MAPD-010638-C2WSOT

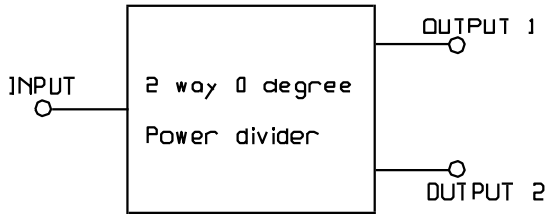
2 Way 0° Power Divider
5 - 1600 MHz

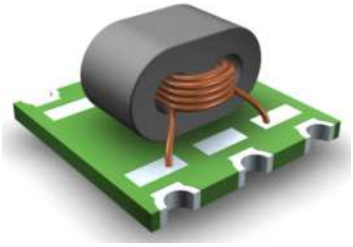
Rev. V5

Features

- 2 Way, 0°
- Surface Mount Package
- Available on Tape and Reel
- 260ºC 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[1]: Freq. = 5 - 1600 MHz, Z_0 = 75 Ω, T_A = 25°C, P_{IN} = 0 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	±0.6 ±0.8
Phase Balance	5 - 1002 1003 - 1600	Degree	—	1.0 1.3	±4 ±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.

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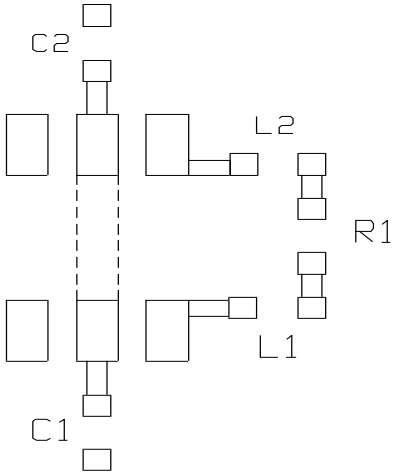
Ordering Information

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

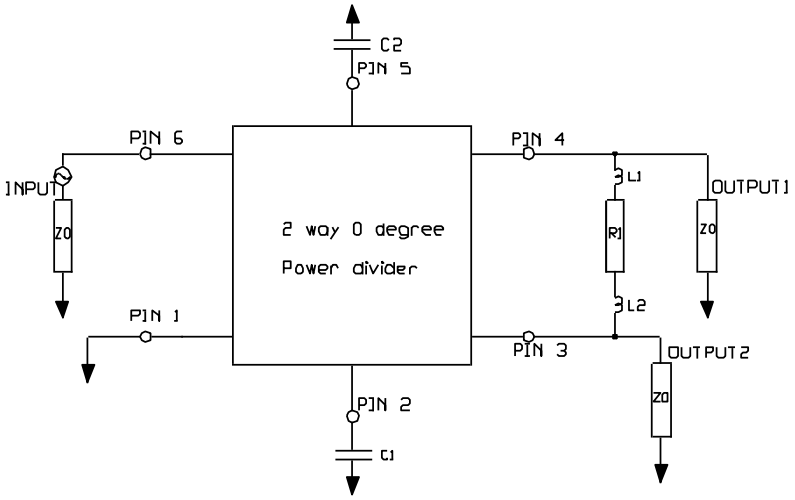
Recommend PCB Layout



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



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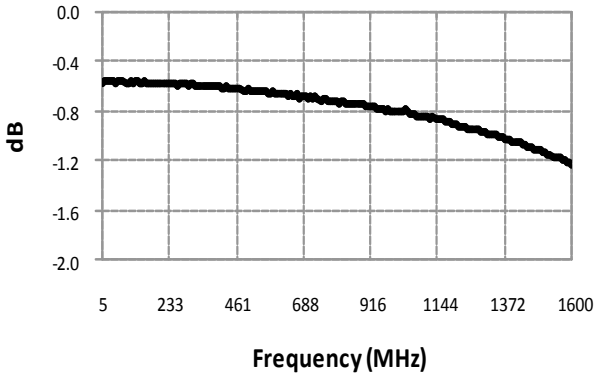
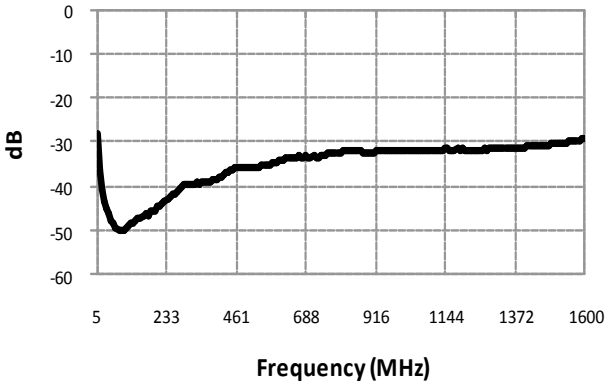
Typical Performance Curves

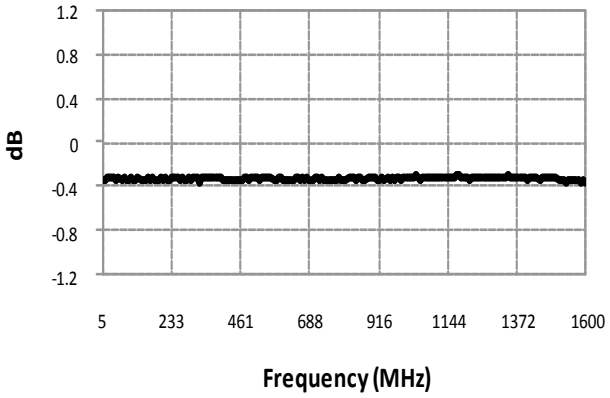
Insertion Loss (pin 6 - pin 4)



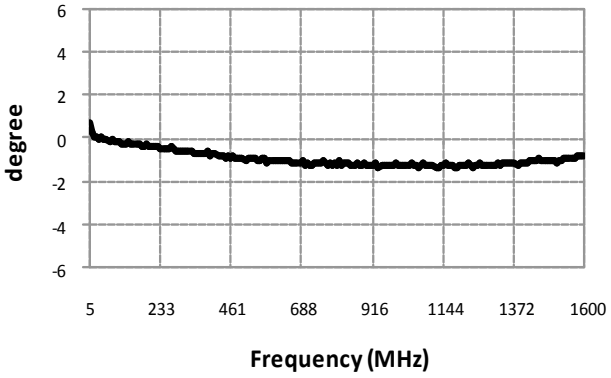
Isolation



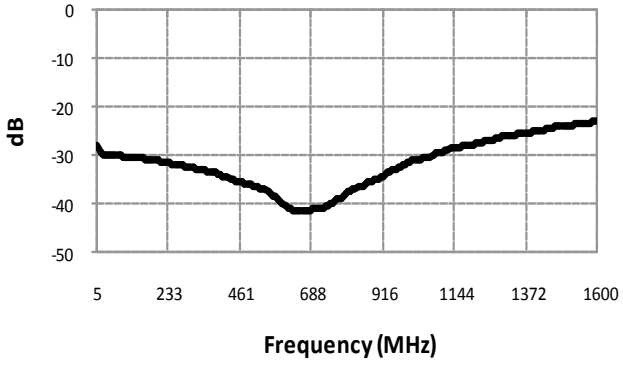
Amplitude Balance



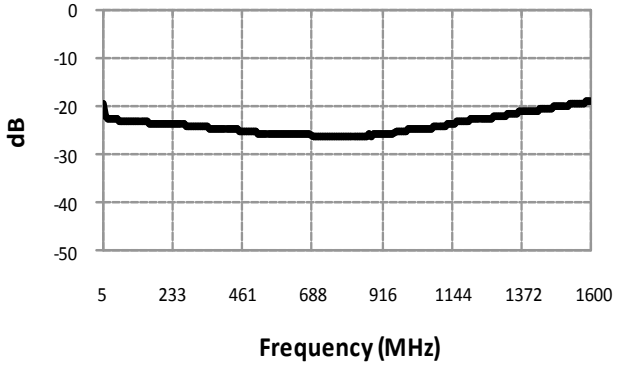
Phase Balance



Input Return Loss



Output Return Loss



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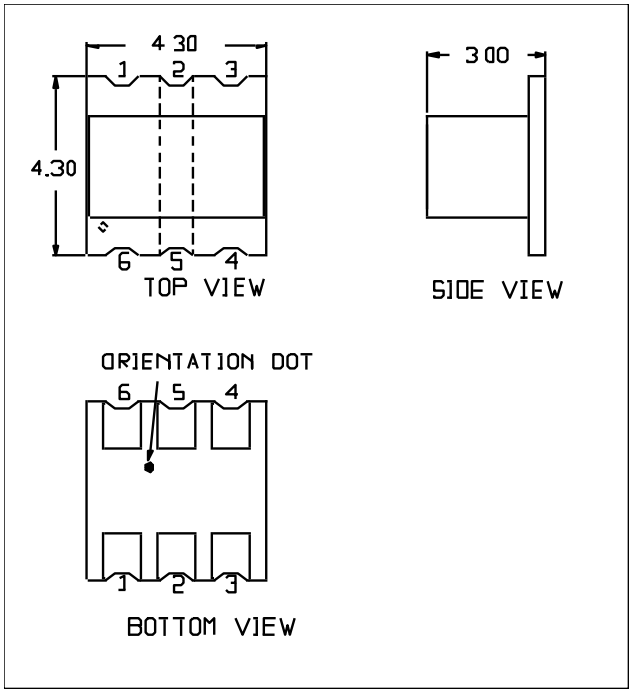
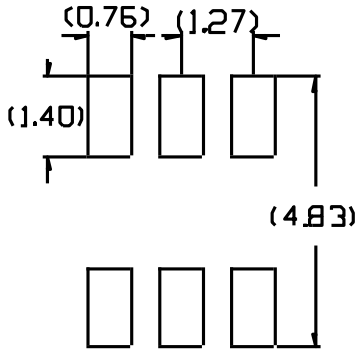
Outline Drawing



1. Dimensions in mm.
2. Tolerance: ±0.2 mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Finish: Electreless 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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