

4 Way 0° Power divider  
5-1000MHz

MAPDCT0028  
V2P

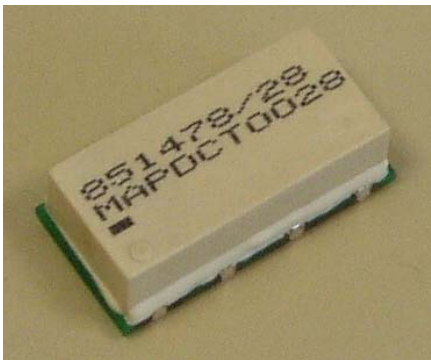
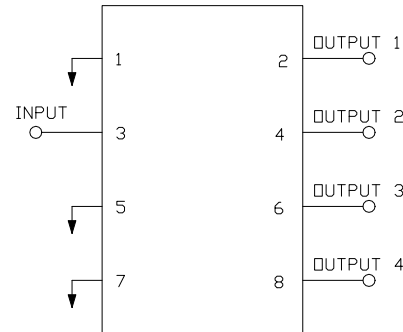
## Features

- Surface Mount
- 4 Way 0 degree
- 260°C Reflow Compatible
- RoHS\* Compliant
- RoHS version of ESJ-4-2-75
- Available on Tape and Reel. Reel quantity 300

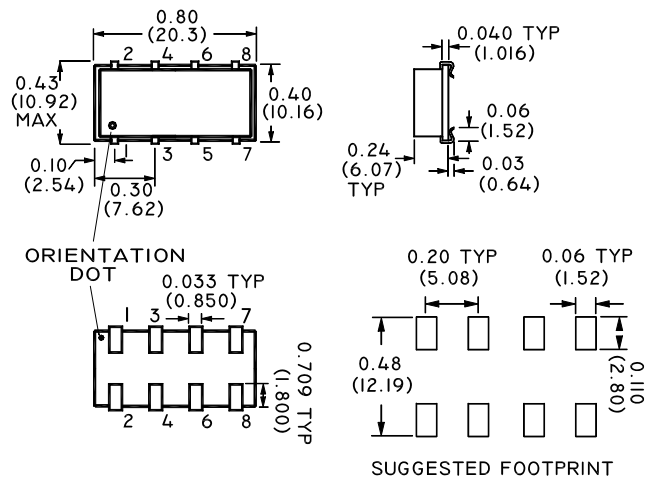
## Description

M/A-COM's MAPDCT0028 is a 4 way, high performance 0 degree, RF power divider in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications.

## Functional Block Diagram



## Case Style: SM-46



## Pin Configuration

Pin No.	Function
1	Ground
2	Output 1
3	Input
4	Output 2
5	Ground
6	Output 3
7	Ground
8	Output 4

Dimensions in inches [mm].  
Tolerance where not specified: .xx ± .02, .xxx ± .010

## Ordering Information

Part Number	Package
MAPDCT0028TR	300 piece reel

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

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

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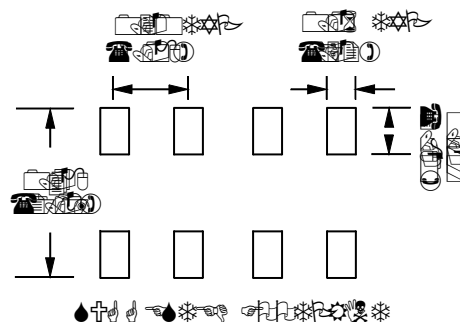
## Electrical Specifications: $T_A = 25^\circ\text{C}$ , $Z_0 = 75\Omega$ <sup>1</sup>

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss	-	5 - 80 MHz	dB	-	0.6	0.7
		80 - 870 MHz	dB	-	0.7	1.2
		870 - 1000 MHz	dB	-	1.1	1.4
Isolation (between outputs 1&2 and outputs 3&4)	-	5-10 MHz	dB	17	25	-
Isolation (between all outputs)	-	5 - 800 MHz	dB	20	40	-
		800 - 1000 MHz	dB	18	21	-
Amplitude Unbalance (Nominal 0dB)	-	5 - 80 MHz	dB	-	0.0	$\pm 0.1$
		80 - 1000 MHz	dB	-	0.3	$\pm 0.5$
Phase Unbalance (Nominal 0°)	-	5 - 80 MHz	°	-	0.1	$\pm 1.0$
		80 - 500 MHz	°	-	0.5	$\pm 3.0$
		500 - 870 MHz	°	-	1.0	$\pm 6.0$
		870 - 1000 MHz	°	-	1.0	$\pm 8.0$
Return Loss: Input	-	5 - 80 MHz	dB	21	25	-
		80 - 870 MHz	dB	17	21	-
		870 - 1000 MHz	dB	15	17	-
Return Loss: Output	-	5 - 10 MHz	dB	13	18	-
		10 - 1000 MHz	dB	16	19	-

## 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

## Recommended PCB Configuration



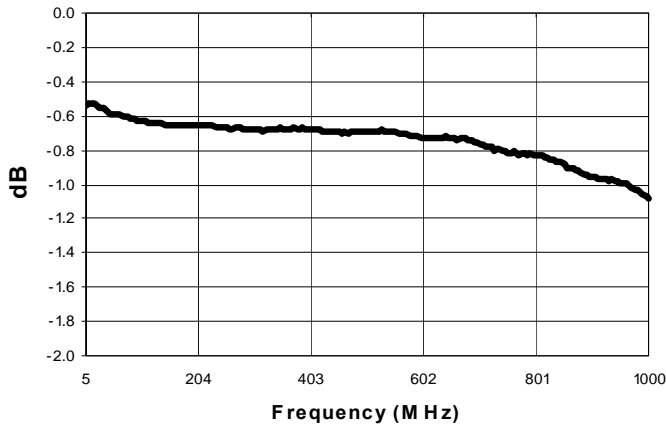
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

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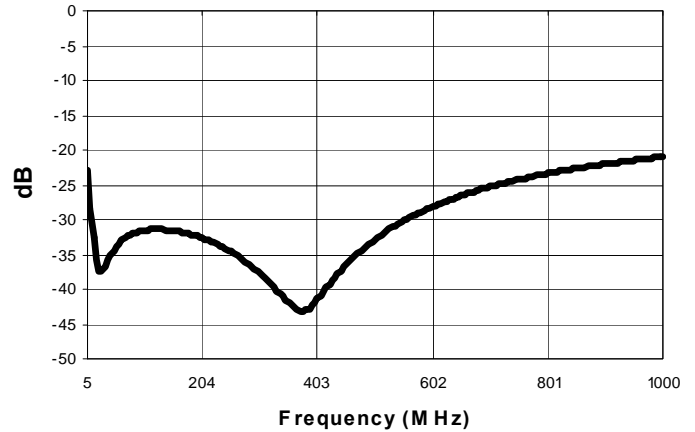
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Typical Performance Curves  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$

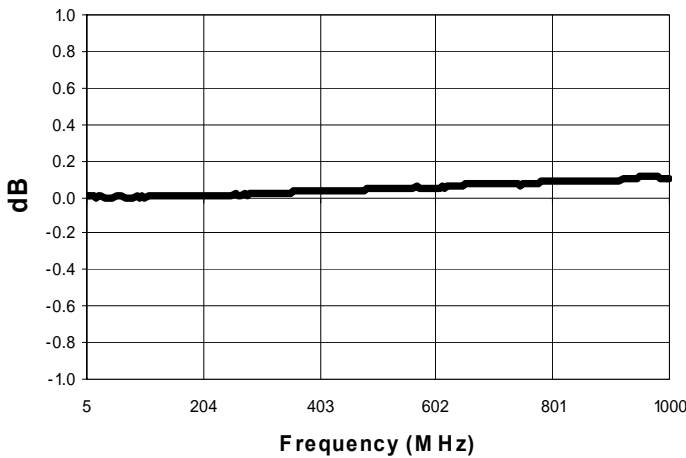
Insertion Loss



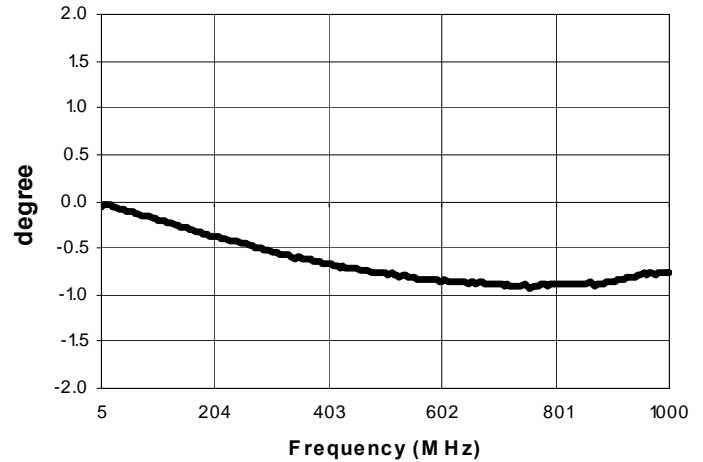
Isolation



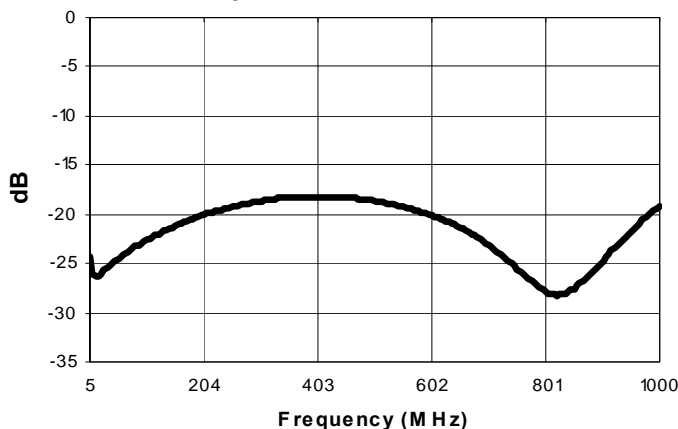
Amplitude Unbalance



Phase Unbalance



Return Loss: Input



Return Loss: Output

