

## 2 Way 0° Power Divider 50-120MHz

MAPD-008185-C20720  
V2

### Features

- Surface Mount
- 2 Way 0° Power Divider
- 260°C Reflow Compatible
- RoHS\* Compliant
- RoHS version of ESSM-2-9-75
- Available on Tape and Reel. Reel Quantity 2000

### Description

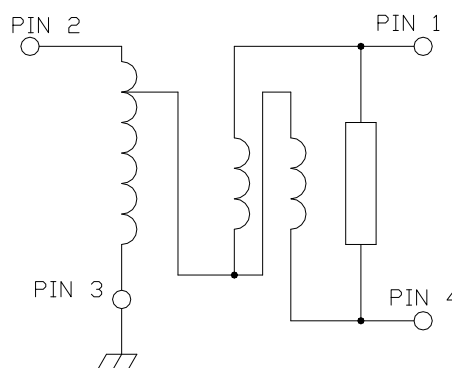
M/A-COM's MAPD-008185-C20720 is a 2 Way 0° Power Divider in a low cost, surface mount package. ideally suited for high volume cellular, wireless and CATV applications. No external resistor is required with this part.



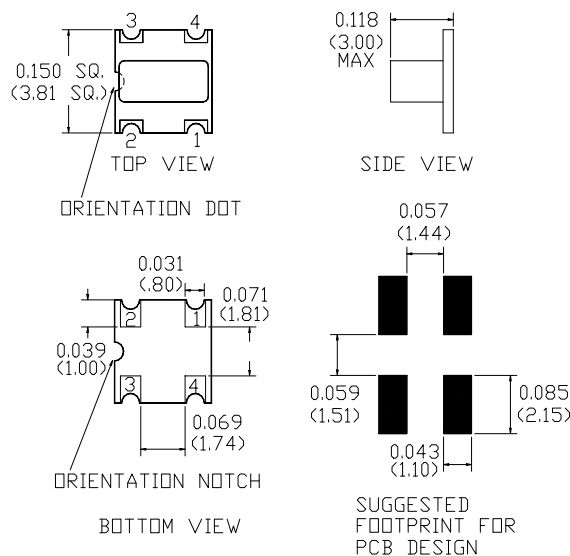
### Pin Configuration

| Pin No. | Function |
|---------|----------|
| 1       | Port 1   |
| 2       | Input    |
| 3       | Ground   |
| 4       | Port 2   |

### Schematic



### Case Style: SM-114



Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010

### Ordering Information

| Part Number        | Package             |
|--------------------|---------------------|
| MAPD-008185-C20720 | 2000                |
| MAPD-008185-C207TB | Customer Test Board |

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

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

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Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$  <sup>1</sup>

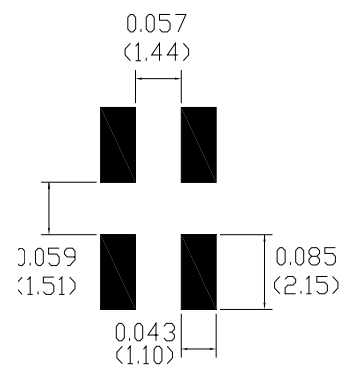
| Parameter           | Frequency   | Units | Min | Typ  | Max  |
|---------------------|-------------|-------|-----|------|------|
| Insertion Loss      | 5 - 120 MHz | dB    | —   | 00.3 | 00.6 |
| Isolation           | 5 - 50MHz   | dB    | 23  | —    | —    |
|                     | 50 - 60MHz  | dB    | 22  | —    | —    |
|                     | 60 - 120MHz | dB    | 21  | —    | —    |
| Amplitude Unbalance | 5 - 120MHz  | dB    | —   | —    | 00.5 |
| Phase Unbalance     | 5 - 120 MHz | °     | —   | —    | 2.0° |

## 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            |
| Operating/Storage Temperature | -55°C to +100°C  |

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

## Recommended PCB Configuration



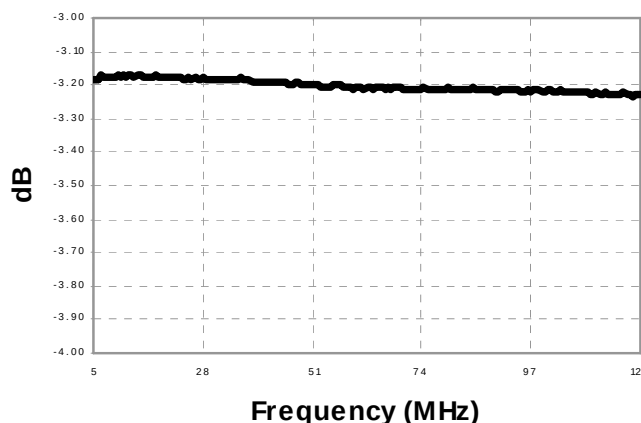
SUGGESTED  
FOOTPRINT FOR  
PCB DESIGN

2 Way 0° Power Divider  
50-120MHz

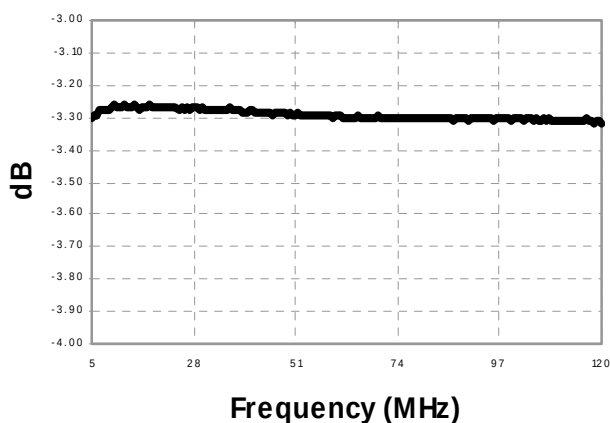
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Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$  <sup>1</sup>

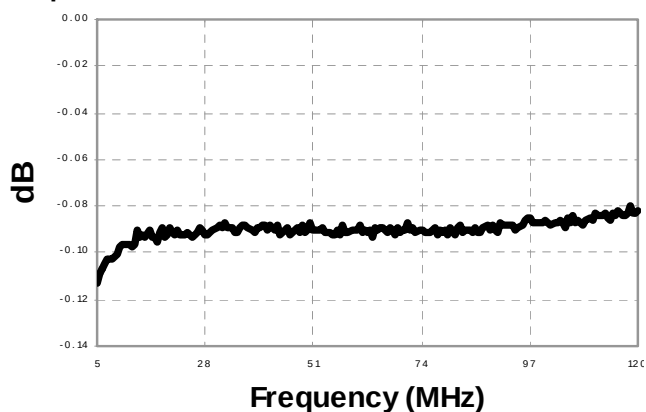
Insertion Loss 1: Pin 4 to 1



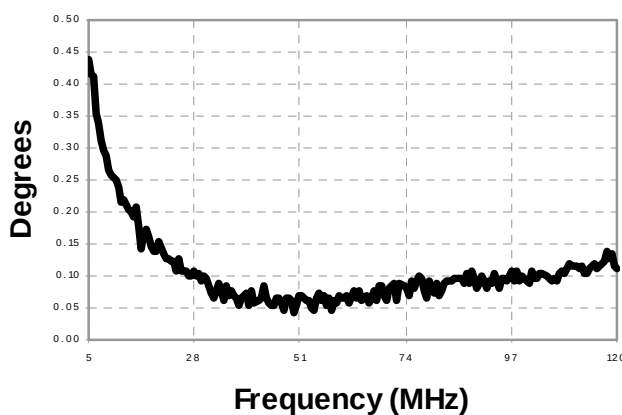
Insertion Loss 2: Pin 4 to 6



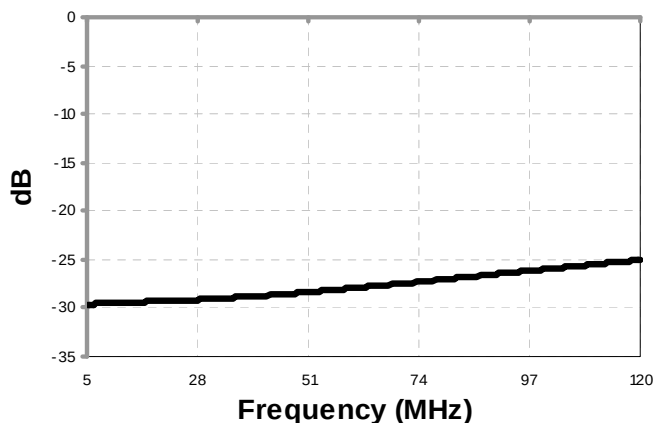
Amplitude Unbalance



Phase Unbalance



Isolation



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**PRELIMINARY:** Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

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