

# MABA-011039

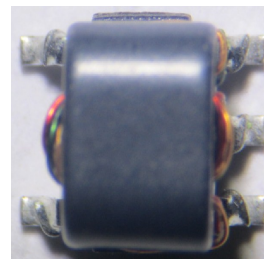


## 1:4 Step up Flux Coupled Balun Transformer 1 - 300 MHz

Rev. V2

### Features

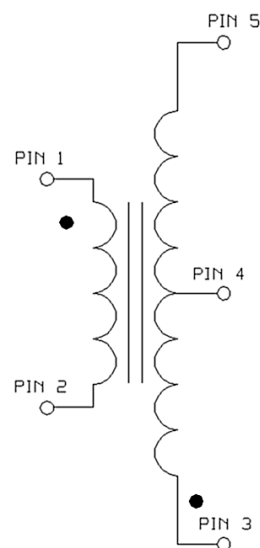
- Surface Mount
- 1:4 Impedance
- RoHS Compliant and Lead free
- 260°C Reflow Compatible
- Excellent temperature stability
- Available on Tape and Reel
- Suitable for all CATV, Broadband and FTTX applications.



### Description

MABA-011039 is a 1:4 flux coupled transmission. This transformer is ideally suited for CATV and Broadband applications.

### Functional Schematic



### Ordering Information

Part Number	Package
MABA-011039	Tape & Reel
MABA-011039-TB	Customer Test Board

### Pin Configuration

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

**1:4 Step up Flux Coupled Balun Transformer**  
**1 - 300 MHz**

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**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		300
Impedance	-	$\Omega$	-	75	-
Impedance Ratio	-	-	-	1:4	-
Insertion Loss 1 (Pin1 - Pin5)	1 - 300 MHz	dB	-	0.7	1.1
Insertion Loss 2 (Pin1 - Pin3)	1 - 300 MHz	dB	-	0.6	1.1
Amplitude Balance	1 - 300 MHz	dB	-	0.05	$\pm 0.5$
Phase Balance	1 - 300 MHz	$^\circ$	-	0.2	$\pm 3.0$
Input Return Loss (Pin1)	1 - 300 MHz	dB	14	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

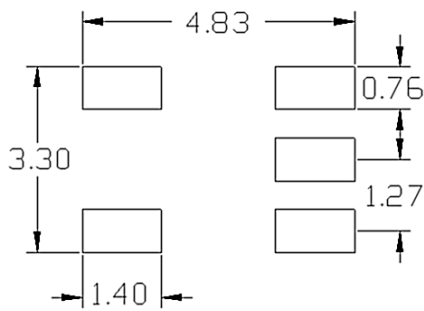
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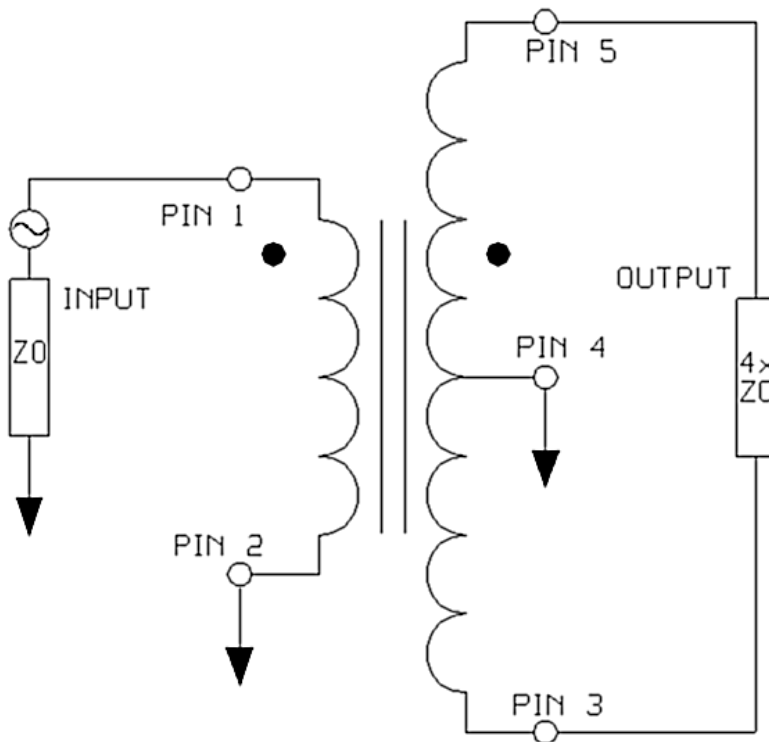
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## PCB layout



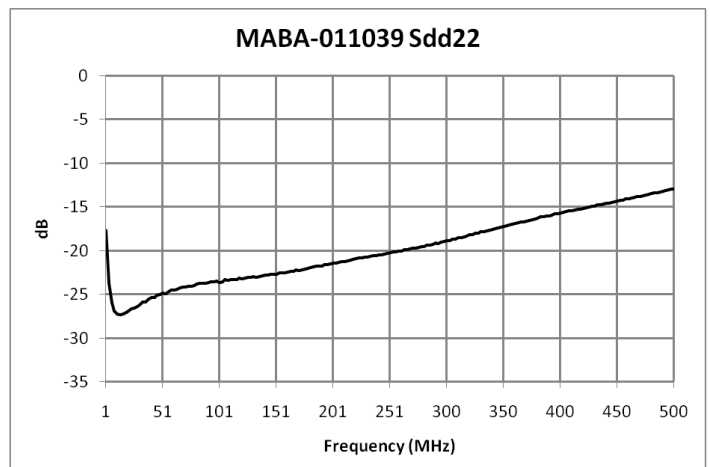
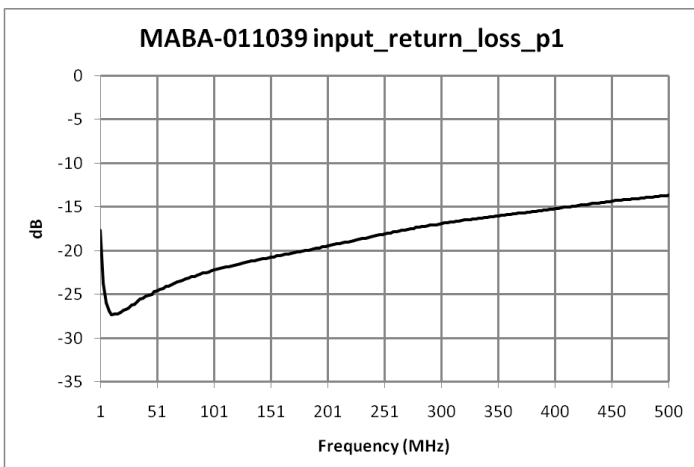
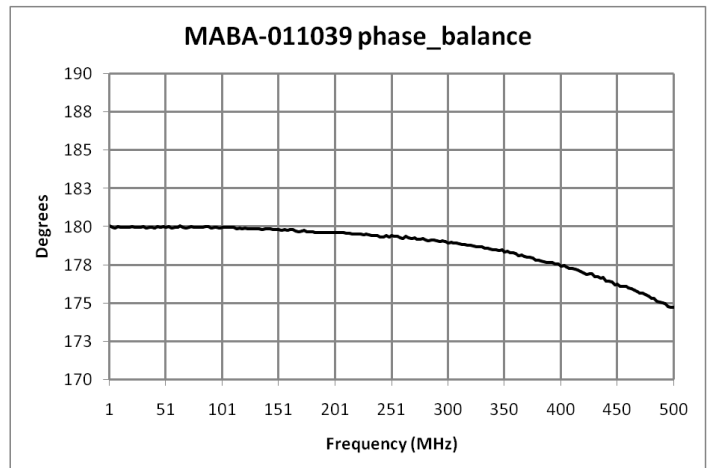
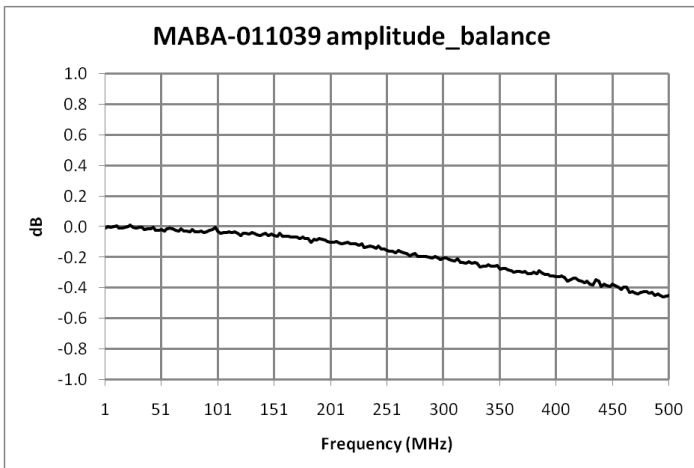
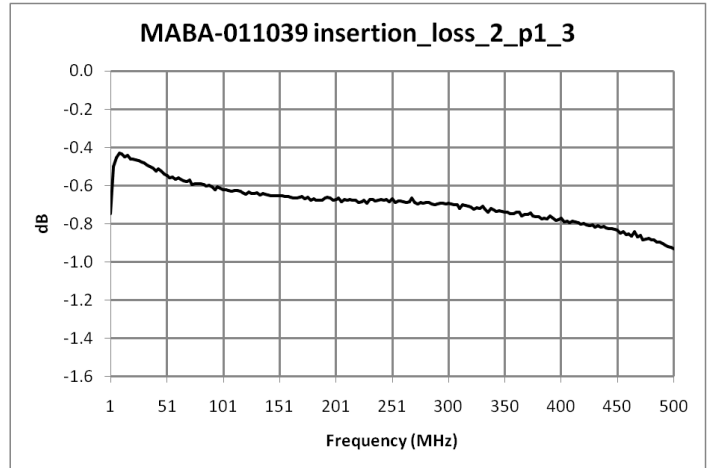
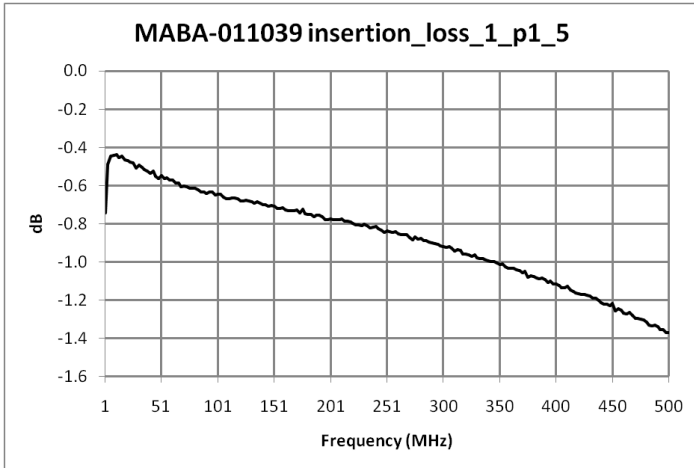
## Application Schematic



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### Typical Performance Curves



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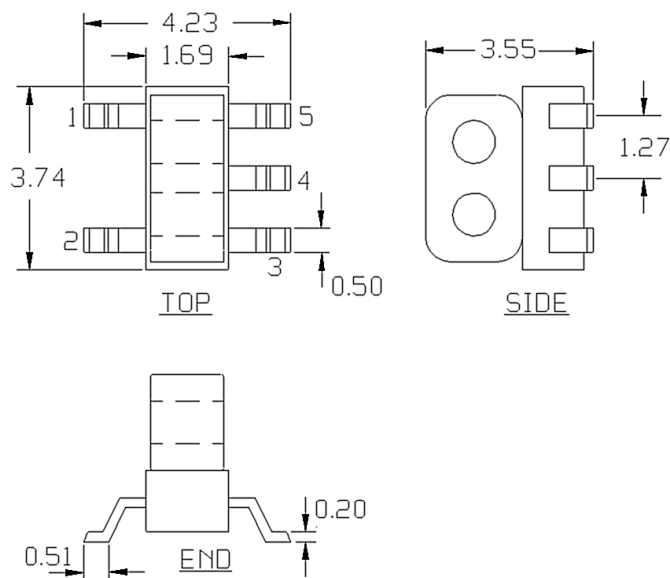
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### Outline Drawing

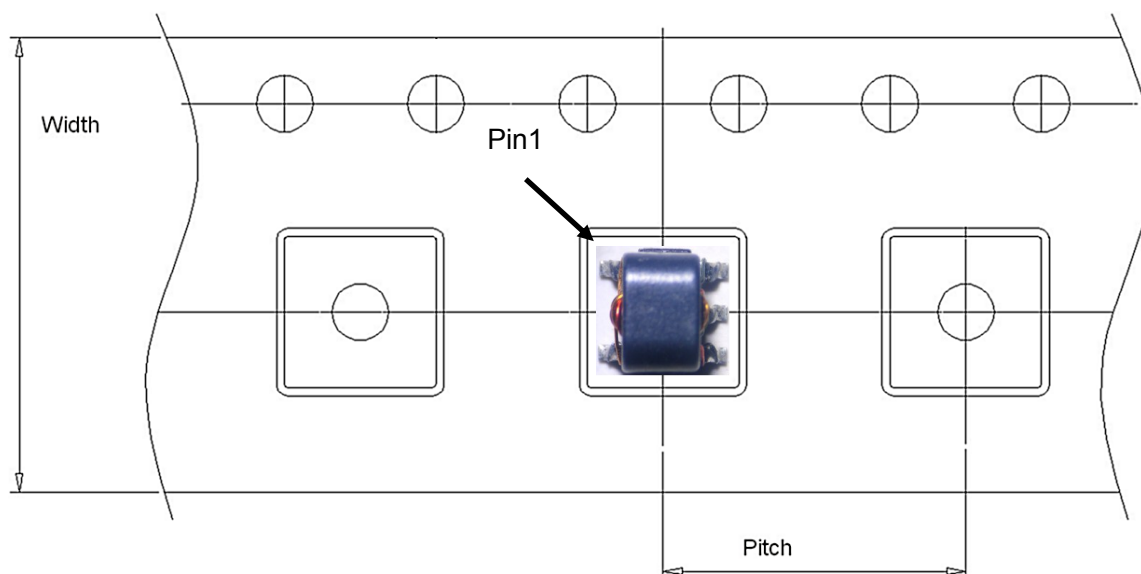


### Tape & Reel Information

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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