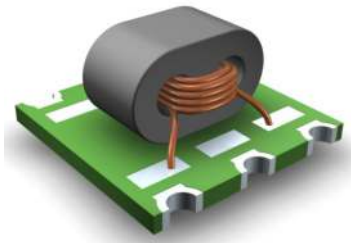


## 2 Way 0° Power Divider 5 - 1600 MHz

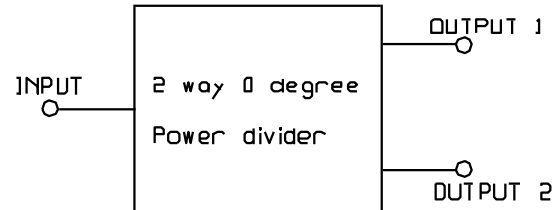
Rev. V5

### Features

- 2 Way, 0°
- Surface Mount Package
- Available on Tape and Reel
- 260°C Reflow Compatible
- RoHS Compliant and Pb Free
- Suitable for all CATV, Broadband and FTTx applications.



### Schematic



### Pin Configuration

Pin #	Function	Pin #	Function
1	Ground	4	Output Port 1
2, 5	External 0.5 pF Capacitor	6	Input
3	Output Port 2		

### Electrical Specifications<sup>1</sup>: Freq. = 5 - 1600 MHz, $Z_0 = 75 \Omega$ , $T_A = 25^\circ\text{C}$ , $P_{IN} = 0 \text{ dBm}$

Parameter	Freq. Test Conditions (MHz)	Units	Min	Typ	Max
Power Split	—	dB	—	3	—
Insertion Loss (pin 6 - pin 4)	5 - 1002 1003 - 1600	dB	—	0.35 0.70	0.7 1.2
Insertion Loss (pin 6 - pin 3)	5 - 1002 1003 - 1600	dB	—	0.65 1.00	1.0 1.6
Amplitude Balance	5 - 1002 1003 - 1600	dB	—	0.30 0.30	$\pm 0.6$ $\pm 0.8$
Phase Balance	5 - 1002 1003 - 1600	Degree	—	1.0 1.3	$\pm 4$ $\pm 6$
Input Return Loss (pin 6)	5 - 1002 1003 - 1600	dB	18 16	35 23	—
Output Return Loss (pin 3)	5 - 1002 1003 - 1600	dB	18 15	25 21	—
Output Return Loss (pin 4)	5 - 1002 1003 - 1600	dB	18 16	34 27	—
Isolation (pin 4 - pin 3)	5 - 9 10 - 65 66 - 870 871 - 1002 1003 - 1600	dB	24 30 26 24 22	30 42 35 30 30	—

1. Intermodulation distortions per' ANSI/SCTE 1452008' -95 dBc min. & not tested in production.

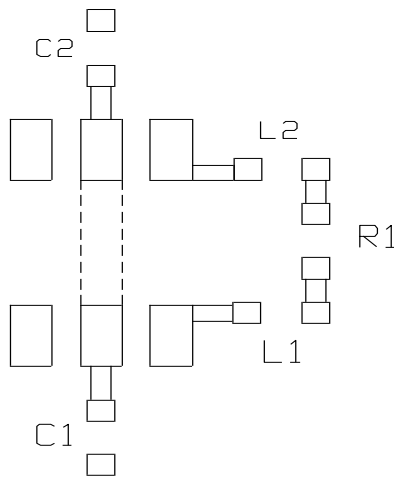
## Ordering Information

Part Number	Description
MAPD-010638-C2WSOT	2000 piece reel
MAPD-010638-C2WSTB	customer evaluation board

## Recommended Maximum Ratings

Parameter	Absolute Maximum
Input Power	250 mW
DC Current	30 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

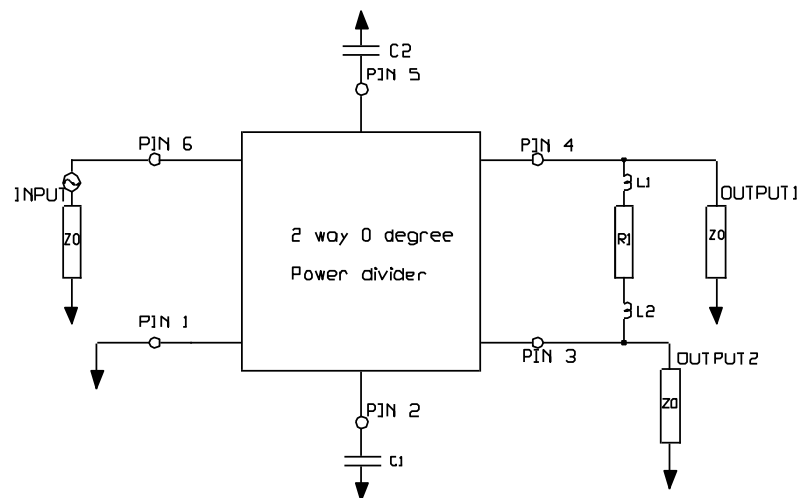
## Recommend PCB Layout



## Parts List

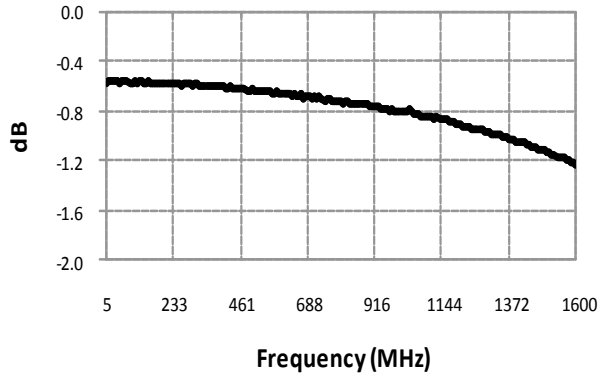
Reference Designator	Description	Value
C1, C2	Cap.,0402	0.5 pF
L1, L2	Ind.,0402	8.2 nH
R1	Res.,0402	240 Ω

## Application Circuit

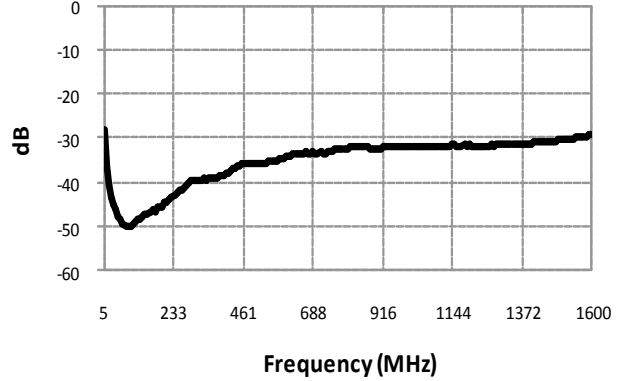


## Typical Performance Curves

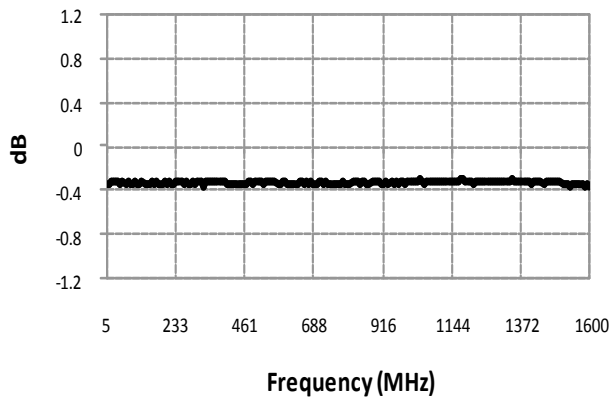
**Insertion Loss (pin 6 - pin 4)**



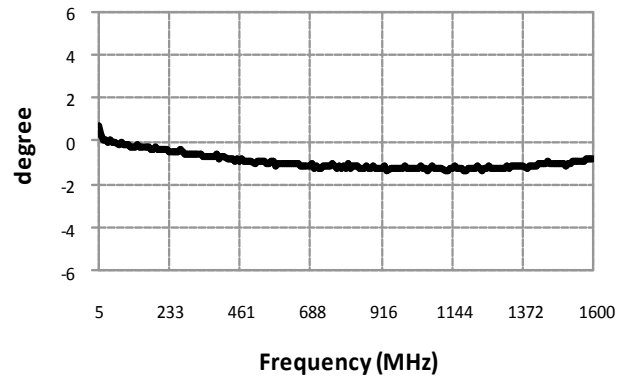
**Isolation**



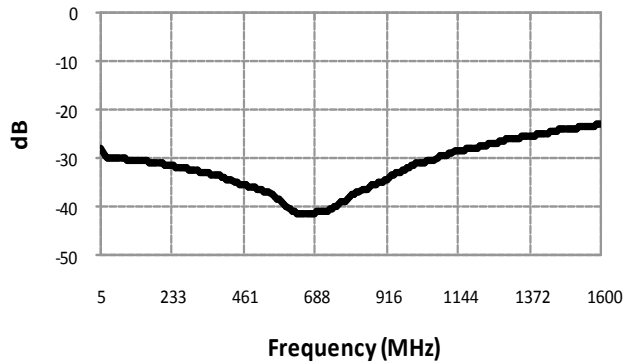
**Amplitude Balance**



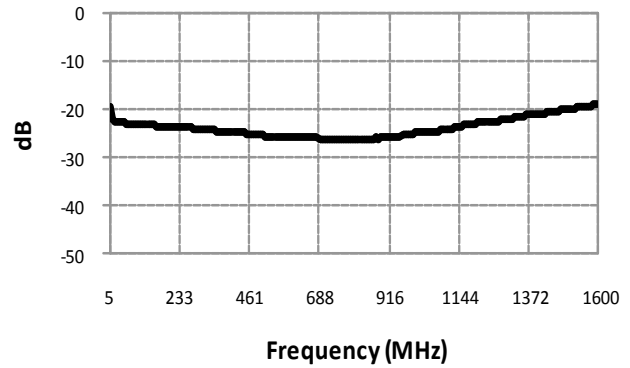
**Phase Balance**



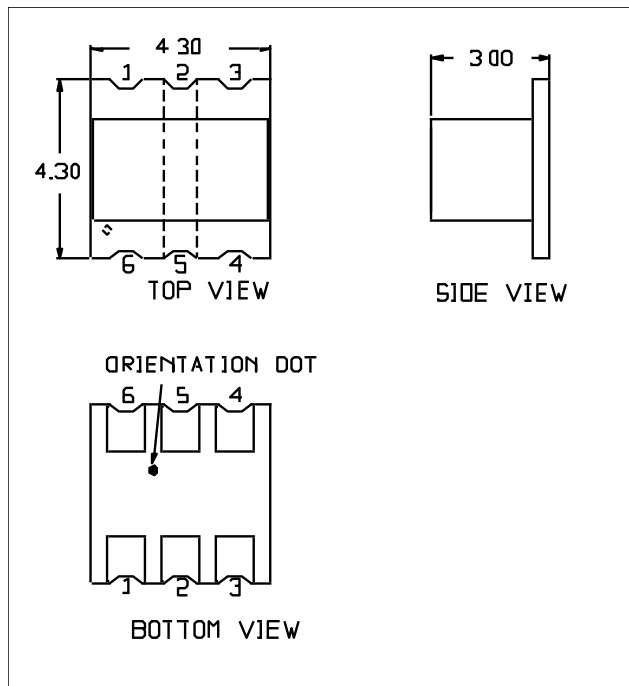
**Input Return Loss**



**Output Return Loss**

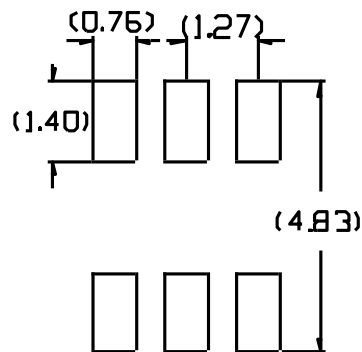


## Outline Drawing



1. Dimensions in mm.
2. Tolerance:  $\pm 0.2$  mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Finish: Electroless nickel immersion gold

## Recommended Footprint



## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel Size	mm	330
Tape Width	mm	12.00
Pitch	mm	8.00
Ao	mm	4.5
Bo	mm	4.5
Ko	mm	3.2
Orientation	-	F18
Reference Application Note ANI-019 for orientation		

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