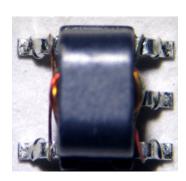


# 1:3 Step up Flux Coupled Balun Transformer 1 – 300 MHz

Rev. V2

#### **Features**

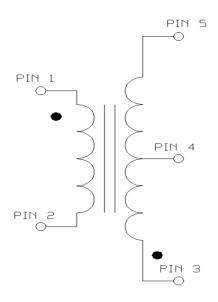
- 1:3 impedance
- Surface mount
- · Available on tape and reel
- 260° reflow compatible
- · RoHS compliant and Pb free
- Excellent temperature stability
- Suitable for all CATV, Broadband and FTTX applications



#### **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

# **MABA-011038**



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

Rev. V2

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

Parameter	Test Conditions	Units	Min.	Тур.	Max.
Frequency Range	-	MHz	1	-	300
Impedance	-	Ω	-	50	-
Impedance Ratio	-	-	-	1:3	-
Insertion Loss 1 (Pin2 - Pin3)	1 - 150 MHz 150 - 300 MHz	dB dB	-	0.6 0.8	0.9 1.2
Insertion Loss 2 (Pin2 - Pin5)	1 - 300 MHz	dB	-	0.6	0.9
Amplitude Balance	1 - 150 MHz 150 - 300 MHz	dB dB	-	0.02 0.2	±0.2 ±0.5
Phase Balance (ref value 180°)	1 - 150 MHz 150 - 300 MHz	0	-	0.2 0.9	±2.0 ±4.0
Input Return Loss (Pin2)	1 - 150 MHz 150 - 300 MHz	dB dB	17 14	20 17	-

### **Recommended Maximum Ratings**

Parameter	Units	Min	Max
Input Power	mW	-	500
DC Current	mA	-	500
Operating Temperature Range	°C	-40	+125

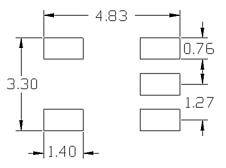
Full temperature plots available on request



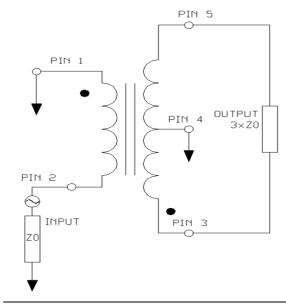
# 1:3 Step up Flux Coupled Balun Transformer

1 – 300 MHz

### **PCB Layout**



## **Application Schematic**



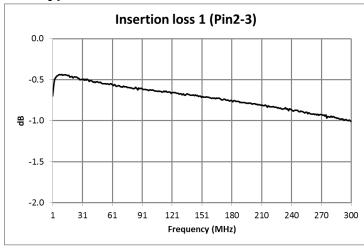
# MABA-011038

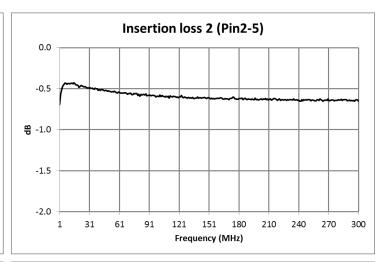


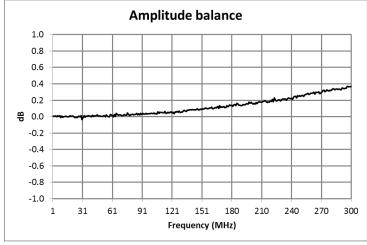
# 1:3 Step up Flux Coupled Balun Transformer 1 – 300 MHz

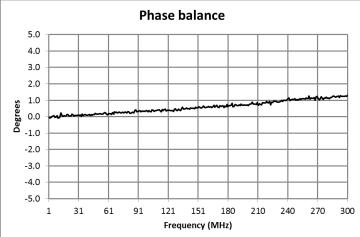
Rev. V2

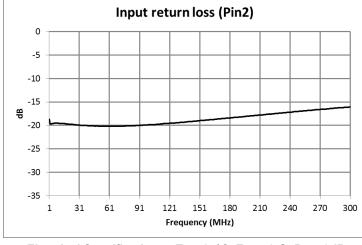
#### **Typical Performance Curves**

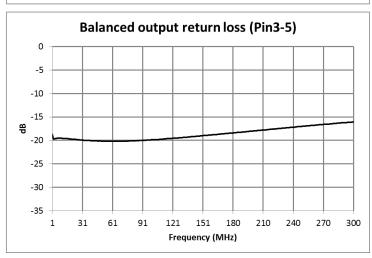












Electrical Specifications:  $T_A = 25^{\circ}C$ ,  $Z_0 = 50 \Omega$ ,  $P_{in} = 0 dBm$ 

4

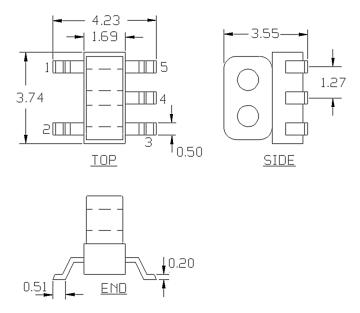


Rev. V2

## 1:3 Step up Flux Coupled Balun Transformer

### 1 – 300 MHz

#### **Outline Drawing**

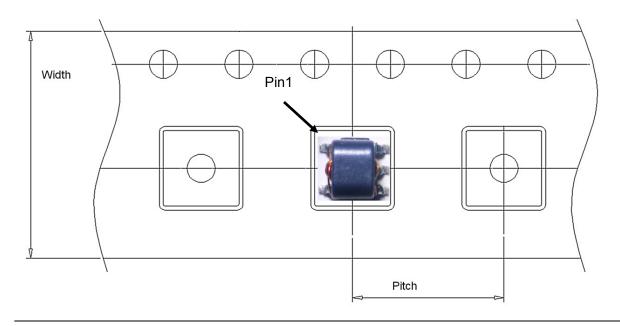


**Tape & Reel Information** 

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

- Dimensions in mm.
- 2. Tolerance: ±0.2mm 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**



# MABA-011038



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

Rev. V2

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