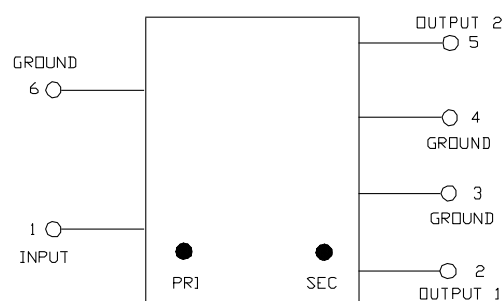
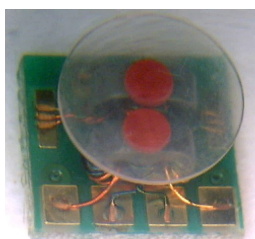


1:2 Transformer 5 - 1200 MHz

Rev. V3

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

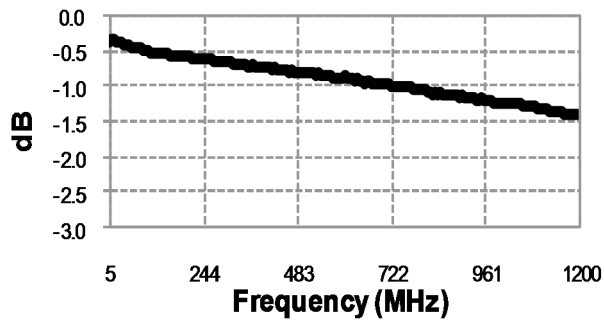
Parameter	Package
MABA-010238-CT4A80	900 piece reel
MABA-010238-CT4ATB	customer evaluation board

Absolute Maximum Ratings

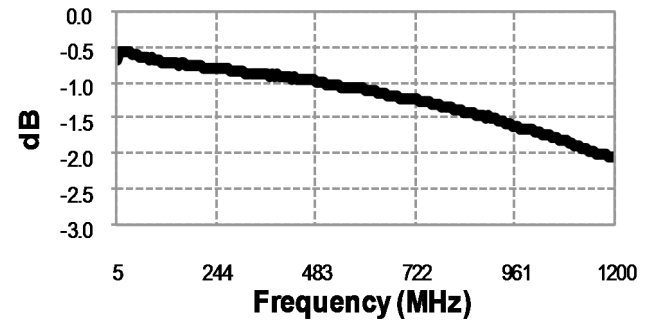
Parameter	Absolute Maximum
RF Input Power	250 mW
DC Current	200 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

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

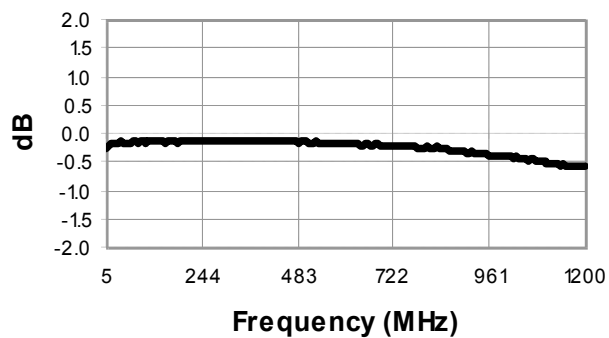
Insertion Loss (pin1 to pin 2)



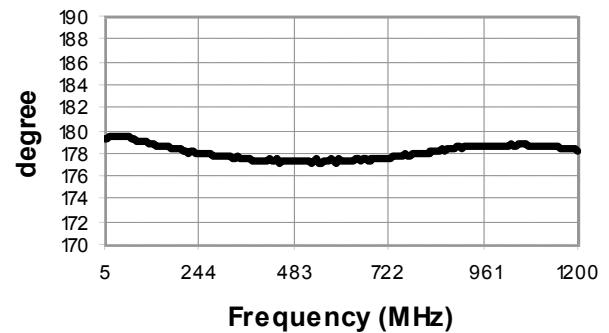
Insertion Loss (pin1 to pin 5)



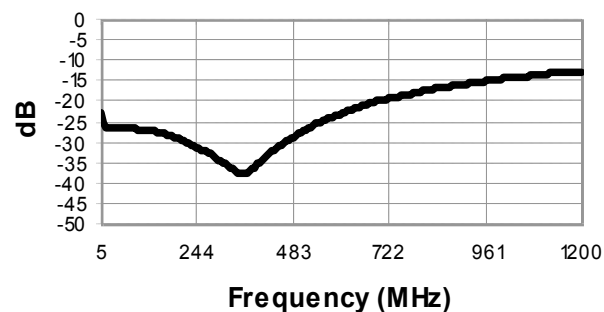
Amplitude Unbalance



Phase Unbalance



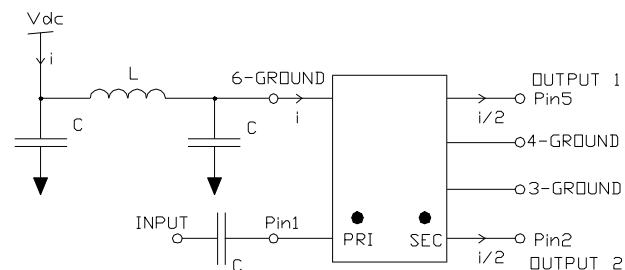
Input Return Loss



1:2 Transformer 5 - 1200 MHz

Rev. V3

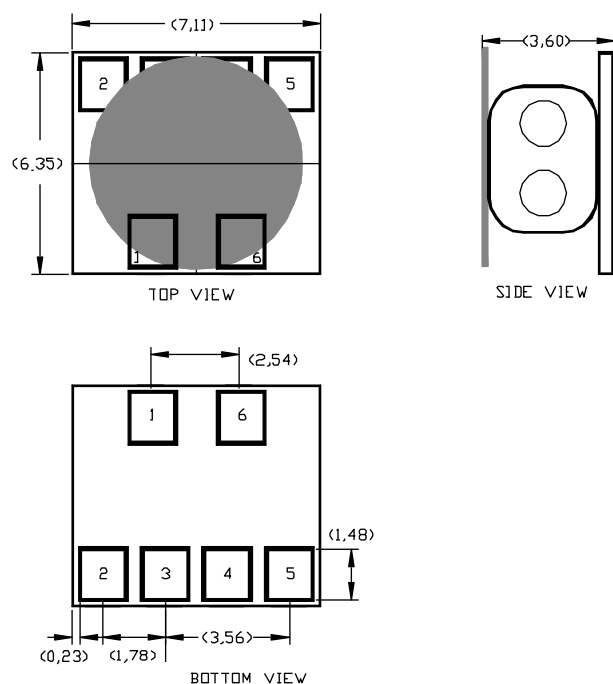
Recommended DC Bias Circuit



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

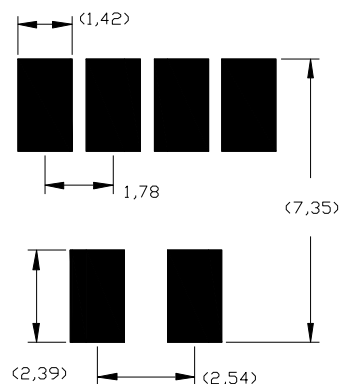
Inductance:
5 - 50 MHz = 10 μ H
50 - 1200 MHz = 1 μ H

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 ₀	6.7 mm
B ₀	7.5 mm
K ₀	3.9 mm
W	16 mm
P1	12 mm
Orientation	F42

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