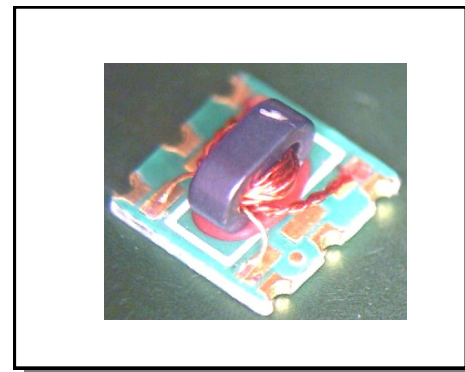


## Transformer, 1:1 Transmission Line 5MHz - 1200MHz

Rev. V2

### Features

- Surface mount
- 1:1 Impedance ratio
- 260°C reflow compatible
- RoHS\* compliant, Pb-Free
- Available on tape and reel.



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

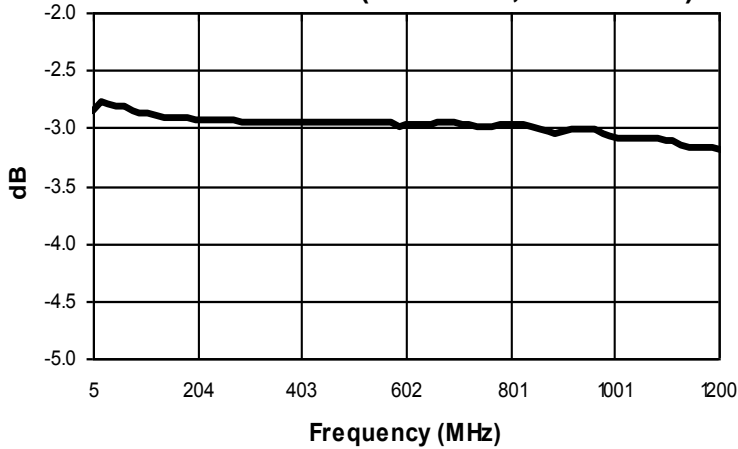
Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	5		1200
Impedance		$\Omega$		75	
Impedance Ratio				1:1	
Insertion Loss	5 - 1200MHz	dB	-	0.2	0.8
Amplitude Balance	5 - 1200MHz	dB	-0.9	0.7	0.9
Phase Balance	5 - 200MHz	$^\circ$	-4.0	3.0	4.0
	200 - 1200MHz	$^\circ$	-9.0	7.0	9.0
Input Return Loss	5 - 200MHz	dB	20	21	-
	200 - 400MHz	dB	18	23	-
	400 - 1000MHz	dB	16	20	-
	1000 - 1200MHz	dB	14	20	-

**Transformer, 1:1 Transmission Line**  
**5MHz - 1200MHz**

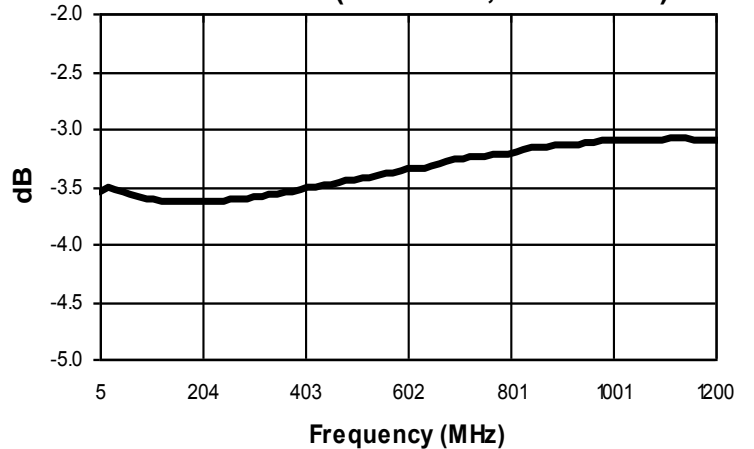
Rev. V2

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

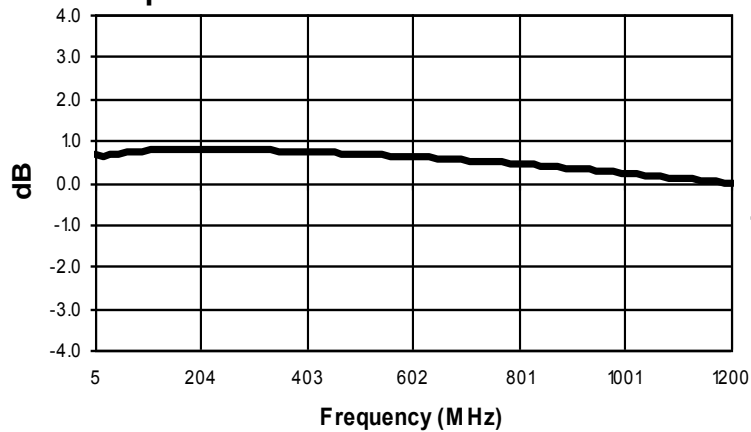
**Insertion Loss 1: (Pin 6 to 1, ref -3.0dB)**



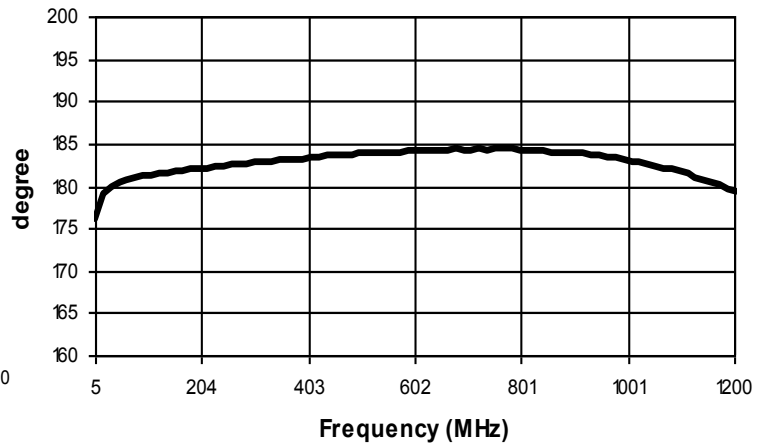
**Insertion Loss 2: (Pin 6 to 3, ref -3.0dB)**



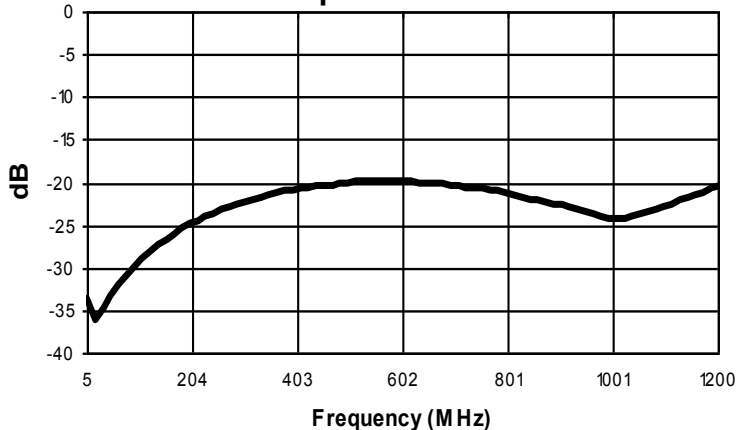
**Amplitude Balance**



**Phase Balance**



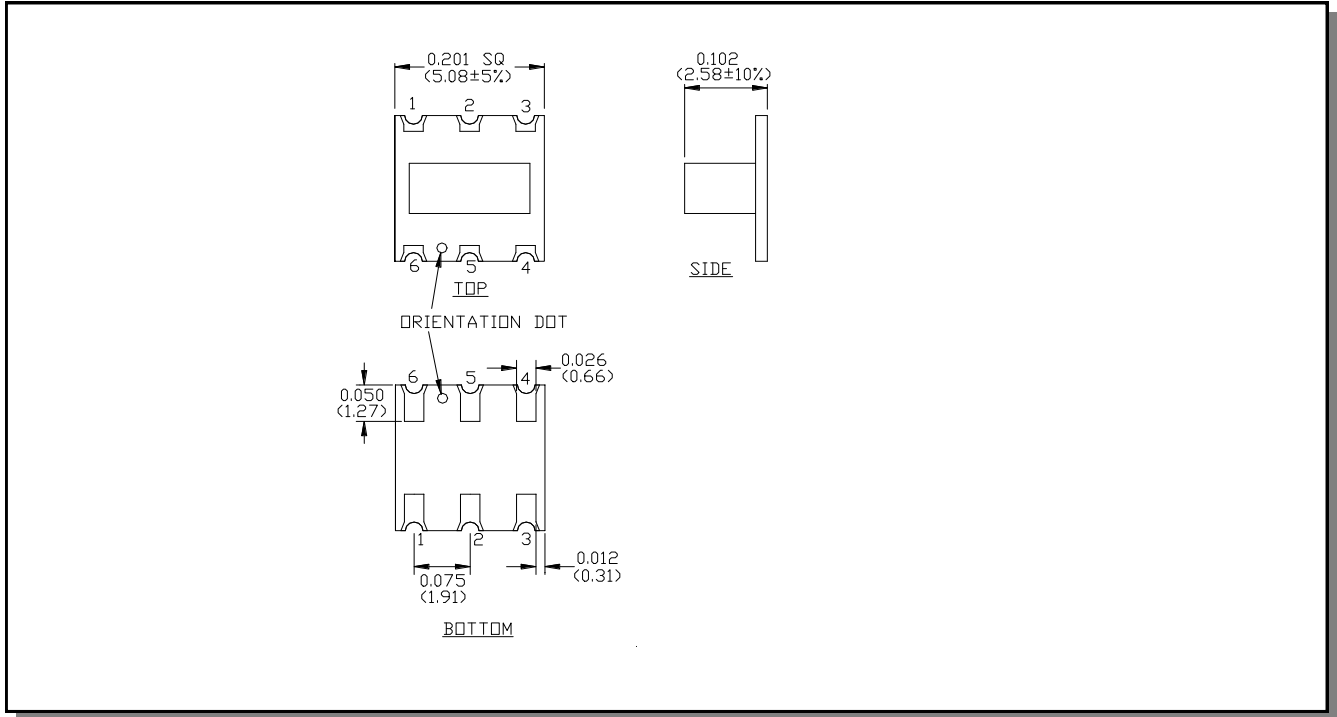
**Return Loss: Input Pin 6**



**Transformer, 1:1 Transmission Line**  
**5MHz - 1200MHz**

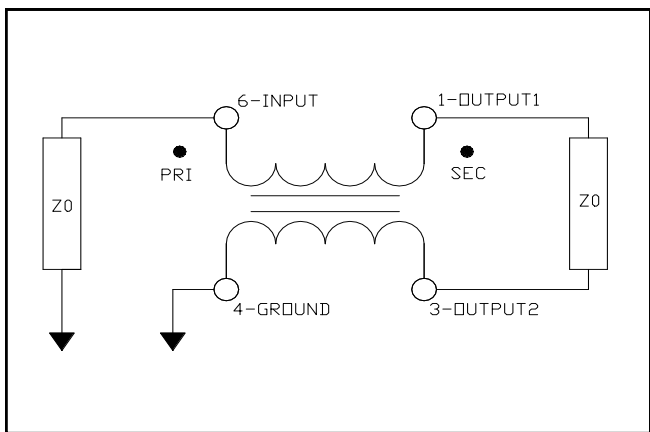
Rev. V2

**Outline Drawing**

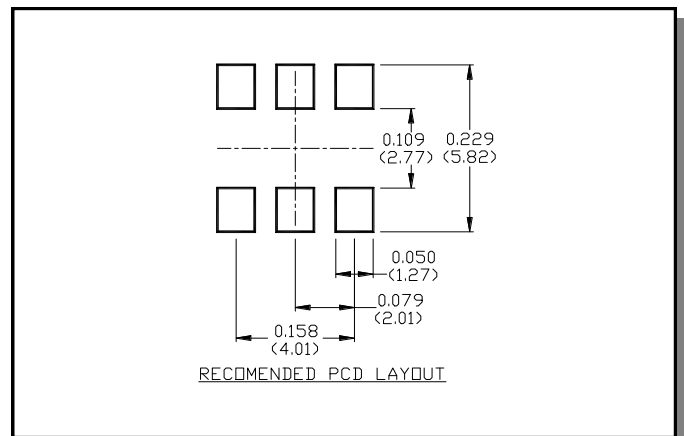


1. Dimensions in mm.
2. Tolerance:  $\pm 0.2\text{mm}$  unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG on both sides

**Application Circuit**



**Recommended Footprint**



## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.00
Pitch (P <sub>1</sub> )	mm	8.00
A <sub>0</sub>	mm	5.3
B <sub>0</sub>	mm	5.3
K <sub>0</sub>	mm	2.7
Orientation	-	F53
Reference Application note ANI-019 for orientation		

## Ordering Information

Part Number	Description
MABA-011031	Tape & Reel

## Recommended Maximum Ratings

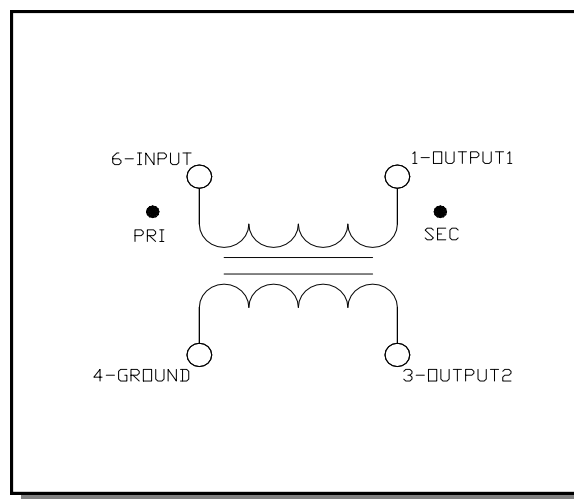
Parameter	Units	Min	Max
Input Power	mW		+24dBm (250mW)
DC Current	mA		30
Operating Temperature Range	°C	-40	+85

Temperature data available on request

## Pin Configuration

Pin No.	Function
1	Secondary Dot (output1)
2	Not Used (Ground)
3	Secondary (output2)
4	Primary (ground)
5	Not Used (Ground)
6	Primary Dot

## 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 estoppels 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.