# Transformer, 1:1.33 5 - 1200 MHz



#### **MABA-011010**

Rev. V4

#### Features

- 1:1.33 Impedance Ratio
- Surface Mount Package
- Excellent Temperature Stability
- Available on Tape and Reel
- RoHS\* Compliant

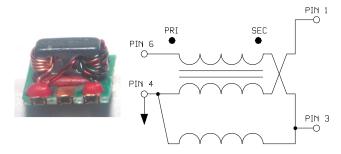
### Applications

• CATV, Broadband, and FTTx

#### Description

The MABA-011010 is a 1:1.33 transformer with tertiary winding in a surface mount package.

## **Functional Schematic**



## **Pin Configuration**

Pin #	Function	Pin #	Function
1	Secondary Dot	4	Primary
2	Not Used	6	Primary Dot
3	Secondary		

# Electrical Specifications: Freq. = 5 - 1200 MHz, $T_A$ = +25°C, $Z_0$ = 75 $\Omega$ , $P_{IN}$ = 0 dBm

Parameter	Frequency Test Conditions (MHz)	Units	Min.	Тур.	Max.
Impedance Ratio —		ratio		1:1.33	_
Insertion Loss (pin 6 - pin 1)	5 - 500 500 - 1000 1000 - 1200	dB	_	0.95 0.95 0.98	1.1 1.2 1.3
Insertion Loss (pin 6 - pin 3)	5 - 500 500 - 1000 1000 - 1200	dB	_	0.90 1.00 1.30	1.10 1.40 1.65
Amplitude Balance	5 - 500 500 - 1200	dB	_	0.06 0.1	0.3 0.9
Phase Balance	5 - 500 500 - 1200	0	_	3.0 5.0	6 8
Input Return Loss (pin 6)	5 - 500 500 - 1000 1000 - 1200	dB	20.0 17.0 15.5	25 21 19	

# **Ordering Information**

Part Number	Package	
MABA-011010	2000 piece reel	
MABA-011010-TB	Customer Test Board	

# **Recommended Maximum Ratings**

Parameter	Units		
Input RF Power	250 mW		
DC Current	200 mA		
Operating Temperature	-40°C - +105°C		

\* Restrictions on Hazardous Substances, compliant to current RoHS EU directive.

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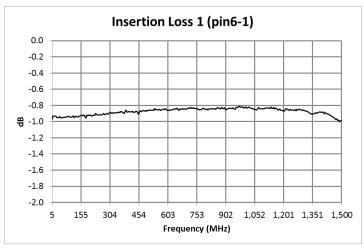
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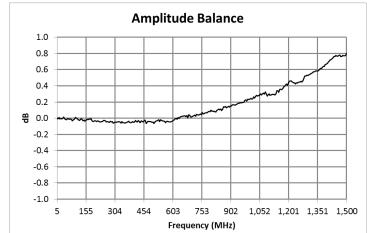
# Transformer, 1:1.33 5 - 1200 MHz

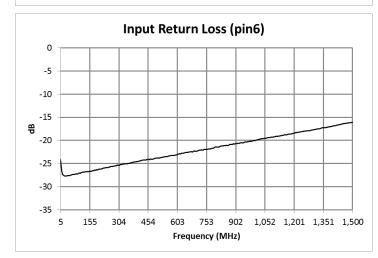


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#### **Typical Performance Curves**

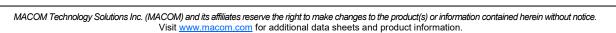


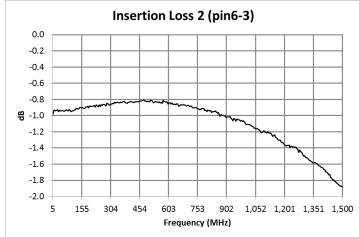




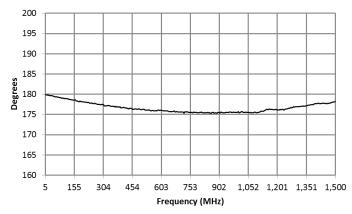
Full temperature plots available on request

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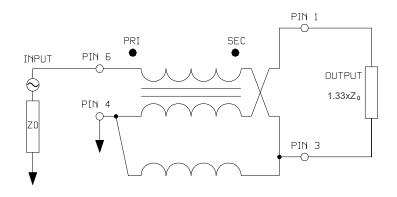


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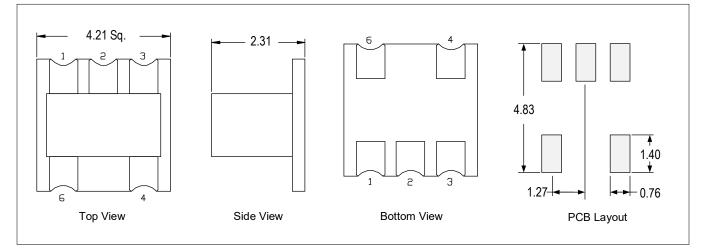


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### **Application Circuit**



## **Outline Drawing**



1. Dimensions in mm.

- 2. Tolerance: ±0.2 mm unless otherwise noted.
- 3. Model number and lot code are printed on the reel.

4. Plating finish: CuSn6

### **Tape & Reel Information**

Parameter	Units	Value		
Qty per reel	-	2000		
Reel size	mm	330		
Tape width (W)	mm	12.00		
Pitch (P1)	mm	8.00		
Orientation	-	F31		
Reference Application note ANI-019 for orientation				

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