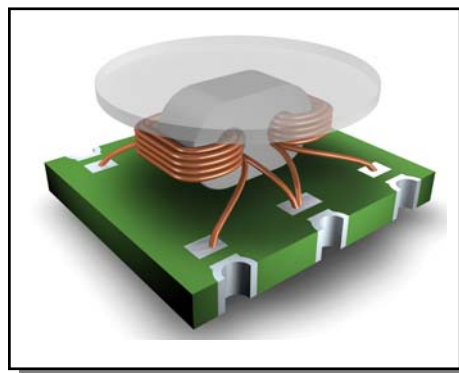


## Features

- ◆ 1:2 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



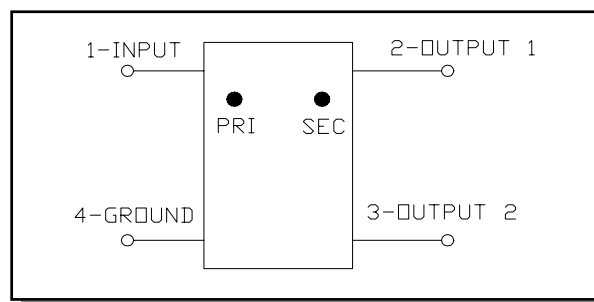
## Electrical Specifications: $Z_0 = 75\Omega$ , $T_A = 25^\circ\text{C}$ , $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	5		1200
Impedance		$\Omega$		75	
Impedance Ratio				1:2	
Insertion Loss 1 (Pin 1 to pin 2)	5 - 50 MHz	dB	-	0.35	0.50
	50 - 1000 MHz	dB	-	0.60	1.10
	1000 - 1200 MHz	dB	-	0.60	1.40
Insertion Loss 2 (Pin 1 to pin 3)	5 - 50 MHz	dB	-	0.5	0.70
	50 - 1000 MHz	dB	-	0.9	1.50
	1000 - 1200 MHz	dB	-	1.8	2.20
Amplitude Balance	5 - 50 MHz	dB	-	$\pm 0.10$	$\pm 0.40$
	50 - 1000 MHz	dB	-	$\pm 0.30$	$\pm 1.50$
	1000 - 1200 MHz	dB	-	$\pm 0.60$	$\pm 1.80$
Phase Balance	5 - 50 MHz	$^\circ$	-	$\pm 0.2$	$\pm 1.50$
	50 - 1200 MHz	$^\circ$	-	$\pm 3.0$	$\pm 7.00$
Input Return Loss (Pin 1)	5 - 50 MHz	dB	22	25	-
	50 - 1000 MHz	dB	14	22	-
	1000 - 1200 MHz	dB	8	17	-

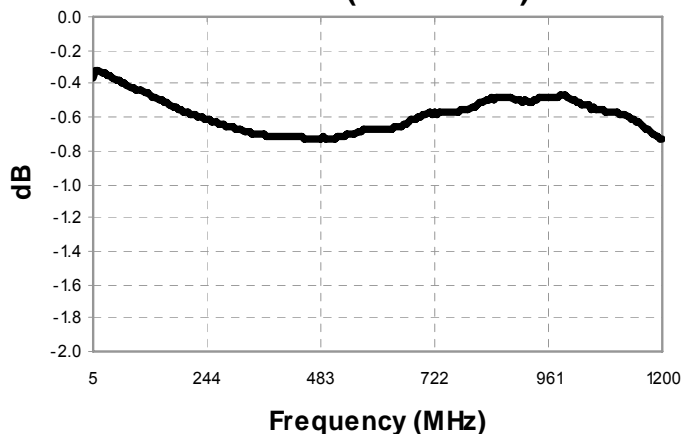
## Pin Configuration

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

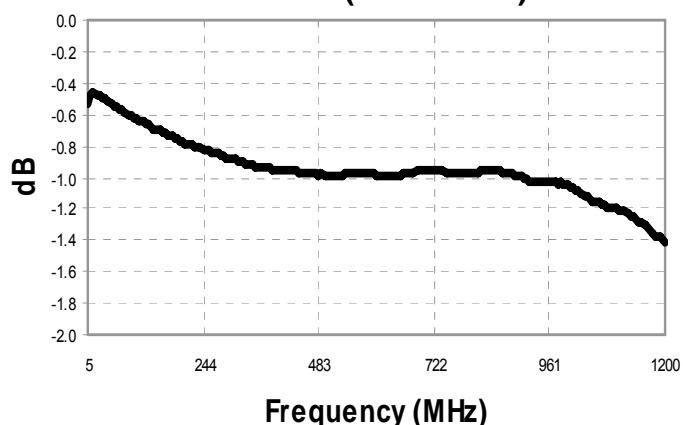
## Schematic



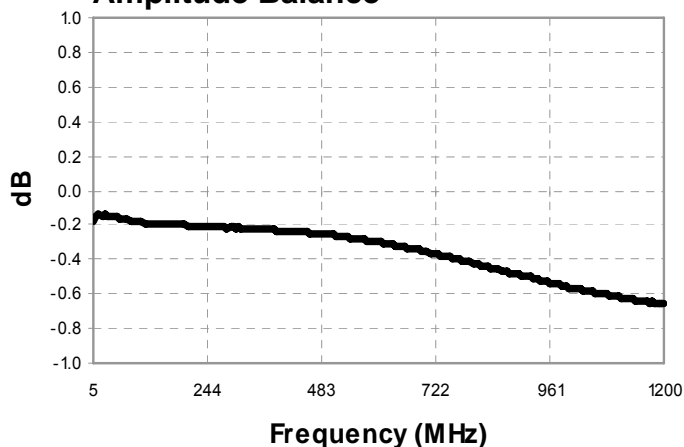
**Insertion Loss 1 (Pin1 - Pin2)**



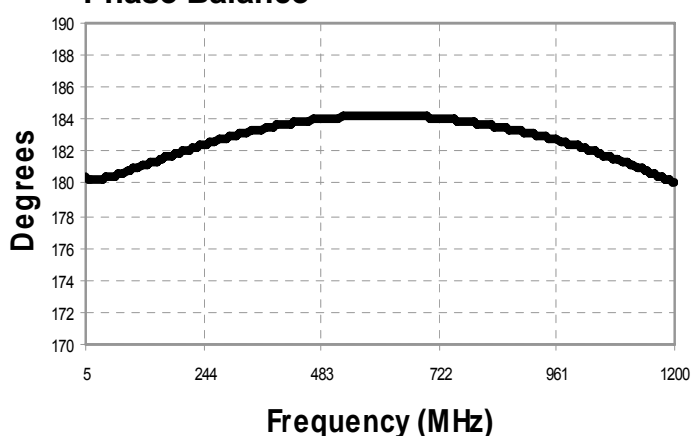
**Insertion Loss 2 (Pin1 - Pin3)**



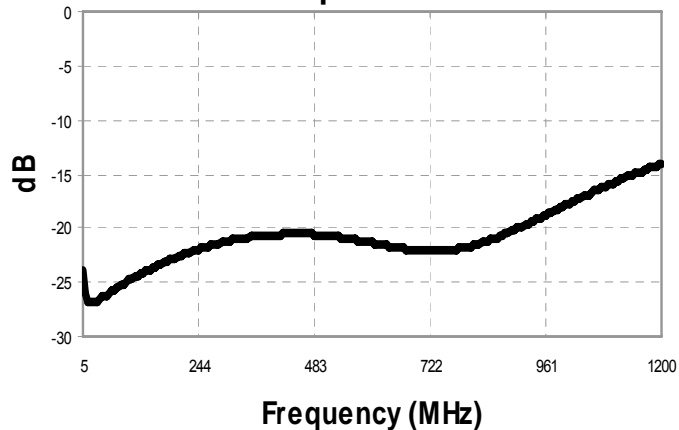
**Amplitude Balance**



**Phase Balance**

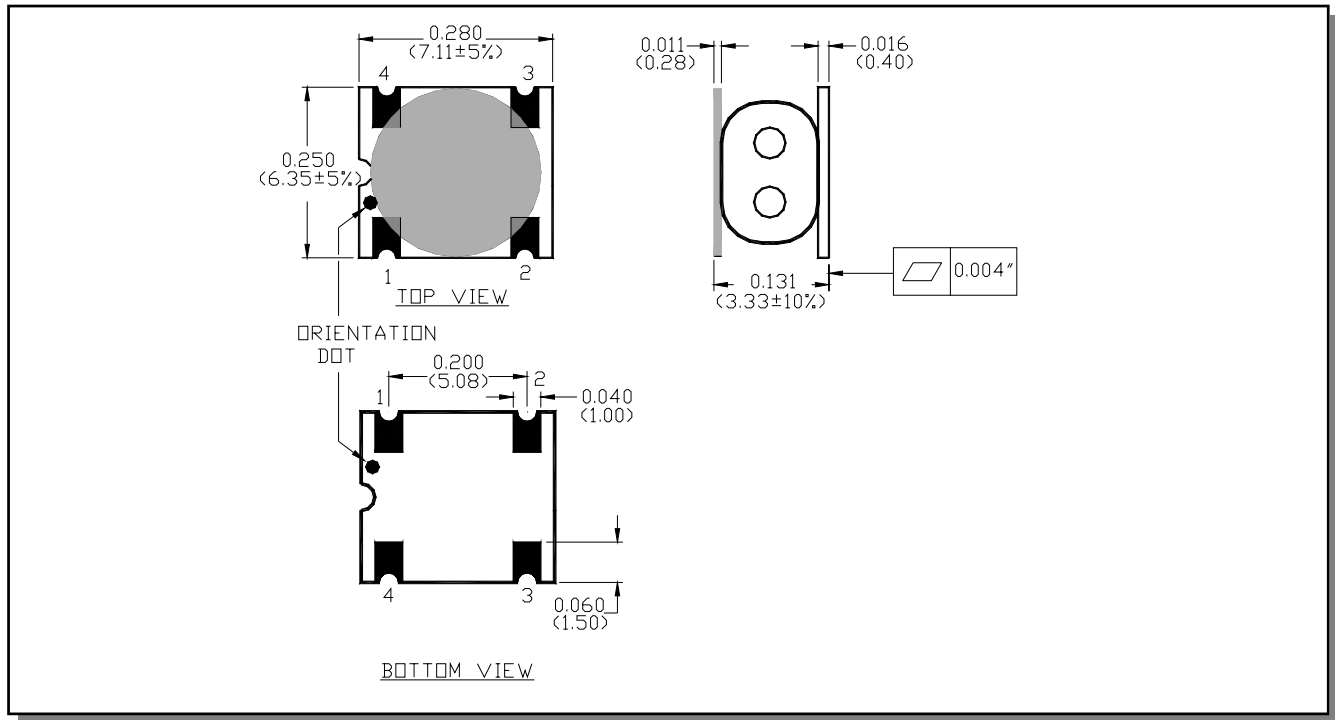


**Return Loss: Input**



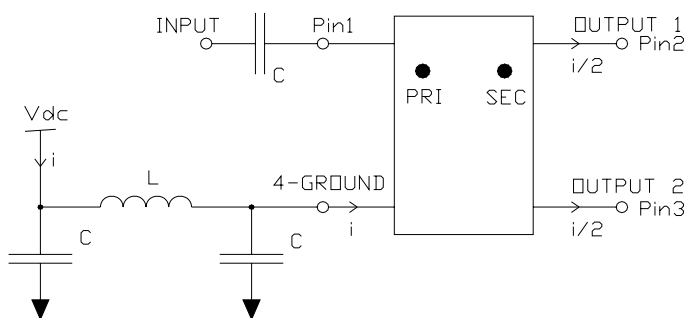
Electrical Specifications:  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

## Outline Drawing



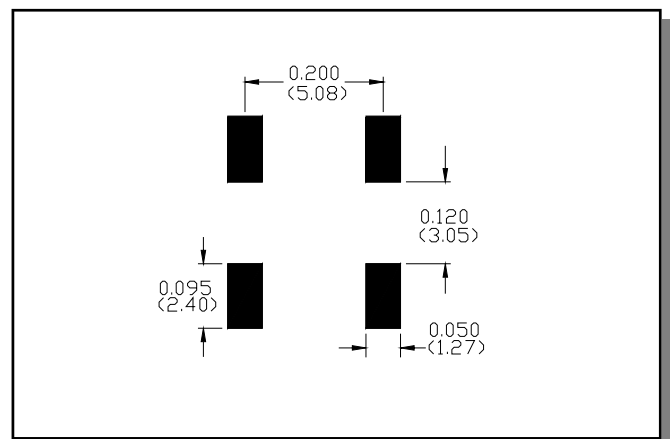
1. Dimensions in mm.
2. Tolerance: ±0.2mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Plating finish: ENIG on both sides, 0.05 to 0.1  $\mu$ m gold over 3 to 6  $\mu$ m nickel

## Recommended DC bias circuit



Cap/Ind	5-50MHz	50-1200MHz
C	100nF	10nF
L	10 $\mu$ H	1 $\mu$ H

## Recommended Footprint



## Tape &amp; Reel Information

Parameter	Units	Value
Qty per reel	-	900
Reel Size	mm	330
Tape Width	mm	16.00
Pitch	mm	12.00
Ao	mm	6.70
Bo	mm	7.50
Ko	mm	3.60
Orientation	-	F33
Reference Application Note ANI-019 for orientation		

## Ordering Information

Part Number	Description
MABA-007681-CT2010	Tape & Reel
MABA-007681-CT20TB	Customer Evaluation Board

## Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		600
Operating Temperature Range	°C	-40	+85
Storage Temperature Range	°C	-55	+125

## ECO History

Rev	Date	Description	ECO
V1	30 Jan 2008	Created datasheet	20074250
V2	11 Jan 2011	Change DC current specification from 30 to 600mA	20102299

# AMEYA360

Components Supply Platform

Authorized Distribution Brand :



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