



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

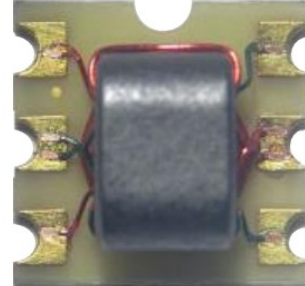


Features

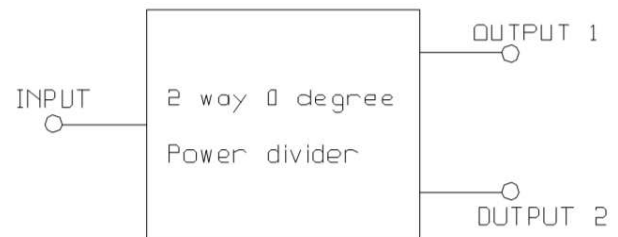
- 2 Way 0 Degree
- Surface mount
- Available on tape and reel
- 260° reflow compatible
- RoHS compliant and Pb free
- Excellent temperature stability
- Suitable for all CATV, Broadband and FTTX applications

Description

The MAPD-011040 is a 2 way 0 degree power divider in a low cost surface mount package. Ideally suited for high volume CATV/VSAT applications.



Functional Schematic



Ordering Information

Part Number	Package
MAPD-011040	Tape & Reel
MAPD-011040-TB	Customer Test Board

Pin Configuration

Pin No.	Function
1	Ground
2	External 0.5 pF Capacitor
3	Output 1
4	Output 2
5	External 0.5 pF Capacitor
6	Input

2 Way 0° Power Divider 5 - 1225 MHz

Rev. V3

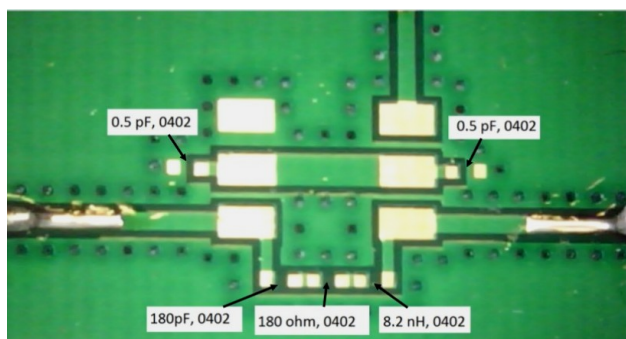
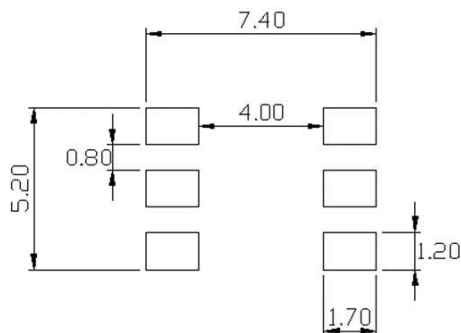
Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{in} = 0 \text{ dBm}$

Parameter	Conditions	Units	Min.	Typ.	Max.
Impedance	—	Ω	—	75	—
Power Split	—	dB	—	3	—
Insertion Loss 1 (Above 3 dB) (pin 6 - pin 3)	5 - 1000 MHz	dB	—	1.1	1.4
	1000 - 1225 MHz			1.6	1.9
Insertion Loss 1 (Above 3 dB) (pin 6 - pin 4)	5 - 1000 MHz	dB	—	1.4	1.5
	1000 - 1225 MHz			1.9	2.1
Amplitude Balance	5 - 1000 MHz	dB	-0.6	0.35	0.6
	1000 - 1225 MHz		-0.6	0.35	0.6
Phase Balance	5 - 1000 MHz	°	-6.0	5.0	6.0
	1000 - 1225 MHz		-7.0	6.0	7.0
Input Return Loss (pin 6)	5 - 1000 MHz	dB	12	14	—
	1000 - 1225 MHz		10	12	—
Output Return Loss 1 (pin 3)	5 - 1000 MHz	dB	13	15	—
	1000 - 1225 MHz		11	13	—
Output Return Loss 2 (pin 4)	5 - 1000 MHz	dB	16	18	—
	1000 - 1225 MHz		13	15	—
Isolation (between outputs) (pin 3 - pin 4)	5 - 1000 MHz	dB	17	19	—
	1000 - 1225 MHz		15	17	—

Recommended Maximum Ratings

Parameter	Absolute Maximum
Input Power	1 W
Internal Load Dissipation	0.125 W
Operating Temperature	-40°C to +85°C

PCB Layout

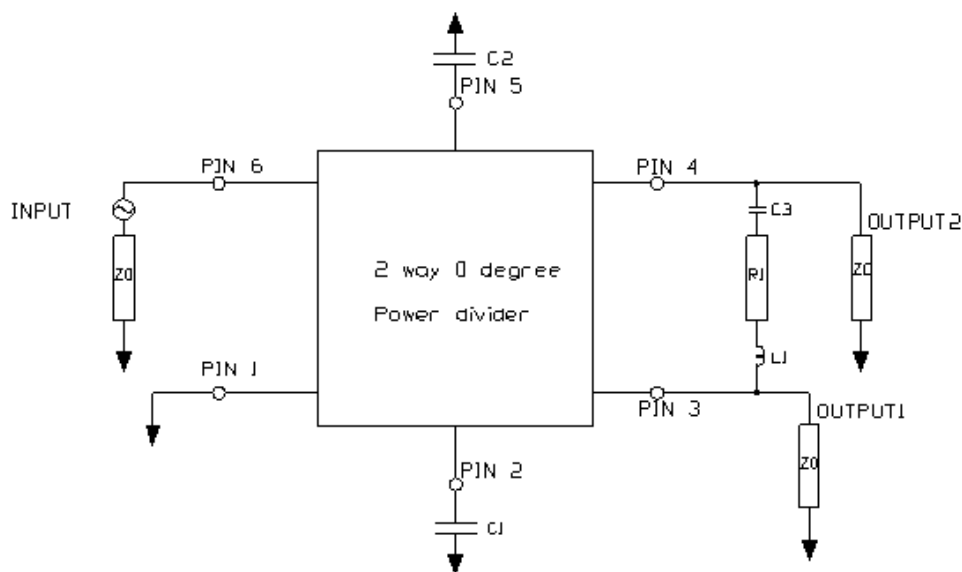


Connect centre pad to centre pad

Parts List

Part	Value	Case Style
C1, C2	0.5 pF	0402
C3	180 pF	0402
L1	8.2 nH	0402
R1	180 Ω	0402

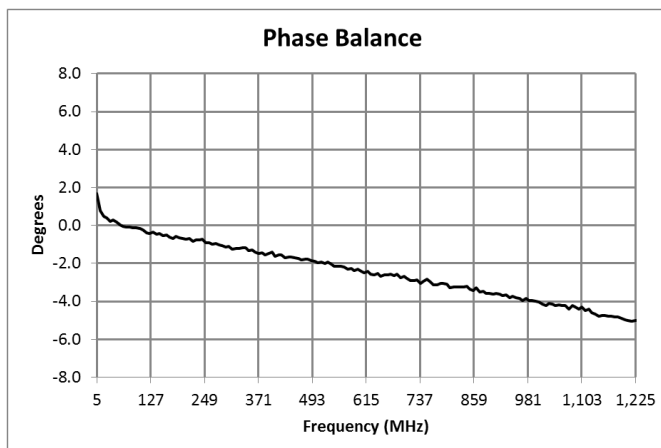
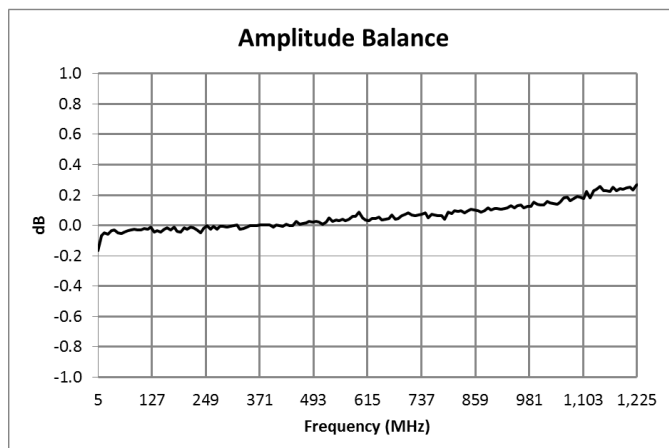
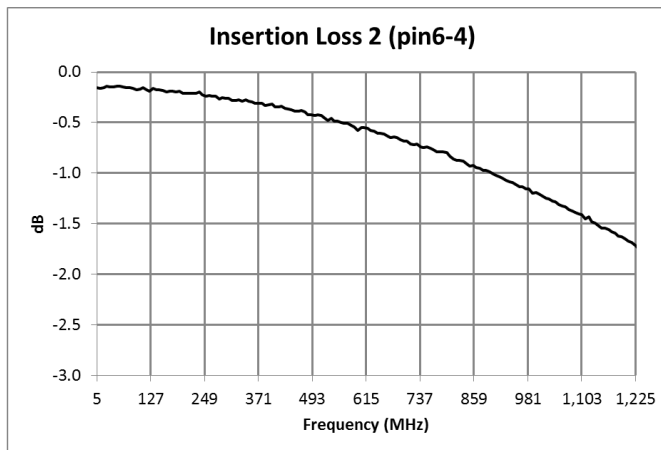
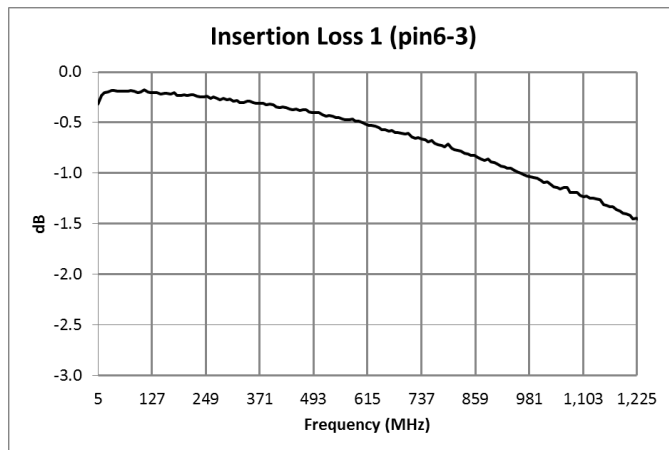
Application Schematic



2 Way 0° Power Divider 5 - 1225 MHz

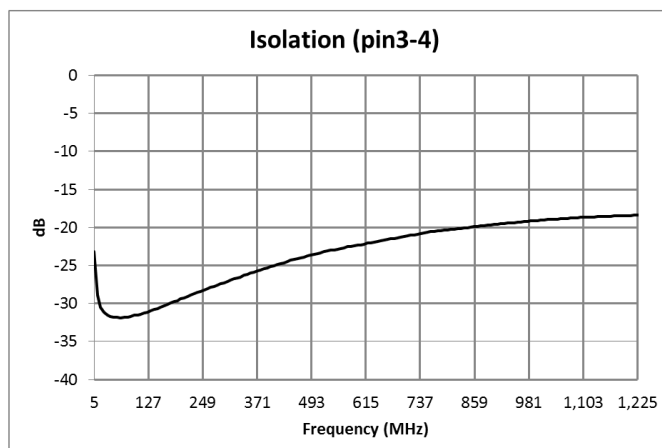
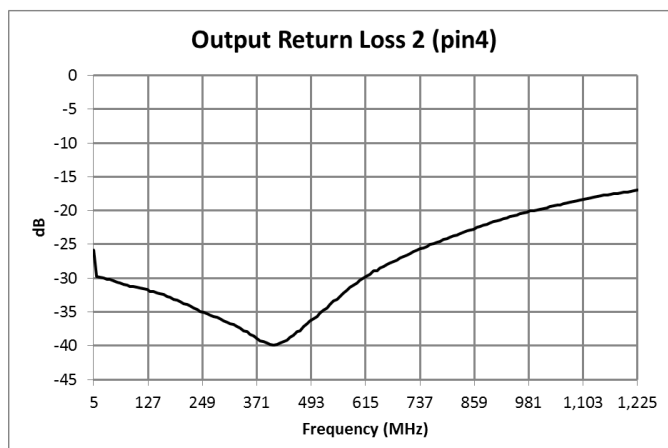
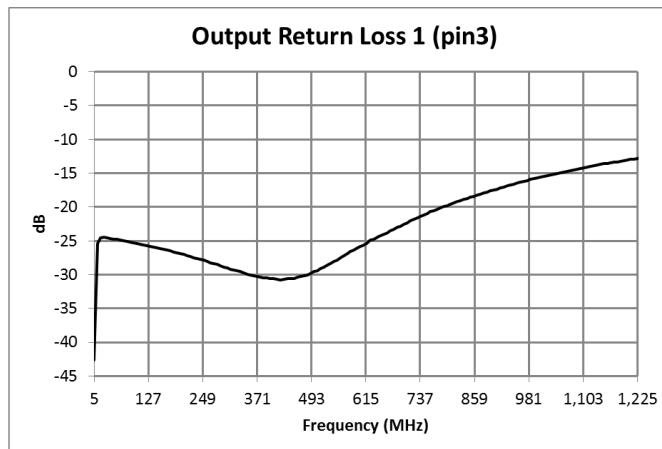
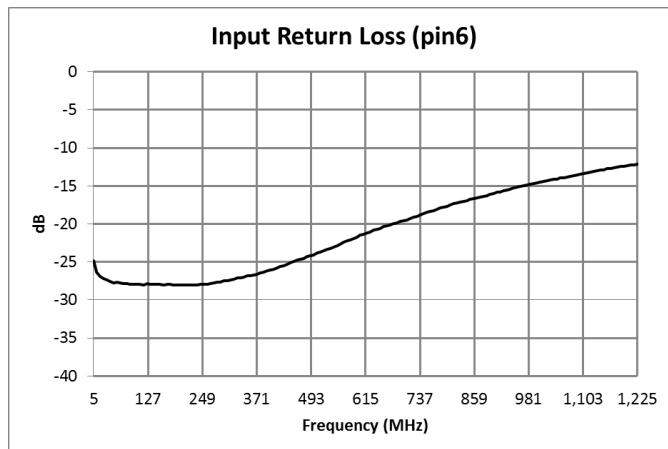
Rev. V3

Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{in} = 0 \text{ dBm}$



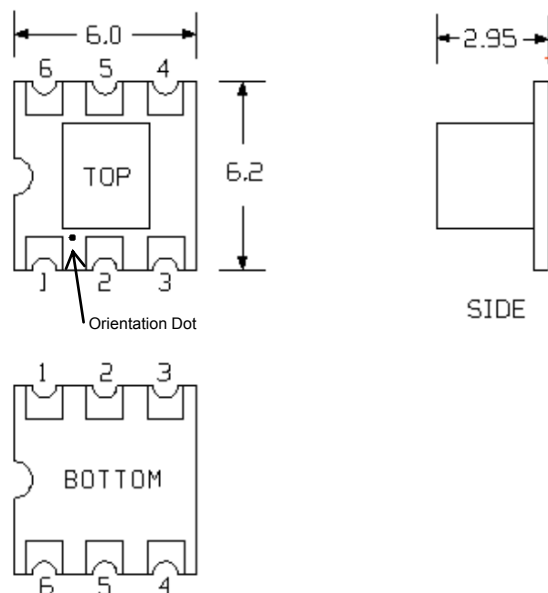
Full temperature plots available on request

Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{in} = 0 \text{ dBm}$



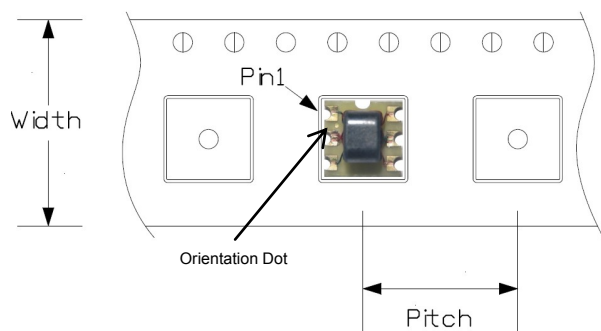
Full temperature plots available on request

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. Plating finish: ENIG on both sides, 0.05 to 0.1 μm gold over 3 to 6 μm nickel

Carrier Tape Orientation



Tape & Reel Information

Parameter	Units	Value
Qty per reel	—	900
Reel Size	mm	330
Tape Width	mm	16.00
Pitch	mm	12.00
Orientation	—	F45
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.