

Features

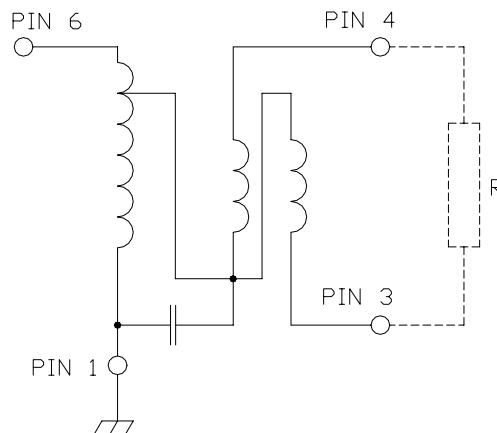
- SMT unit
- 2 Way 0 degree
- 260°C Reflow Compatible
- RoHS* Compliant
- RoHS version of MACPES0007
- Available on Tape and Reel.

Description

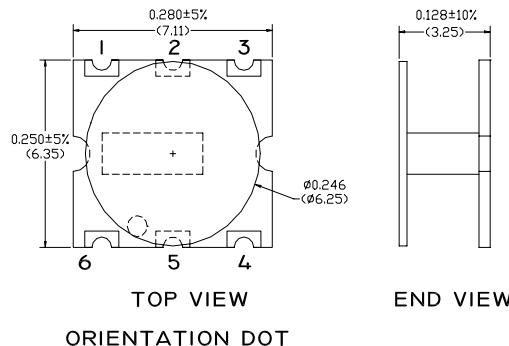
M/A-COM Technology Solutions MAPDCT0027 is 2 way 0 degree RF power divider in a low cost, surface mount package. An external 180 Ohm resistor is required between the two outputs ports. Ideally suited for high volume CATV/Broadband applications.



Schematic

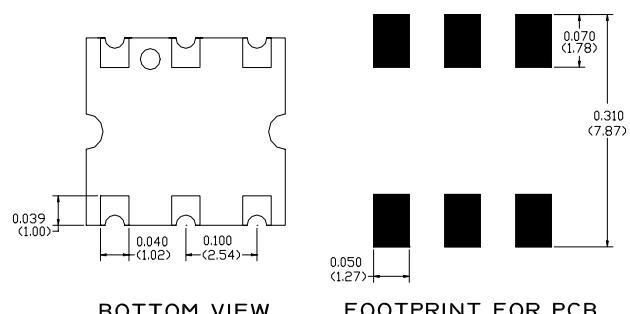


Component Dimensions:



Pin Configuration

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



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

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

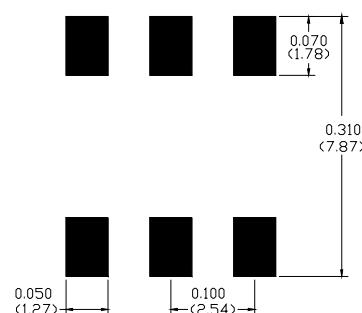
Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

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

Recommended Maximum Ratings ^{1,2}

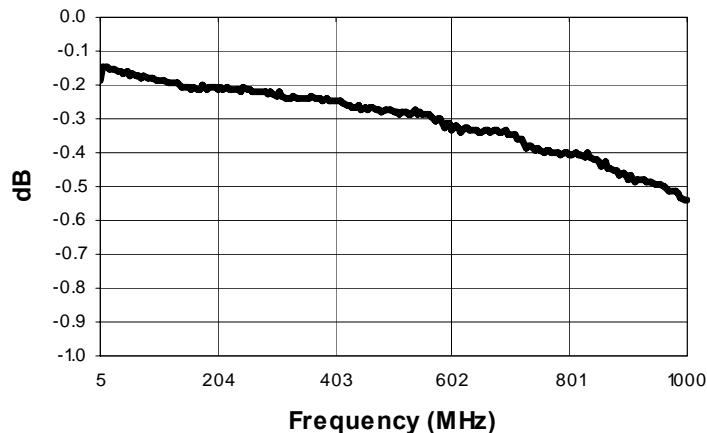
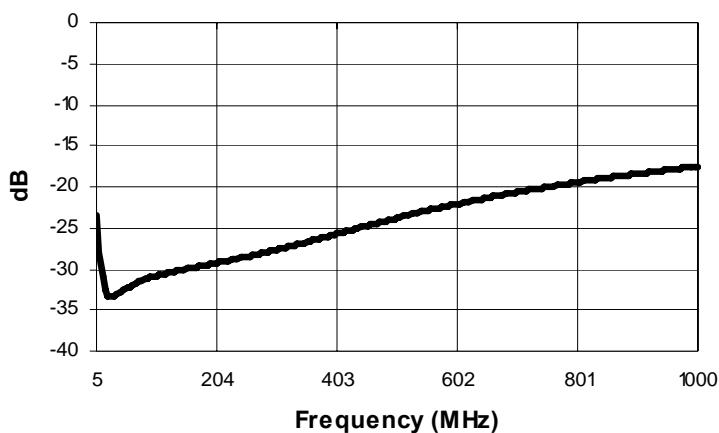
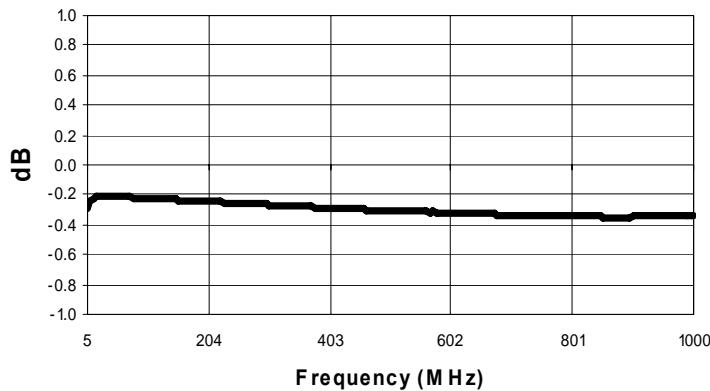
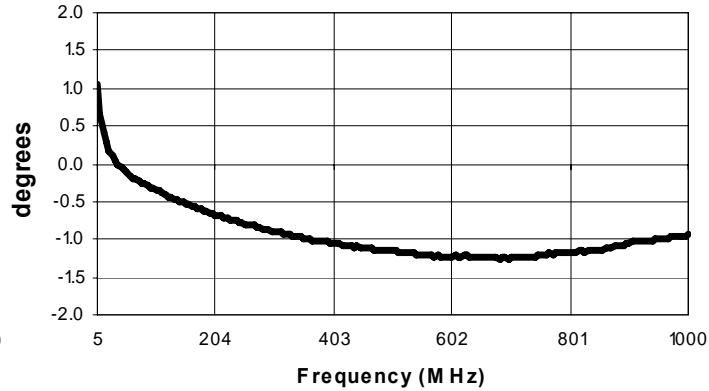
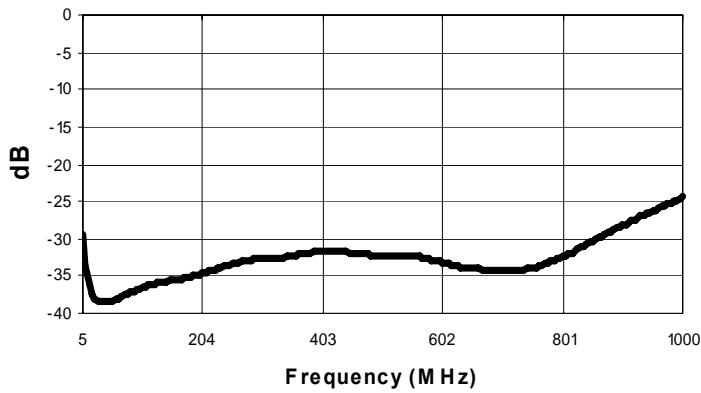
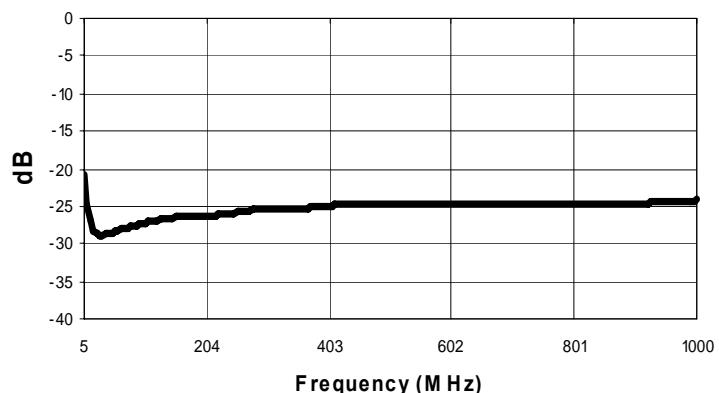
Parameter	Value
Max Input Power	1W
DC current	240mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C

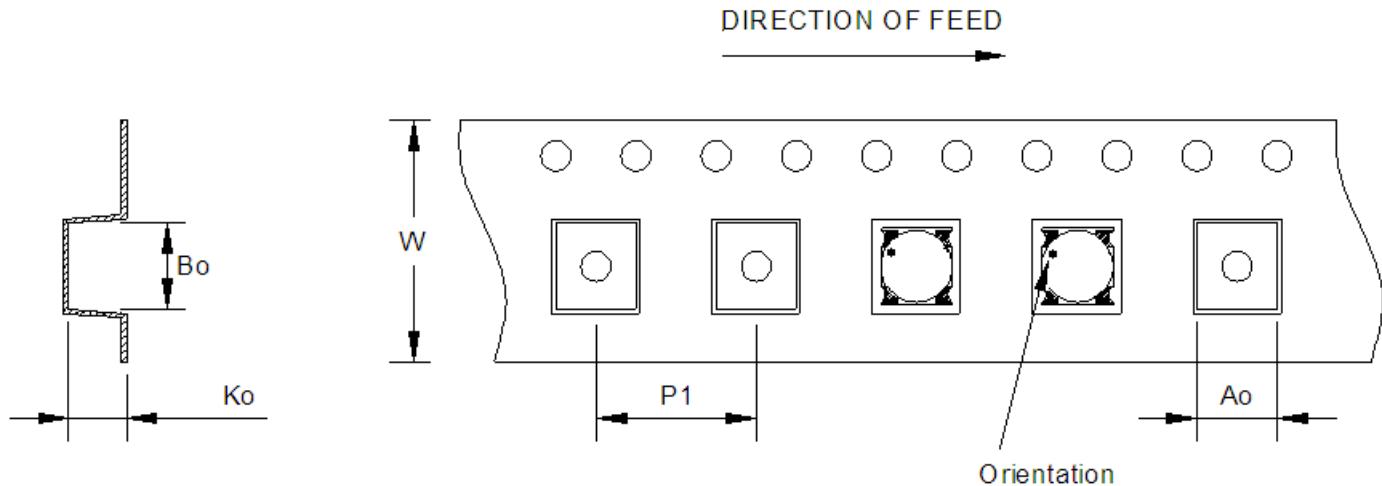
- Exceeding any one or combination of these limits may cause permanent damage to this device.
- M/A-COM Technology Solutions does not recommend sustained operation near these survivability limits.

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
Insertion Loss**Isolation****Amplitude Unbalance****Phase Unbalance****Return Loss: Input****Return Loss: Output**

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