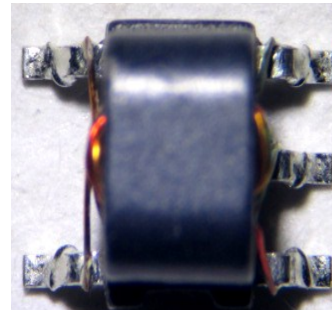


## 1:3 Step up Flux Coupled Balun Transformer 1 – 300 MHz

Rev. V2

### Features

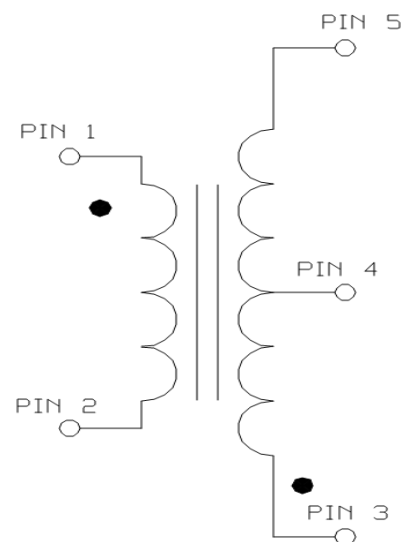
- 1:3 impedance
- Surface mount
- Available on tape and reel
- 260° reflow compatible
- RoHS compliant and Pb free
- Excellent temperature stability
- Suitable for all CATV, Broadband and FTTX applications



### Description

MABA-011038 is a 1:3 transformer. This transformer is ideally suited for CATV and Broadband applications.

### Functional Schematic



### Ordering Information

Part Number	Package
MABA-011038	Tape & Reel
-	-

### Pin Configuration

Pin No.	Function
1	Ground
2	Input
3	Output1
4	Ground
5	Output2

## 1:3 Step up Flux Coupled Balun Transformer 1 – 300 MHz

Rev. V2

Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 50 \Omega$ ,  $P_{in} = 0\text{dBm}$

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range	-	MHz	1	-	300
Impedance	-	$\Omega$	-	50	-
Impedance Ratio	-	-	-	1:3	-
Insertion Loss 1 (Pin2 - Pin3)	1 - 150 MHz	dB	-	0.6	0.9
	150 - 300 MHz	dB	-	0.8	1.2
Insertion Loss 2 (Pin2 - Pin5)	1 - 300 MHz	dB	-	0.6	0.9
Amplitude Balance	1 - 150 MHz	dB	-	0.02	$\pm 0.2$
	150 - 300 MHz	dB	-	0.2	$\pm 0.5$
Phase Balance (ref value $180^\circ$ )	1 - 150 MHz	$^\circ$	-	0.2	$\pm 2.0$
	150 - 300 MHz	$^\circ$	-	0.9	$\pm 4.0$
Input Return Loss (Pin2)	1 - 150 MHz	dB	17	20	-
	150 - 300 MHz	dB	14	17	-

## Recommended Maximum Ratings

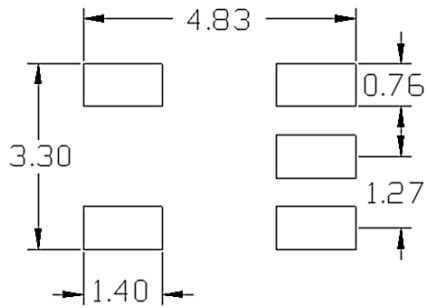
Parameter	Units	Min	Max
Input Power	mW	-	500
DC Current	mA	-	500
Operating Temperature Range	$^\circ\text{C}$	-40	+125

Full temperature plots available on request

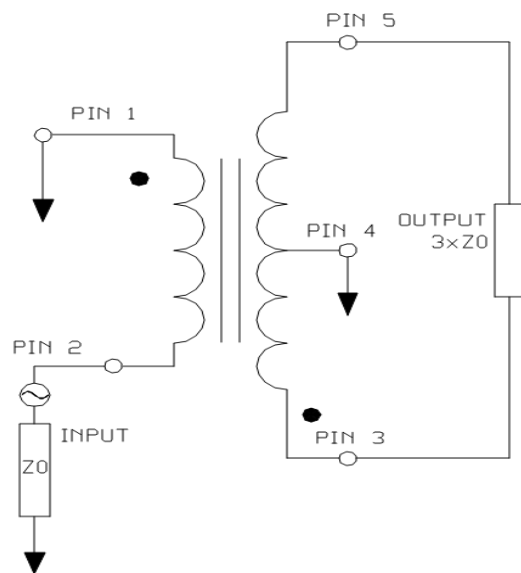
## 1:3 Step up Flux Coupled Balun Transformer 1 – 300 MHz

Rev. V2

### PCB Layout



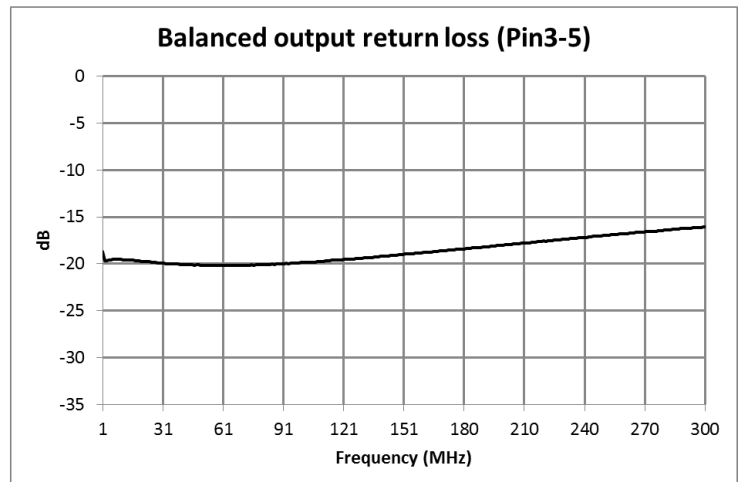
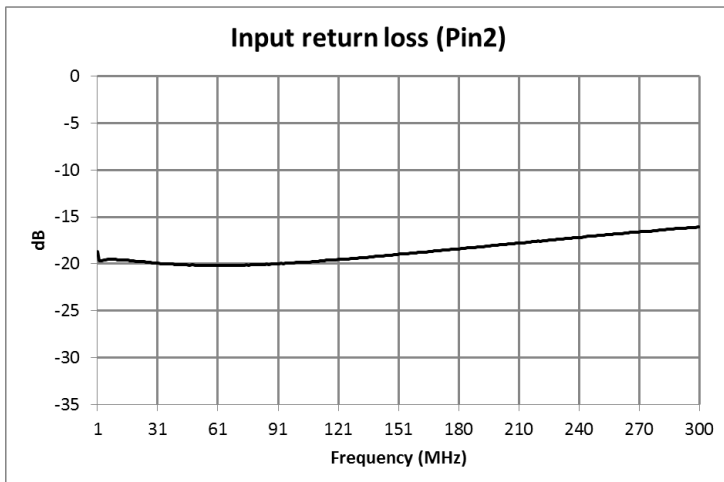
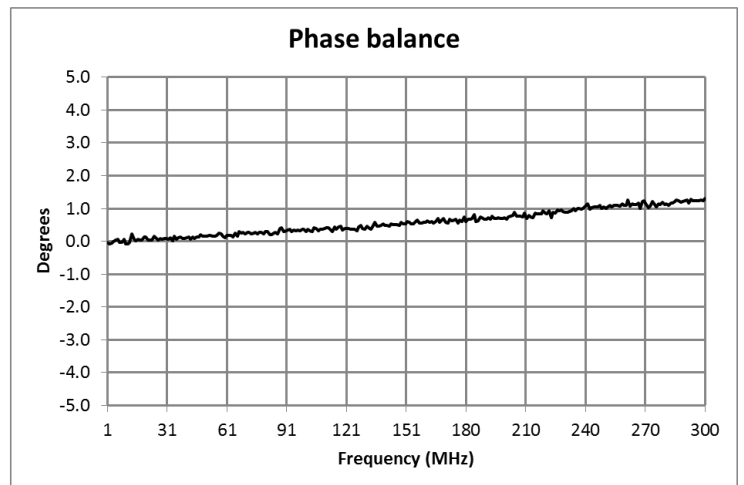
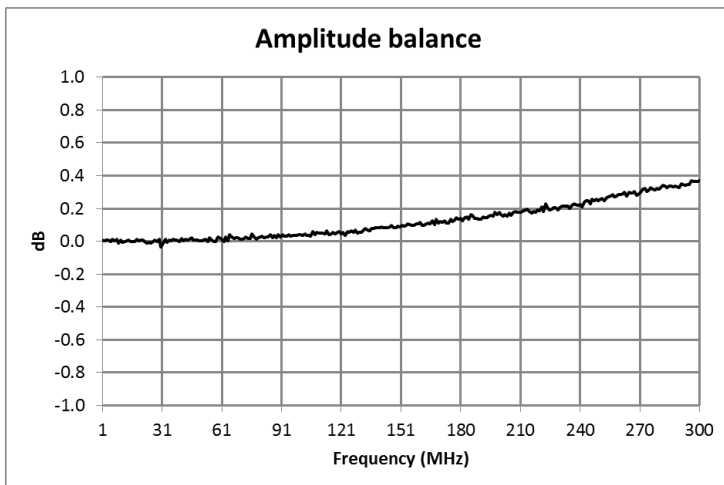
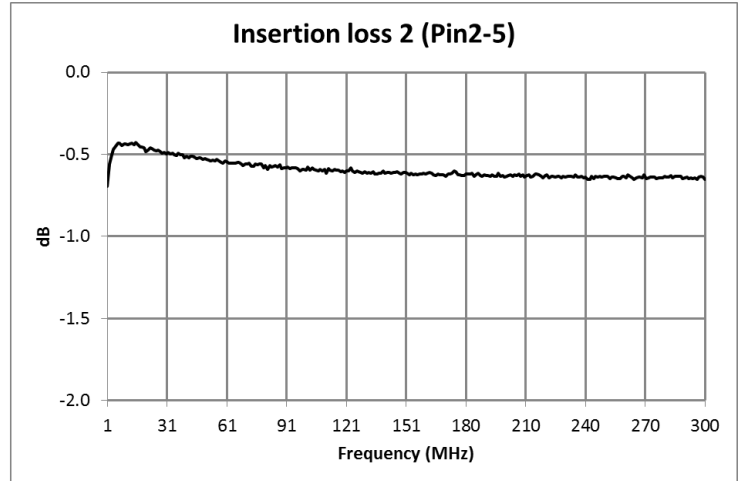
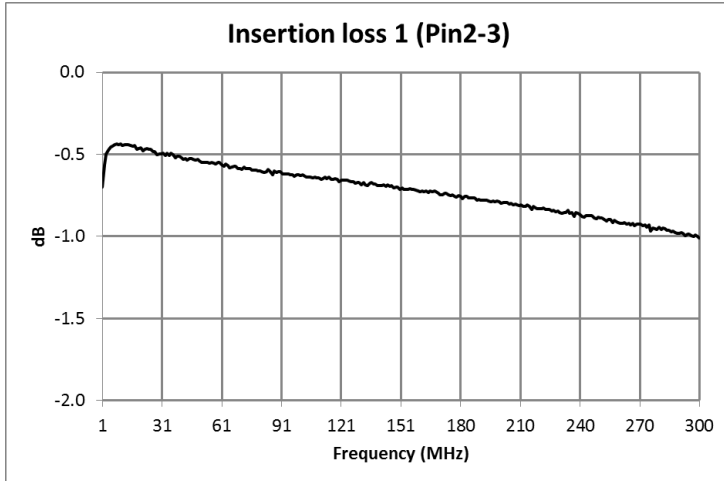
### Application Schematic



## 1:3 Step up Flux Coupled Balun Transformer 1 – 300 MHz

Rev. V2

### Typical Performance Curves

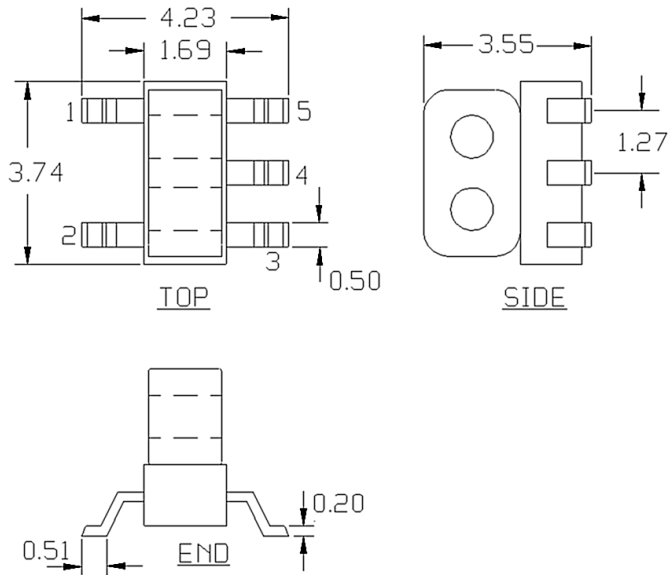


**Electrical Specifications:**  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 50 \Omega$ ,  $P_{in} = 0\text{dBm}$

## 1:3 Step up Flux Coupled Balun Transformer 1 – 300 MHz

Rev. V2

### Outline Drawing

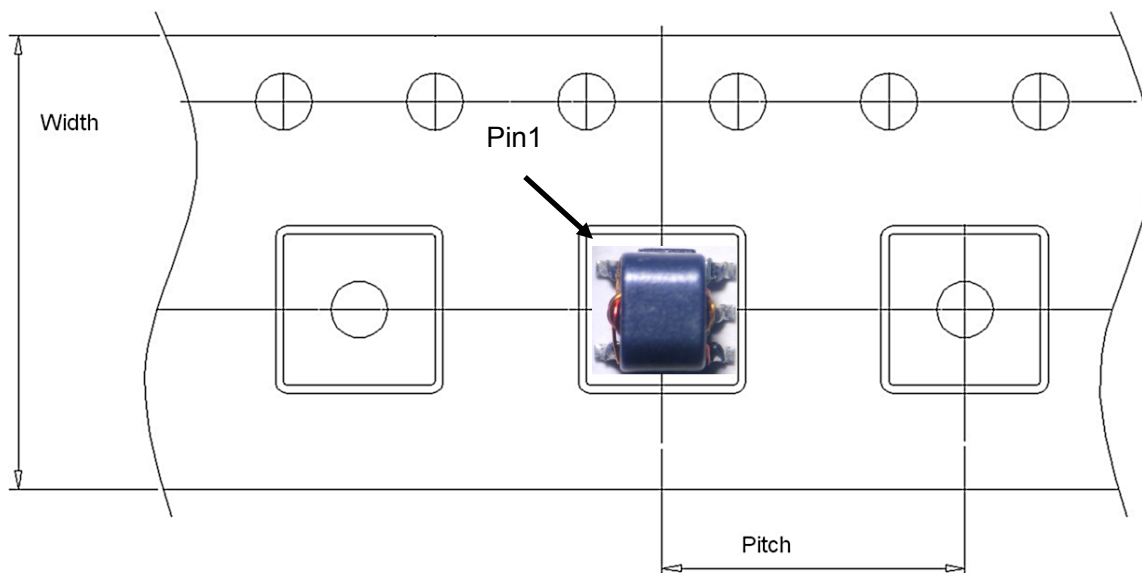


### Tape & Reel Information

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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