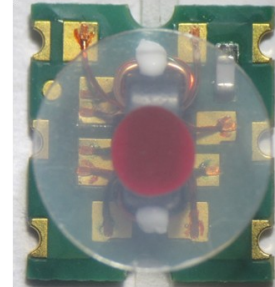


Features

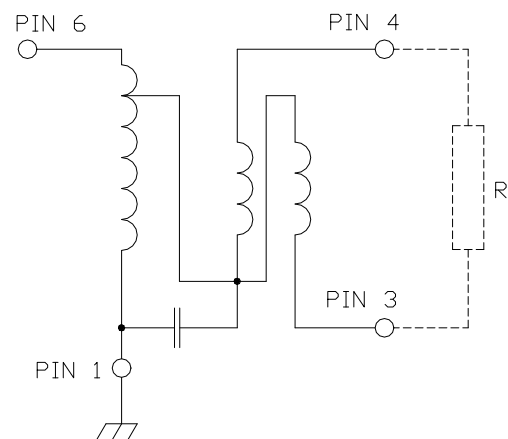
- SMT unit
- 2 Way 0 degree
- 260°C Reflow Compatible
- RoHS Compliant and Pb free
- Available on Tape and Reel



Description

The 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.

Functional Schematic



Ordering Information

Part Number	Package
MAPDCT0027	900 piece reel

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 2011/65/EU.

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

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

Recommended Maximum Ratings^{1,2}

Parameter	Absolute Maximum
Input Power	1 W
DC Current	240 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C

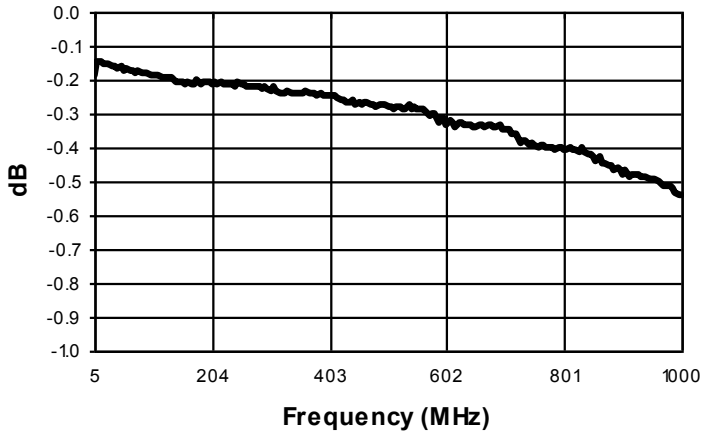
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

2 Way 0° Power Divider 5 - 1000 MHz

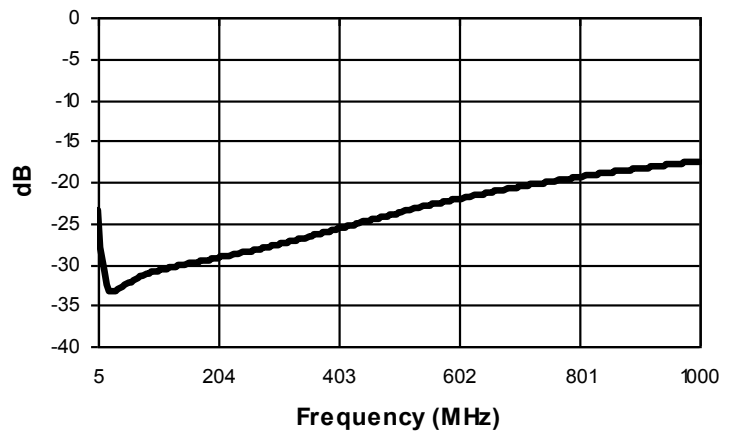
Rev. V5

Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{in} = 0 \text{ dBm}$

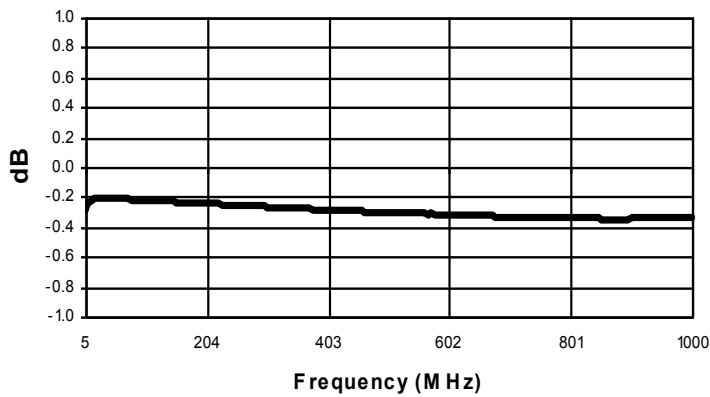
Insertion Loss



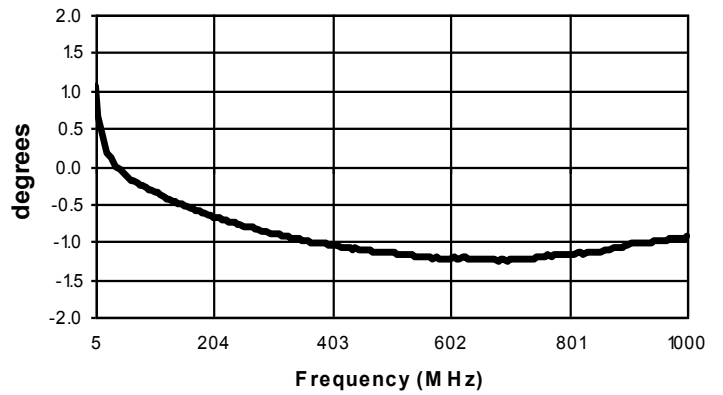
Isolation



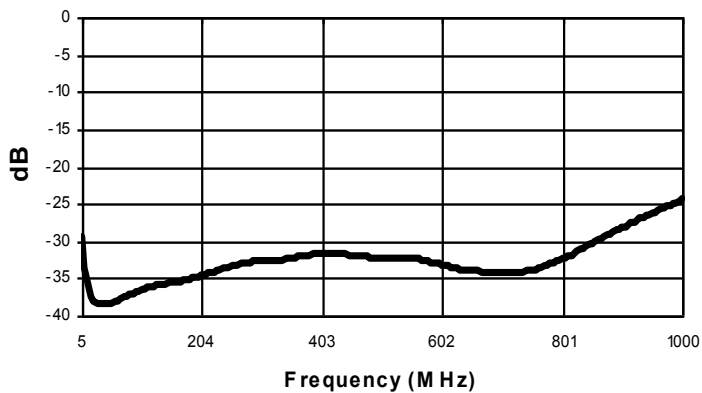
Amplitude Unbalance



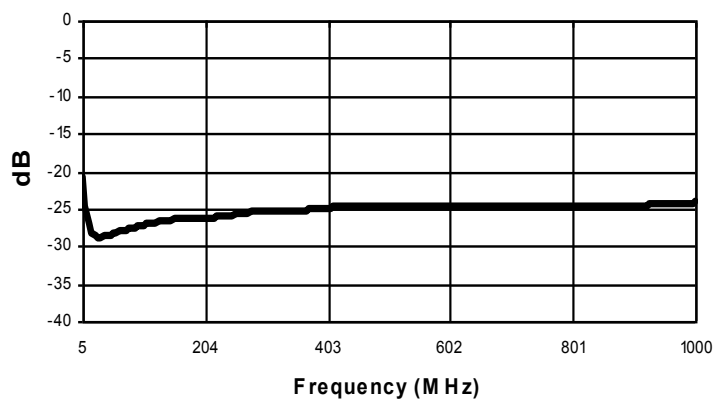
Phase Unbalance



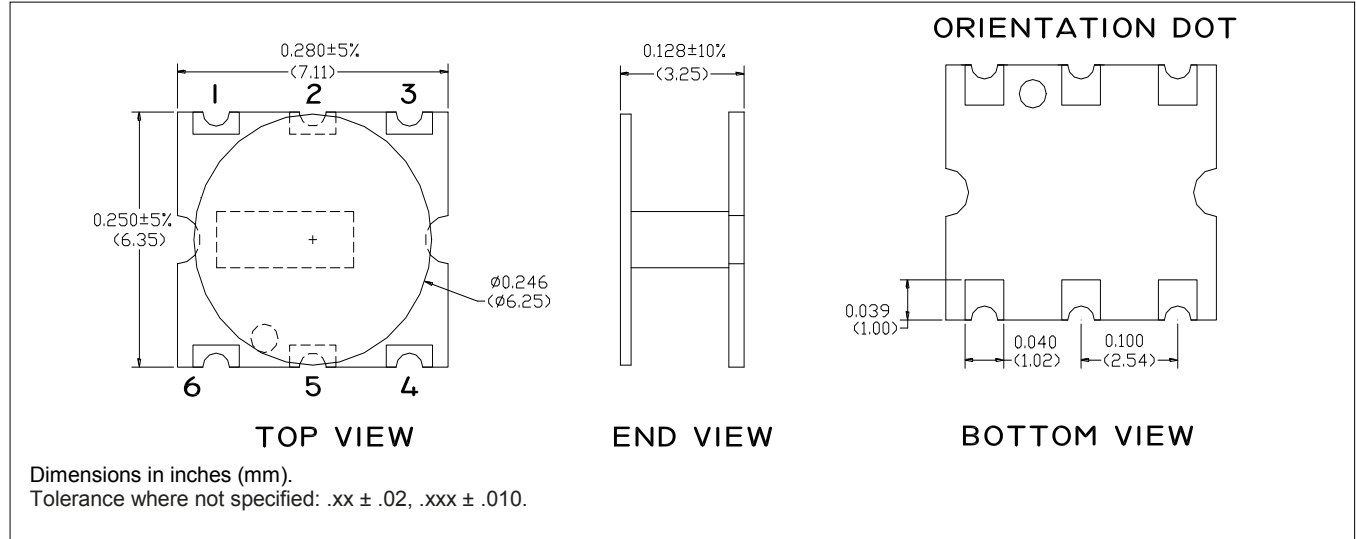
Return Loss: Input



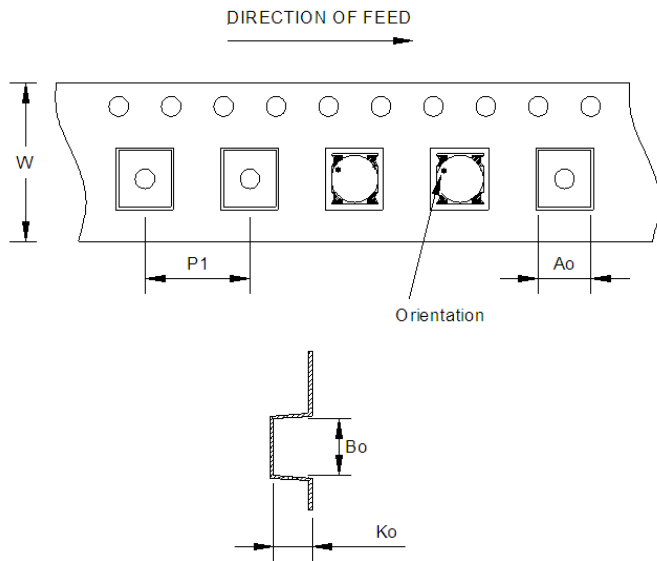
Return Loss: Output



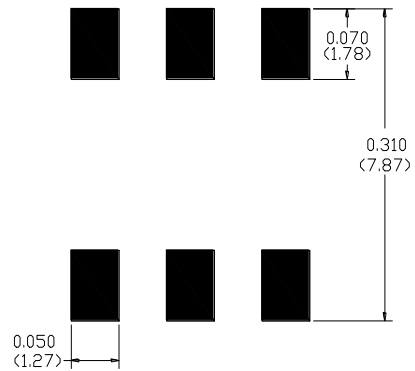
Outline Drawing



Carrier Tape Orientation



Footprint for PCB



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