MABA-011062

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

Rev V2

Features

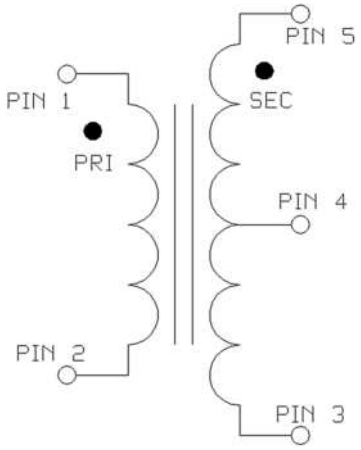
- 1:2 impedance
- Surface mount
- Available on tape and reel
- 260º reflow compatible
- RoHS compliant and Pb free
- Excellent temperature stability
- Suitable for all CATV, Broadband and FTTX applications



Description

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 Ω, P_{in} = 0dBm

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range	-	MHz	1	-	300
Impedance	-	Ω	-	75	-
Impedance Ratio	-	-	-	1:2	-
Insertion Loss 1 (Pin1 - Pin3)	1 - 300 MHz	dB	-	0.5	0.8
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	° °	- -	0.5 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

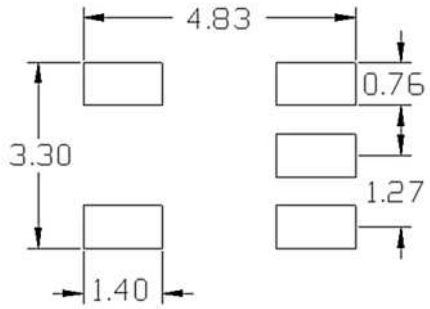
Parameter	Units	Min	Max
Input Power	mW	-	2000
DC Current	mA	-	1500
Operating Temperature Range	ºC	-40	+125

Full temperature plots available on request

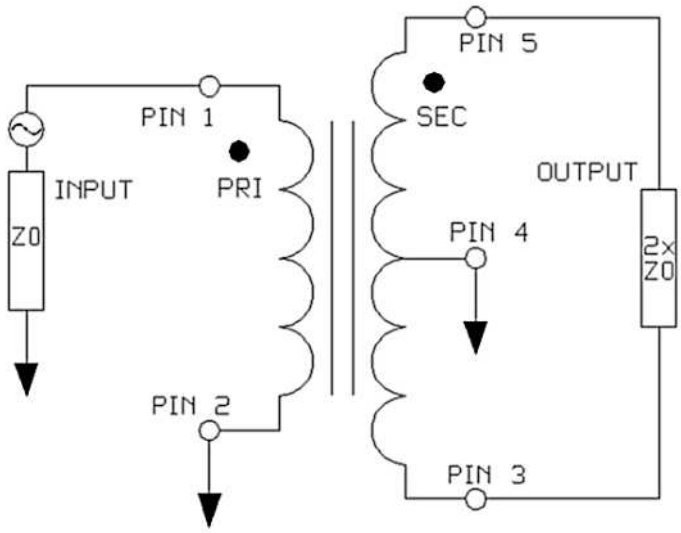
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PCB Layout



Application Schematic



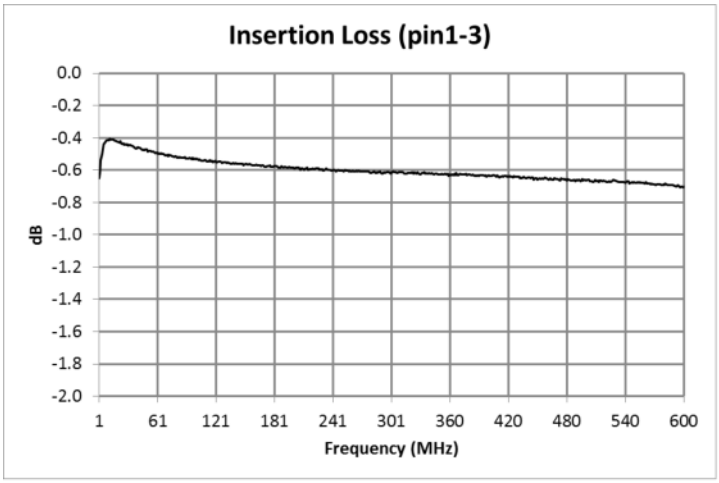
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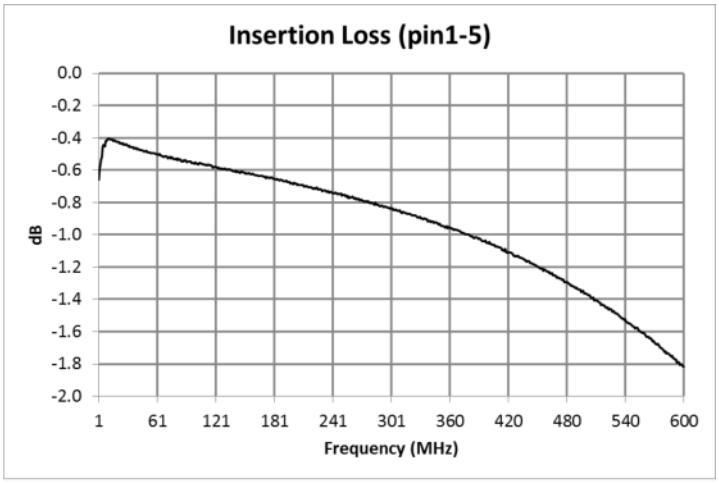
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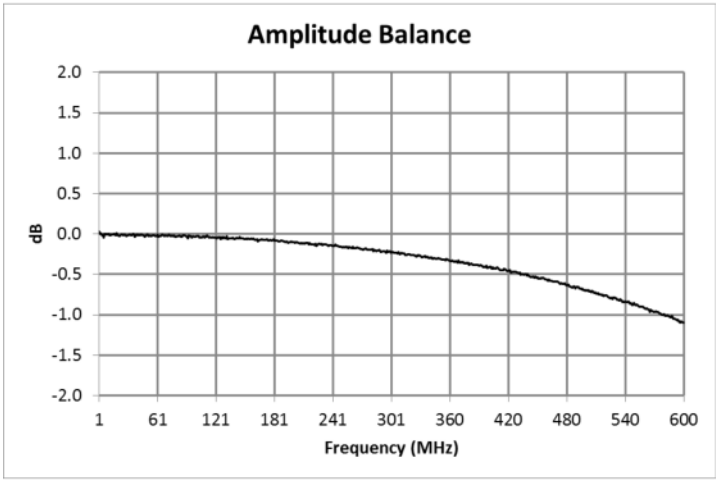
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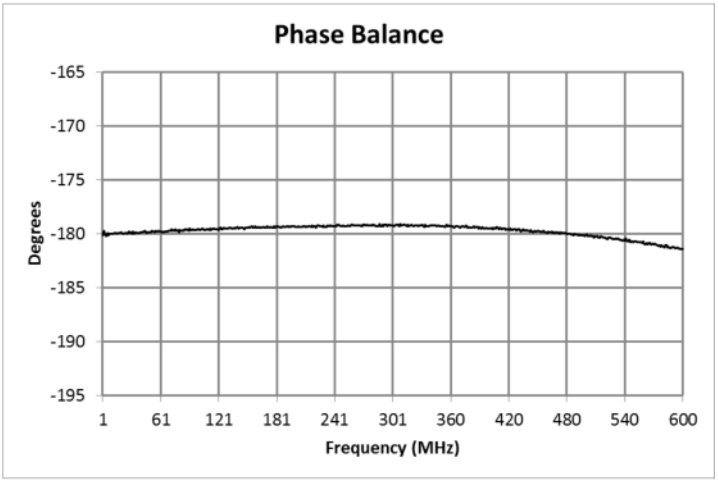
Rev V2

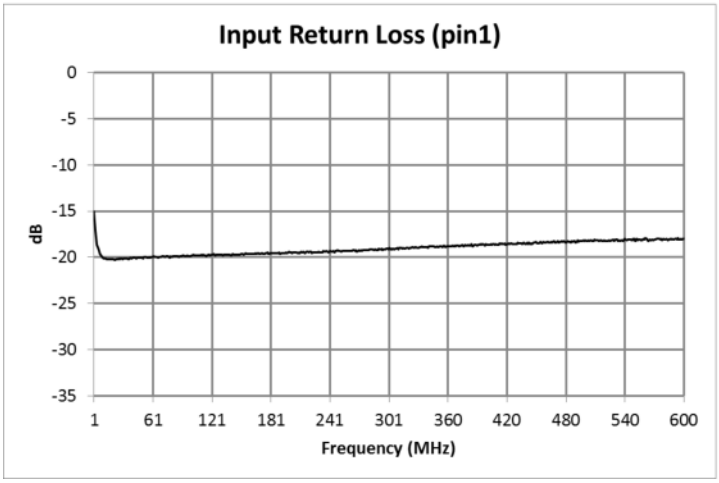
Typical Performance Curves

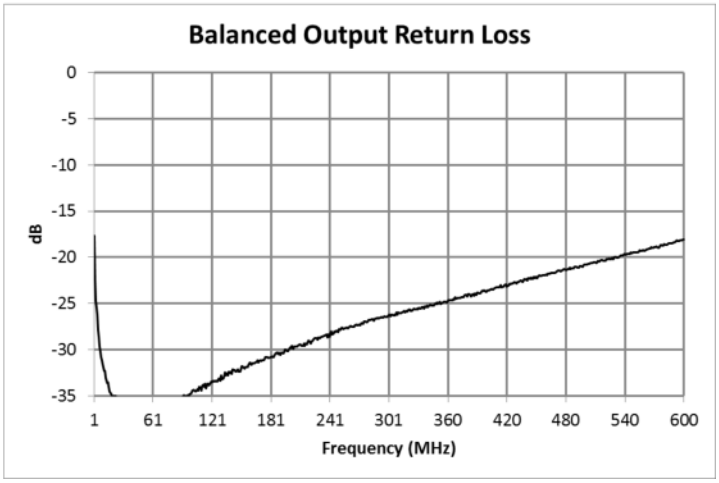












Electrical Specifications: T_A = 25°C, Z_0 = 75 Ω, P_{in} = 0dBm

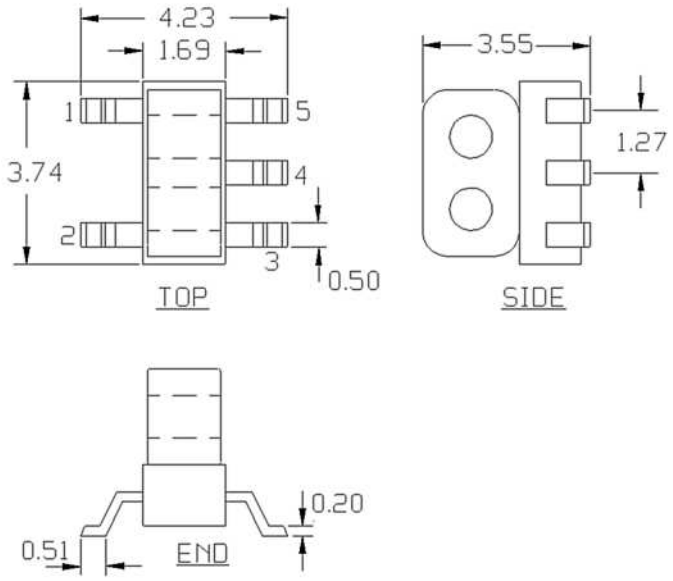
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Outline Drawing

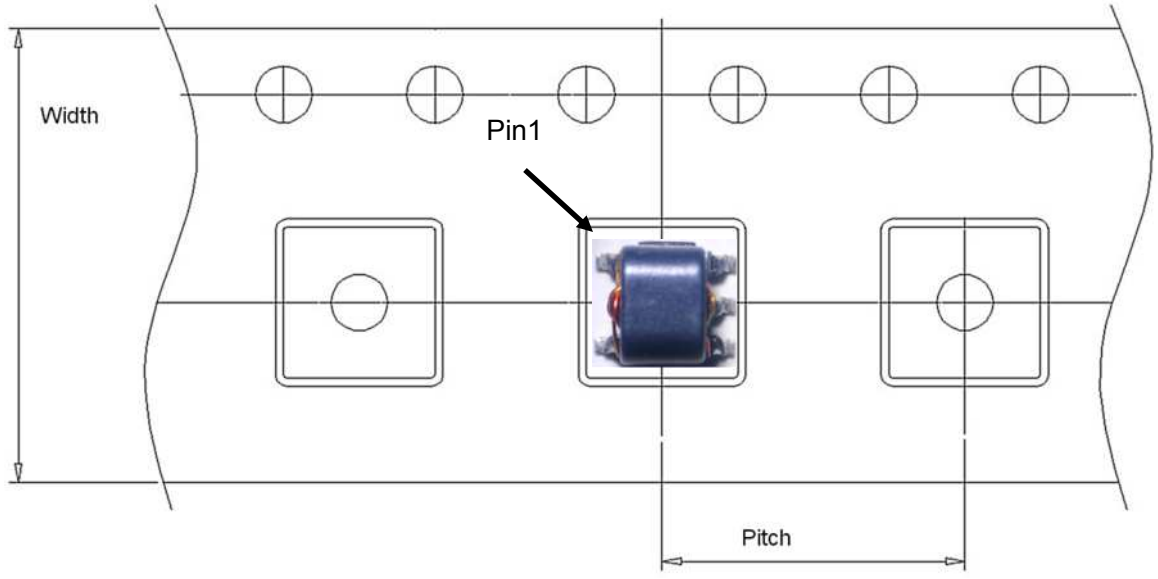


1. Dimensions in mm.
2. Tolerance: ±0.2mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Lead plating (CuSn6) Lead finish SAC-305.

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		

Carrier Tape Orientation



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