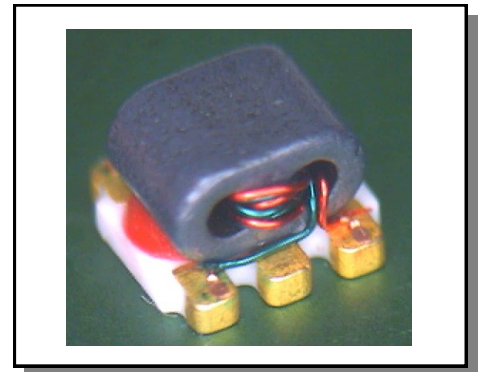


Transformer, 1:1 Transmission Line 46MHz - 1002MHz

Rev. V2

Features

- Surface mount
- Wide Frequency Range
- 260°C reflow compatible
- RoHS* compliant and lead free
- Available on Tape and Reel



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

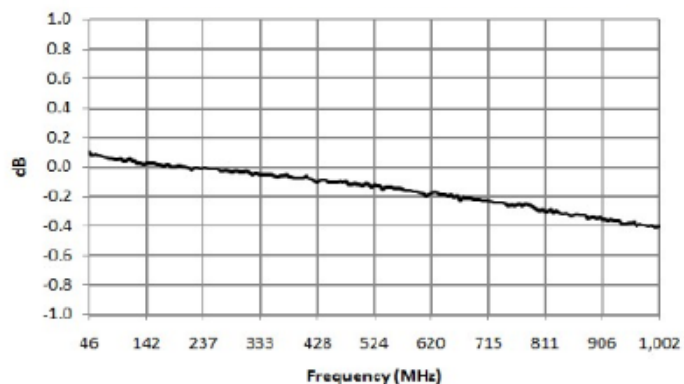
Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	46		1002
Impedance		Ω		75	
Impedance Ratio				1:1	
Insertion Loss (Pin4 - Pin3)	46 - 1002MHz	dB	-	0.1	0.6
Insertion Loss (Pin4 - Pin1)	46 - 1002MHz	dB	-	0.4	0.7
Amplitude Balance	46 - 1002MHz	dB	-0.8	0.3	0.8
Phase Balance	46 - 100MHz 100 - 1002MHz	$^\circ$ $^\circ$	-5.0 -2.5	2.4 1.2	5.0 2.5
Input Return Loss (Pin4)	46 - 300MHz 300 - 1002MHz	dB dB	25 17.5	42 30	- -

Transformer, 1:1 Transmission Line 46MHz - 1002MHz

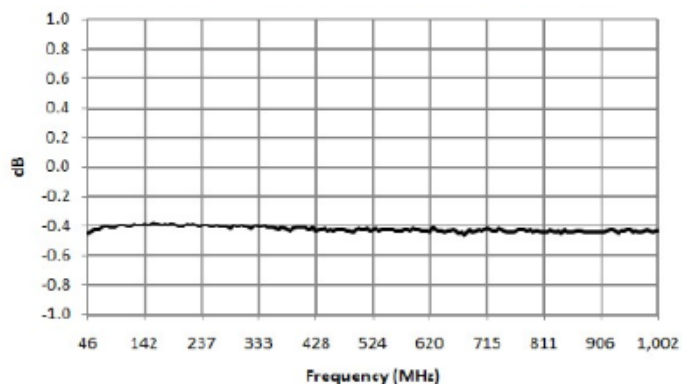
Rev. V2

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

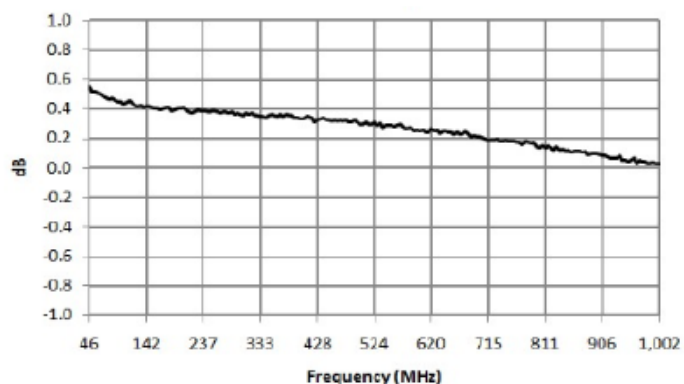
MABA-011030 Insertion Loss 1 (pin4-3)



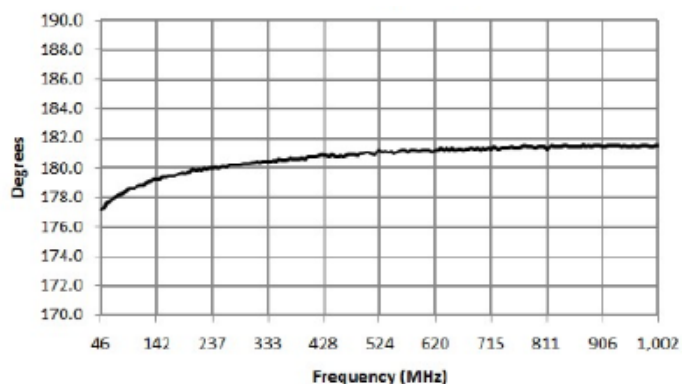
MABA-011030 Insertion Loss 2 (pin4-1)



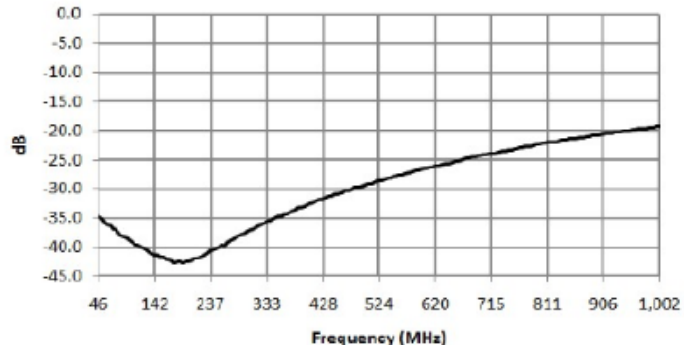
MABA-011030 Amplitude Balance



MABA-011030 Phase Balance



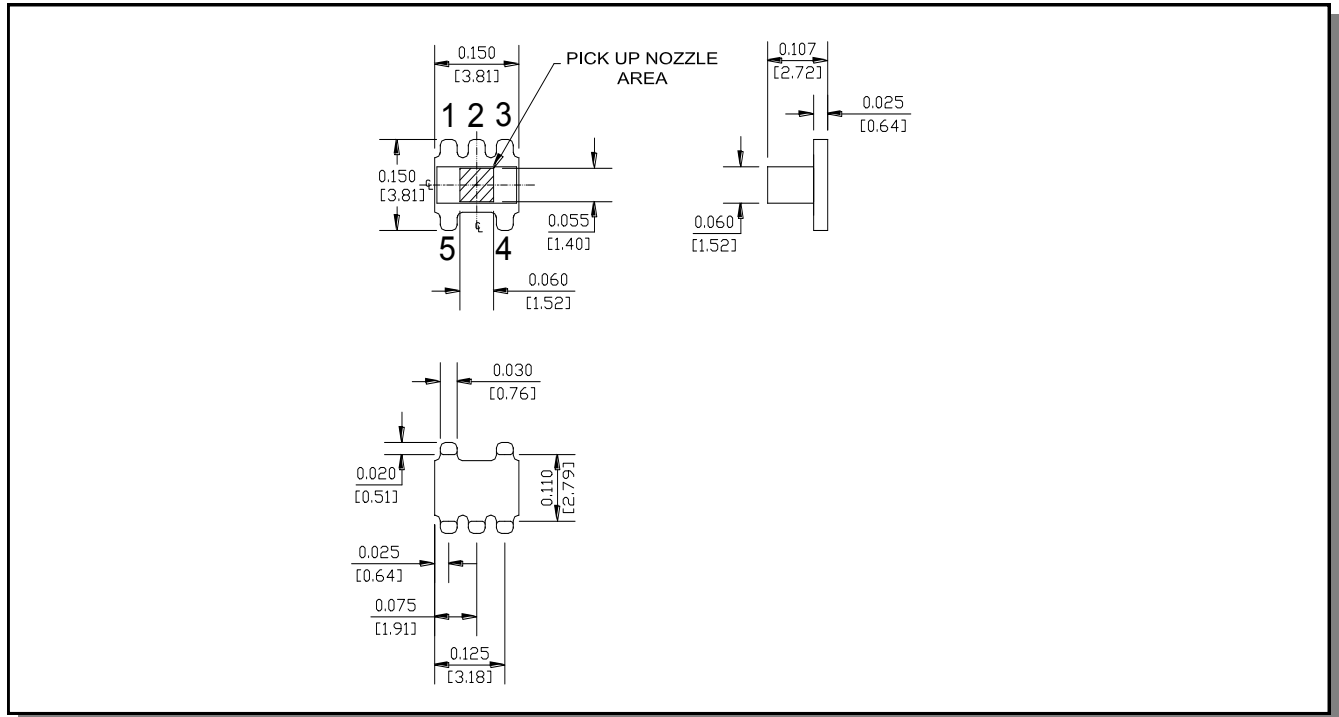
**MABA-011030 Input Return Loss
(pin4)**



Transformer, 1:1 Transmission Line 46MHz - 1002MHz

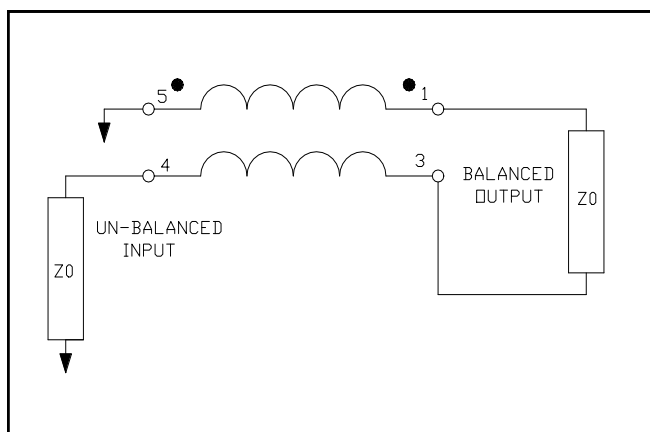
Rev. V2

Outline Drawing

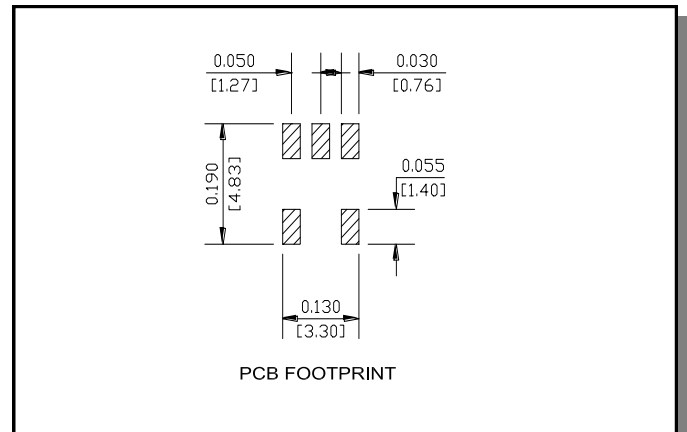


1. Dimensions in mm.
2. Tolerance: $\pm 0.2\text{mm}$ unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG on both sides

Application Circuit



Recommended Footprint



Transformer, 1:1 Transmission Line 46MHz - 1002MHz

Rev. V2

Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.00
Pitch (P ₁)	mm	8.00
A ₀	mm	4.05
B ₀	mm	4.30
K ₀	mm	3.45
Orientation	-	F5
Reference Application note ANI-019 for orientation		

Ordering Information

Part Number	Description
MABA-011030	Tape & Reel

Recommended Maximum Ratings

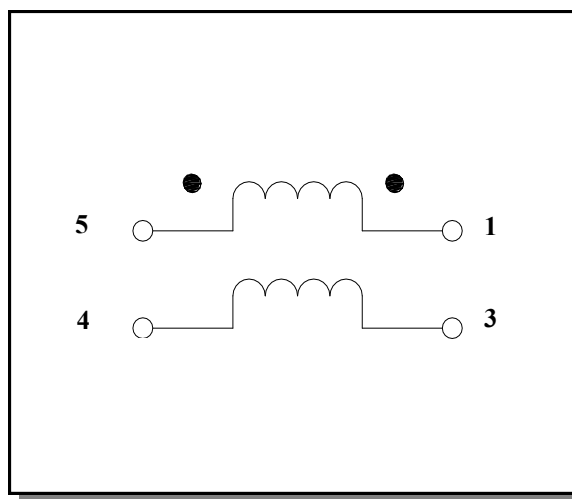
Parameter	Units	Min	Max
Input Power	mW		+24dBm (250mW)
DC Current (tested at 5V)	mA		600
Operating Temperature Range	°C	-40	+85

Temperature data available on request

Pin Configuration

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

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.