

2 Way 0° Power Divider 5-1000MHz

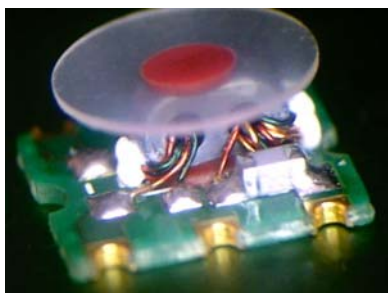
MAPDCT0027
V1

Features

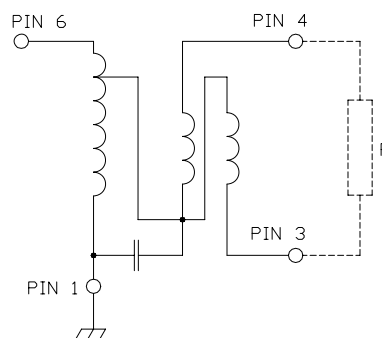
- Surface Mount
- 2 Way 0 degree
- 260°C Reflow Compatible
- RoHS* Compliant
- RoHS version of MACPES0007
- Available on Tape and Reel. Reel quantity 900

Description

M/A-COM's MAPDCT0027 is 2 way 0 degree RF power divider in a low cost, surface mount package. An external 180 Ohm resistor is required between the two outputs ports. Ideally suited for high volume CATV/Broadband applications.



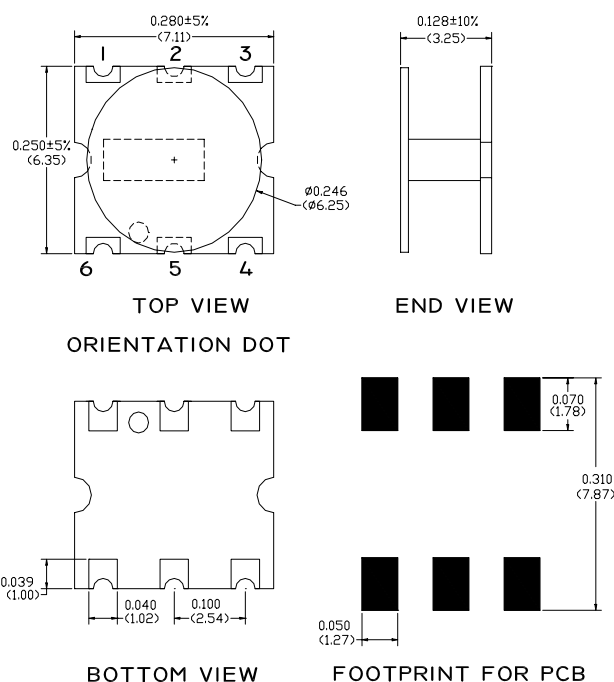
Schematic



Pin Configuration

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

Case Style: SM-55A



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

Ordering Information

Part Number	Package
MAPDCT0027TR	900 piece reel
MAPD-008071-CT27TB	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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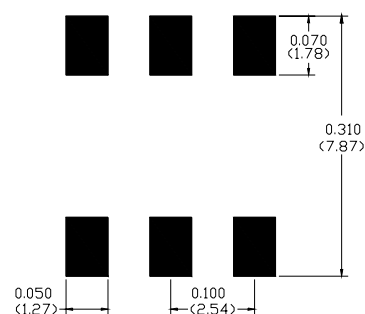
Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss	-	5 - 500 MHz	dB	-	0.4	0.7
		500 - 1000 MHz	dB	-	0.7	1.0
Amplitude Unbalance (Nominal 0dB)	-	5 - 500 MHz	dB	-	0.28	± 0.4
		500 - 1000 MHz	dB	-	0.32	± 0.6
Phase Unbalance (Nominal 180°)	-	5 - 1000 MHz	°	-	1.00	± 3.0
Return Loss: Input	-	5 - 700 MHz	dB	25	33	-
		700 - 870 MHz	dB	22	30	-
		870 - 1000 MHz	dB	18	26	-
Return Loss: Output	-	5 - 40 MHz	dB	15	24	-
		40 - 1000 MHz	dB	19	25	-
Isolation (between outputs)	-	5 - 500 MHz	dB	20	27	-
		500 - 1000 MHz	dB	15	20	-

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



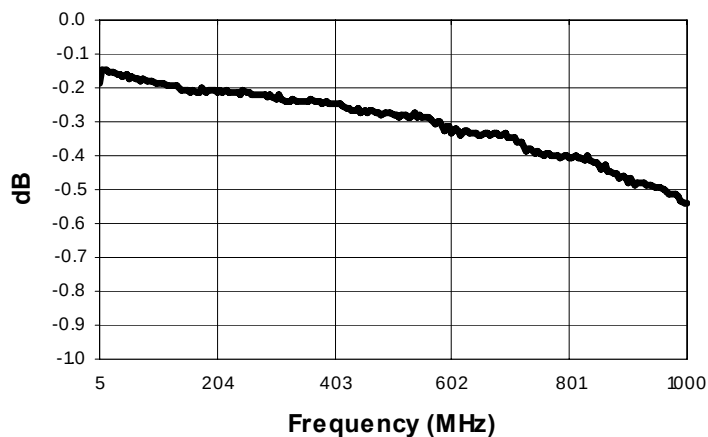
- Exceeding any one or combination of these limits may cause permanent damage to this device.
- M/A-COM does not recommend sustained operation near these survivability limits.

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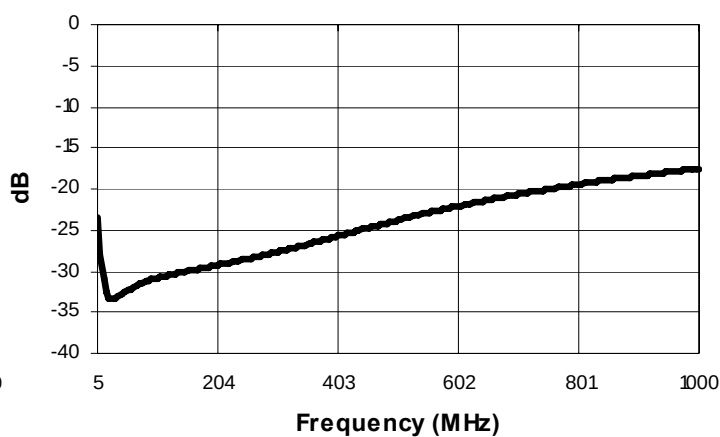
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Typical Performance Curves $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$

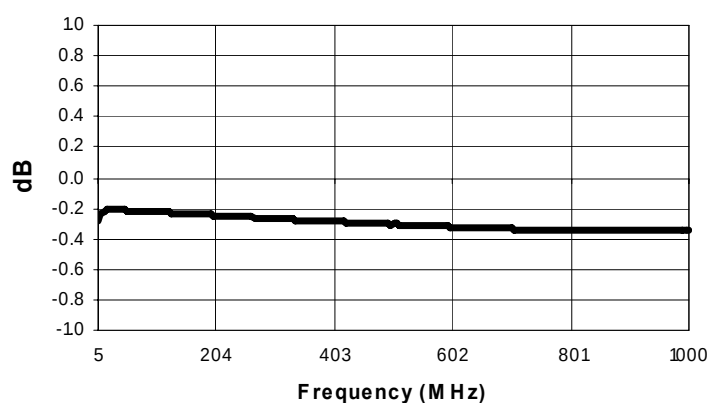
Insertion Loss



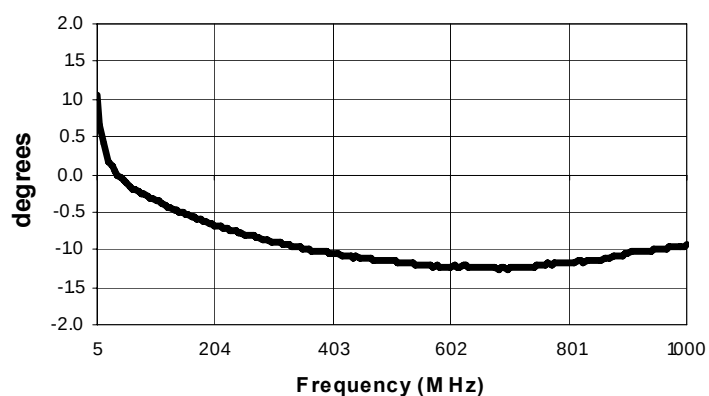
Isolation



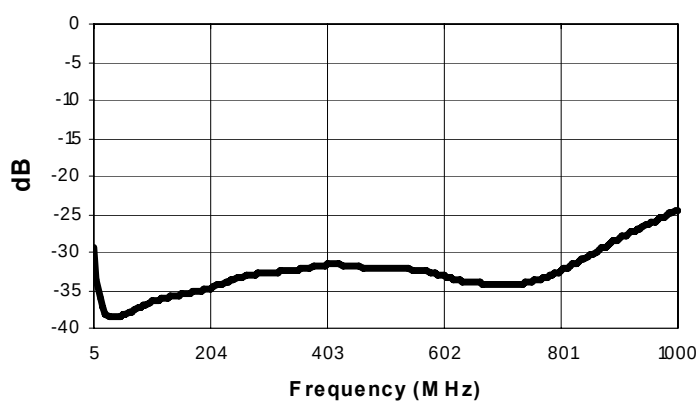
Amplitude Unbalance



Phase Unbalance



Return Loss: Input



Return Loss: Output

