C Reflow Compatible
- RoHS\* Compliant
- RoHS version of ESSMJ-2-12-75TR
- 75 Ohm
- Available on Tape and Reel

## Description

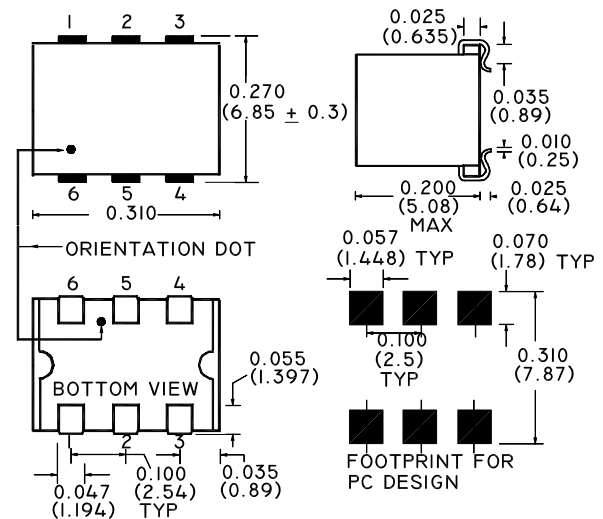
M/A-COM's MAPD-008108-C202C0 is a 2 Way 0° Power Divider in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications.



## Schematic



## Case style: SM-44



## Pin configuration

| Pin No. | Function      |
|---------|---------------|
| 1       | Ground        |
| 2       | Not Connected |
| 3       | Output Port 2 |
| 4       | Output Port 1 |
| 5       | Not Connected |
| 6       | Input         |

Note: Reference Application Note **M513** for reel size information.

## Ordering information

| Part Number        | Description         |
|--------------------|---------------------|
| MAPD-008108-C202C0 | 900 per reel        |
| MAPD-008108-C202TB | Customer Test Board |

\* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$ ,  $P_{IN} = 0\text{dBm}$**

| Parameter               | Frequency      | Units | Minimum | Typical | Maximum |
|-------------------------|----------------|-------|---------|---------|---------|
| Insertion Loss          | 5 - 500 MHz    | dB    | —       | 0.4     | 0.6     |
|                         | 500 - 1000 MHz | dB    | —       | 0.5     | 1.2     |
| Isolation               | 5 - 600 MHz    | dB    | 20      | 35      | —       |
|                         | 600 - 1000 MHz | dB    | 17.5    | 30      | —       |
| Amplitude Unbalance     | 5 - 600 MHz    | dB    | —       | —       | 0.2     |
|                         | 600 - 1000 MHz | dB    | —       | —       | 0.5     |
| Phase Unbalance         | 5 - 100 MHz    | °     | —       | —       | 1.5     |
|                         | 100 - 500 MHz  | °     | —       | —       | 3.5     |
|                         | 500 - 1000 MHz | °     | —       | —       | 4.0     |
| Output Return Loss      | 5 - 40 MHz     | dB    | 12      | 20      | —       |
|                         | 40 - 1000 MHz  | dB    | 20      | 25      | —       |
| Input Return Loss       | 5 - 40 MHz     | dB    | 13.5    | 20      | —       |
|                         | 40 - 500 MHz   | dB    | 20      | 24      | —       |
|                         | 500 - 860 MHz  | dB    | 17      | 21      | —       |
|                         | 860 - 1000 MHz | dB    | 14      | 19      | —       |
| Insertion Loss Flatness | 5 - 1000 MHz   | dB    | —       | —       | 0.9     |

**Absolute maximum ratings <sup>1,2</sup>**

| Parameter                 | Absolute Maximum |
|---------------------------|------------------|
| RF Power                  | 1 Watt           |
| Internal Load Dissipation | 0.125 Watt       |
| Pin Temp (10 sec.)        | 260°C            |
| Storage Temperature       | -55°C to +100°C  |
| Operating Temperature     | -40°C to +85°C   |

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

2

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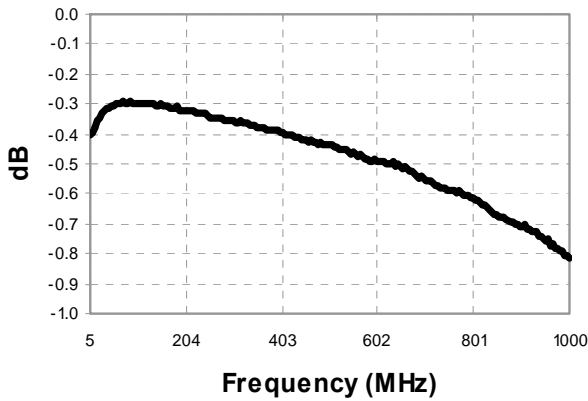
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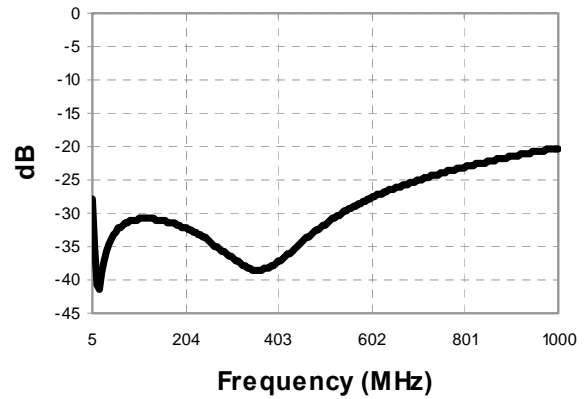
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Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$ ,  $P_{IN} = 0\text{dBm}$

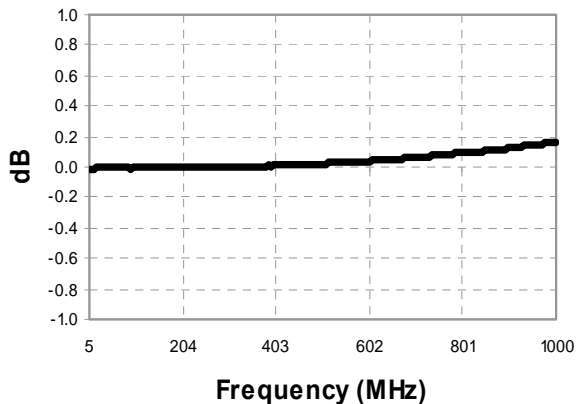
Insertion Loss



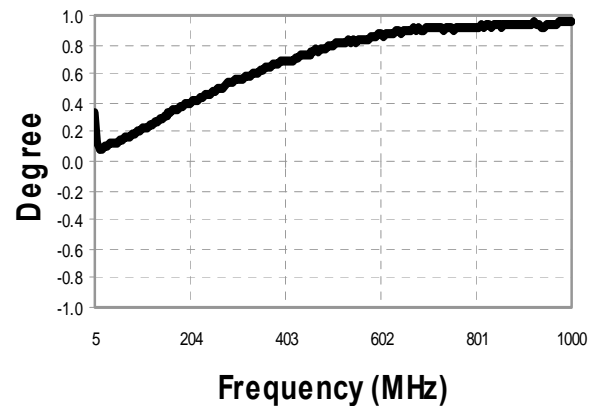
Isolation



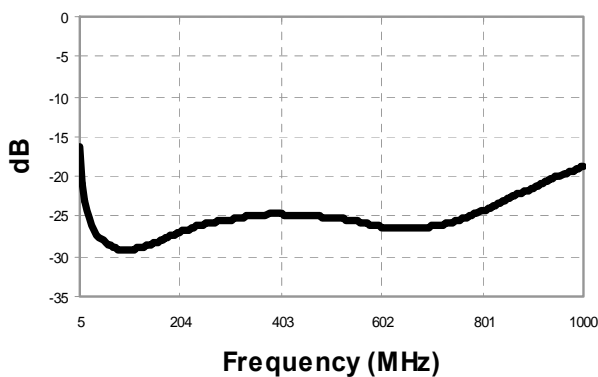
Amplitude Balance



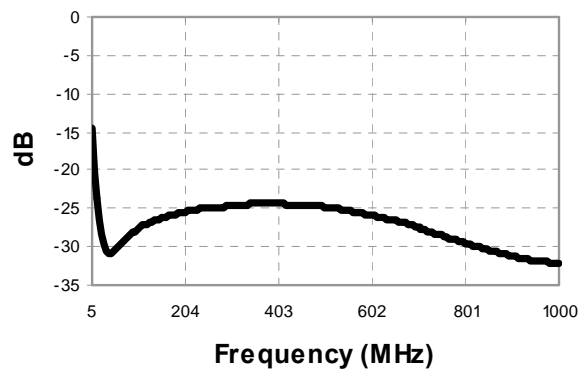
Phase Balance



Return Loss: Input



Return Loss: Output



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