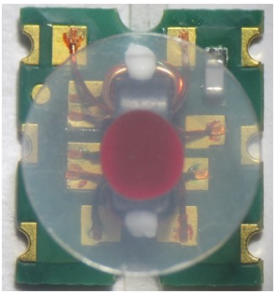
MAPDCT0027

2 Way 0° Power Divider
5 - 1000 MHz

Rev. V5

Features

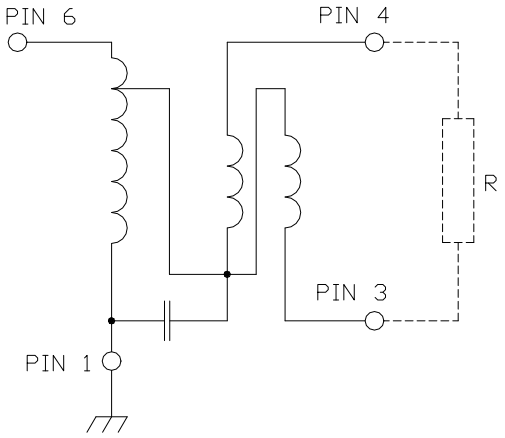
- SMT unit
- 2 Way 0 degree
- 260°C Reflow Compatible
- RoHS Compliant and Pb free
- Available on Tape and Reel



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°C, Z_0 = 75 Ω

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

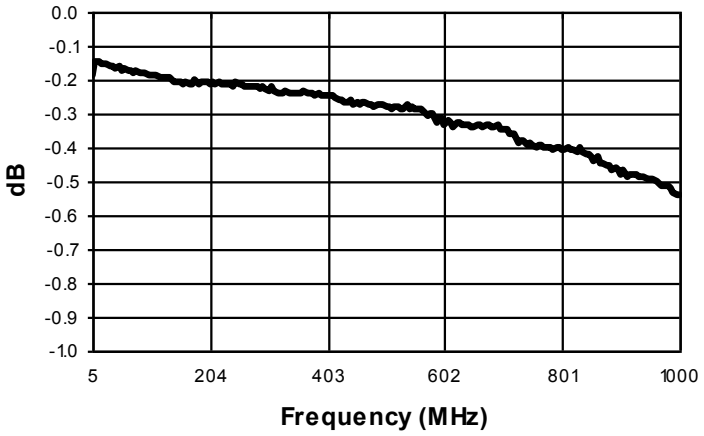
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

2 Way 0° Power Divider
5 - 1000 MHz

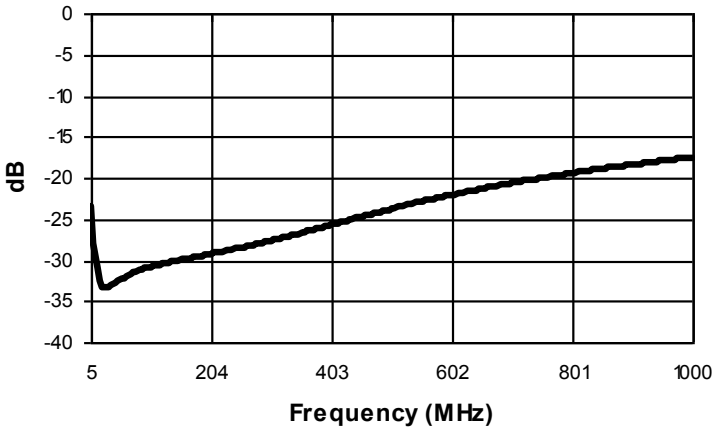
Rev. V5

Typical Performance Curves: T_A = 25°C, Z_0 = 75 Ω, P_{in} = 0 dBm

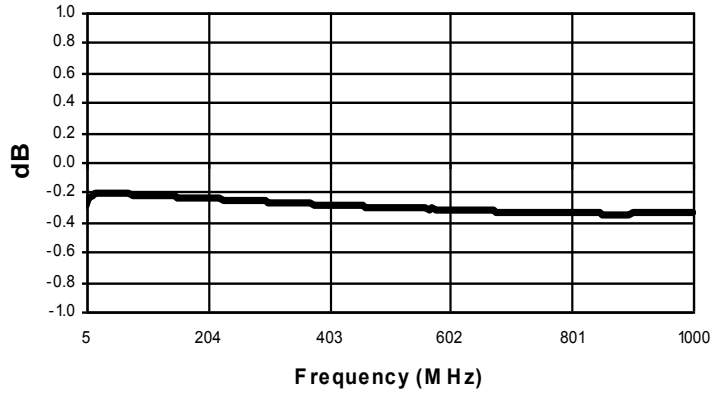
Insertion Loss



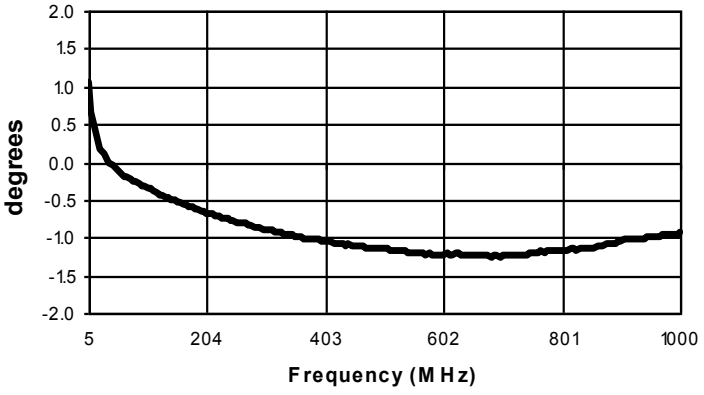
Isolation



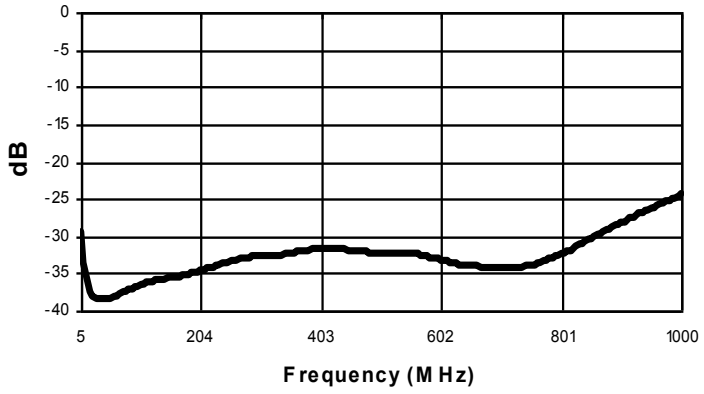
Amplitude Unbalance



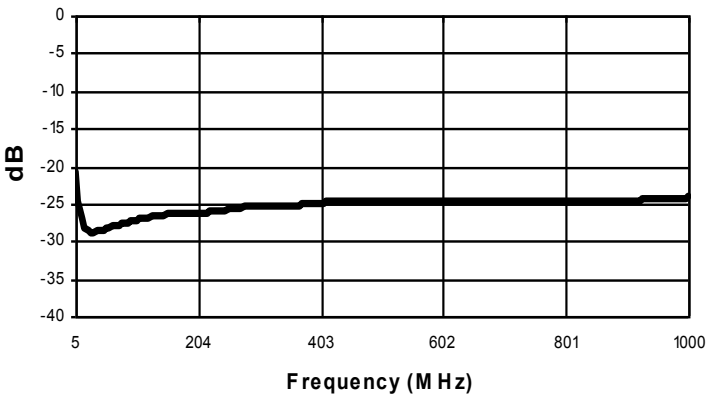
Phase Unbalance



Return Loss: Input



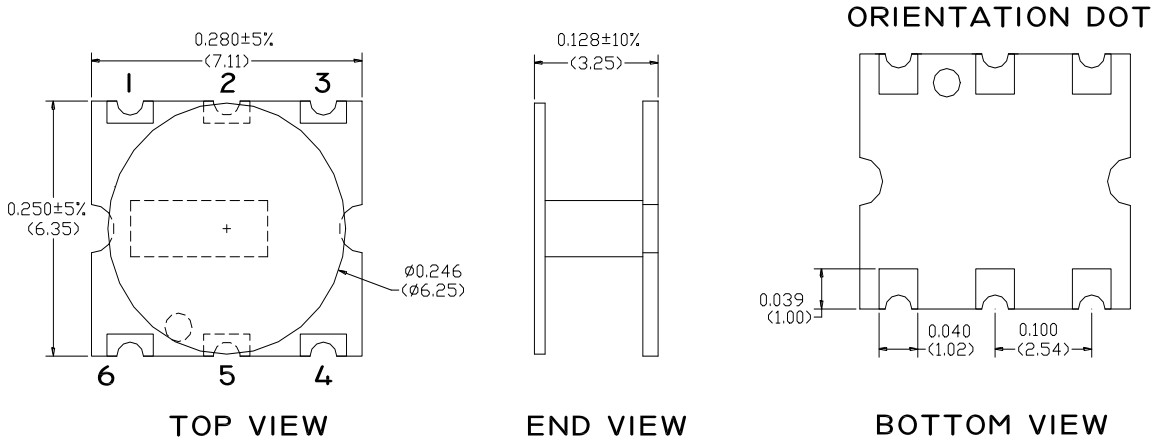
Return Loss: Output



2 Way 0° Power Divider
5 - 1000 MHz

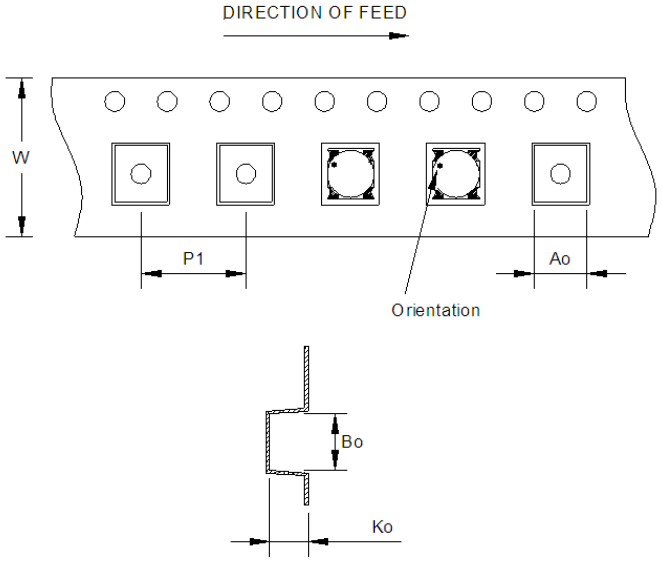
Rev. V5

Outline Drawing



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

Carrier Tape Orientation



Footprint for PCB