

# MAPDCT0033



2 Way 0° Power Divider  
5-1000MHz

M/A-COM Products  
Rev. V2

## Features

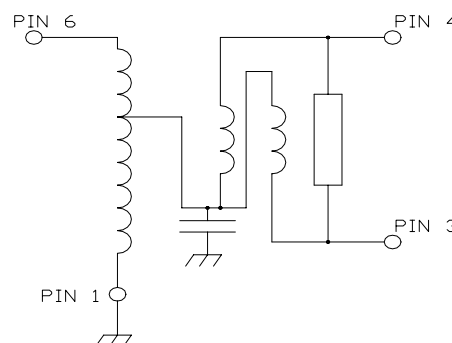
- Surface Mount
- 2 Way 0 degree
- 260°C Reflow Compatible
- RoHS\* Compliant
- RoHS version of ELPD-20-1
- Available on Tape and Reel. Reel quantity 900

## Description

M/A-COM's MAPDCT0033 is 2 way 0 degree RF power divider in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications.



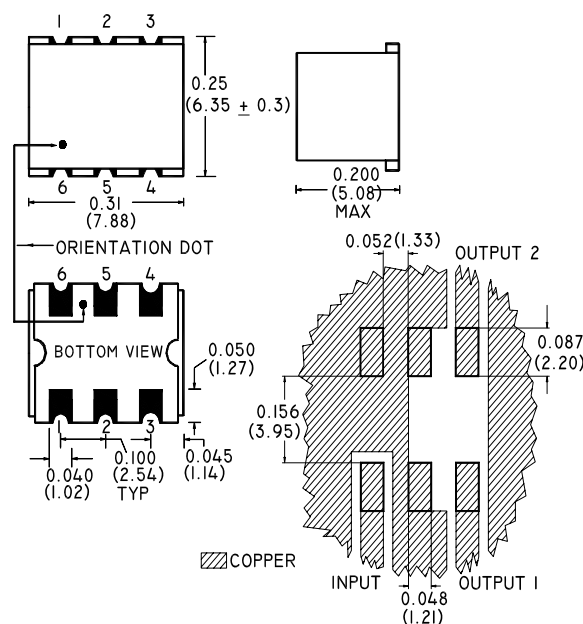
## Schematic



## Pin Configuration

Pin No.	Function
1	Ground
2	Not connected (ground)
3	Output 1
4	Output 2
5	Not connected (ground)
6	Input

## Case Style: SM-139



FOOTPRINT FOR PC DESIGN

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

## Ordering Information

Part Number	Package
MAPDCT0033	900 piece reel
MAPD-008086-CT33TB	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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- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
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Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$  <sup>1</sup>

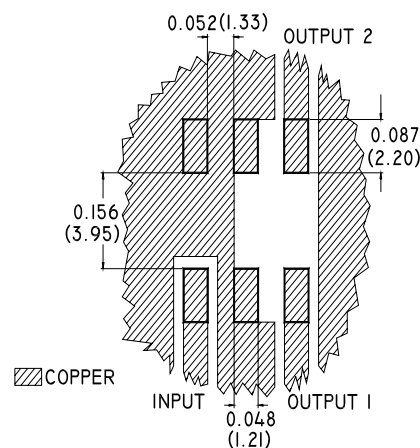
Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss	5 - 50 MHz	dB	-	0.2	0.5
	50 - 500 MHz	dB	-	0.5	0.8
	500 - 1000 MHz	dB	-	1.0	1.3
Amplitude Unbalance (Nominal 0dB)	5 - 50 MHz	dB	-	0.0	$\pm 0.1$
	50 - 500 MHz	dB	-	0.0	$\pm 0.3$
	500 - 1000 MHz	dB	-	0.1	$\pm 0.5$
Phase Unbalance (Nominal 0°)	5 - 50 MHz	°	-	0.0	$\pm 1.0$
	50 - 500 MHz	°	-	0.4	$\pm 3.0$
	500 - 1000 MHz	°	-	0.8	$\pm 4.0$
Return Loss: Input	5 - 750 MHz	dB	18	35	-
	750 - 1000 MHz	dB	12	25	-
Return Loss: Output	5 - 750 MHz	dB	18	22	-
	750 - 1000 MHz	dB	15	24	-
Isolation (between outputs)	5 - 50 MHz	dB	22	26	-
	50 - 500 MHz	dB	22	29	-
	500 - 1000 MHz	dB	18	22	-

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

Parameter	Absolute Maximum
Max Input Power	1W
DC current	240mA
Operating Temperature	-40°C to +85°C
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



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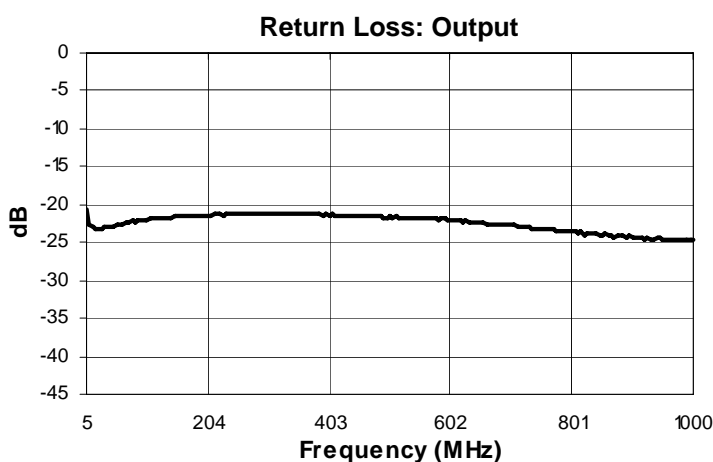
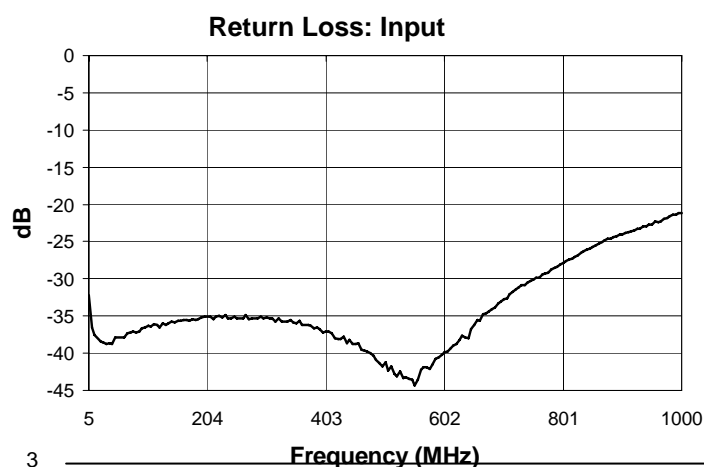
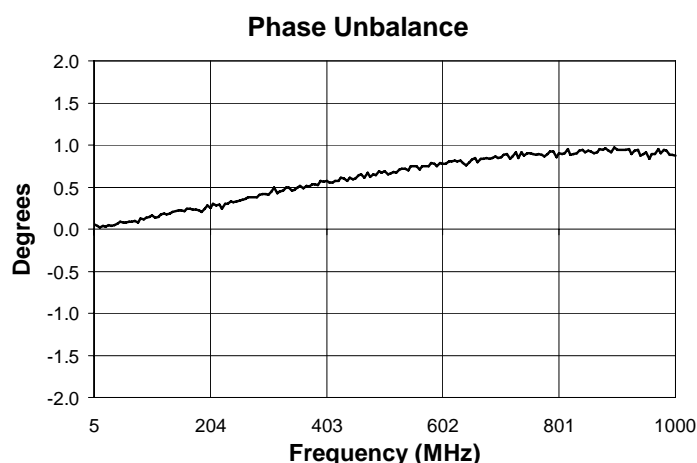
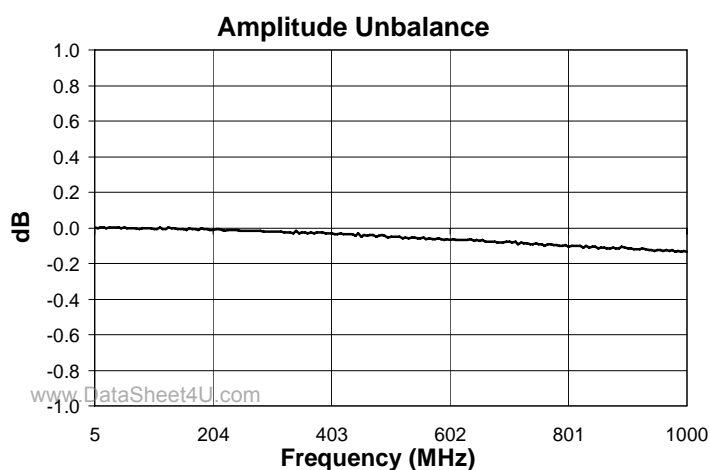
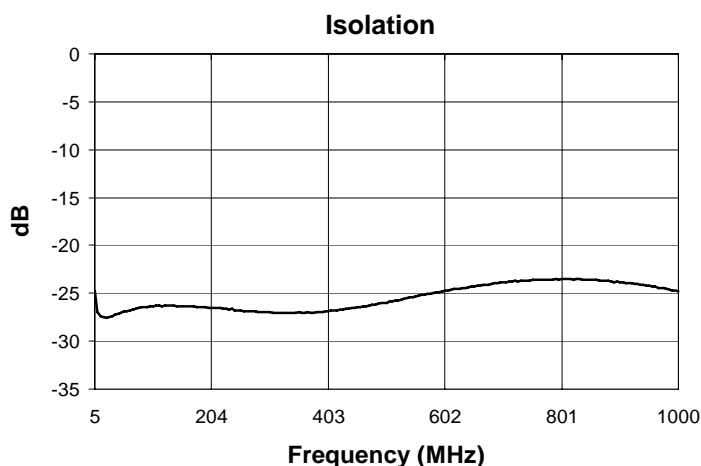
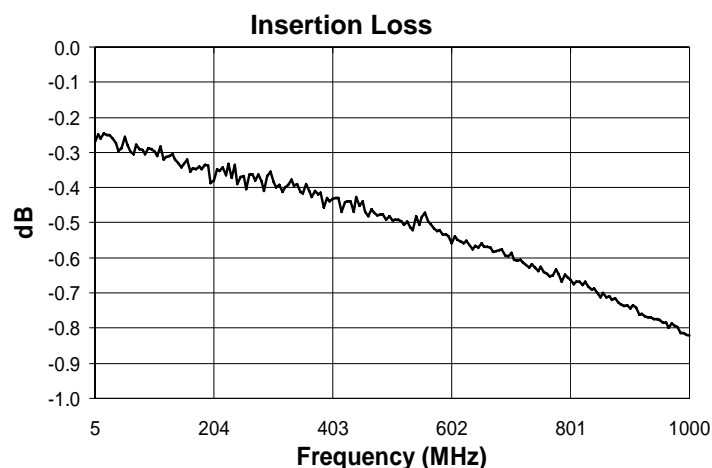
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Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$ <sup>1</sup>



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