

Transformer, 1:1.33 5 - 1200 MHz

Rev. V3

Features

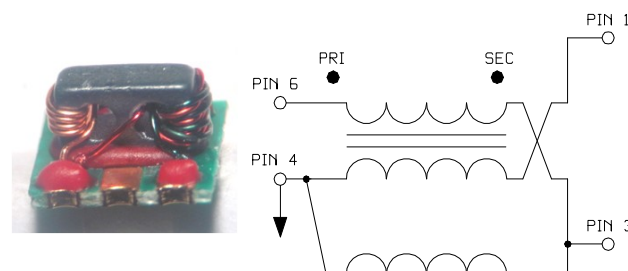
- 1:1.33 Impedance Ratio
- Surface Mount Package
- Excellent Temperature Stability
- RoHS Compliant and Pb Free
- 260°C Reflow Compatible
- Available on Tape and Reel
- Suitable for all CATV, Broadband and FTTx Applications

Description

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

Ideally suited for CATV Broadband applications.

Functional Schematic



Pin Configuration

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

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

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

Ordering Information

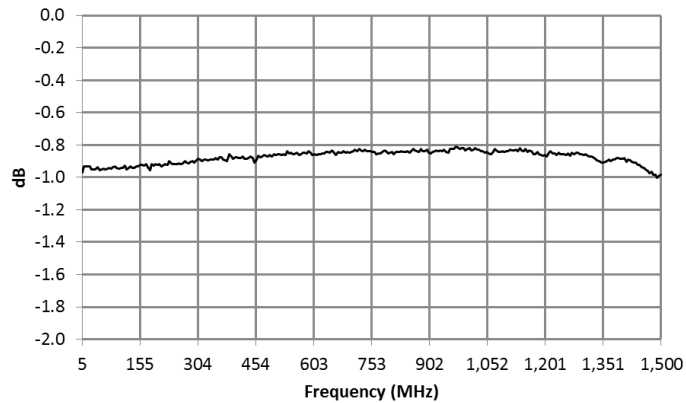
Part Number	Package
MABA-011010	2000 piece reel
MABA-011010-TB	Customer Test Board

Recommended Maximum Ratings

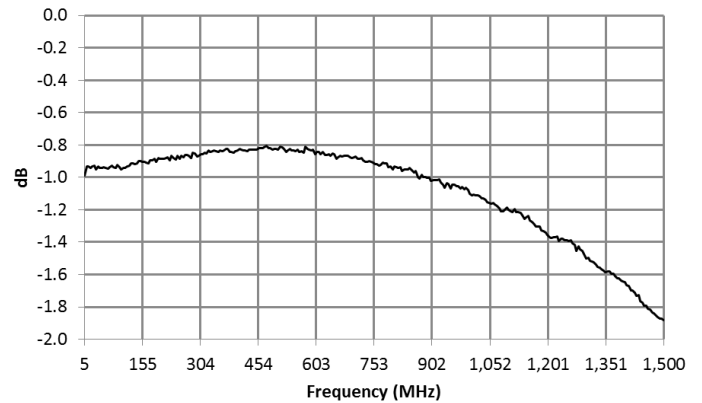
Parameter	Units
Input RF Power	250 mW
DC Current	200 mA
Operating Temperature	-40°C - +85°C

Typical Performance Curves

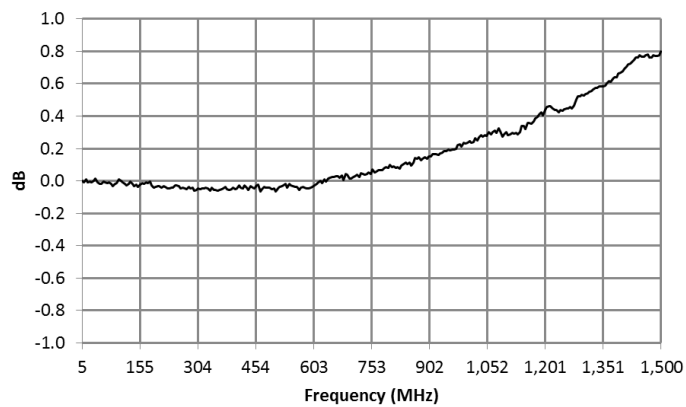
Insertion Loss 1 (pin6-1)



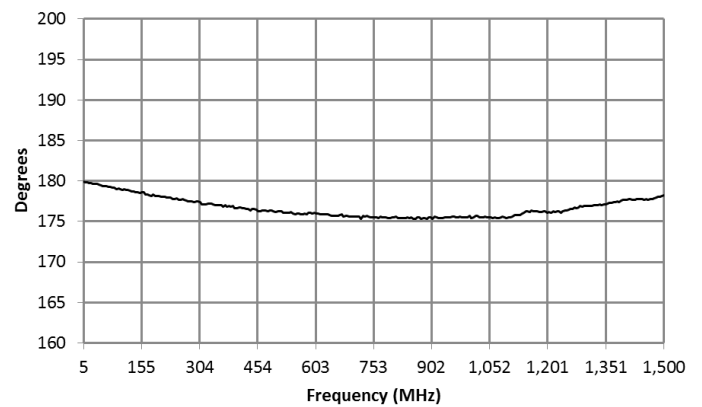
Insertion Loss 2 (pin6-3)



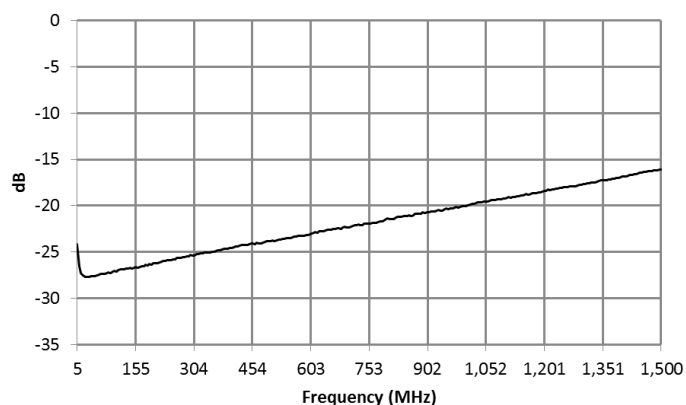
Amplitude Balance



Phase Balance



Input Return Loss (pin6)

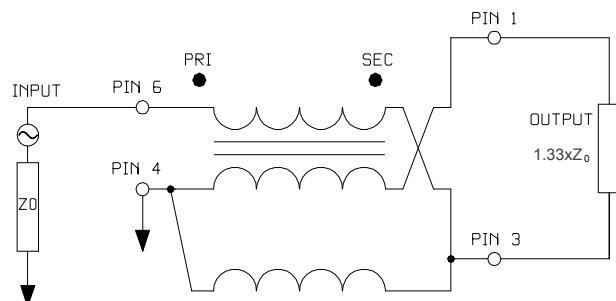


Full temperature plots available on request

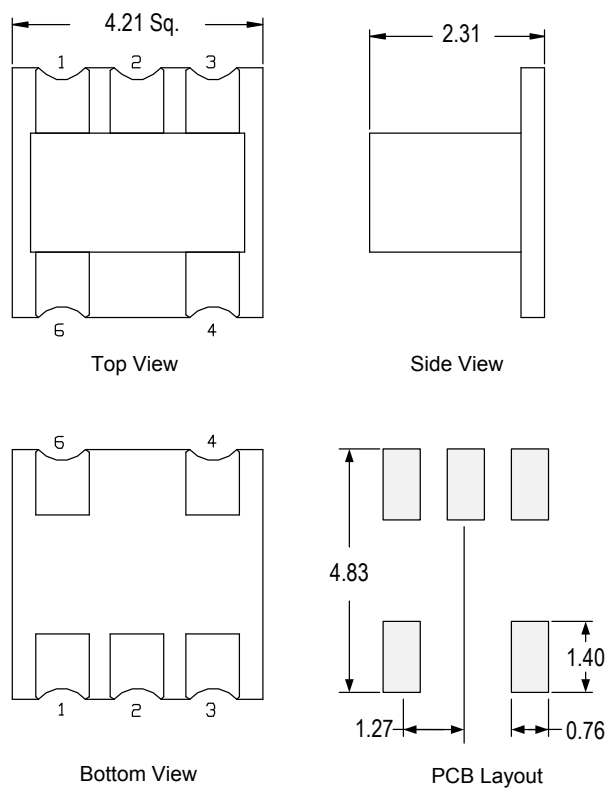
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Application Circuit



Outline Drawing



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
A_0	mm	4.5
B_0	mm	4.5
K_0	mm	2.73
Orientation	-	F31
Reference Application note ANI-019 for orientation		

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

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