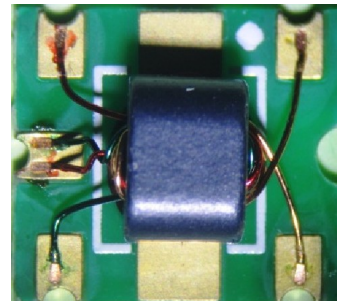


**1:2 Transformer**  
**5 – 300 MHz**

Rev. V3

## Features

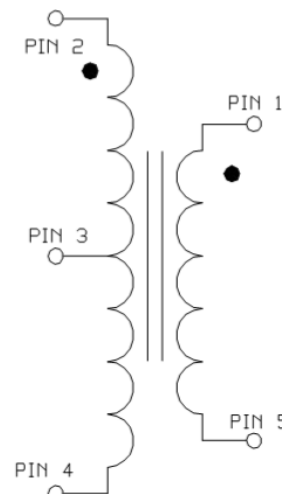
- 1:2 impedance
- Surface mount
- Available on tape and reel
- 260° reflow compatible
- RoHS compliant and Pb free
- Excellent temperature stability
- Suitable for all CATV, Broadband and FTTX applications.



## Description

MACOM's MABA-011050 is a 1:2 transformer. This transformer is ideally suited for CATV Broadband applications.

## Functional Schematic



## Ordering Information

Part Number	Package
MABA-011050	Tape & Reel
MABA-011050-TB	Customer test board

## Pin Configuration

Pin No.	Function
1	Primary Dot (input)
2	Secondary Dot (output 1)
3	Centre tap (RF ground)
4	Secondary (output 2)
5	Primary (ground)

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

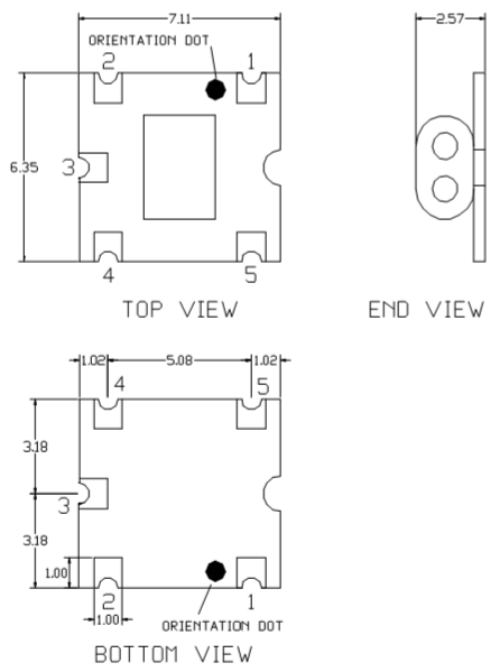
Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	5		300
Impedance		$\Omega$		75	
Impedance Ratio				1:2	
Insertion Loss 1 (Pin1 - Pin2)	5 - 150 MHz	dB	-	0.6	0.8
	150 - 300 MHz	dB	-	0.8	1.0
Insertion Loss 2 (Pin1 - Pin4)	5 - 300 MHz	dB	-	0.5	0.7
Amplitude Balance	5 - 150 MHz	dB	-	0.1	0.2
	150 - 300 MHz	dB	-	0.2	0.5
Phase Balance (Ref value $180^\circ$ )	5 - 150 MHz	$^\circ$	-	0.06	1.0
	150 - 300 MHz	$^\circ$	-	0.1	2.5
Input Return Loss (Pin1)	5 - 150 MHz	dB	18	19	-
	150 - 300 MHz	dB	16	18	-

## Recommended Maximum Ratings

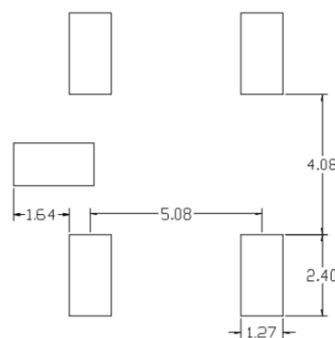
Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		600
Operating Temperature Range	$^\circ\text{C}$	-40	+125

Full temperature plots available on request

## Outline Drawing



## PCB Layout

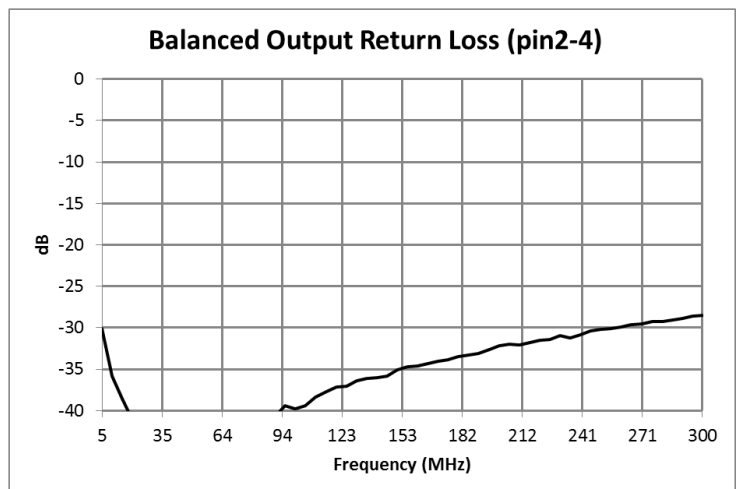
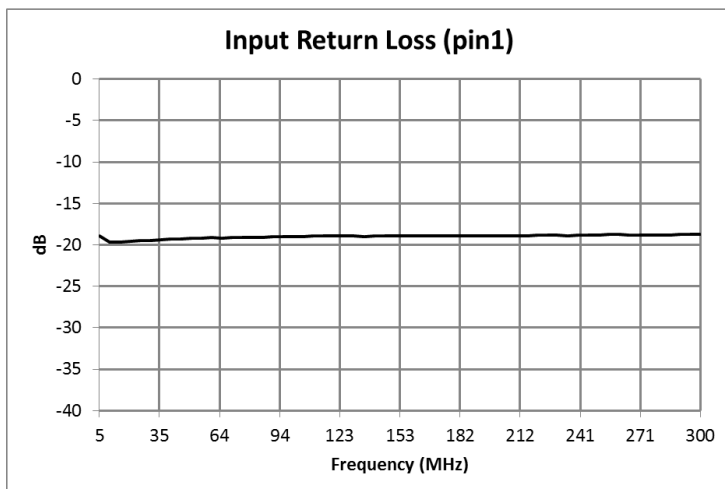
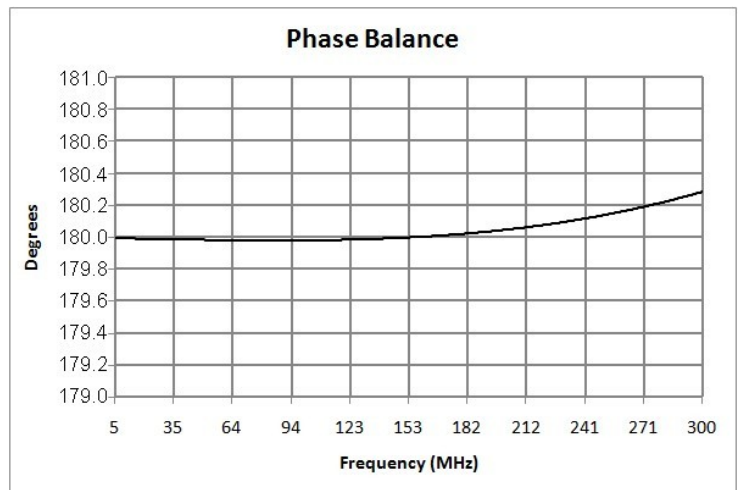
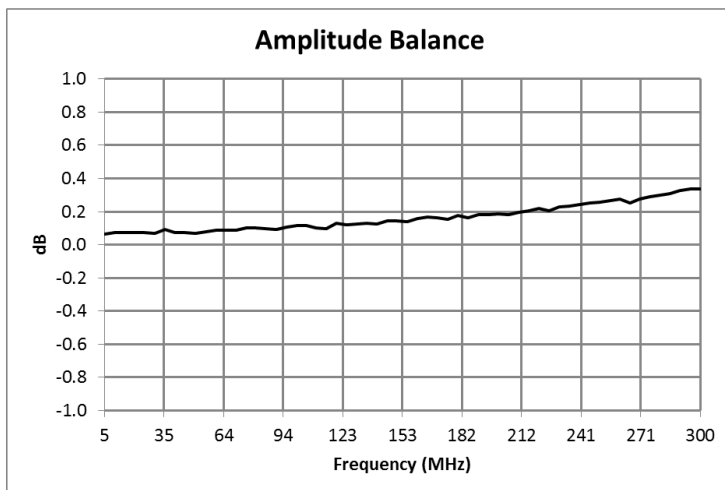
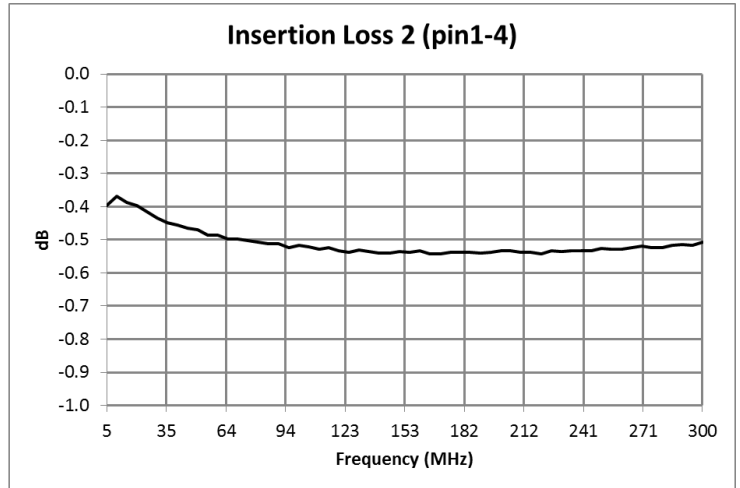
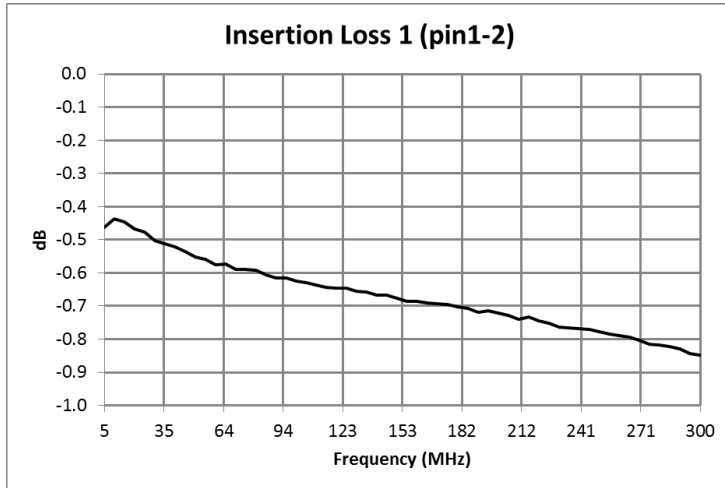


1. Dimensions in mm.
2. Tolerance:  $\pm 0.2$ mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Lead plating: ENIG.

## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	900
Reel Size	mm	330
Tape Width	mm	16.00
Pitch	mm	12.00
Ao	mm	6.60
Bo	mm	7.40
Ko	mm	2.90
Orientation	-	F33
Reference Application Note ANI-019 for orientation		

## Typical Performance Curves



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