

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

Rev V2

Features

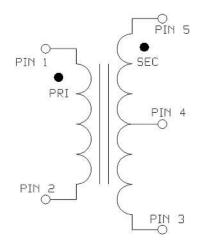
- 1:2 impedance
- Surface mount
- Available on tape and reel
- 260° reflow compatible
- · RoHS compliant and Pb free
- · Excellent temperature stability
- Suitable for all CATV, Broadband and FTTX applications



MABA-011062 is a 1:2 flux coupled transformer. This transformer is ideally suited for DOCSIS 3.0x upstream applications due to it's 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)	

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

Parameter	Test Conditions	Units	Min.	Тур.	Max.
Frequency Range	-	MHz	1	-	300
Impedance	-	Ω	-	75	-
Impedance Ratio	-	-	-	1:2	-
Insertion Loss 1 (Pin1 - Pin3)	1 - 300 MHz	dB	-	0.5	8.0
Insertion Loss 2 (Pin1 - Pin5)	1 - 200 MHz 200 - 300 MHz	dB dB	-	0.5 0.7	0.8 1.0
Amplitude Balance	1 - 180 MHz 180 - 300 MHz	dB dB	-	0.03 0.2	±0.2 ±0.5
Phase Balance (ref value 180°)	1 - 150 MHz 150 - 300 MHz	0	-	0.5 1.0	±2.0 ±4.0
Input Return Loss (Pin1)	1 - 5 MHz 5 - 300 MHz	dB dB	14 17	18 19	-

Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW	-	2000
DC Current	mA	-	1500
Operating Temperature Range	°C	-40	+125

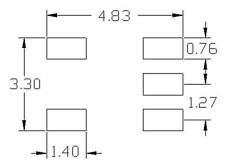
Full temperature plots available on request



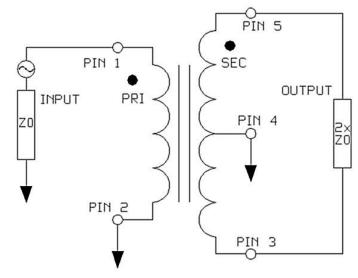
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PCB Layout



Application Schematic



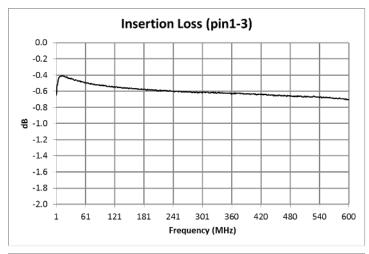
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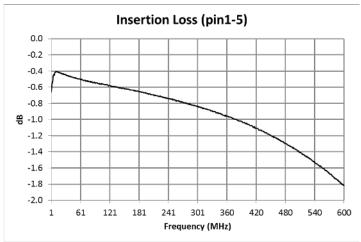


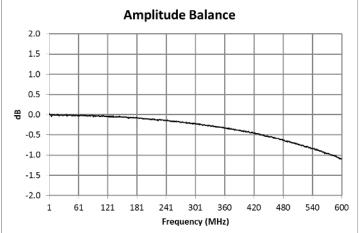
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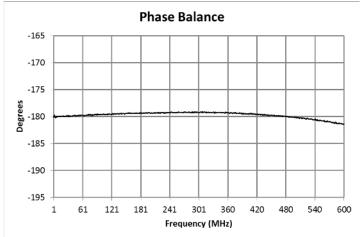
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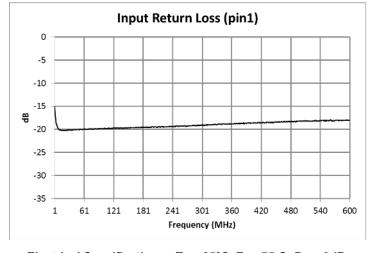
Typical Performance Curves

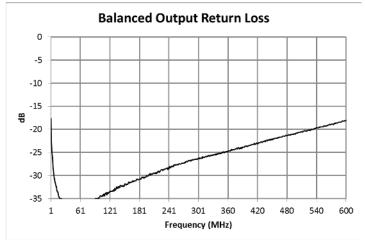












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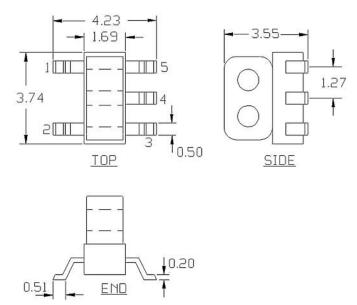
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Outline Drawing



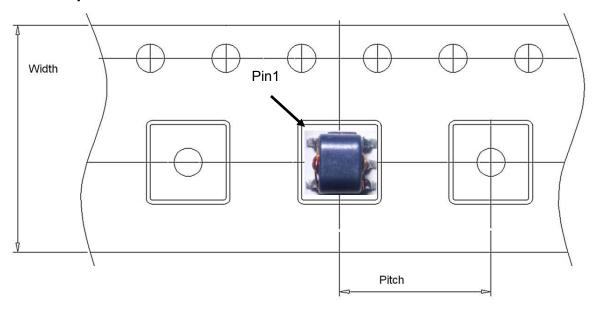
Tape & Reel Information

Parameter	Units	Value		
Qty per reel	-	2000		
Reel Size	mm	330		
Tape Width	mm	12.00		
Pitch	mm	8.00		
Ao	mm	4.40		
Во	mm	4.00		
Ко	mm	3.90		
Orientation	-	F26		

Reference Application Note ANI-019 for orientation

- 1. 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



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