

## Transformer, 1:1 Transmission Line with tertiary winding 45 - 1200 MHz

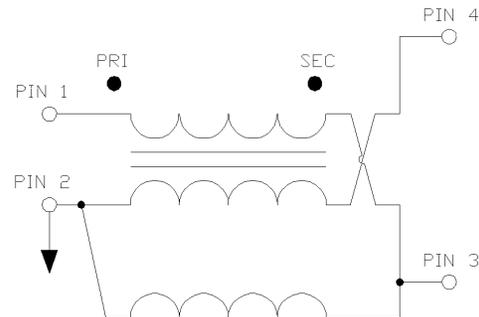
Rev. V3

### Features

- 1:1 Impedance Ratio
- Surface Mount
- Available on tape and reel
- 260°C Reflow compatible
- RoHS Compliant and Pb free
- Excellent Temperature Stability
- Can be used on 50  $\Omega$  and 75  $\Omega$  systems
- Suitable for all CATV, Broadband and FTTx applications.



### Schematic



### Ordering Information

Part Number	Description
MABA-011013	Tape & Reel
MABA-011013-TB	Evaluation Board

### Pin Configuration

Pin No.	Function
1	Primary Dot
2	Primary
3	Secondary
4	Secondary Dot

### 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	45	—	1200
Impedance	—	$\Omega$	—	75	—
Impedance Ratio	—	Ratio	—	1:1	—
Insertion Loss (Pin1 - Pin4)	45 - 100 MHz	dB	—	0.8	1.4
	100 - 600 MHz			0.8	1.1
	600 - 1200 MHz			0.9	1.3
Insertion Loss (Pin1 - Pin3)	45 - 100 MHz	dB	—	0.8	1.4
	100 - 600 MHz			0.7	1.1
	600 - 1200 MHz			0.9	1.5
Amplitude Balance	45 - 600 MHz	dB	—	0.2	$\pm 0.5$
	600 - 1200 MHz			0.3	$\pm 1.1$
Phase Balance	45 - 600 MHz	°	—	2	$\pm 6$
	600 - 1200 MHz			3	$\pm 10$
Input Return Loss (Pin1)	45 - 600 MHz	dB	20	24	—
	600 - 1200 MHz		15	25	

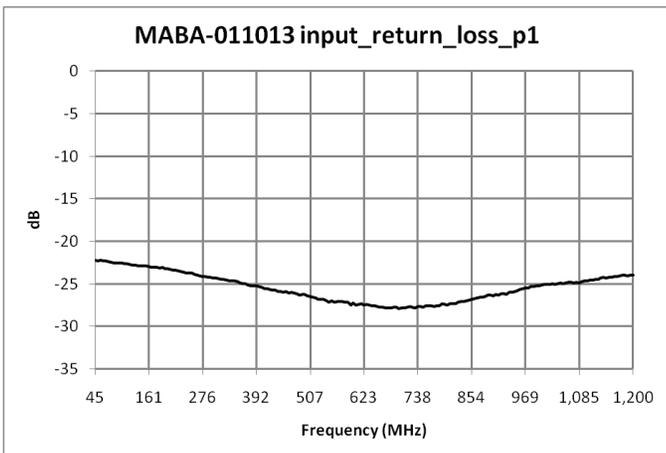
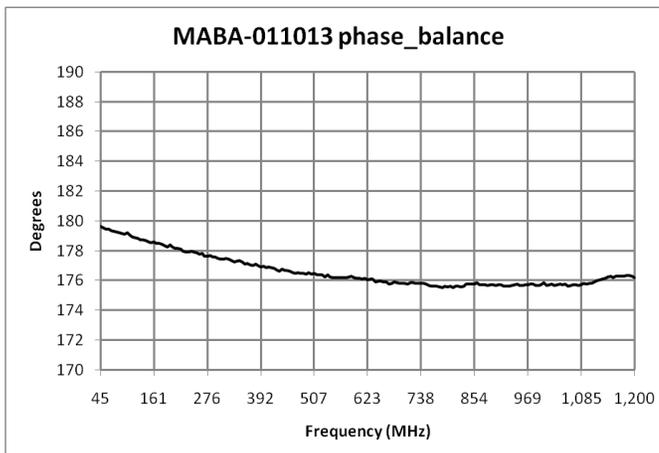
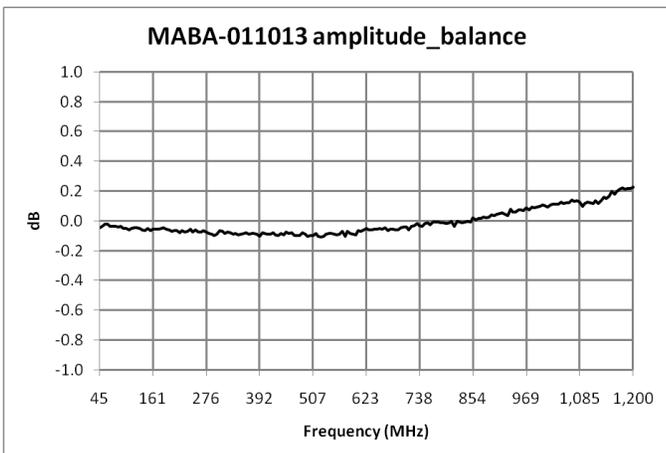
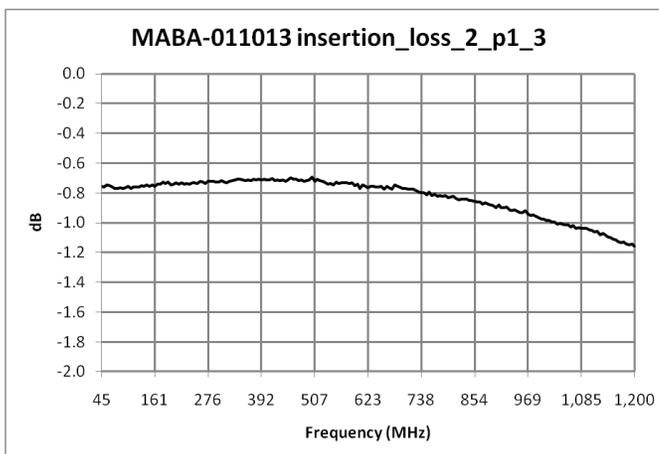
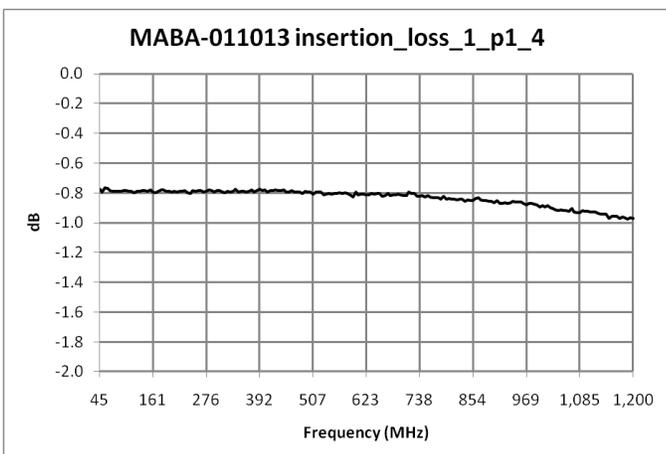
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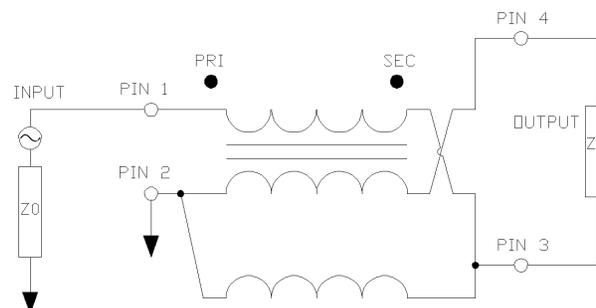
Electrical Specifications:  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

## Recommended Maximum Ratings

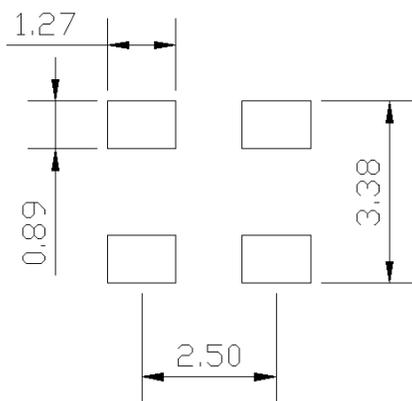
Parameter	Units
Input Power	2 W
DC Current	200 mA
Operating Temperature	-40°C to +100°C

Temperature data available on request

## Application Circuit



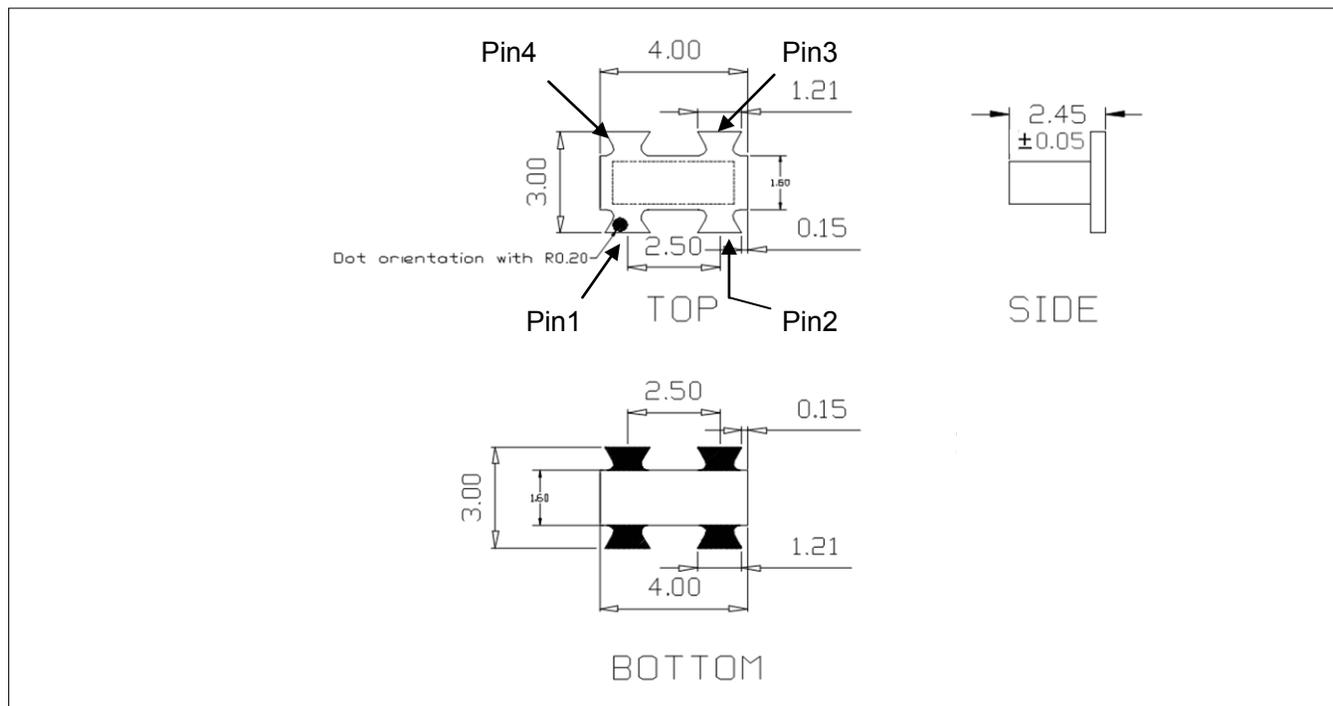
## Recommended Footprint



## 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	3.3
B <sub>0</sub>	mm	4.3
K <sub>0</sub>	mm	2.6
Orientation	-	F51
Reference Application note ANI-019 for orientation		

## Outline Drawing



1. Dimensions in mm.
2. Tolerance:  $\pm 0.2$ mm unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: 96.5 % tin, 3% silver, and 0.5% copper

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