



**THE DATASHEET OF
MAPD-010638-C2WSOT**

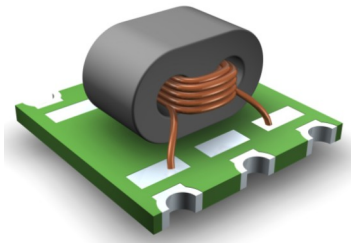


2 Way 0° Power Divider 5 - 1600 MHz

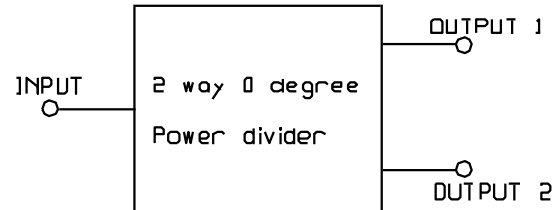
Rev. V5

Features

- 2 Way, 0°
- Surface Mount Package
- Available on Tape and Reel
- 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 Specifications¹: 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	± 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.

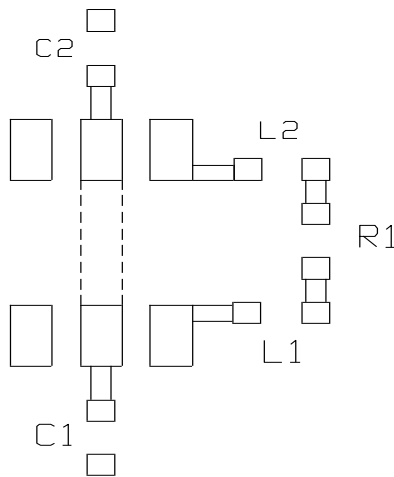
Ordering Information

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

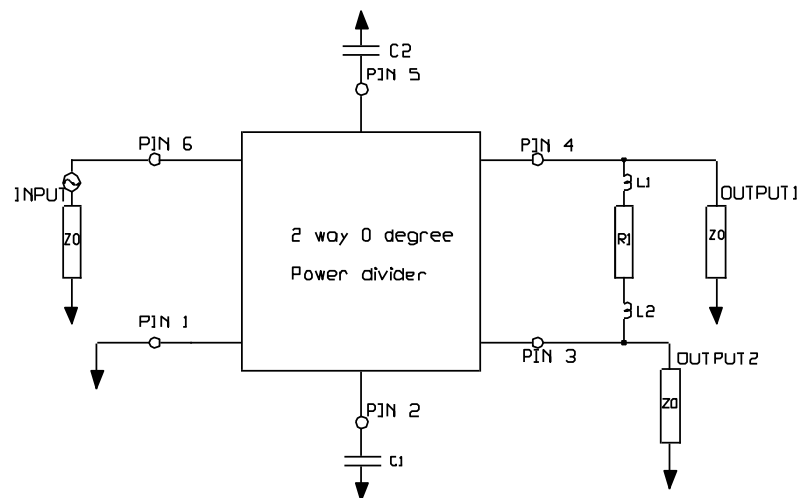
Recommend PCB Layout



Parts List

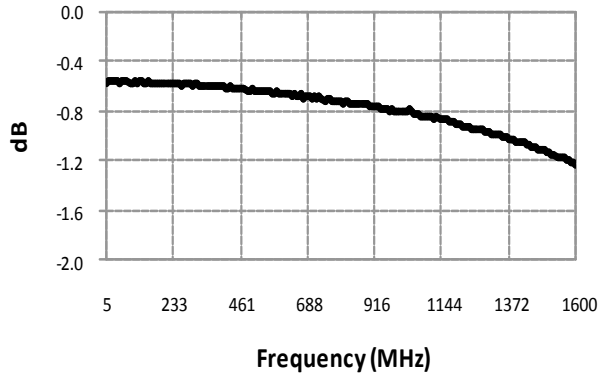
Reference Designator	Description	Value
C1, C2	Cap.,0402	0.5 pF
L1, L2	Ind.,0402	8.2 nH
R1	Res.,0402	240 Ω

Application Circuit

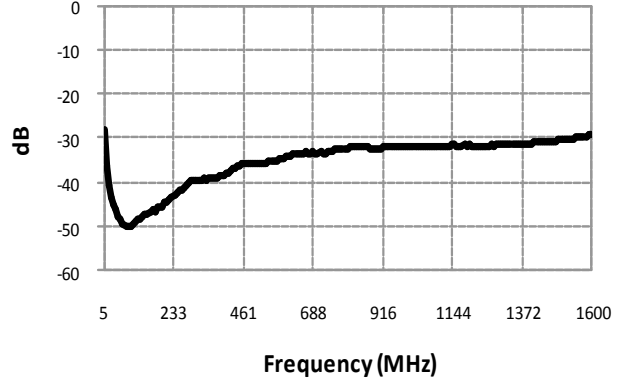


Typical Performance Curves

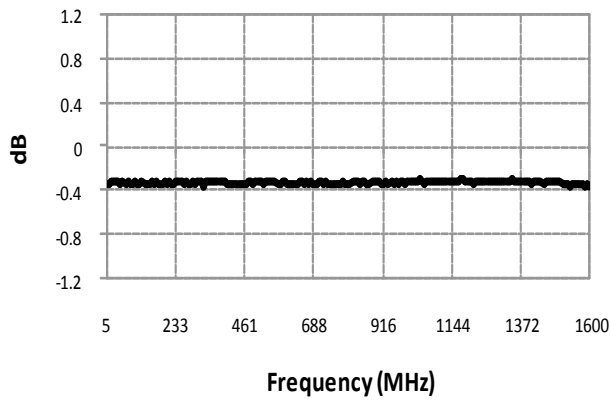
Insertion Loss (pin 6 - pin 4)



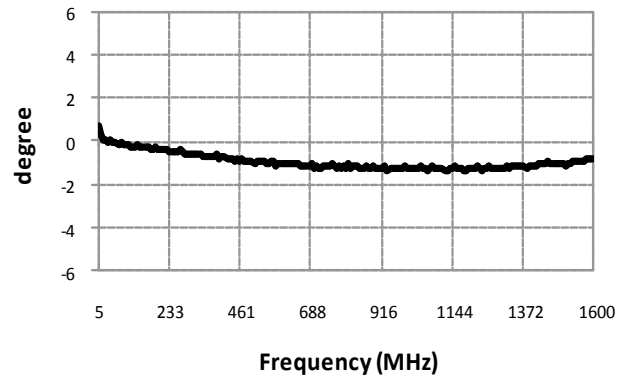
Isolation



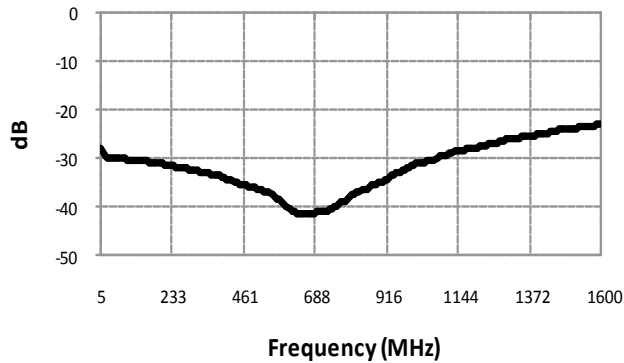
Amplitude Balance



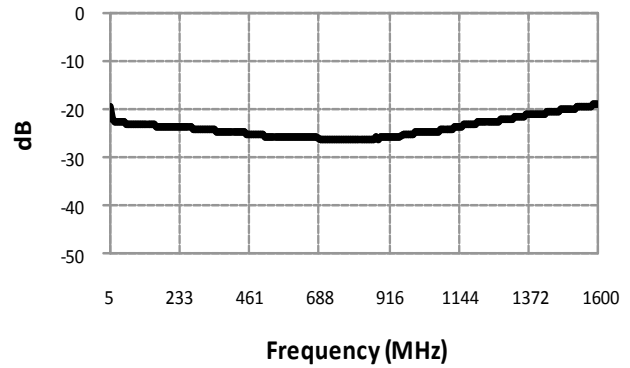
Phase Balance



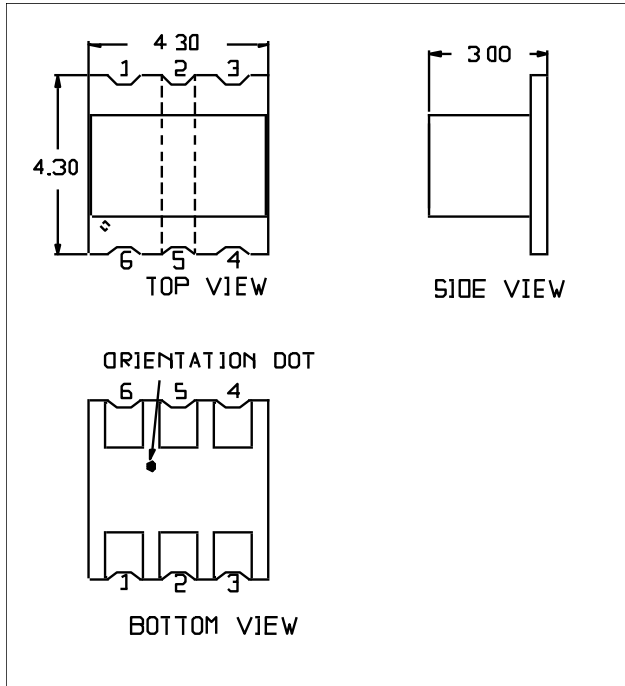
Input Return Loss



Output Return Loss

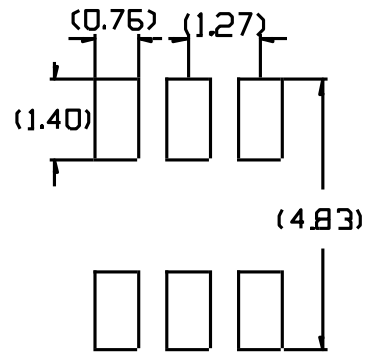


Outline Drawing



1. Dimensions in mm.
2. Tolerance: ± 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		

MACOM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with MACOM Technology Solutions Inc ("MACOM") products. These materials are provided by MACOM as a service to its customers and may be used for informational purposes only. Except as provided in MACOM's Terms and Conditions of Sale for such products or in any separate agreement related to this document, MACOM assumes no liability whatsoever. MACOM assumes no responsibility for errors or omissions in these materials. MACOM may make changes to specifications and product descriptions at any time, without notice. MACOM makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MACOM FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. MACOM SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

MACOM products are not intended for use in medical, lifesaving or life sustaining applications. MACOM customers using or selling MACOM products for use in such applications do so at their own risk and agree to fully indemnify MACOM for any damages resulting from such improper use or sale.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View MAPD-010638-C2WSOT on WIN SOURCE](#)
- ⊖ [M/A-Com Technology Solutions Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management