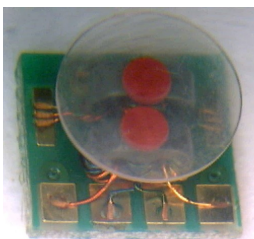
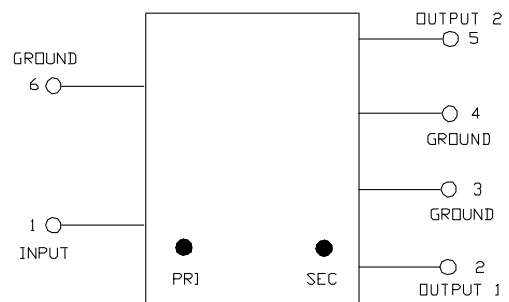


Features

- Surface Mount Package
- 1:2 Impedance
- Excellent Temperature Stability
- Usable on both 50 Ω & 75 Ω Systems
- Wide Frequency Range
- RoHS Compliant, Lead Free
- Available on Tape and Reel



Pin Configuration

Pin No.	Function
1	Input (PRI dot)
2	Output 1 (SEC dot)
3,4,6	Ground
5	Output 2 (SEC)

Electrical Specifications: Freq. = 5 - 1200 MHz, $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{IN} = 0 \text{ dBm}$

Parameter	Test Conditions Frequency (MHz)	Units	Min.	Typ.	Max.
Insertion Loss 1 (pin 1 to pin 2)	5 - 50	dB	—	0.40	0.60
	50 - 1000			1.80	1.80
	1000 - 1200			1.35	2.10
Insertion Loss 2 (pin 1 to pin 5)	5 - 50	dB	—	0.55	0.90
	50 - 1000			1.00	2.20
	1000 - 1200			1.85	2.60
Amplitude Balance	5 - 50	dB	—	0.15	± 0.60
	50 - 1000			0.20	± 1.40
	1000 - 1200			0.50	± 1.70
Phase Balance	5 - 50	°	—	0.5	± 3.0
	50 - 1200			3.0	± 8.0
Input Return Loss	5 - 50	dB	21	26	—
	50 - 1000		11	26	
	1000 - 1200		9	13	

Ordering Information

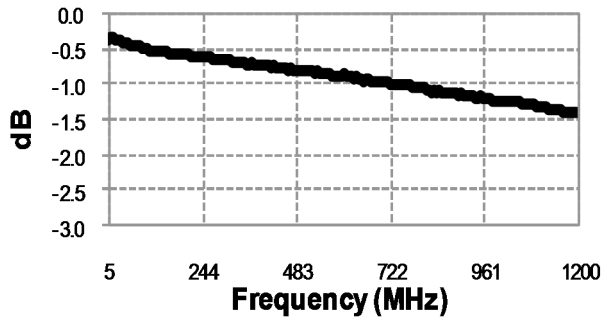
Parameter	Package
MABA-010238-CT4A80	900 piece reel
MABA-010238-CT4ATB	customer evaluation board

Absolute Maximum Ratings

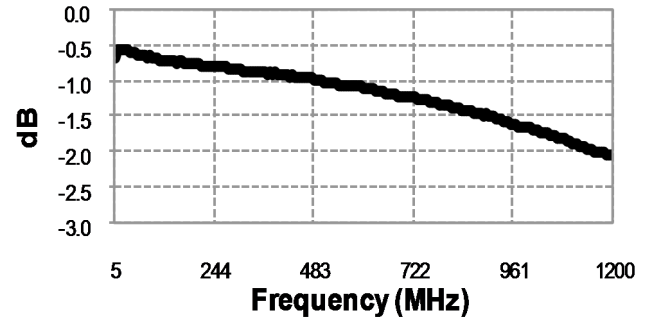
Parameter	Absolute Maximum
RF Input Power	250 mW
DC Current	200 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

Typical Performance: $T_A = 25^\circ\text{C}$

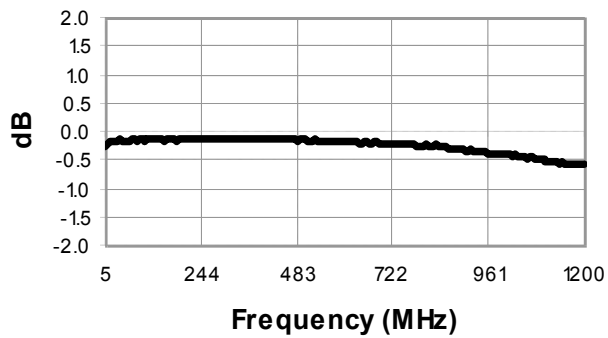
Insertion Loss (pin1 to pin 2)



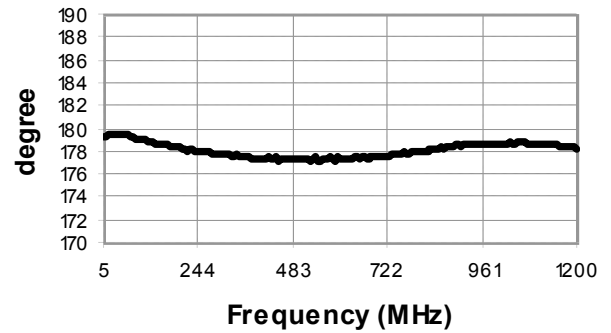
Insertion Loss (pin1 to pin 5)



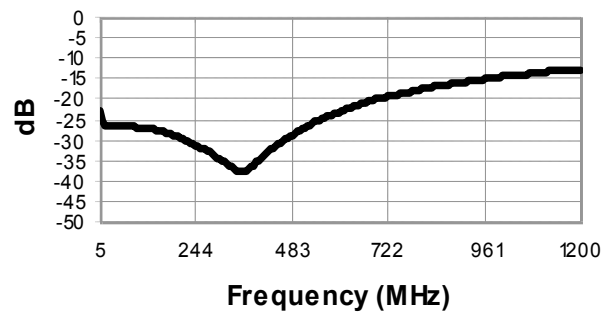
Amplitude Unbalance



Phase Unbalance



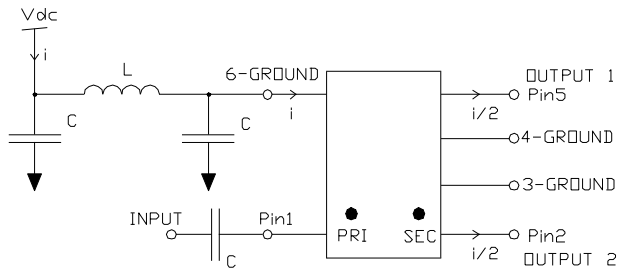
Input Return Loss



1:2 Transformer 5 - 1200 MHz

Rev. V3

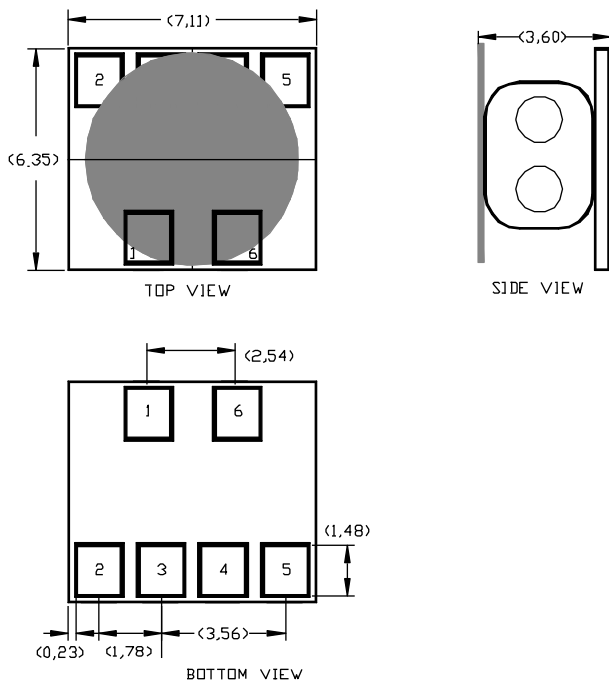
Recommended DC Bias Circuit



Capacitance:
5 - 50 MHz = 100 nF
50 - 1200 MHz = 10 nF

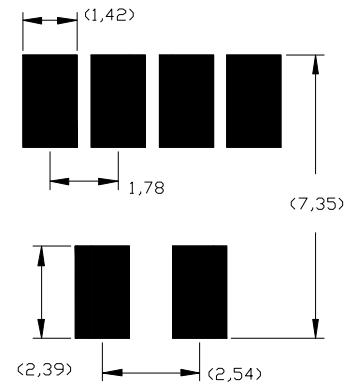
Inductance:
5 - 50 MHz = 10 μ H
50 - 1200 MHz = 1 μ H

Outline Drawing



Dimensions in mm.
Tolerance: ± 0.2 mm unless otherwise noted.
Model number and lot code are printed on the reel.
Finish: ENIG

Recommended Footprint



Tape & Reel Information

Item	Dimension
Qty. per reel	900
Reel size	330 mm
A _O	6.7 mm
B _O	7.5 mm
K _O	3.9 mm
W	16 mm
P1	12 mm
Orientation	F42

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.