

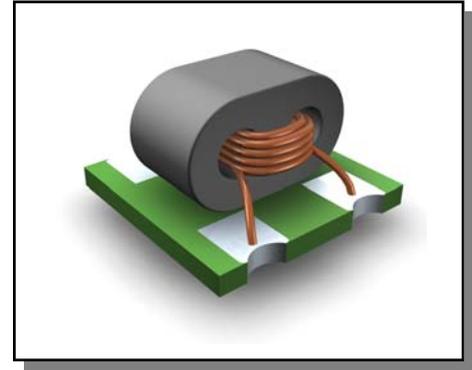
Transformer, 1:4  
10 MHz - 1900 MHz

RELEASED

Rev. V1

## Features

- ◆ 1:4 impedance ratio
- ◆ Transmission line Transformer
- ◆ Surface mount
- ◆ Available on tape and reel
- ◆ 260°C reflow compatible
- ◆ RoHS Compliant and Pb free
- ◆ Excellent temperature stability
- ◆ Can be used on 50Ω and 75Ω systems



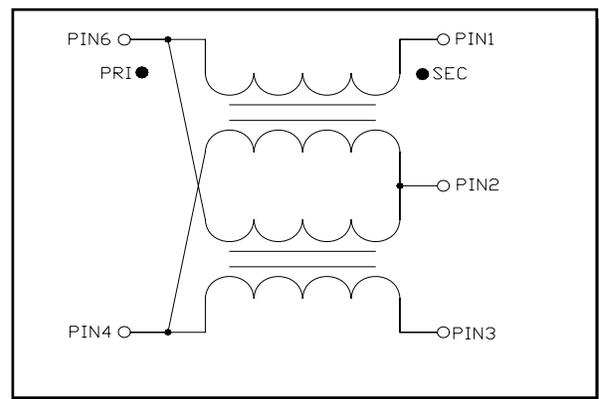
## Electrical Specifications: $Z_0 = 50\Omega$ , $T_A = 25^\circ\text{C}$ , $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	10		1900
Impedance		$\Omega$		50	
Impedance Ratio				1:4	
Insertion Loss	10 - 600 MHz	dB	-	1.0	1.4
	600 - 1300 MHz	dB	-	1.8	2.5
	1300 - 1900 MHz	dB	-	2.5	3.3
Amplitude Balance	10 - 600 MHz	dB	-	0.1	$\pm 0.5$
	600-1000 MHz	dB	-	0.1	$\pm 1.0$
	1000-1900 MHz	dB	-	0.0	$\pm 1.4$
Phase Balance	10 - 250 MHz	$^\circ$	-	3.0	$\pm 5$
	250 - 820 MHz	$^\circ$	-	11.0	$\pm 15$
	820-1900 MHz	$^\circ$	-	12.0	$\pm 22$
Input Return Loss	10 - 400 MHz	dB	15	16	-
	400 - 870 MHz	dB	9	12	-
	871 - 1900 MHz	dB	6	9	-

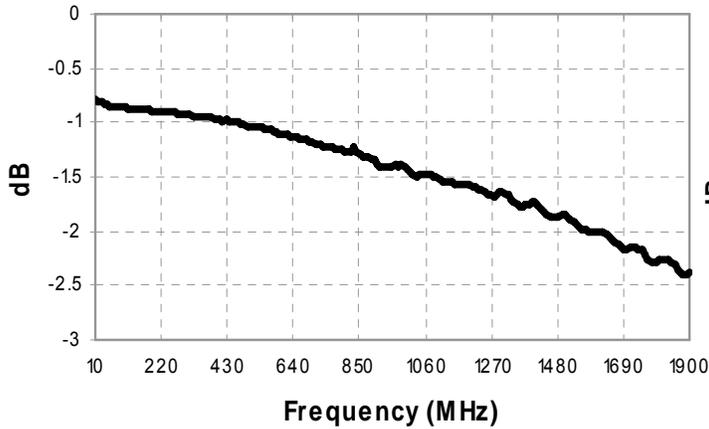
## Pin Configuration

Pin No.	Function
1	Secondary Dot
2	Center Tap
3	Secondary
4	Primary
6	Primary Dot

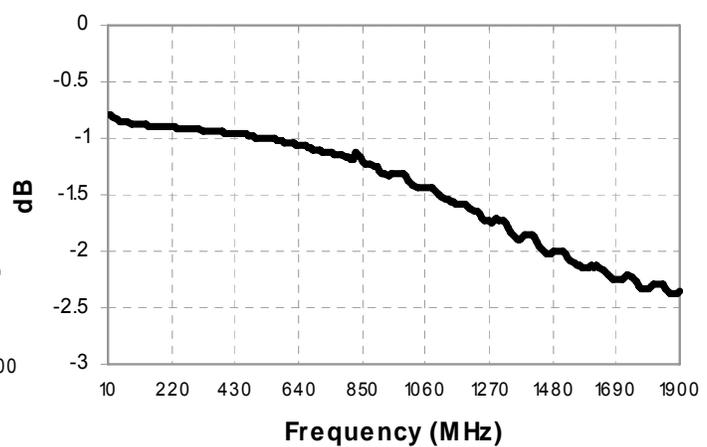
## Schematic



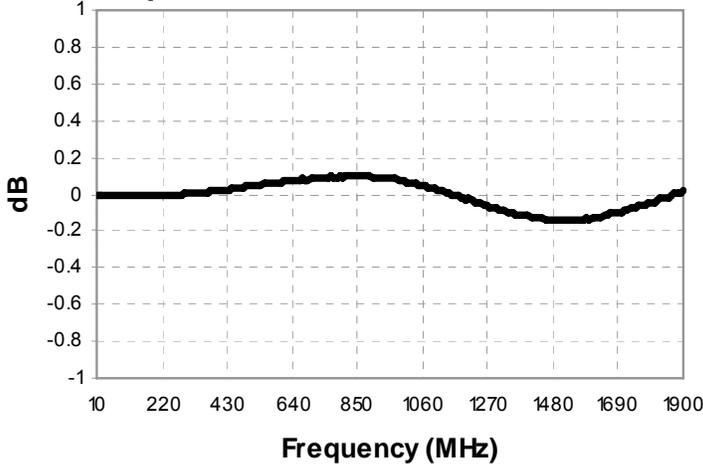
**Insertion Loss 1: (Pin4 - Pin1)**



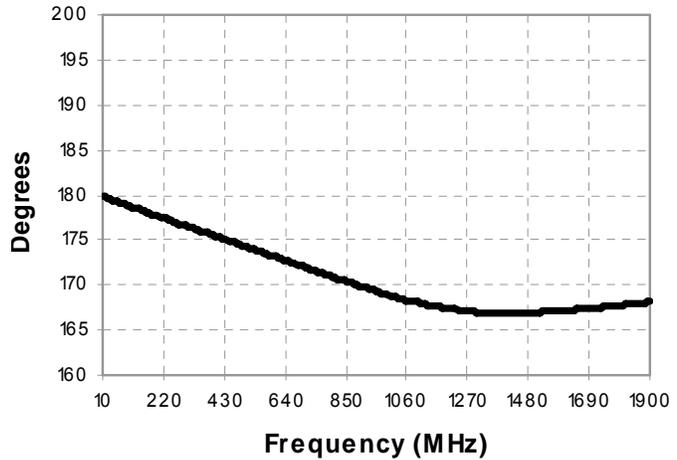
**Insertion Loss 2: (Pin4 - Pin3)**



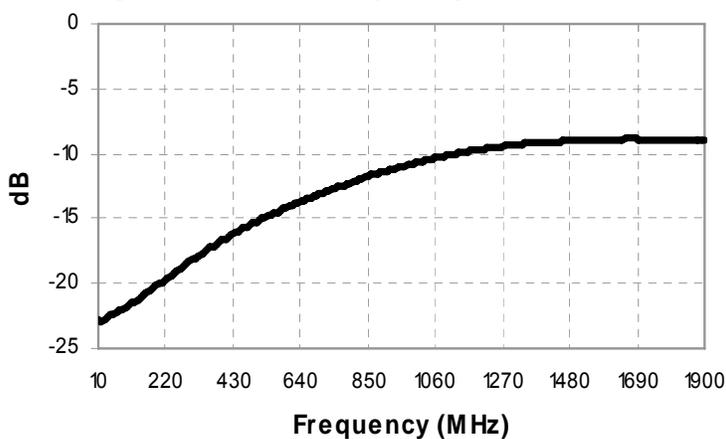
**Amplitude balance**



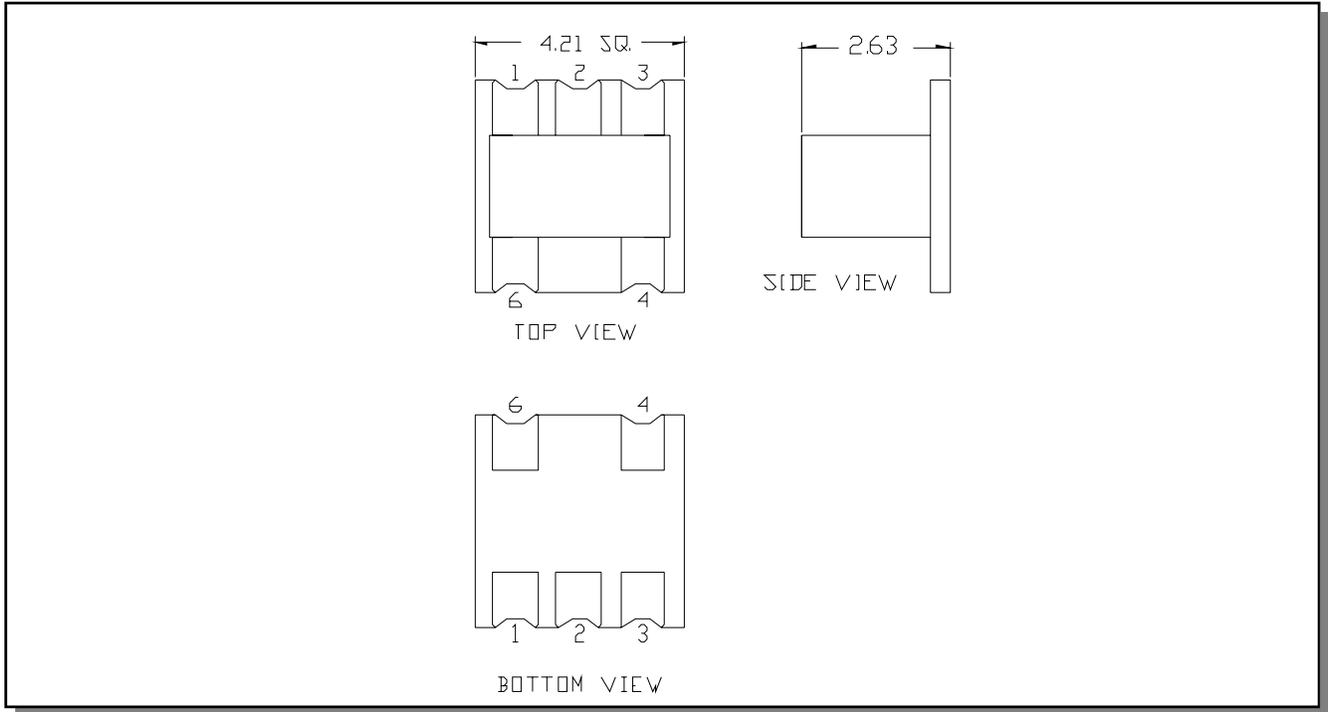
**Phase Balance**



**Input Return Loss (Pin 4)**

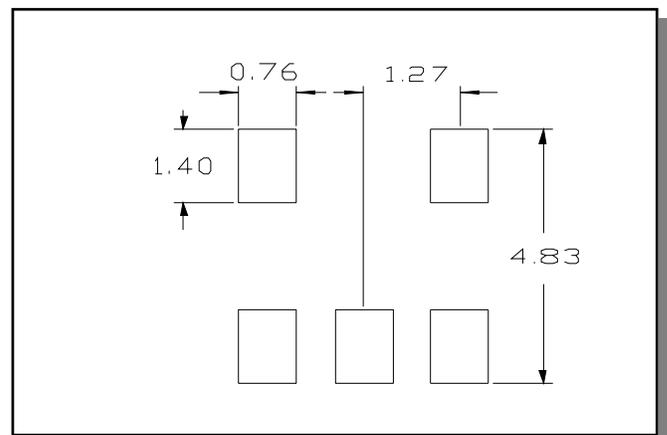


## Outline Drawing



1. Dimensions in mm.
2. Tolerance:  $\pm 0.2\text{mm}$  unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Finish: Electroless nickel immersion gold

## Recommended Footprint



# MABA-010374-CT4A40



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## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel Size	mm	330
Tape Width	mm	12.00
Pitch	mm	8.00
Ao	mm	4.50
Bo	mm	4.50
Ko	mm	2.73
Orientation	-	F31

Reference Application Note ANI-019 for orientation

## Ordering Information

Part Number	Description
MABA -010374-CT4A40	Tape & Reel
MABA -010374-CT4ATB	Customer Evaluation Board

## Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		200
Operating Temperature Range	°C	-40	+85
Storage Temperature Range	°C	-55	+125

## ECO History

Rev	Date	Description	ECO
V1	26 May 2010	Created datasheet	20100464

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