

4 Way 0° Power divider
5-1000MHz

MAPDCT0028
V2P

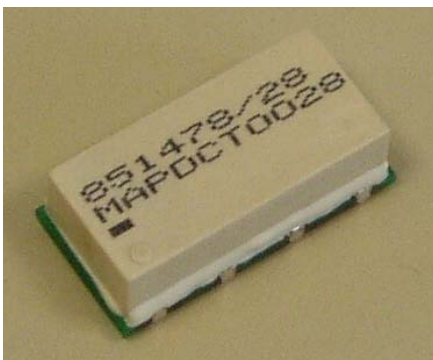
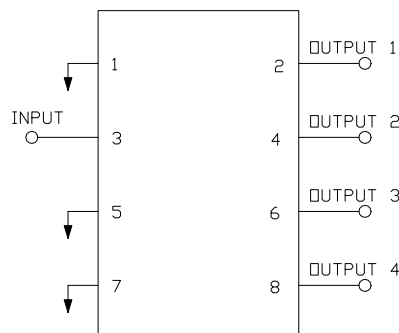
Features

- 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

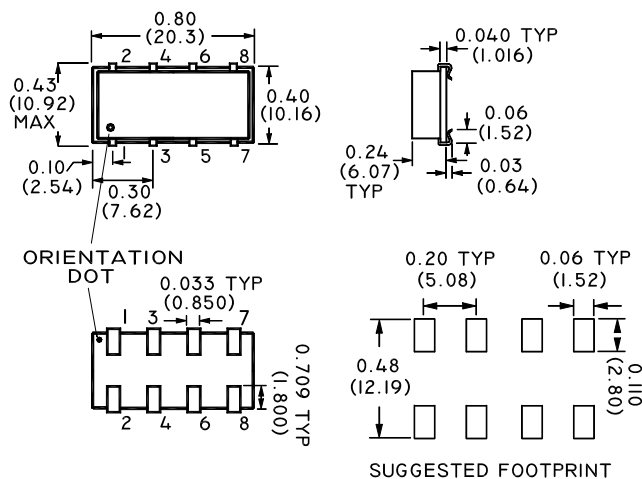
Description

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.

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 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.

4 Way 0° Power divider
5-1000MHz

MAPDCT0028
V2P

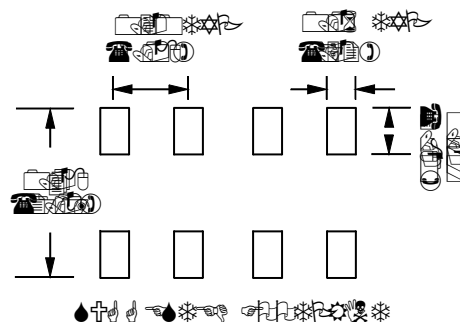
Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

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	± 0.1
		80 - 1000 MHz	dB	-	0.3	± 0.5
Phase Unbalance (Nominal 0°)	-	5 - 80 MHz	°	-	0.1	± 1.0
		80 - 500 MHz	°	-	0.5	± 3.0
		500 - 870 MHz	°	-	1.0	± 6.0
		870 - 1000 MHz	°	-	1.0	± 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 ^{1,2}

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



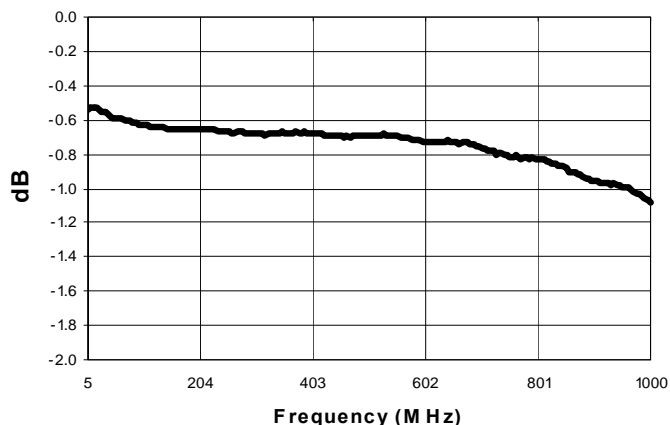
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

4 Way 0° Power divider
5-1000MHz

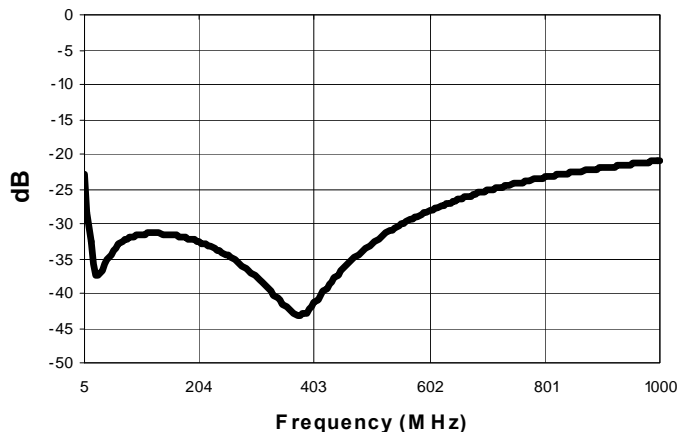
MAPDCT0028
V2P

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

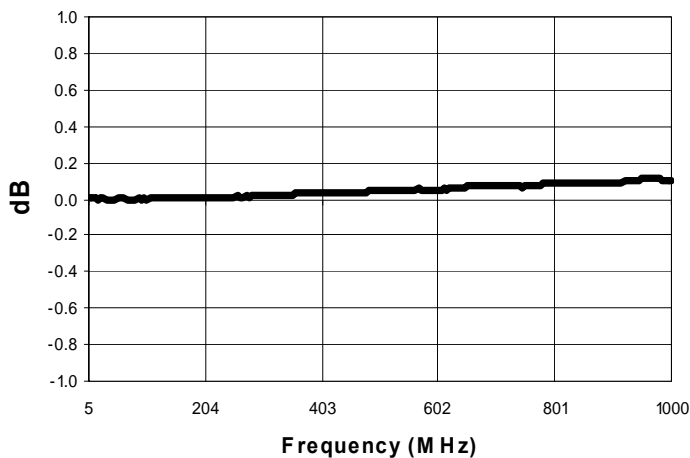
Insertion Loss



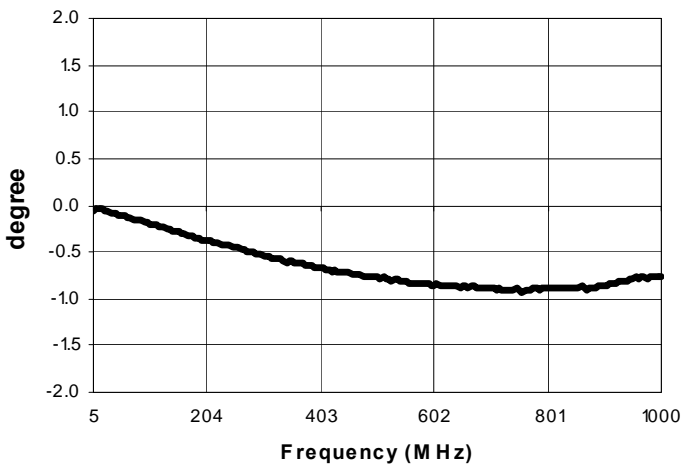
Isolation



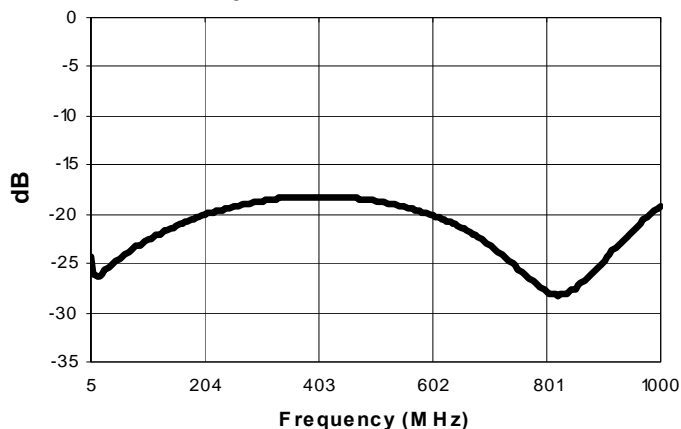
Amplitude Unbalance



Phase Unbalance



Return Loss: Input



Return Loss: Output

