

## Features

- 3 Way 0°
- Surface Mount Technology
- RoHS\* Compliant
- Available on Tape & Reel

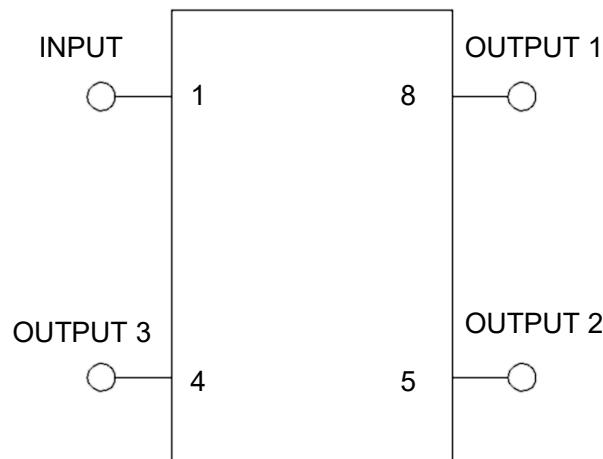
## Applications

- CATV / Broadband

## Description

The MAPD-011027 is a 3 way 0 degree power divider in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications. No external components are required with this product.

## Block Diagram



## Ordering Information

Part Number	Package
MAPD-011027	500 piece reel
MAPD-011027-TB	Customer Test Board

## Pin Configuration

Function	Pin Number
1	Input
2,3,6,7	Ground
4	Output 3
5	Output 2
8	Output 1

**3 Way, 0° Power Divider  
5 - 1500 MHz**

**MACOM®**

**MAPD-011027**

**Rev. V5**

**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75 \Omega$ ,  $P_{\text{IN}} = 0 \text{ dBm}$**

Parameter	Test Condition Frequency (MHz)	Units	Min.	Typ.	Max.
Insertion Loss 1 ( pin 1 - pin 8 )	5 - 46 46 - 870 870 - 1002 1002 - 1218 1218 - 1500	dB	—	0.37 1.15 1.3 2.0 4.6	0.55 1.65 2.0 2.4 5.5
Insertion Loss 2 ( pin 1 - pin 5 )	5 - 46 46 - 870 870 - 1002 1002 - 1218 1218 - 1500	dB	—	0.37 1.0 1.2 1.7 4.5	0.55 1.3 1.5 2.0 5.0
Insertion Loss 3 ( pin 1 - pin 4 )	5 - 46 46 - 870 1002 - 1218 1218 - 1500	dB	—	0.37 1.3 1.8 4.8	0.55 1.8 2.2 5.2
Input Return Loss ( pin 1 )	5 - 46 46 - 405 405 - 1002 1002 - 1218 1218 - 1500	dB	26 20 16 15 5	31 26 20 18 9	—
Output Return Loss 1 ( pin 8 )	5 - 46 46 - 1218 1218 - 1500	dB	11 20 15	18 25 18	—
Output Return Loss ( pin 4, pin 5 )	5 - 46 46 - 740 740 - 1218 1218 - 1500	dB	11 20 17 15	18 22 20 19	—
Isolation ( pin 8 - pin 4 )	5 - 46 46 - 1002 1002 - 1218 1218 - 1500	dB	18 20 18 14	28 25 24 15	—
Isolation ( pin 8 - pin 5 ) ( pin 5 - pin 4 )	5 - 46 46 - 1002 1002 - 1218 1218 - 1500	dB	18 20 18 12	28 25 24 14	—
Amplitude Balance, Output 1 to Output 2 ( pin 8, 5 )	5 - 46 46 - 1218 1218 - 1500	dB	—	0.01 0.3 0.5	0.1 0.5 0.9
Amplitude Balance, Output 1 to Output 3 ( pin 4, 8 ) & Output 2 to Output 3 ( pin 4, 5 )	5 - 46 46 - 1218 1218 - 1500	dB	—	-0.01 -0.3 -0.5	0.2 0.5 0.9
Phase Balance between all Outputs	5 - 50 50 - 1218 1218 - 1500	°	—	±0.4 ±6.0 ±8.0	±1.0 ±8.0 ±12.0

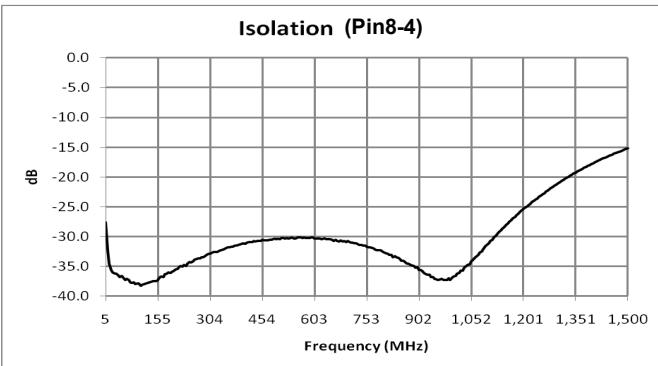
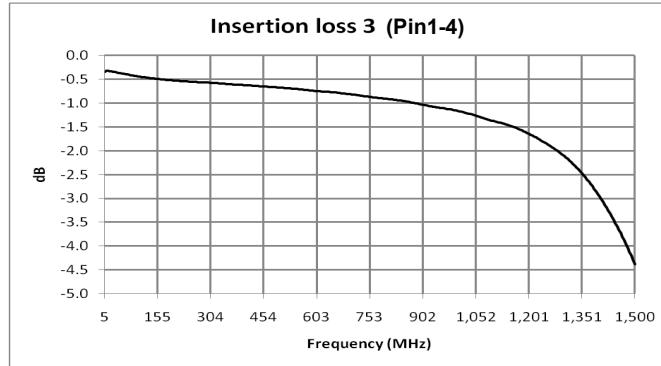
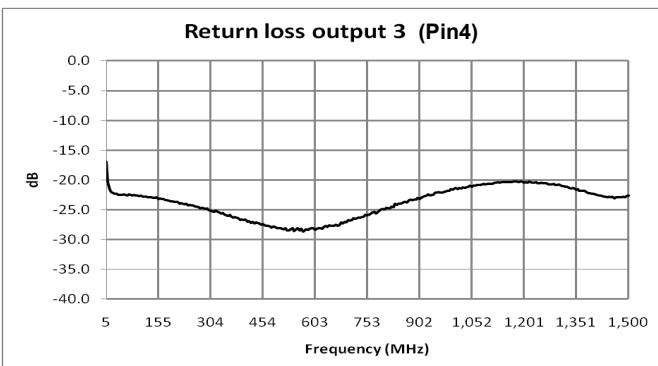
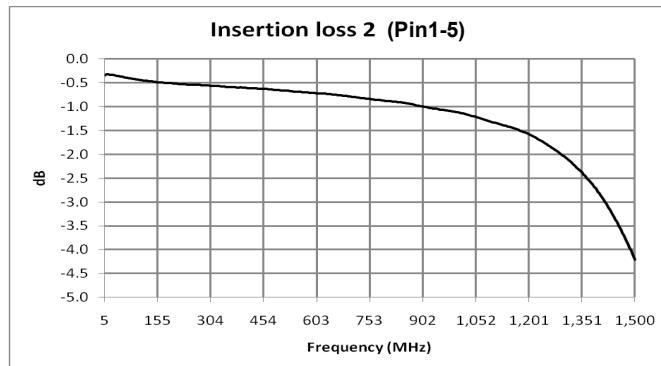
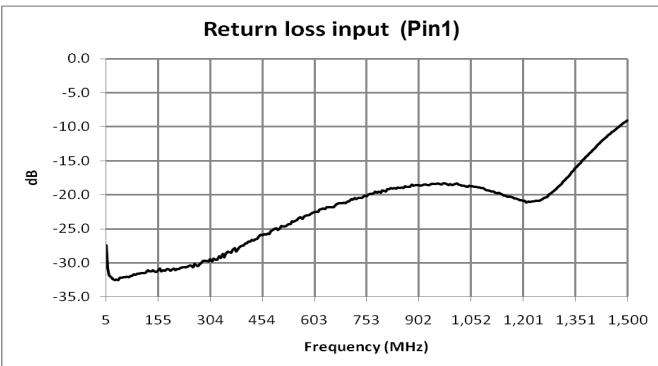
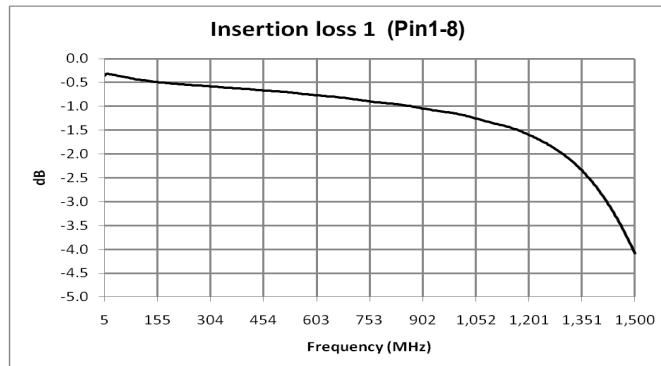
**Absolute Maximum Ratings<sup>1,2</sup>**

Parameter	Absolute Maximum
Input Power	0.5 W
DC Current	500 mA
Operating Temperature	-40°C to +85°C

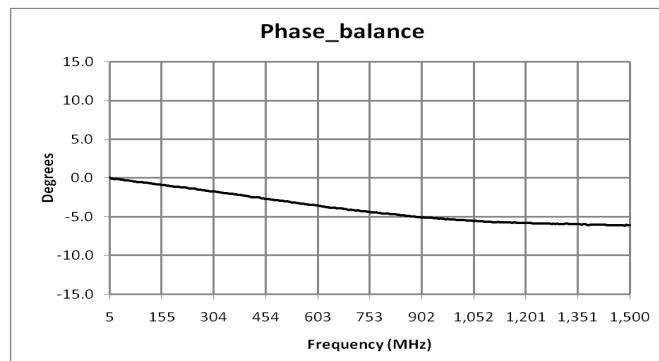
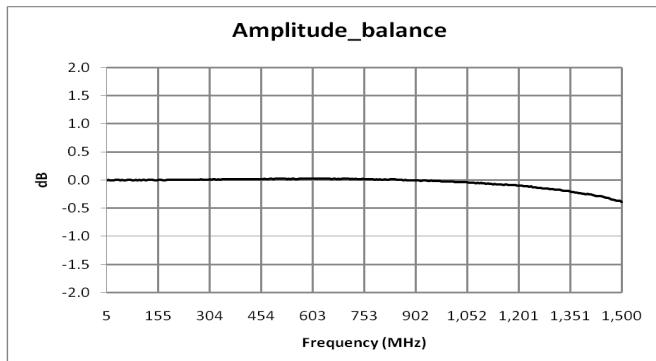
1. Exceeding any one or combination of these limits may cause permanent damage to this device.

2. MACOM does not recommend sustained operation near these survivability limits.

**Typical Performance Curves<sup>3</sup>**

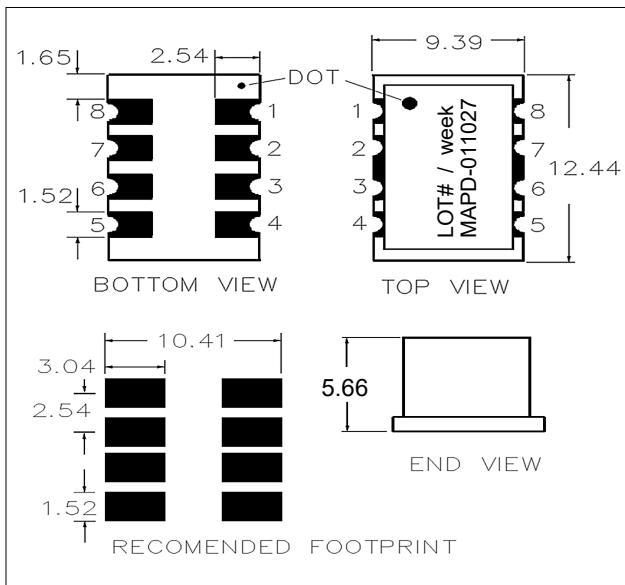


Typical Performance Curves<sup>3</sup>



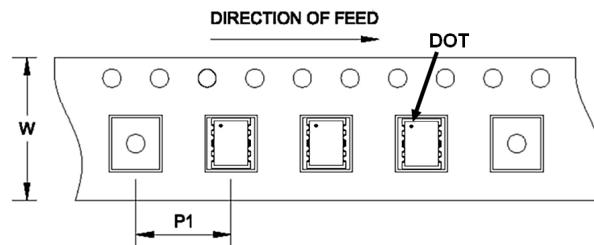
3. Full temperature plot data available on request.

Outline Drawing<sup>4,5,6,7,8,9</sup>



4. Dimensions in mm.
5. Tolerance:  $\pm 0.2$  mm unless otherwise noted.
6. Model number and lot code are printed on the reel.
7. Lead plating: ENIG.
8. Reference Application Note J-STD-020E for lead-free solder reflow recommendations.
9. Meets JEDEC moisture sensitivity level 1 requirements.

Carrier Tape Orientation



Tape & Reel Information

Item	Dimension
W	24.00 mm +/-0.3 mm
P1	16.00 mm +/-0.1 mm
Orientation	F3 (Ref. App. Note: ANI-019 for Orientation)

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