

# MABA-011073



**1:1 Flux Coupled Transformer**  
**1 - 100 MHz**

Rev. V1

## Features

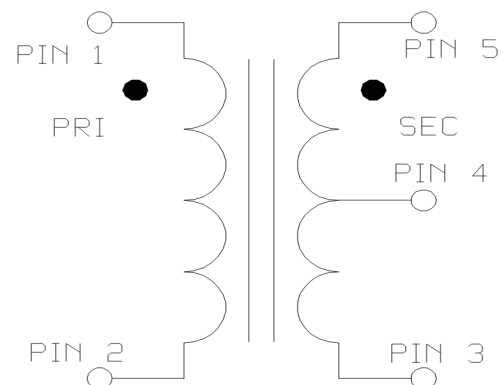
- Surface Mount
- 1:1 impedance
- Available on Tape and Reel
- RoHS Compliant and Lead free
- 260°C Reflow Compatible
- Excellent temperature stability

## Description

1:1 flux coupled transformer in a low cost surface mount package. Ideally suited for all CATV Broadband and FTTH applications.



## Functional Schematic



## Ordering Information

Part Number	Package
MABA-011073	Tape & Reel
MABA-011073-TB	Customer test Board

## Pin Configuration

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

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

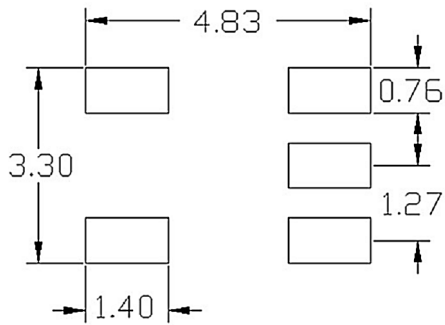
Parameter	Conditions	Units	Min	Typ	Max
Frequency Range	-	MHz	1	-	100
Impedance	-	$\Omega$	-	75	-
Impedance Ratio	-	-	-	1:1	-
Insertion Loss 1 (Pin 1-5)	1 - 50 MHz	dB	-	0.2	0.4
	50 - 100 MHz	dB	-	0.3	0.6
Insertion Loss 2 (Pin 1-3)	1 - 50 MHz	dB	-	0.2	0.4
	50 - 100 MHz	dB	-	0.3	0.5
Amplitude Balance	1 - 100 MHz	dB	-	0.01	$\pm 0.2$
Phase Balance (ref value $180^\circ$ )	1 - 100 MHz	$^\circ$	-	0.6	$\pm 3.0$
Input Return Loss Pin 1	1 - 50 MHz	dB	20	28	-
	50 - 100 MHz	dB	15	21	-

## Recommended Maximum Ratings

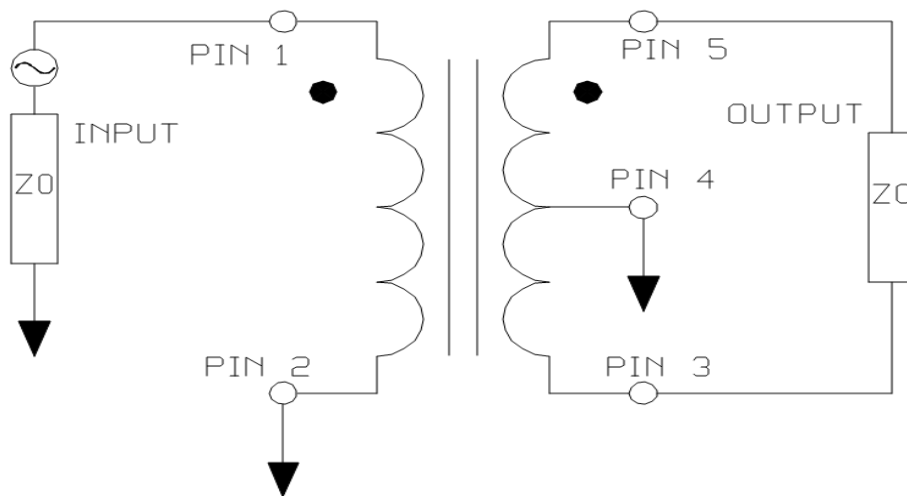
Parameter	Units	Min	Max
Input RF Power	mW	-	2000
DC Current	mA	-	1500
Operating Temperature Range	$^\circ\text{C}$	-40	+125

Full temperature plots available on request

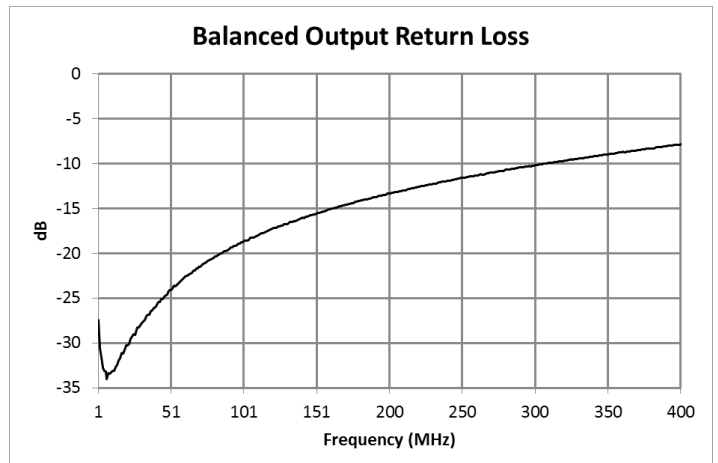
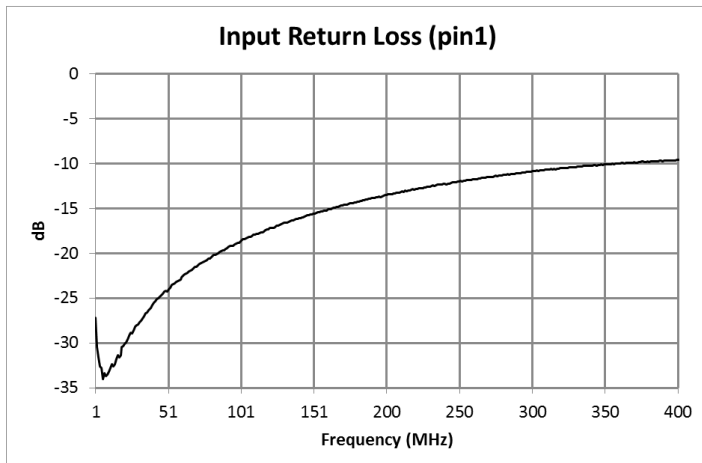
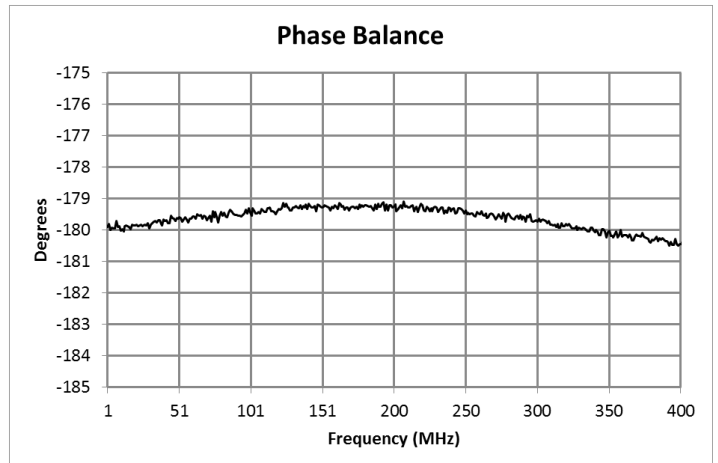
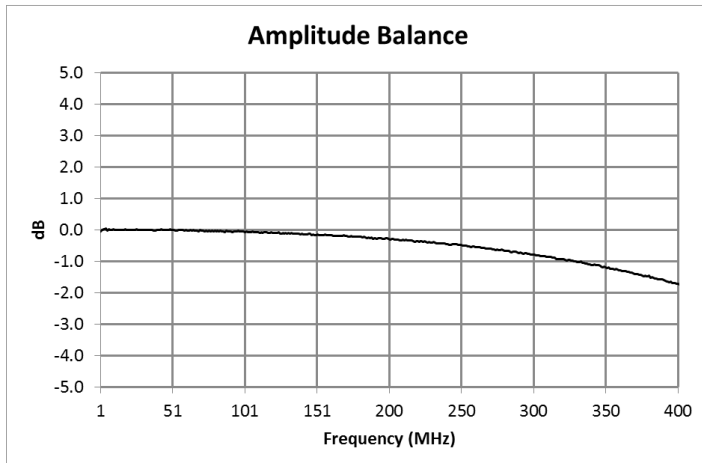
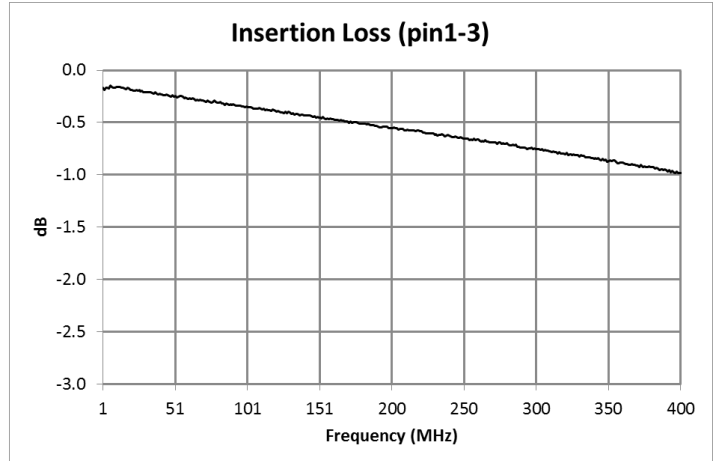
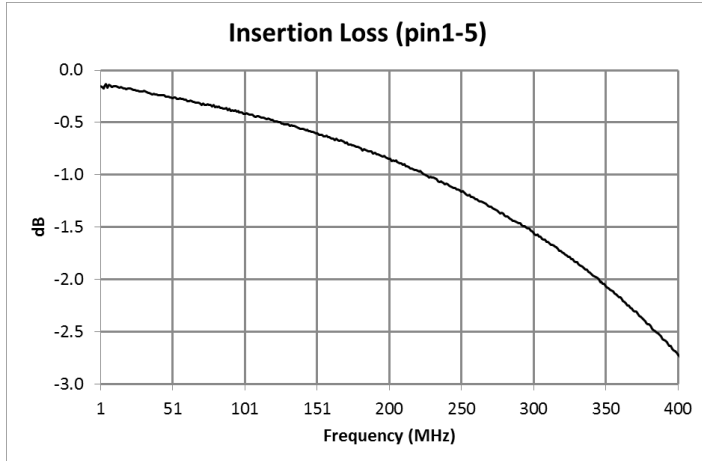
## PCB Layout



## Application Schematic



## Typical Performance Curves



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

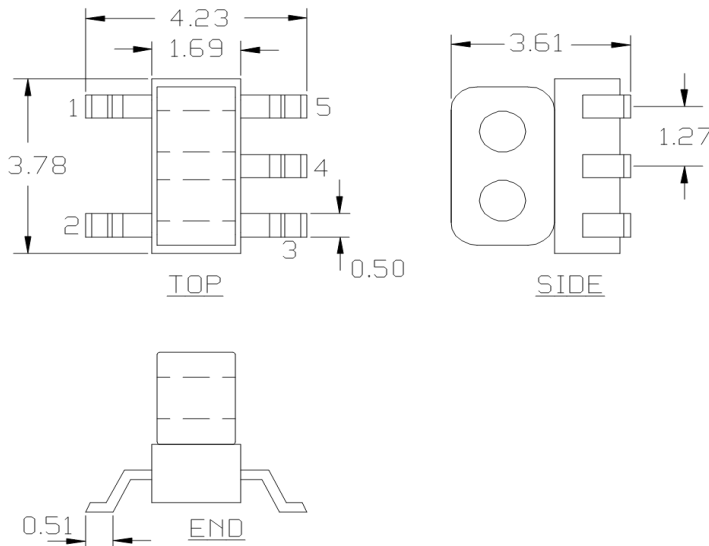
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## Outline Drawing

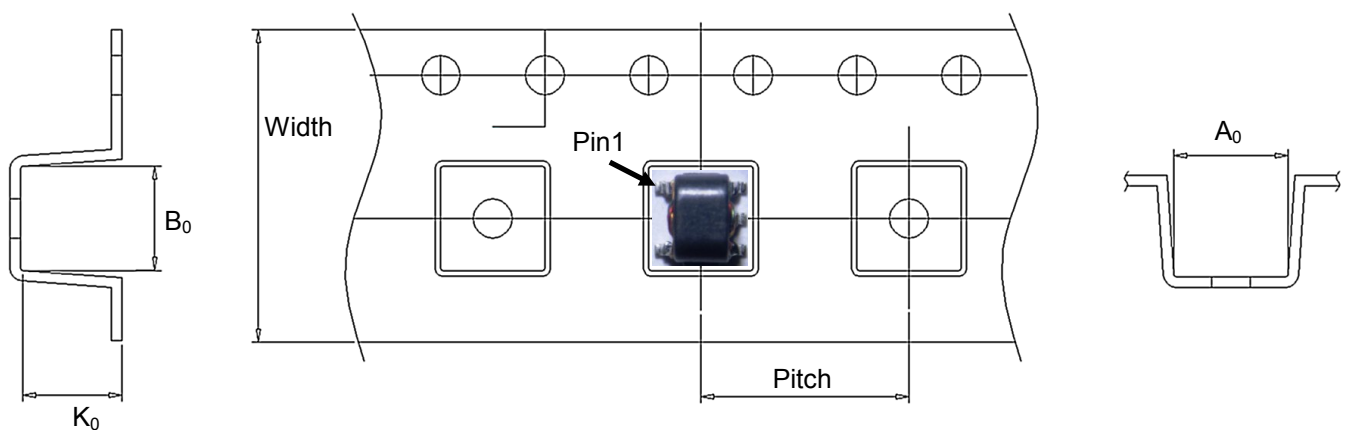


## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	900
Reel Size	mm	330
Tape Width	mm	16.00
Pitch	mm	8.00
Orientation	-	F26
Reference App 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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