

## 2 Way Power Divider 5 - 1200 MHz

Rev. V1

### Features

- Surface mount
- 2 Way
- 0 Degree
- 75 Ohm
- Available on tape and reel
- RoHS compliant and lead free



### Description

MACOM's MAPD-011020 is a 2 way 0° power divider in a low cost, surface mount package. Ideally suited for high volume broadband CATV applications.

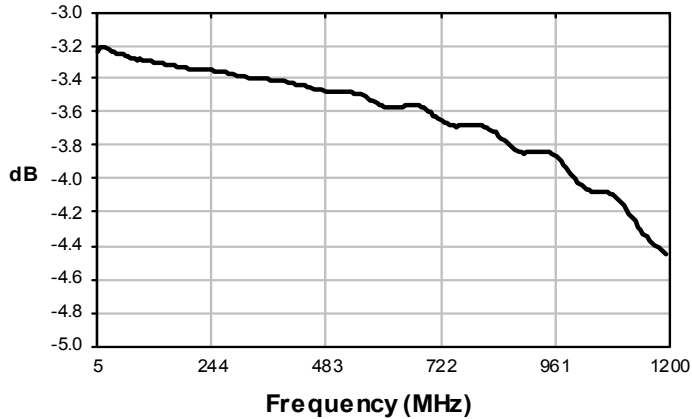
**Electrical Specifications:**  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

| Parameter          | Conditions      | Units    | Min | Typ  | Max       |
|--------------------|-----------------|----------|-----|------|-----------|
| Frequency Range    |                 | MHz      | 5   |      | 1200      |
| Impedance          |                 | $\Omega$ |     | 75   |           |
| Insertion Loss     | 5 - 500 MHz     | dB       | -   | 0.4  | 0.6       |
|                    | 500 - 870 MHz   | dB       | -   | 0.7  | 1.0       |
|                    | 870 - 1002 MHz  | dB       | -   | 0.9  | 1.3       |
|                    | 1002 - 1200 MHz | dB       | -   | 1.2  | 1.9       |
| Amplitude Balance  | 5 - 500 MHz     | dB       | -   | 0.0  | $\pm 0.1$ |
|                    | 500 - 870 MHz   | dB       | -   | 0.0  | $\pm 0.2$ |
|                    | 870 - 1002 MHz  | dB       | -   | 0.0  | $\pm 0.3$ |
|                    | 1002 - 1200 MHz | dB       | -   | 0.01 | $\pm 0.4$ |
| Phase Balance      | 5 - 500 MHz     | $^\circ$ | -   | 0.0  | $\pm 1.5$ |
|                    | 500 - 870 MHz   | $^\circ$ | -   | 0.6  | $\pm 2.8$ |
|                    | 870 - 1002 MHz  | $^\circ$ | -   | 1.5  | $\pm 3.5$ |
|                    | 1002 - 1200 MHz | $^\circ$ | -   | 2.2  | $\pm 4.7$ |
| Input Return Loss  | 5 - 500 MHz     | dB       | 22  | 27   | -         |
|                    | 500 - 1002 MHz  | dB       | 20  | 27   | -         |
|                    | 1002 - 1200 MHz | dB       | 13  | 20   | -         |
| Output Return Loss | 5 - 1002 MHz    | dB       | 20  | 32.1 | -         |
|                    | 1002 - 1200 MHz | dB       | 17  | 23.3 | -         |
| Isolation          | 5 - 870 MHz     | dB       | -   | 32.3 | 20        |
|                    | 870 - 1002 MHz  | dB       | -   | 23.0 | 19        |
|                    | 1002 - 1200 MHz | dB       | -   | 20.0 | 17        |

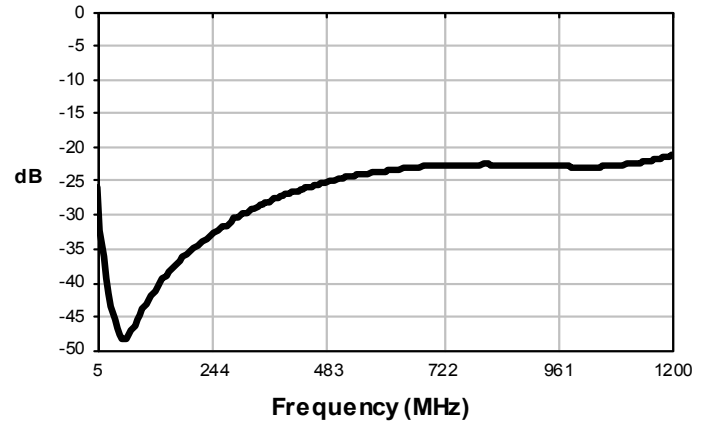
## 2 Way Power Divider 5 - 1200 MHz

Rev. V1

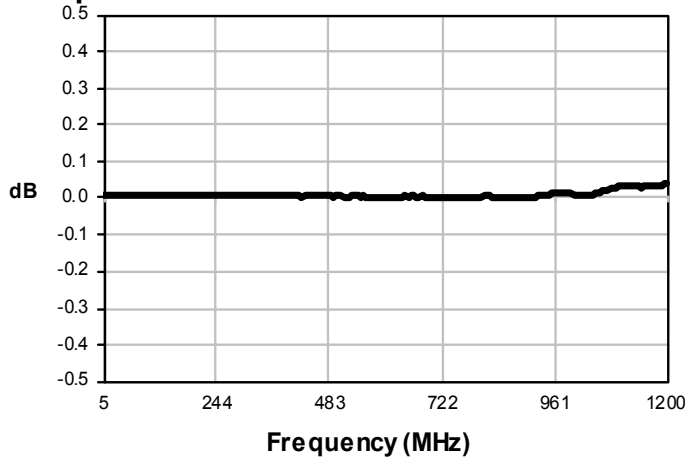
**Insertion Loss**



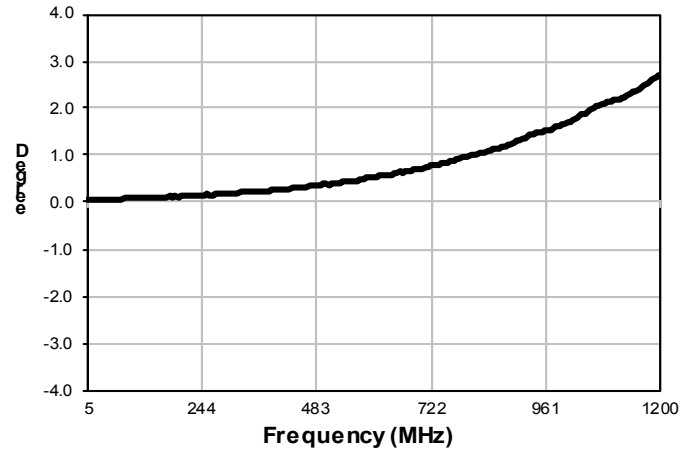
**Isolation**



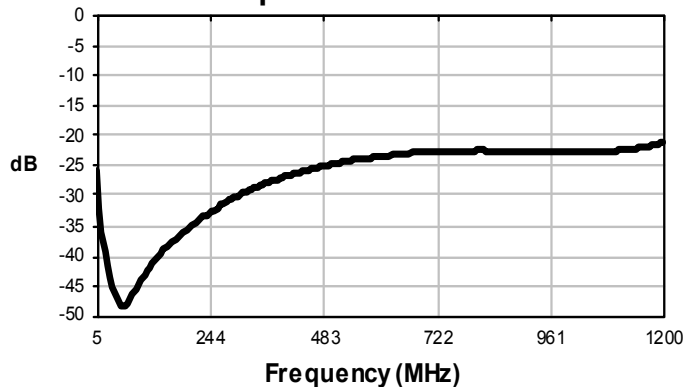
**Amplitude Balance**



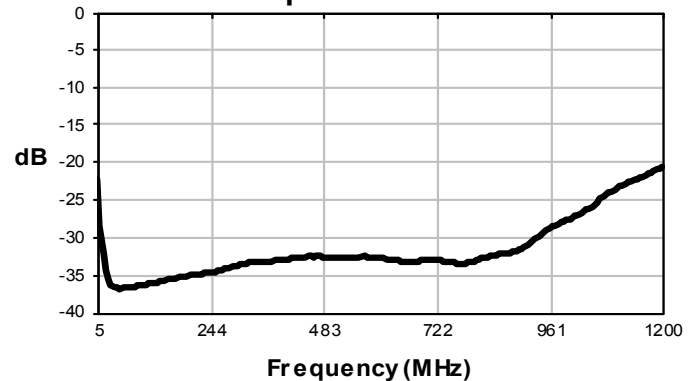
**Phase Balance**



**Return Loss: Input**



**Return Loss: Output**

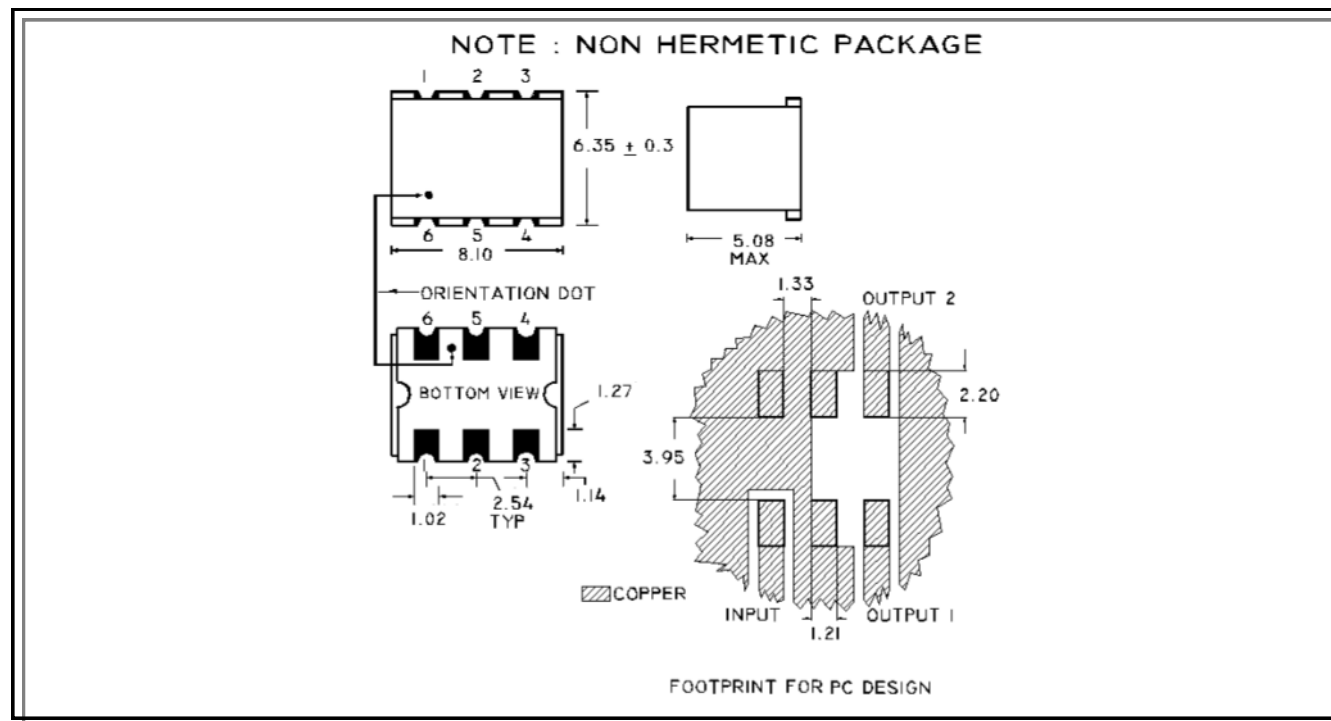


Electrical Specifications:  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

## 2 Way Power Divider 5 - 1200 MHz

Rev. V1

### 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 (ENIG)

## 2 Way Power Divider 5 - 1200 MHz

Rev. V1

### Tape & Reel Information

| Parameter                                          | Units | Value |
|----------------------------------------------------|-------|-------|
| Qty per reel                                       | -     | 900   |
| Reel Size                                          | mm    | 330   |
| Tape Width                                         | mm    | 16.00 |
| Pitch                                              | mm    | 12.00 |
| Ao                                                 | mm    | 7.01  |
| Bo                                                 | mm    | 8.61  |
| Ko                                                 | mm    | 5.23  |
| Orientation                                        | -     | F15   |
| Reference Application Note ANI-019 for orientation |       |       |

### Ordering Information

| Part Number | Description |
|-------------|-------------|
| MAPD-011020 | Tape & Reel |
|             |             |

### Recommended Maximum Ratings

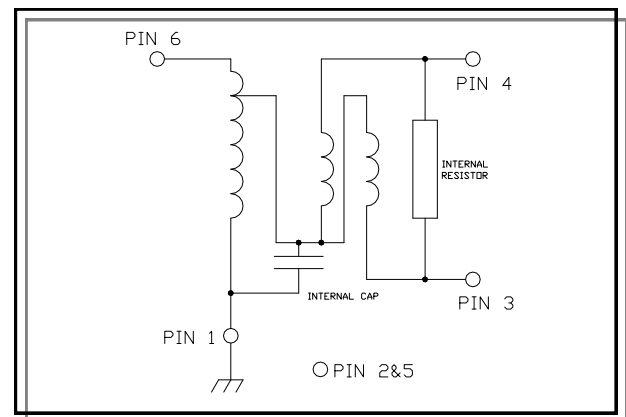
| Parameter                   | Units | Min | Max   |
|-----------------------------|-------|-----|-------|
| Input Power                 | W     |     | 1     |
| DC Current                  | W     |     | 0.125 |
| Operating Temperature Range | °C    | -40 | +85   |

Full temperature plots available on request

### Pin Configuration

| Pin No. | Function      |
|---------|---------------|
| 1       | Ground        |
| 2       | Not Connected |
| 3       | Output 1      |
| 4       | Output 2      |
| 5       | Not Connected |
| 6       | Input         |

### Schematic



M/A-COM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with M/A-COM 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.