

## 2 Way 0° Power Divider 40-1000MHz

MAPD-007874-C20960  
V1

### Features

- Surface Mount
- 2 Way 0° Power Divider
- 260°C Reflow Compatible
- RoHS\* Compliant
- RoHS version of MACPES0045
- Available on Tape and Reel. Reel quantity 1000

### Description

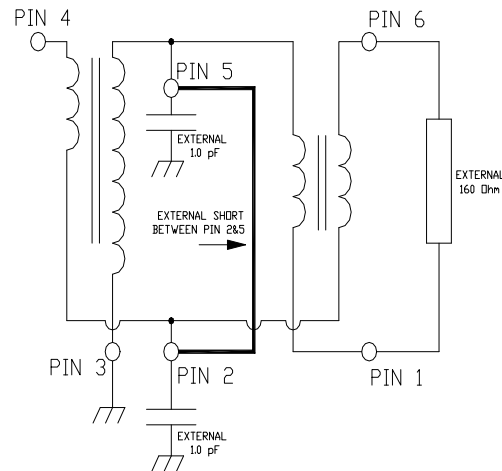
M/A-COM's MAPD-007874-C20960 is a 2 way 0° power divider in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications. Two 0603 1pf capacitors and one 160 Ohm resistor are required with this part.



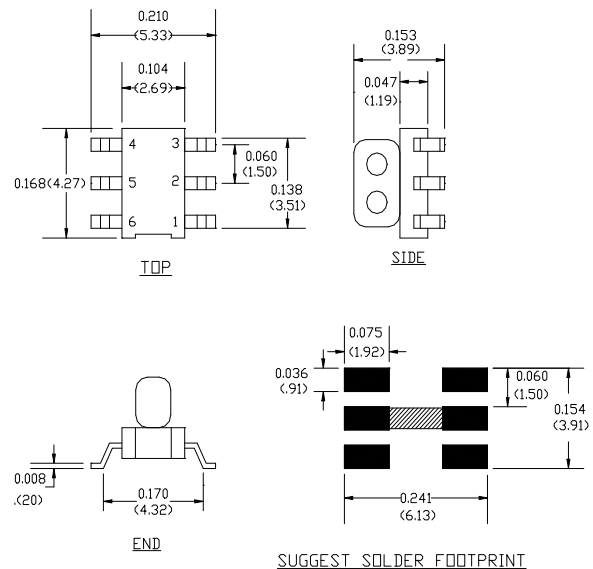
### Pin Configuration

Pin No.	Function
1	Output 1
3	Ground
4	Input
5	2 x External shunt 1pf Cap, short pin 2 & 5 together.
6	Output 2

### Schematic



### Case Style: SM-150



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

### Ordering Information

Part Number	Package
MAPD-007874-C20960	1000
MAPD-007874-C209TB	Customer Test Board

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

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

**ADVANCED:** Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

**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.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400  
• **India** Tel: +91.80.4155721 • **China** Tel: +86.21.2407.1588

Visit [www.macomtech.com](http://www.macomtech.com) for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

2 Way 0° Power Divider  
40-1000MHz

MAPD-007874-C20960  
V1

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

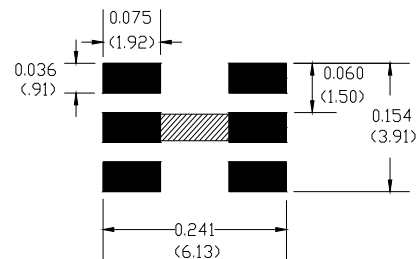
Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss (above -3dB)	40 - 700 MHz	dB	-	0.3	0.8
	700 - 850 MHz	dB	-	0.5	1.0
	850 - 870 MHz	dB	-	0.9	1.2
	870 - 1000 MHz	dB	-	1.0	1.4
Isolation	40 - 1000 MHz	dB	18	25	-
Amplitude Unbalance	40 - 1000 MHz	dB	-	0.2	0.5
Phase Unbalance	40 - 1000 MHz	°	-	0.5	5
Input Return Loss	40 - 700 MHz	dB	15	25	-
	700 - 1000 MHz	dB	12	18	-
Output Return Loss 1	40 - 440 MHz	dB	15	20	-
	440 - 700 MHz	dB	12	16	-
	700 - 1000 MHz	dB	10	13	-
Output Return Loss 2	40 - 440 MHz	dB	13	16	-
	440 - 700 MHz	dB	15	18	-
	700 - 1000 MHz	dB	11	14	-

## Absolute Maximum Ratings<sup>1,2</sup>

Parameter	Absolute Maximum
RF Power	1 W
Internal Load Dissipation	0.125 Watt
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°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



2

**ADVANCED:** Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

**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.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400  
• **India** Tel: +91.80.4155721 • **China** Tel: +86.21.2407.1588

Visit [www.macomtech.com](http://www.macomtech.com) for additional data sheets and product information.

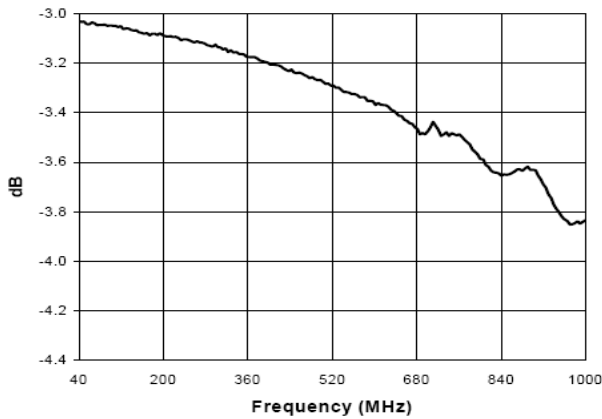
M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

2 Way 0° Power Divider  
40-1000MHz

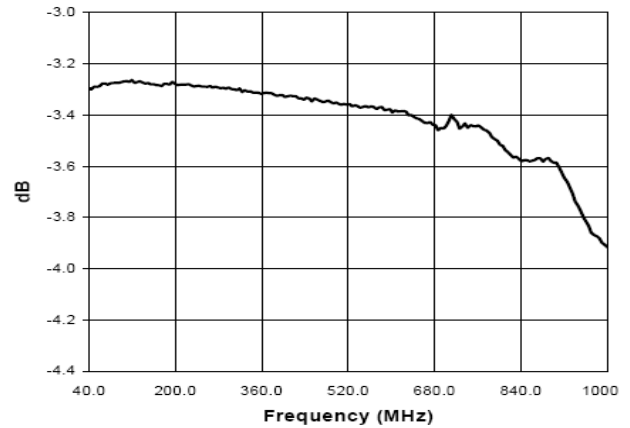
MAPD-007874-C20960  
V1

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

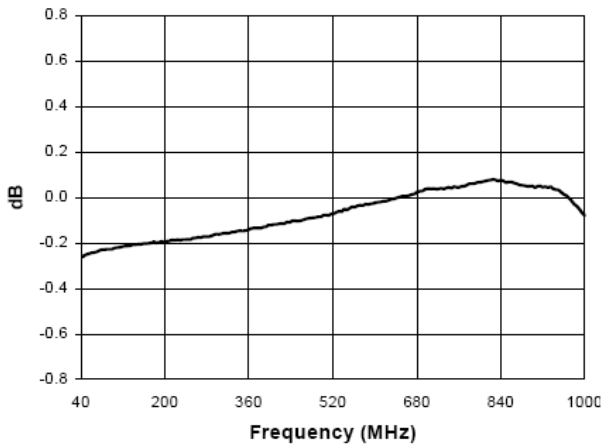
Insertion Loss 1: Pin 4 to 1



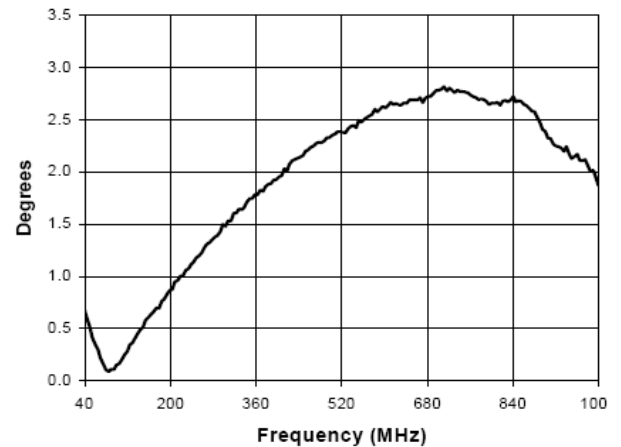
Insertion Loss 2: Pin 4 to 6



Amplitude Unbalance



Phase Unbalance

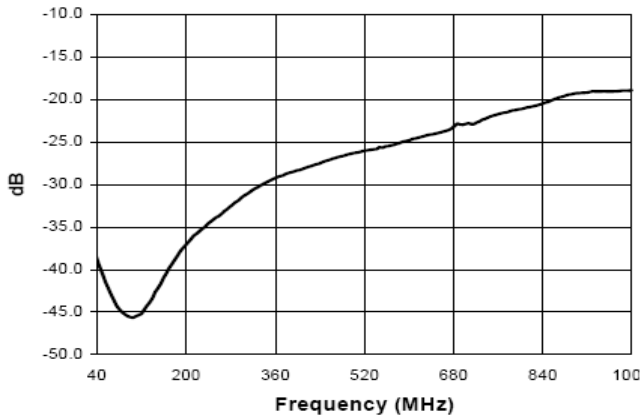


2 Way 0° Power Divider  
40-1000MHz

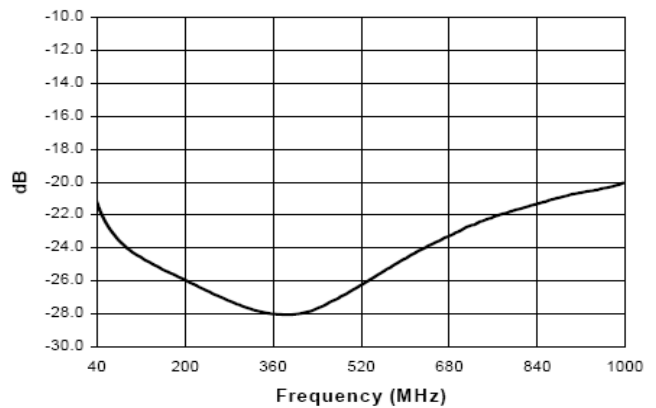
MAPD-007874-C20960  
V1

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

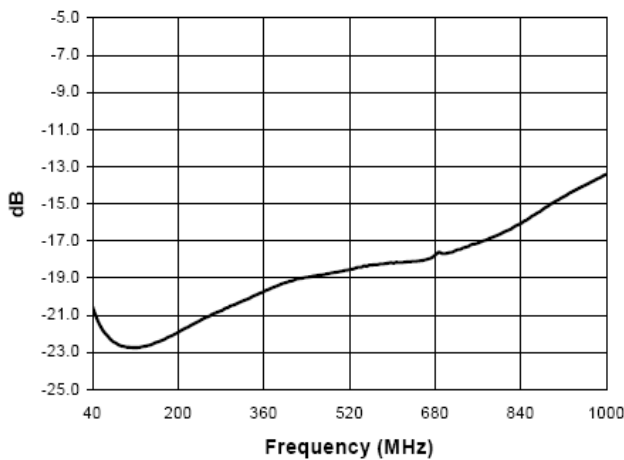
Return Loss: Input



Isolation



Return Loss: Output 1



Return Loss: Output 2

