

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

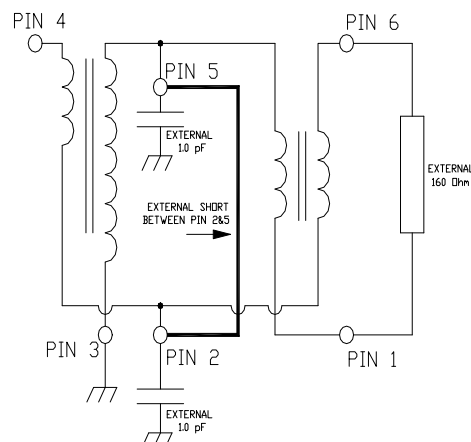
M/A-COM's MAPD-007874-C20960 is a 2 way 0° power divider in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications. Two 0603 1pf capacitors and one 160 Ohm resistor are required with this part.



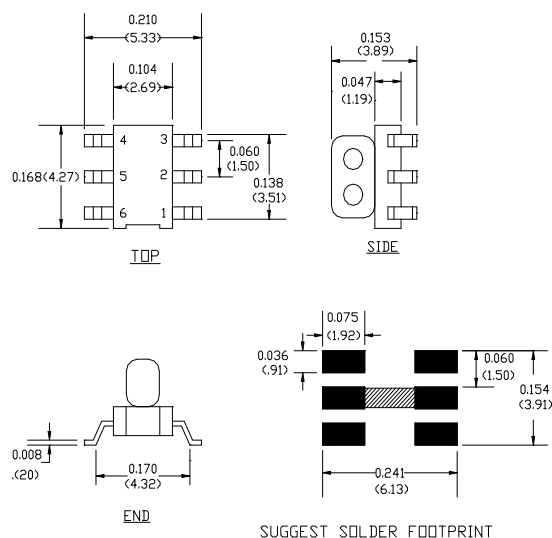
Pin Configuration

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



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.

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

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

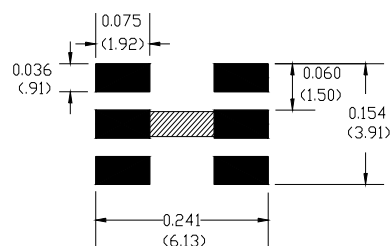
Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss (above -3dB)	40 - 700 MHz	dB	-	0.3	0.8
	700 - 850 MHz	dB	-	0.5	1.0
	850 - 870 MHz	dB	-	0.9	1.2
	870 - 1000 MHz	dB	-	1.0	1.4
Isolation	40 - 1000 MHz	dB	18	25	-
Amplitude Unbalance	40 - 1000 MHz	dB	-	0.2	0.5
Phase Unbalance	40 - 1000 MHz	°	-	0.5	5
Input 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 ^{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

- 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

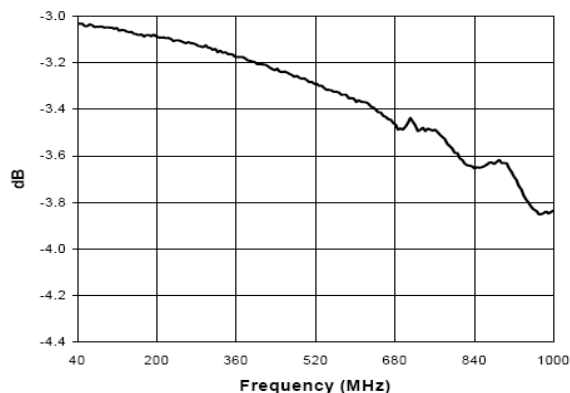


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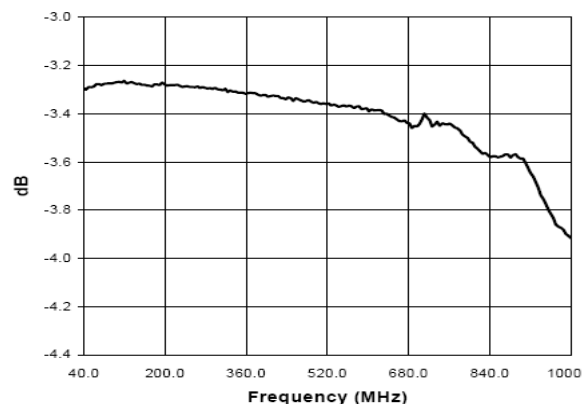
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

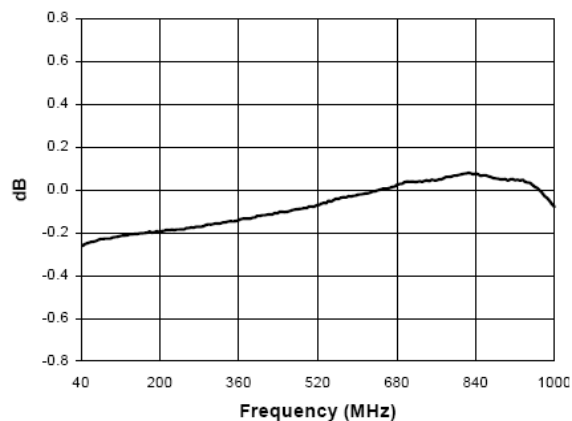
Insertion Loss 1: Pin 4 to 1



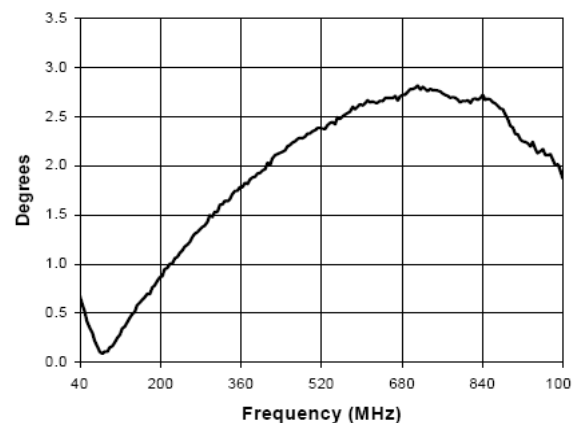
Insertion Loss 2: Pin 4 to 6



Amplitude Unbalance



Phase Unbalance

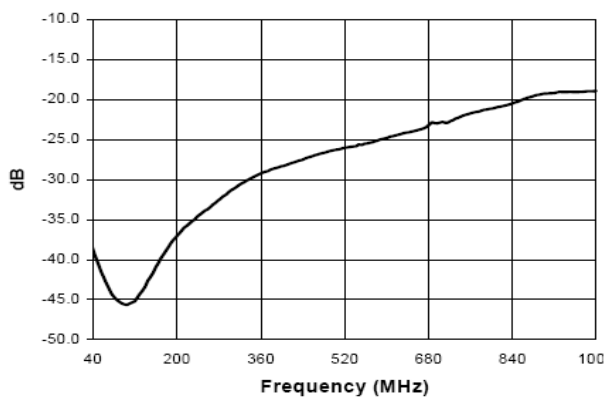


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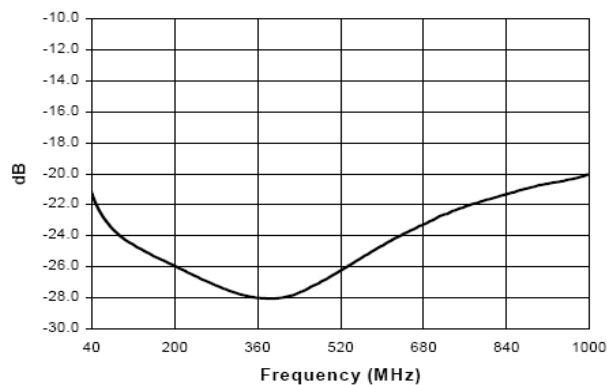
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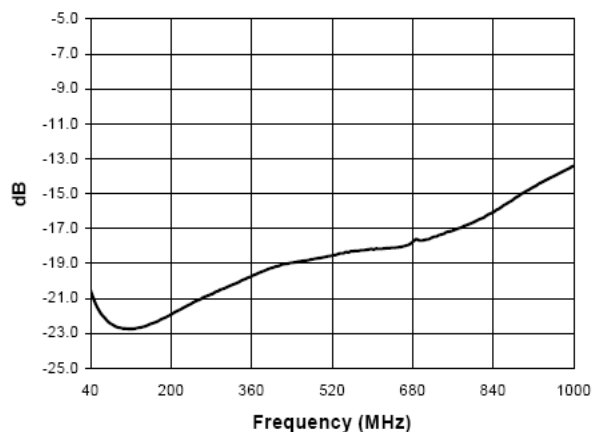
Return Loss: Input



Isolation



Return Loss: Output 1



Return Loss: Output 2

