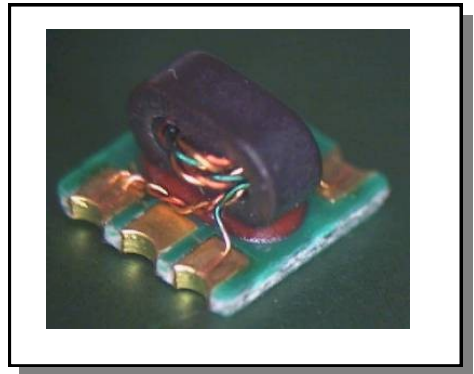


## Transformer, 1:1 Transmission Line 600 - 1700 MHz

Rev. V2

### Features

- Surface Mount
- 1:1 Impedance
- Excellent MoCA band performance
- Excellent amplitude and phase balance
- Can be used in both 50Ω and 75Ω systems
- 260°C Reflow Compatible
- RoHS\* Compliant, Pb Free
- Available on Tape and Reel.



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

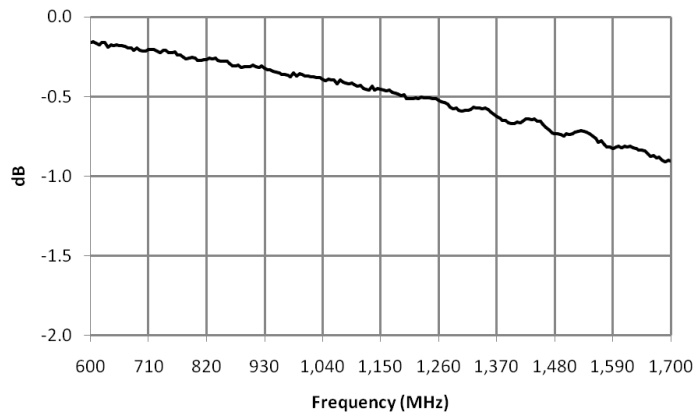
Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	600		1700
Impedance		$\Omega$		50	
Impedance Ratio				1:1	
Insertion Loss (Pin6 - Pin1)	600 - 1,000 MHz	dB	-	0.3	0.60
	1,000 - 1,300MHz	dB	-	0.5	0.80
	1,300 - 1,700MHz	dB	-	0.8	1.30
Insertion Loss (Pin6 - Pin3)	600 - 1,000 MHz	dB	-	0.4	0.60
	1,000 - 1,300MHz	dB	-	0.3	0.60
	1,300 - 1,700MHz	dB	-	0.3	1.00
Amplitude Balance	600 - 1,000 MHz	dB	-0.5	0.1	0.5
	1,000 - 1,300MHz	dB	-0.9	-0.2	0.9
	1,300 - 1,700MHz	dB	-1.2	-0.5	1.2
Phase Balance	600 - 1,000 MHz	$^\circ$	-4	1.0	4
	1,000 - 1,300MHz	$^\circ$	-4	1.0	4
	1,300 - 1,700MHz	$^\circ$	-5	0.0	5
Input Return Loss (Pin6)	600 - 1,000 MHz	dB	15	30	-
	1,000 - 1,300MHz	dB	14	28	-
	1,300 - 1,700MHz	dB	13	22	-

## Transformer, 1:1 Transmission Line 600 - 1700 MHz

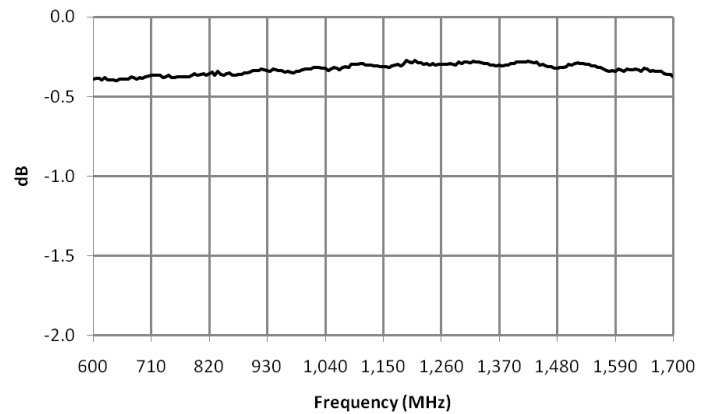
Rev. V2

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

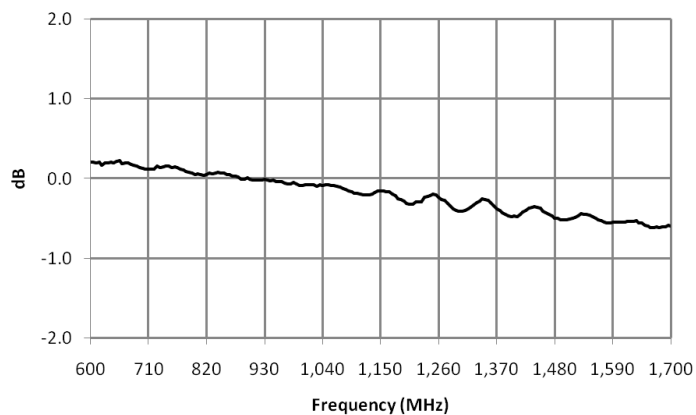
MABA-011028insertion\_loss\_1\_p6\_1



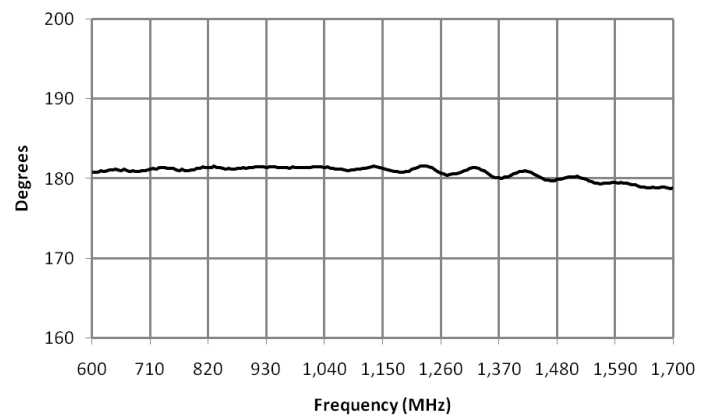
MABA-011028insertion\_loss\_2\_p6\_3



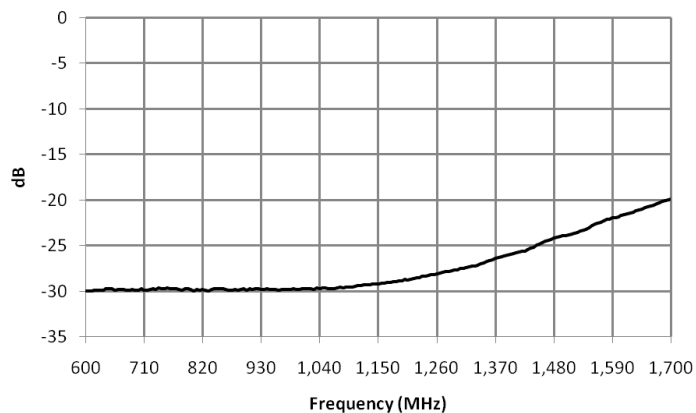
MABA-011028amplitude\_balance



MABA-011028phase\_balance



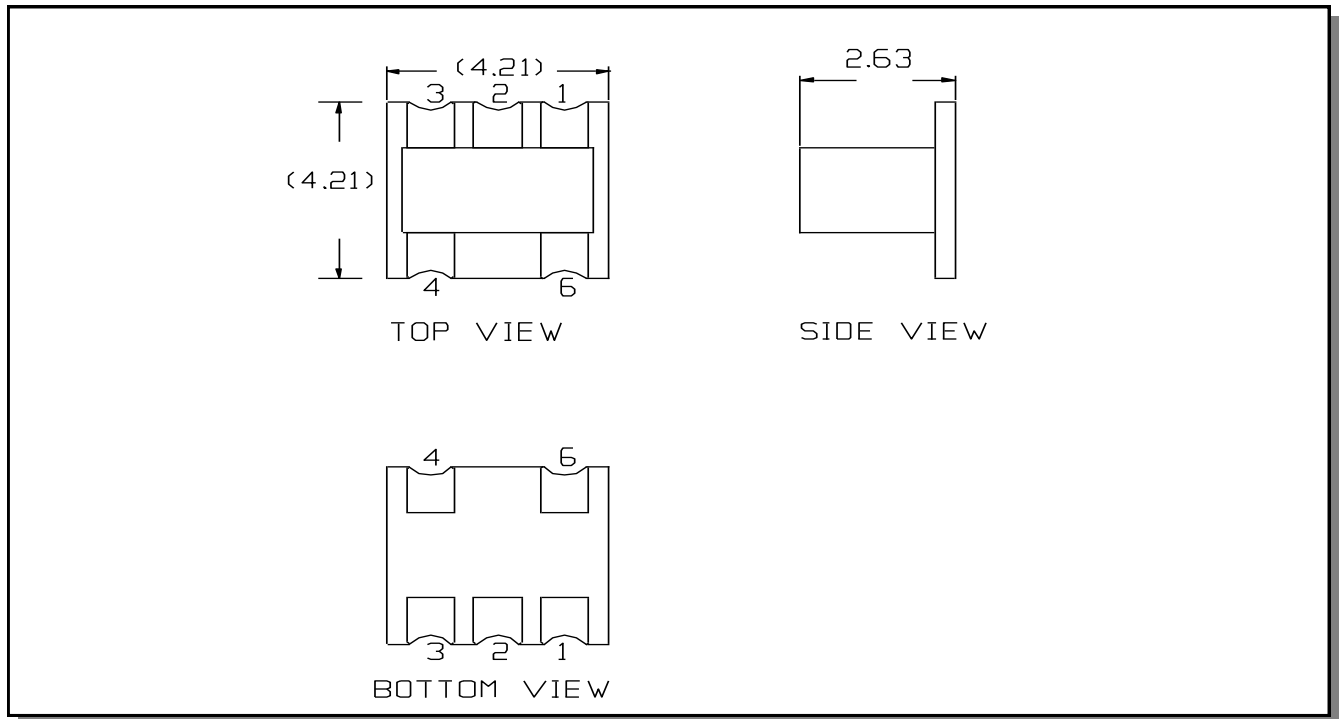
MABA-011028input\_return\_loss\_p6



## Transformer, 1:1 Transmission Line 600 - 1700 MHz

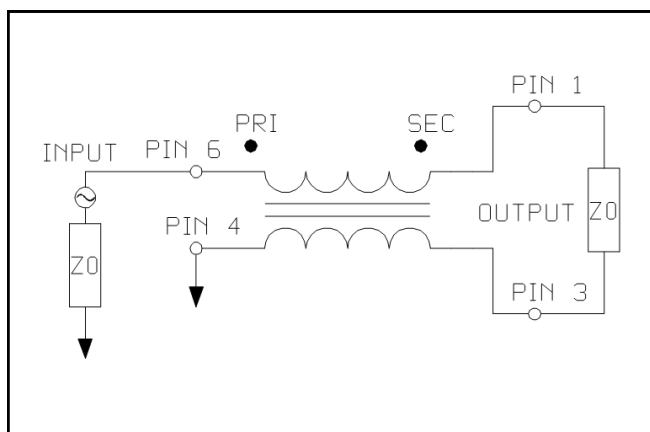
Rev. V2

### Outline Drawing

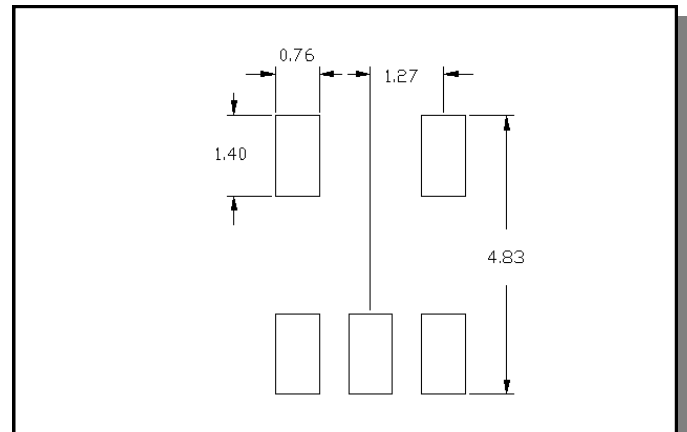


1. Dimensions in mm.
2. Tolerance:  $\pm 0.2\text{mm}$  unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG on both sides

### Application Circuit



### Recommended Footprint



## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.00
Pitch (P <sub>1</sub> )	mm	8.00
A <sub>0</sub>	mm	4.5
B <sub>0</sub>	mm	4.5
K <sub>0</sub>	mm	2.73
Orientation	-	F31
Reference Application note ANI-019 for orientation		

## Ordering Information

Part Number	Description
MABA-011028	Tape & Reel
MABA-011028-TB	Customer Evaluation Board

## Recommended Maximum Ratings

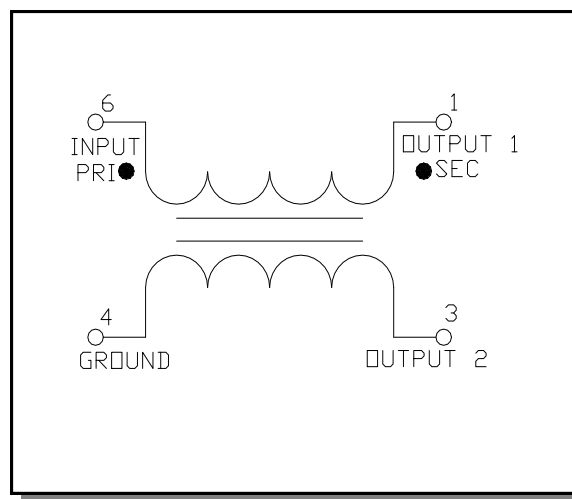
Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		200
Operating Temperature Range	°C	-40	+115

Temperature data available on request

## Pin Configuration

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

## Schematic



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