

Features

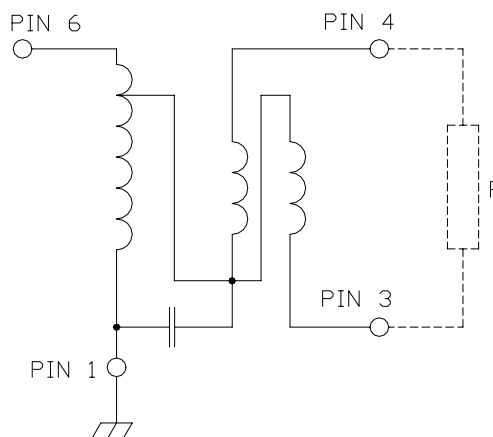
- SMT unit
- 2 Way 0 degree
- 260°C Reflow Compatible
- RoHS* Compliant
- RoHS version of MACPES0007
- Available on Tape and Reel.

Description

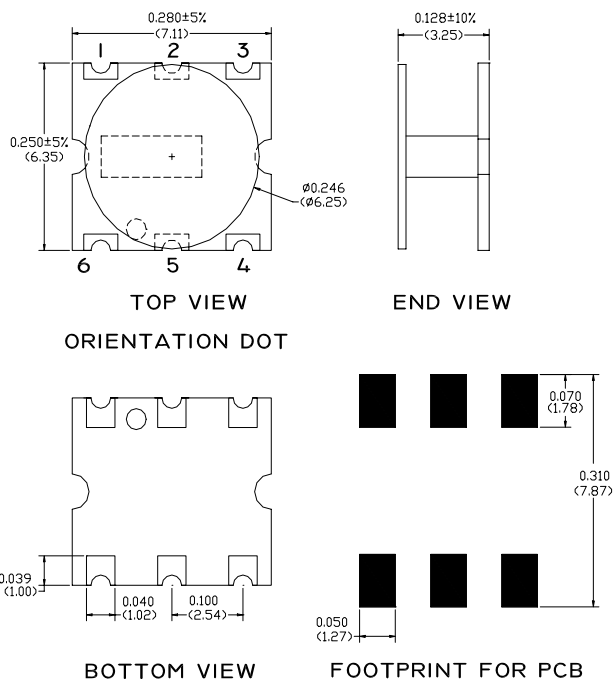
M/A-COM Technology Solutions MAPDCT0027 is 2 way 0 degree RF power divider in a low cost, surface mount package. An external 180 Ohm resistor is required between the two outputs ports. Ideally suited for high volume CATV/Broadband applications.



Schematic



Component Dimensions:



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

Pin Configuration

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

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

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

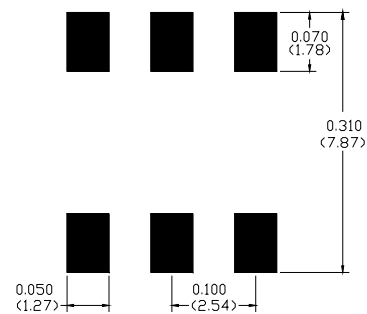
Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss	-	5 - 500 MHz	dB	-	0.4	0.7
		500 - 1000 MHz	dB	-	0.7	1.0
Amplitude Unbalance (Nominal 0dB)	-	5 - 500 MHz	dB	-	0.28	± 0.4
		500 - 1000 MHz	dB	-	0.32	± 0.6
Phase Unbalance (Nominal 180°)	-	5 - 1000 MHz	°	-	1.00	± 3.0
Return Loss: Input	-	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	-

Recommended Maximum Ratings ^{1,2}

Parameter	Value
Max Input Power	1W
DC current	240mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C

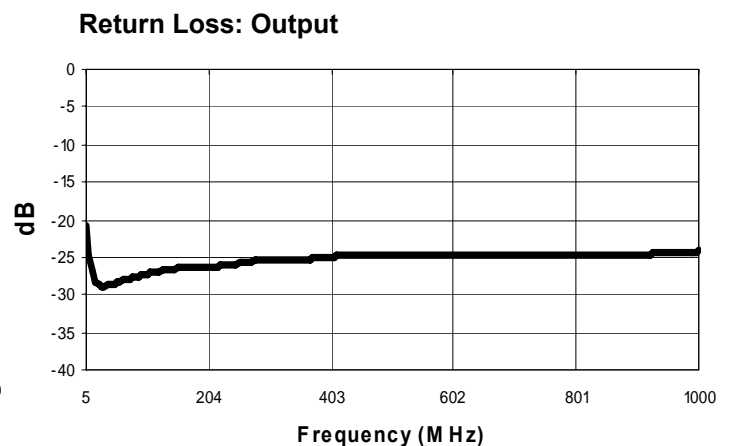
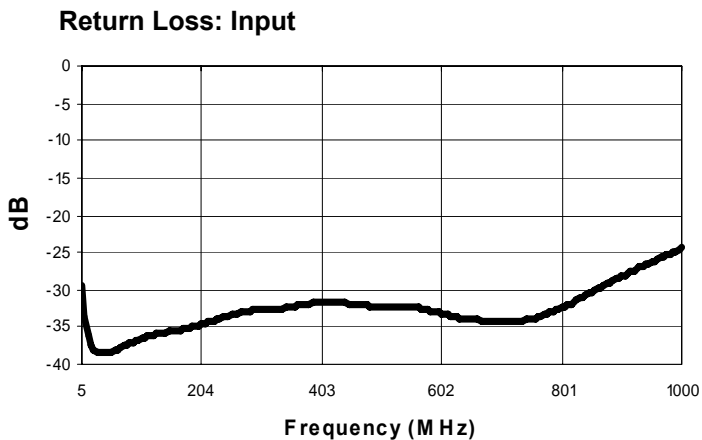
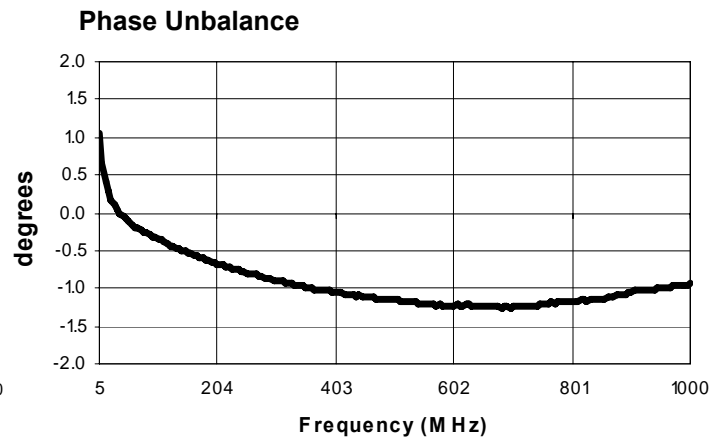
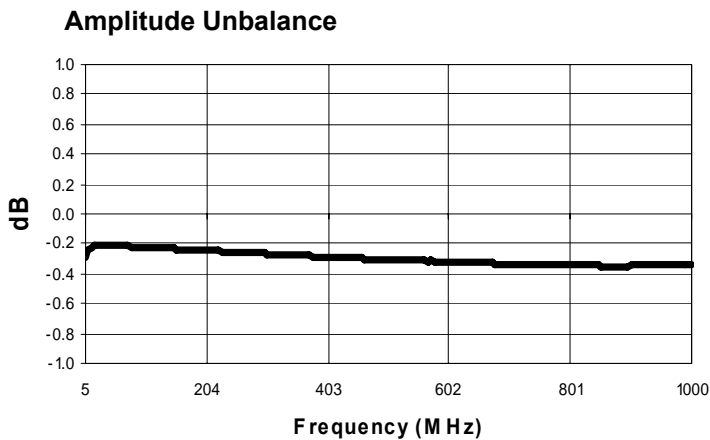
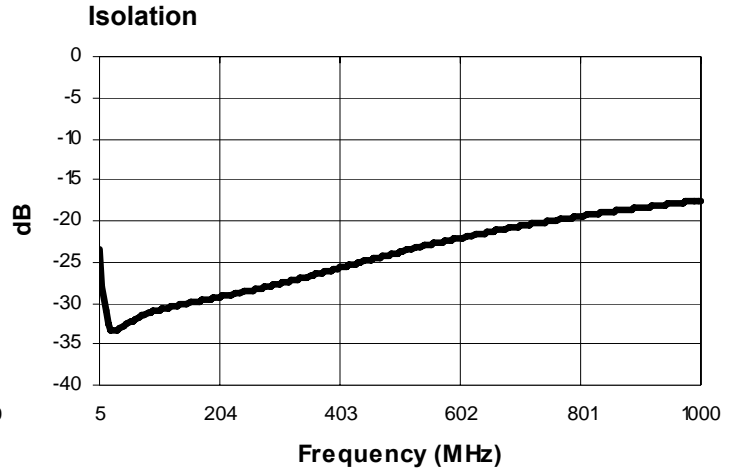
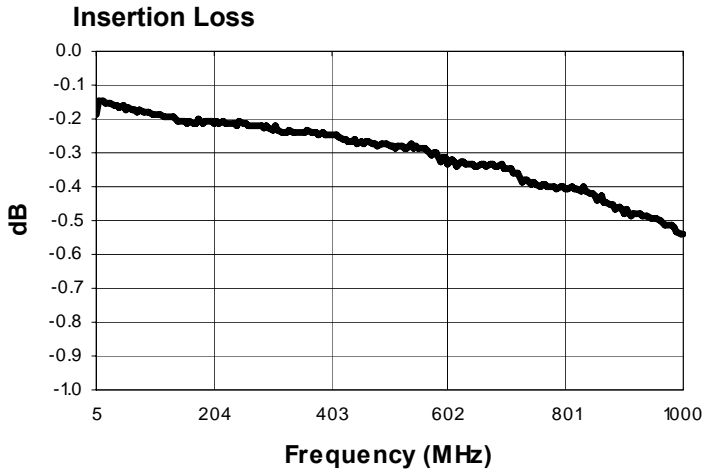
- Exceeding any one or combination of these limits may cause permanent damage to this device.
- M/A-COM Technology Solutions does not recommend sustained operation near these survivability limits.

Recommended PCB Configuration



2 Way 0° Power Divider
5-1000MHz Rev. V3

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



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.

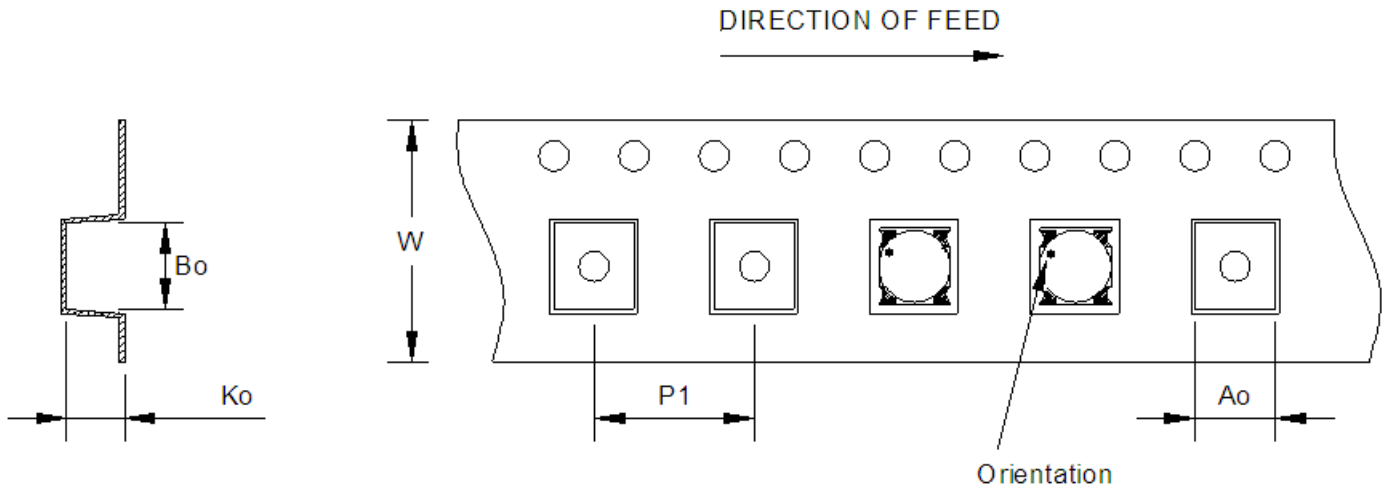
PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

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Visit www.macomtech.com for additional data sheets and product information.

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Tape Specification:



Item	Dimension
Ao	6.70mm +/-0.1mm
Bo	7.50mm +/-0.1mm
Ko	3.60mm +/-0.1mm
W	16.00mm +/-0.3mm
P1	12.00mm +/-0.1mm

Ordering Information

Part Number	Package
MAPDCT0027TR	900 piece reel