



MAPD-007874-C20960

2 Way 0° Power Divider 40-1000MHz

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

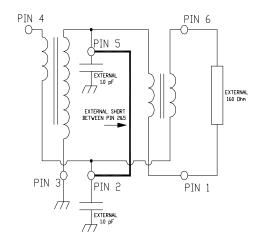
Pin No.	Function		
1	Output 1		
3	Ground		
4	Input		
5	2 x External shunt 1pf Cap, short pin 2 & 5 together.		
6	Output 2		

Ordering Information

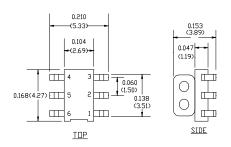
Part Number	Package		
MAPD-007874-C20960	1000		
MAPD-007874-C209TB	Customer Test Board		

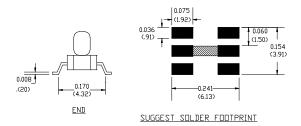
Note: Reference Application Note M513 for reel size information.

Schematic



Case Style: SM-150





Dimensions in inches [mm] Tolerance: $.xx \pm .02$, $.xxx \pm .010$

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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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^{*} Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.





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Electrical Specifications: $T_A = 25^{\circ}C$, $Z_0 = 75\Omega^{1}$

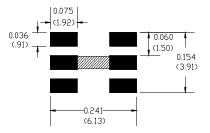
Parameter	Frequency	Units	Min	Тур	Max
Insertion Loss (above -3dB)	40 - 700 MHz 700 - 850 MHz 850 - 870 MHz 870 - 1000 MHz	dB dB dB dB	- - - -	0.3 0.5 0.9 1.0	0.8 1.0 1.2 1.4
Isolation	40 - 1000 MHz	dB	18	25	-
Amplitude Unbalance	40 - 1000 MHz	dB	-	0.2	0.5
Phase Unbalance	40 - 1000 MHz	0	-	0.5	5
Input Return Loss	40 - 700 MHz 700 - 1000 MHz	dB dB	15 12	25 18	
Output Return Loss 1	40 - 440 MHz 440 - 700 MHz 700 - 1000 MHz	dB dB dB	15 12 10	20 16 13	- - -
Output Return Loss 2	40 - 440 MHz 440 - 700 MHz 700 - 1000 MHz	dB dB dB	13 15 11	16 18 14	

Absolute Maximum Ratings ^{1,2}

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		

^{1.} Exceeding any one or combination of these limits may cause permanent damage to this device.

Recommended PCB Configuration



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^{2.} M/A-COM does not recommend sustained operation near these survivability limits.

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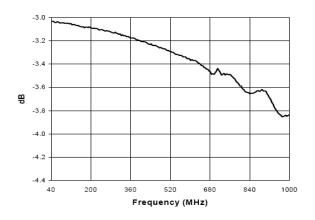


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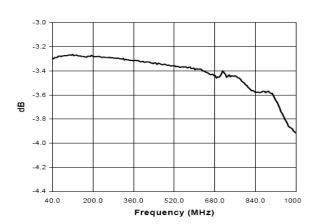
MAPD-007874-C20960

Typical Performance Curves: $T_A = 25^{\circ}C$, $Z_0 = 75\Omega^{1}$

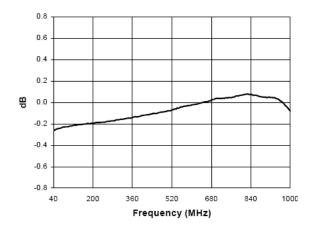
Insertion Loss 1: Pin 4 to 1



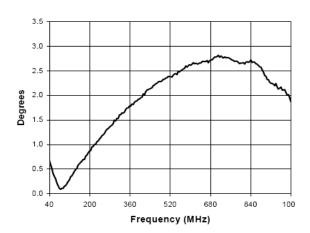
Insertion Loss 2: Pin 4 to 6



Amplitude Unbalance



Phase Unbalance



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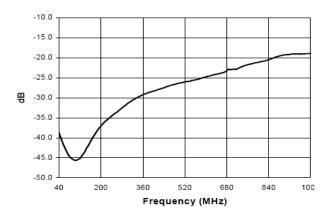


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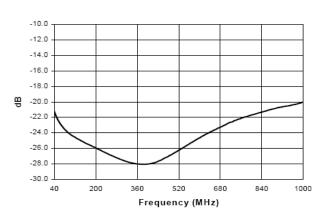
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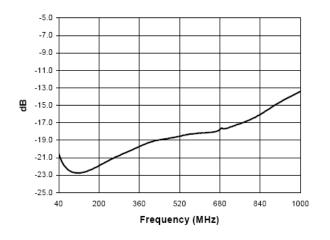
Return Loss: Input



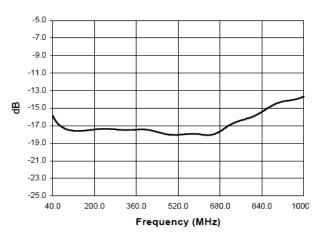
Isolation



Return Loss: Output 1



Return Loss: Output 2



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