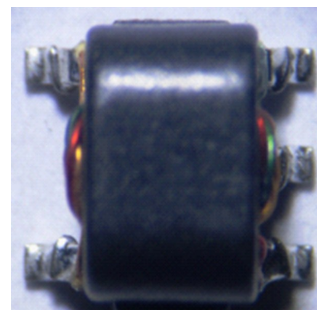


## Features

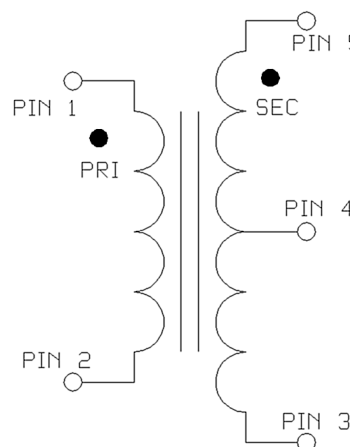
- 1:2 impedance
- Surface mount
- Available on tape and reel
- 260° reflow compatible
- RoHS compliant and Pb free
- Excellent temperature stability
- Suitable for all CATV, Broadband and FTTX applications



## Description

MABA-011062 is a 1:2 flux coupled transformer. This transformer is ideally suited for DOCSIS 3.0x upstream applications due to its high power and temperature performance.

## Functional Schematic



## Ordering Information

Part Number	Package
MABA-011062	Tape & Reel
MABA-011062-TB	Customer Test Board

## Pin Configuration

Pin No.	Function
1	Primary Dot (input)
2	Primary (ground)
3	Secondary (output1)
4	Center tap (ground)
5	Secondary Dot (output2)

## 1:2 Step up Flux Coupled Balun Transformer 1 – 300 MHz

Rev V2

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

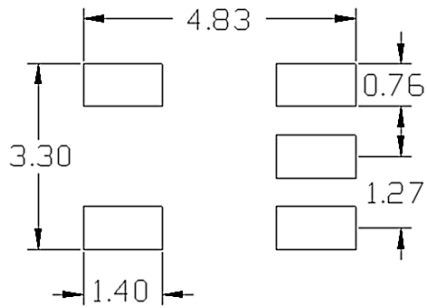
Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range	-	MHz	1	-	300
Impedance	-	$\Omega$	-	75	-
Impedance Ratio	-	-	-	1:2	-
Insertion Loss 1 (Pin1 - Pin3)	1 - 300 MHz	dB	-	0.5	0.8
Insertion Loss 2 (Pin1 - Pin5)	1 - 200 MHz	dB	-	0.5	0.8
	200 - 300 MHz	dB	-	0.7	1.0
Amplitude Balance	1 - 180 MHz	dB	-	0.03	$\pm 0.2$
	180 - 300 MHz	dB	-	0.2	$\pm 0.5$
Phase Balance (ref value $180^\circ$ )	1 - 150 MHz	$^\circ$	-	0.5	$\pm 2.0$
	150 - 300 MHz	$^\circ$	-	1.0	$\pm 4.0$
Input Return Loss (Pin1)	1 - 5 MHz	dB	14	18	-
	5 - 300 MHz	dB	17	19	-

## Recommended Maximum Ratings

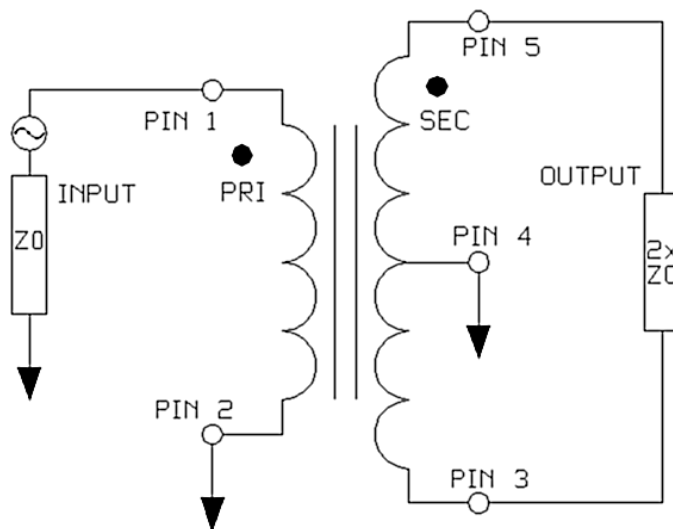
Parameter	Units	Min	Max
Input Power	mW	-	2000
DC Current	mA	-	1500
Operating Temperature Range	$^\circ\text{C}$	-40	+125

Full temperature plots available on request

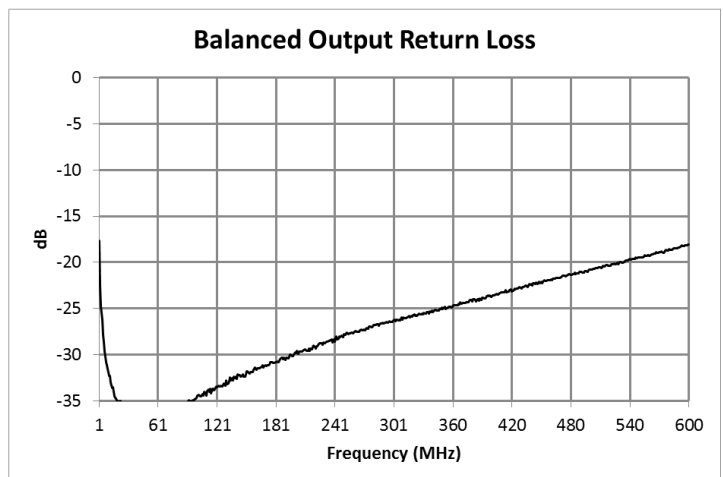
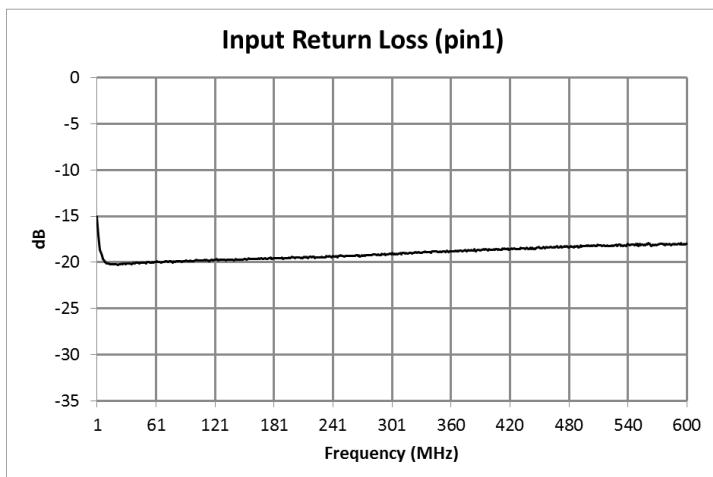
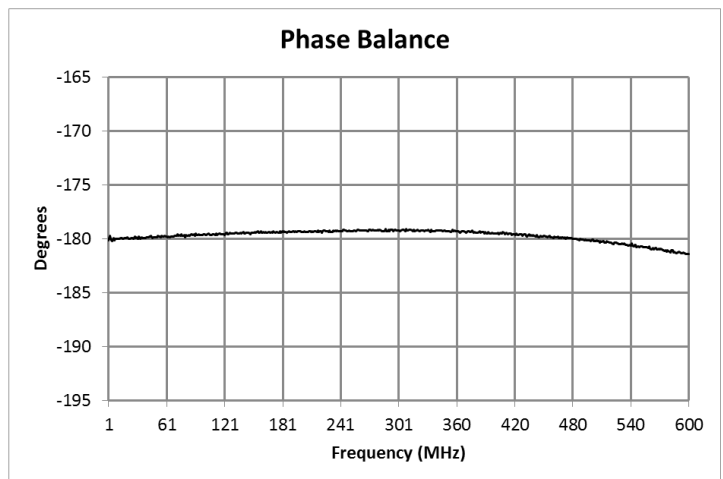
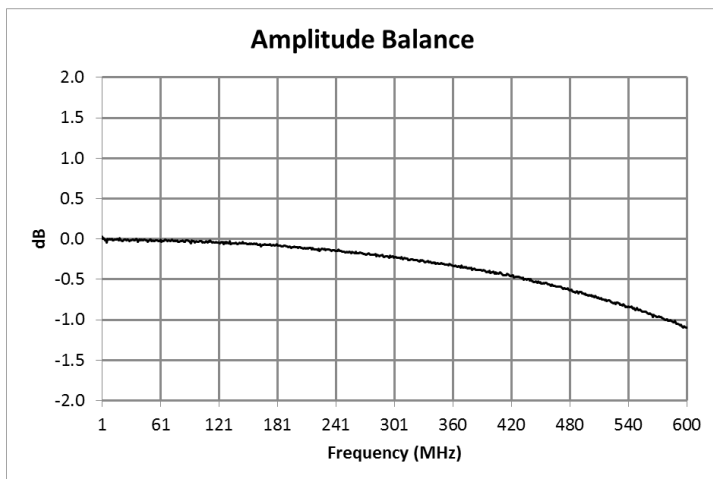
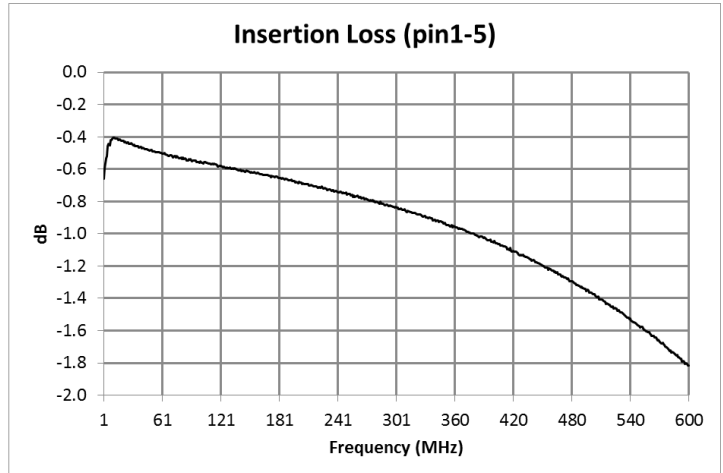
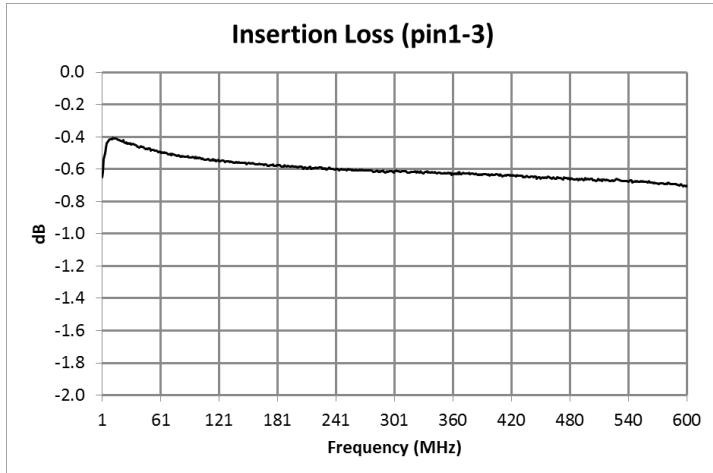
## PCB Layout



## Application Schematic

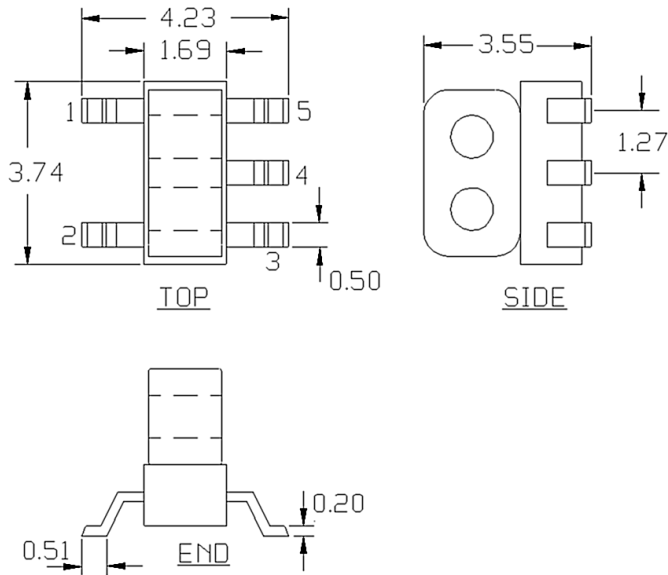


## Typical Performance Curves



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

## Outline Drawing

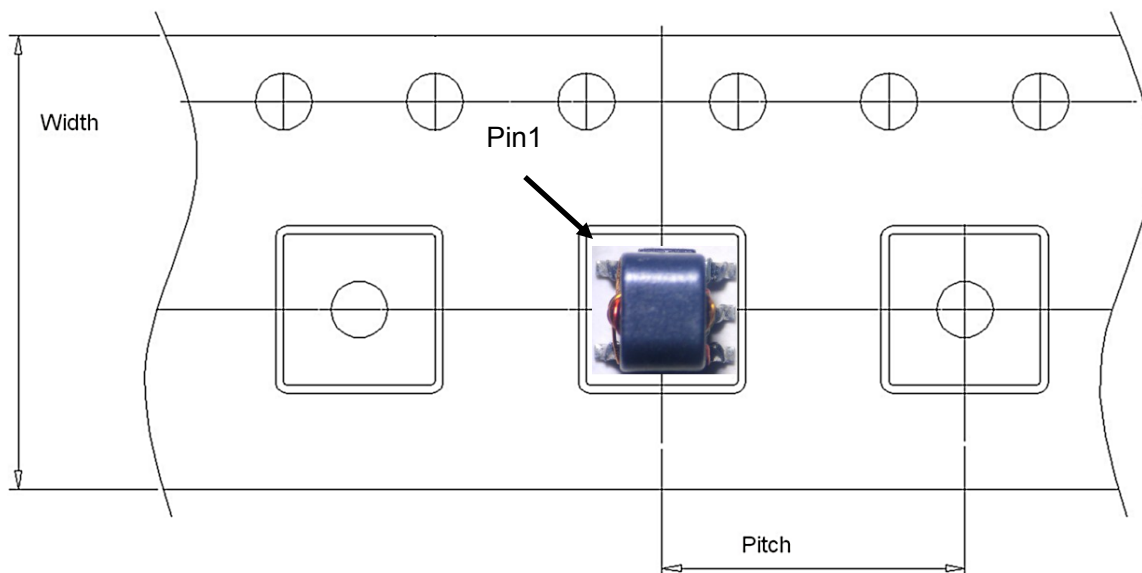


## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel Size	mm	330
Tape Width	mm	12.00
Pitch	mm	8.00
Ao	mm	4.40
Bo	mm	4.00
Ko	mm	3.90
Orientation	-	F26
Reference Application Note ANI-019 for orientation		

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 (CuSn6) Lead finish SAC-305.

## Carrier Tape Orientation



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