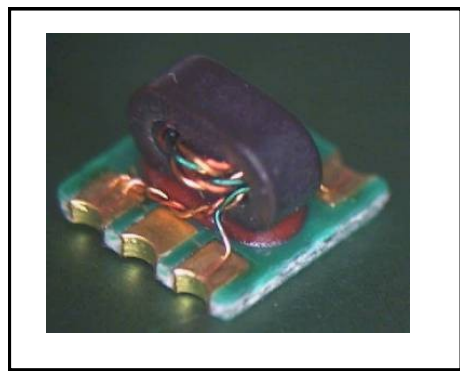


## Transformer, 1:1 Transmission Line 600 - 1700 MHz

Rev. V2

### Features

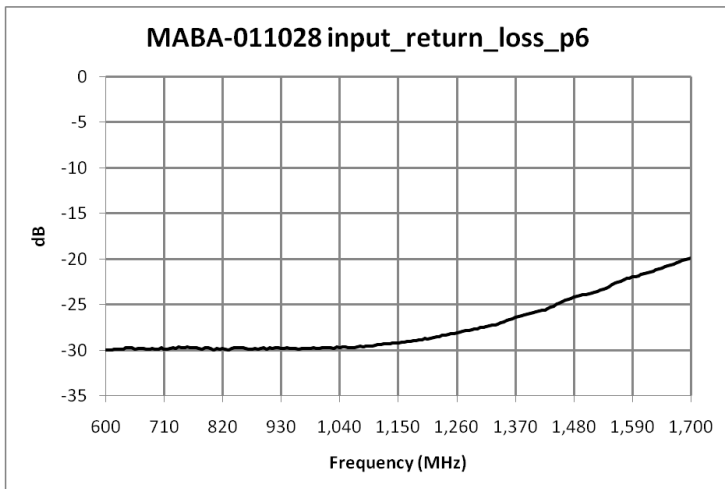
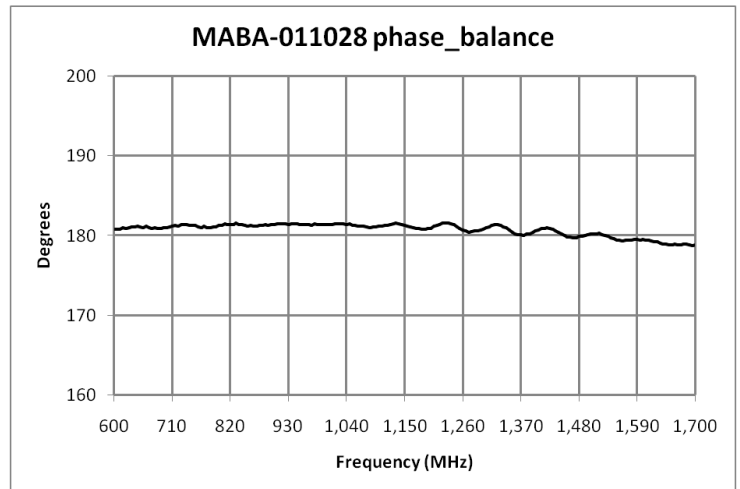
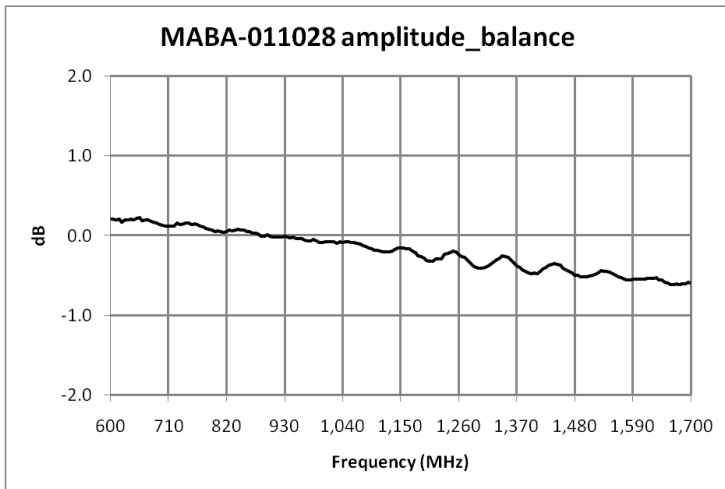
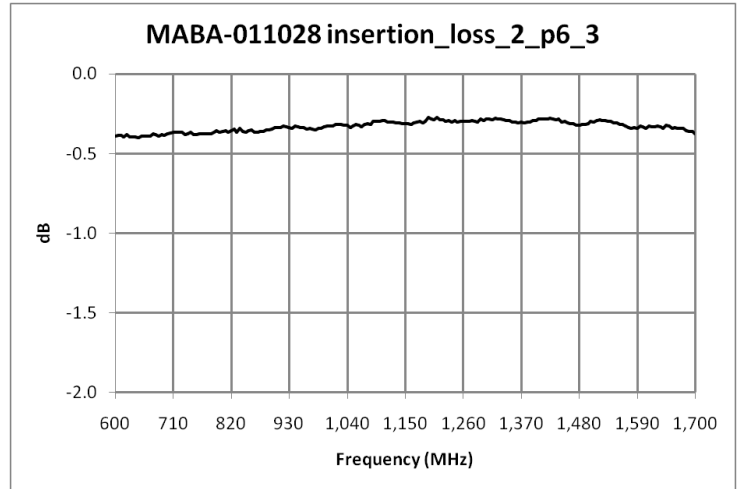
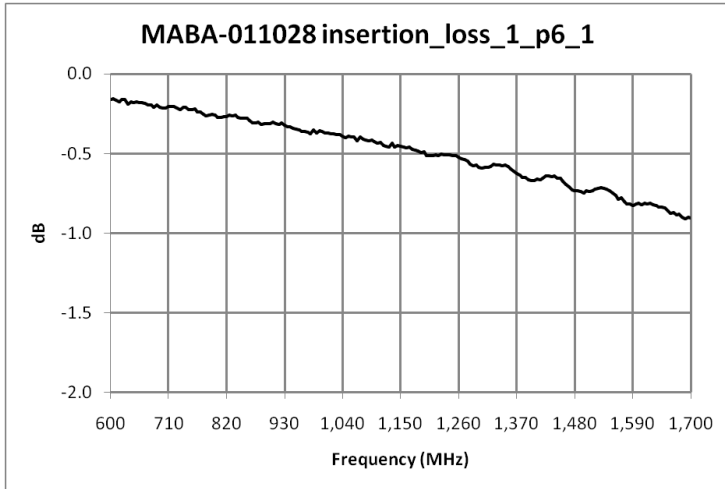
- Surface Mount
- 1:1 Impedance
- Excellent MoCA band performance
- Excellent amplitude and phase balance
- Can be used in both 50Ω and 75Ω systems
- 260°C Reflow Compatible
- RoHS\* Compliant, Pb Free
- Available on Tape and Reel.



**Electrical Specifications:**  $Z_0 = 50\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	600		1700
Impedance		$\Omega$		50	
Impedance Ratio				1:1	
Insertion Loss (Pin6 - Pin1)	600 - 1,000 MHz	dB	-	0.3	0.60
	1,000 - 1,300MHz	dB	-	0.5	0.80
	1,300 - 1,700MHz	dB	-	0.8	1.30
Insertion Loss (Pin6 - Pin3)	600 - 1,000 MHz	dB	-	0.4	0.60
	1,000 - 1,300MHz	dB	-	0.3	0.60
	1,300 - 1,700MHz	dB	-	0.3	1.00
Amplitude Balance	600 - 1,000 MHz	dB	-0.5	0.1	0.5
	1,000 - 1,300MHz	dB	-0.9	-0.2	0.9
	1,300 - 1,700MHz	dB	-1.2	-0.5	1.2
Phase Balance	600 - 1,000 MHz	$^\circ$	-4	1.0	4
	1,000 - 1,300MHz	$^\circ$	-4	1.0	4
	1,300 - 1,700MHz	$^\circ$	-5	0.0	5
Input Return Loss (Pin6)	600 - 1,000 MHz	dB	15	30	-
	1,000 - 1,300MHz	dB	14	28	-
	1,300 - 1,700MHz	dB	13	22	-

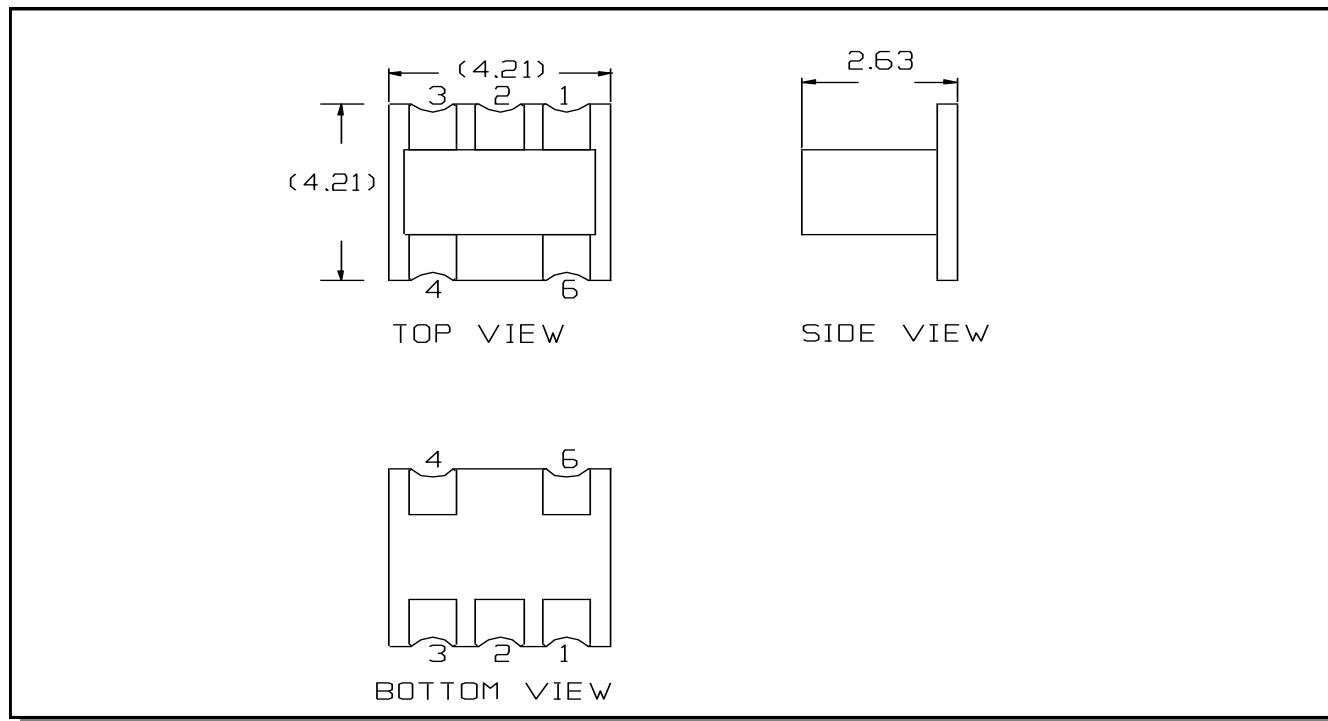
Electrical Specifications:  $Z_0 = 50\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$



## Transformer, 1:1 Transmission Line 600 - 1700 MHz

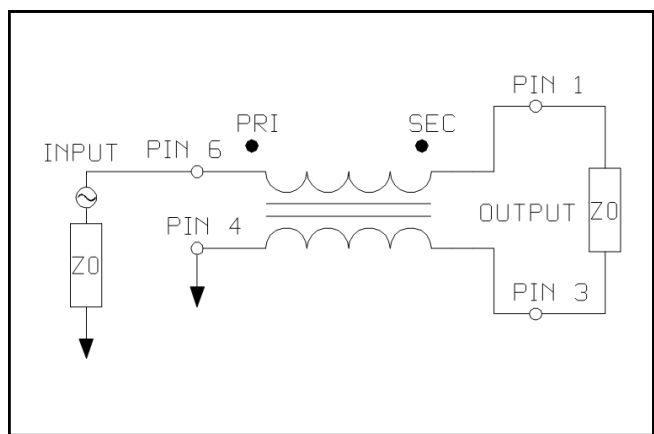
Rev. V2

### Outline Drawing

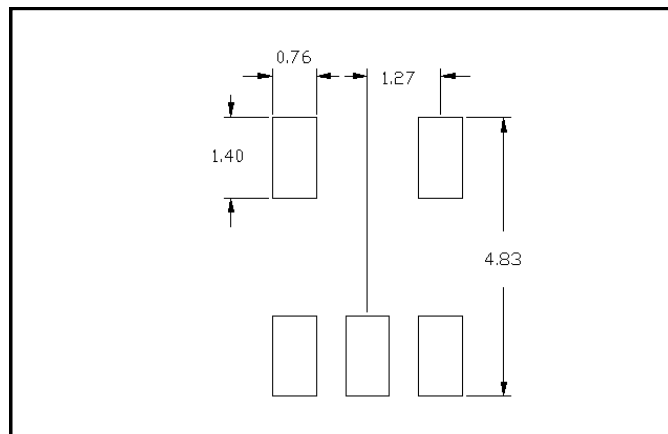


1. Dimensions in mm.
2. Tolerance:  $\pm 0.2\text{mm}$  unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG on both sides

### 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	4.5
B <sub>0</sub>	mm	4.5
K <sub>0</sub>	mm	2.73
Orientation	-	F31
Reference Application note ANI-019 for orientation		

## Ordering Information

Part Number	Description
MABA-011028	Tape & Reel
MABA-011028-TB	Customer Evaluation Board

## Recommended Maximum Ratings

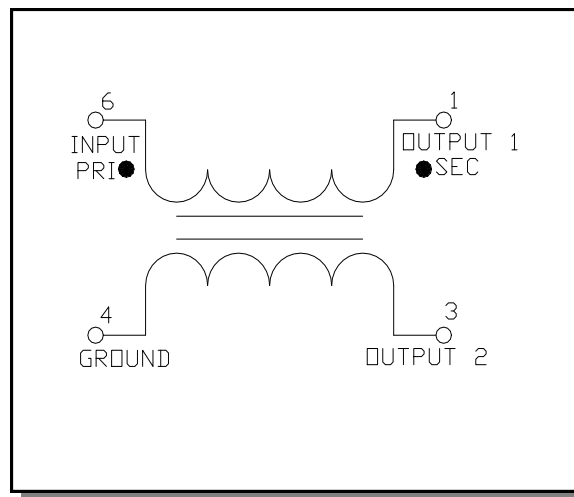
Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		200
Operating Temperature Range	°C	-40	+115

Temperature data available on request

## Pin Configuration

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