

2-Way 90° Power Splitter 5 - 250 MHz

Rev. V3

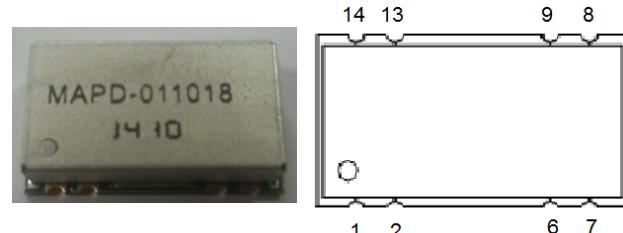
Features

- 2-Way 90°
- Surface Mount Package
- Available on Tape & Reel
- 260°C Reflow Compatible
- RoHS Compliant, Lead-Free
- Excellent Temperature Stability
- Suitable for all CATV, Broadband and FTTx Applications

Description

The MAPD-011018 is a 2 way 90° power splitter in a surface mount package. Ideally suited for all broadband CATV applications.

Functional Block Diagram



Pin Configuration

Pin #	Function	Pin #	Function
1	Input	7	Output 1(0°)
2 - 6, 9 - 14	Ground	8	Output 2(+90°)

Electrical Specifications: Freq. = 5 - 250 MHz, $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{IN} = 0 \text{ dBm}$

Parameter	Test Frequency (MHz)	Units	Min	Typ	Max
Insertion Loss (pin 1 - pin 7)	5 - 85 85 - 250	dB	—	1.5 1.2	1.9 1.9
Insertion Loss (pin 1 - pin 8)	5 - 85 85 - 250	dB	—	1.16 1.02	1.4 3.5
Amplitude Balance	5 - 85 85 - 250	dB	—	0.4 0.2	±0.8 ±2.9
Phase Balance	5 - 85 85 - 100 100 - 250	°	—	90.0 94.3 101.8	±3 ±9 ±17
Input Return Loss (pin 1)	5 - 85 85 - 250	dB	9 9	10.3 11.1	—
Output Return Loss (pin 7)	5 - 85 85 - 250	dB	6 6	7.7 16.9	—
Output Return Loss (pin 8)	5 - 85 85 - 250	dB	14 4	16.2 20.5	—
Isolation (pin 7 - pin 8)	5 - 85 85 - 250	dB	15 10	19.4 17.9	—

Ordering Information

Part Number	Description
MAPD-011018	400 piece reel
MAPD-011018-TB	sample board

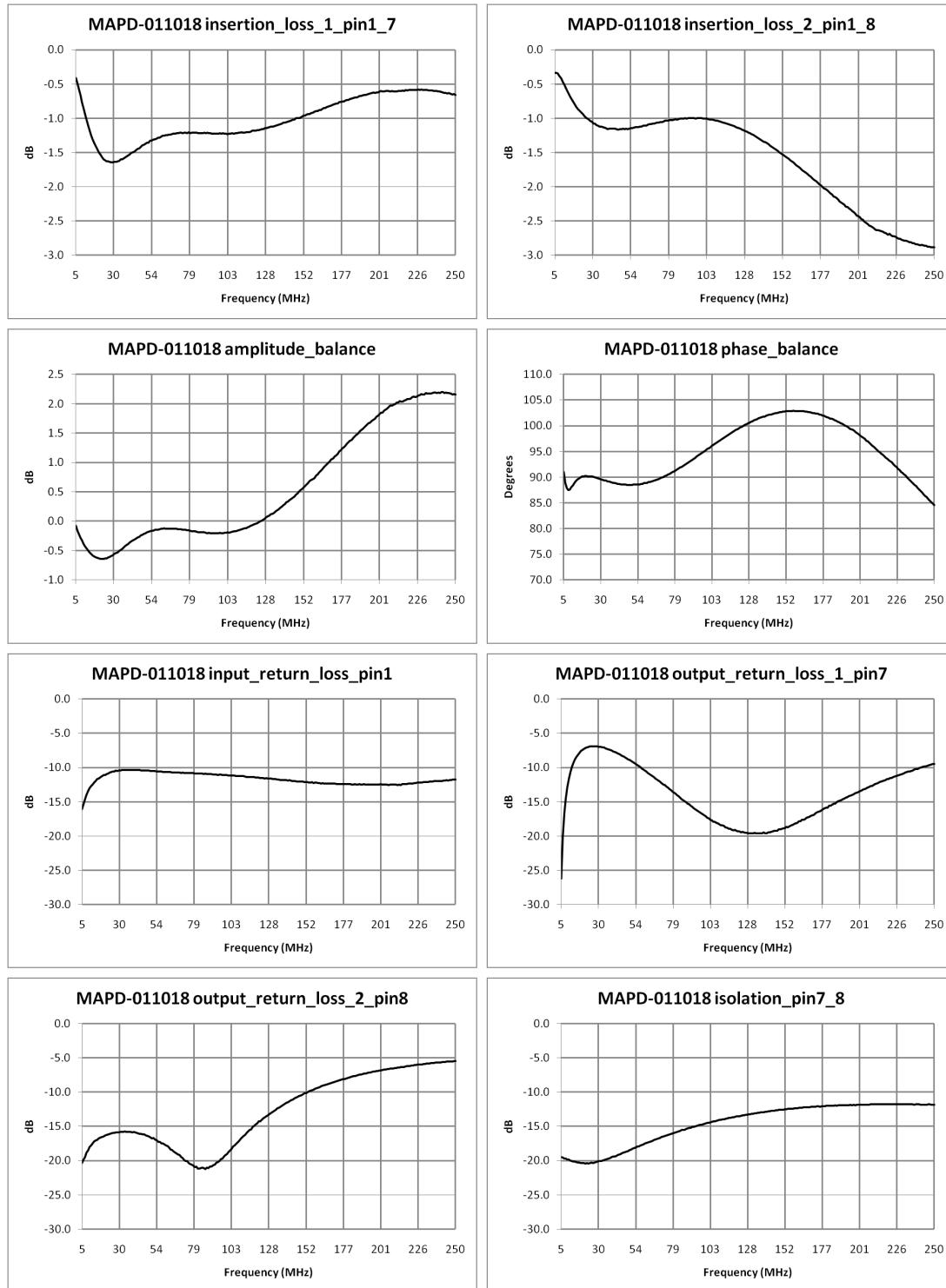
Absolute Maximum Ratings

Parameter	Absolute Maximum
Input RF Power	250 mW
DC Current	200 mA
Operating Temperature	-40°C to +85°C

2-Way 90° Power Splitter 5 - 250 MHz

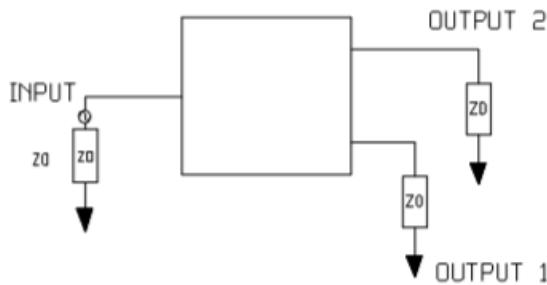
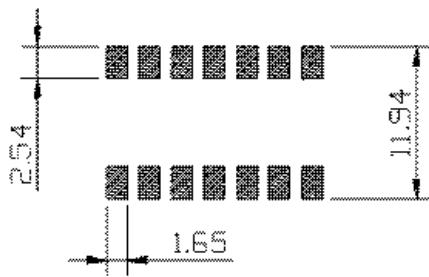
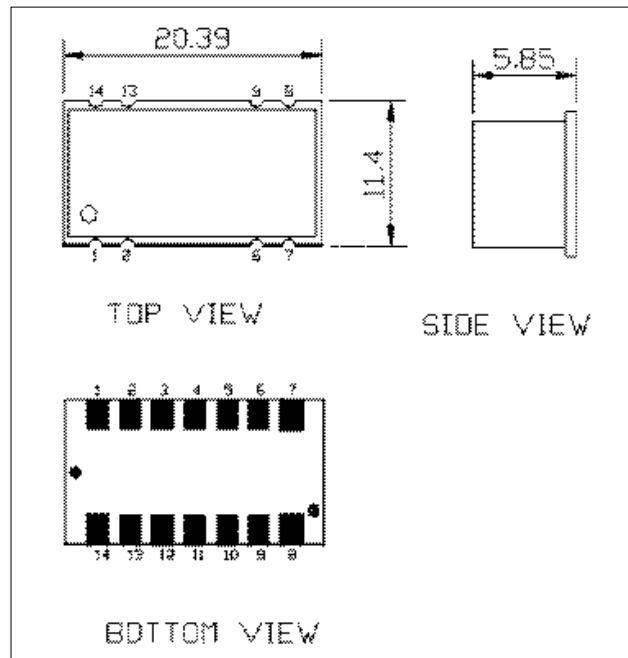
Rev. V3

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



2-Way 90° Power Splitter
5 - 250 MHz

Rev. V3

Application Schematic**Recommended Footprint****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

Tape & Reel Information

Parameter	Units	Value
Qty per reel	—	400
Reel Size	mm	330
Tape Width	mm	44
Pitch	mm	20
Ao	mm	21
Bo	mm	12
Ko	mm	6.40
Orientation	—	F30
Reference Application Note ANI-019 for orientation		

2-Way 90° Power Splitter 5 - 250 MHz

Rev. V3

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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[MACOM:](#)

[MAPD-011018](#)