

MABA-011064

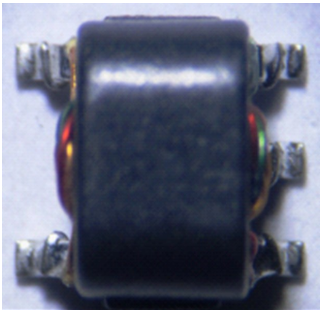


Balun transformer, 4:1 step down flux coupled
5 – 300 MHz

Rev. V1A

Features

- 4:1 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
- RoHS* compliant and 260°C reflow compatible

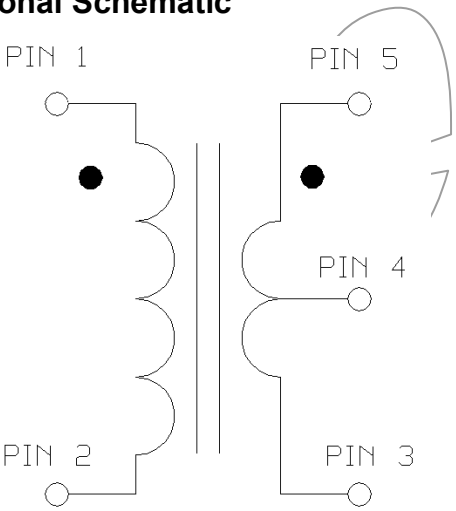


Description

MACOM's MABA-011064 is a 4:1 flux coupled transformer.

This transformer is ideally suited for CATV and Broadband applications.

Functional Schematic



Ordering Information

Part Number	Package
MABA-011064	Tape & Reel
MABA-011064-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)

* Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

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

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range		MHz	5		300
Impedance		Ω		75	
Impedance Ratio				4:1	
Insertion Loss 1 (Pin1 - Pin3)	1 - 300 MHz	dB	-	1.5	-
Insertion Loss 2 (Pin1 - Pin5)	1 - 200 MHz 200 - 300 MHz	dB dB	- -	0.6 1.5	-
Amplitude Balance	1 - 180 MHz 180 - 300 MHz	dB dB	- -	0.2 0.8	-
Phase Balance (ref value 180°)	1 - 150 MHz 150 - 300 MHz	$^\circ$ $^\circ$	- -	1.0 5.0	-
Input Return Loss (Pin1)	1 - 50 MHz 50 - 300 MHz	dB dB	- -	20 10	-

Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		2000
DC Current	mA		1500
Operating Temperature Range	$^\circ\text{C}$	-40	+125

Full temperature plots available on request

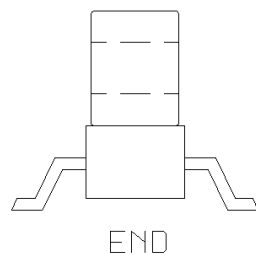
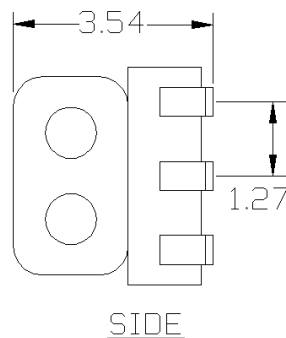
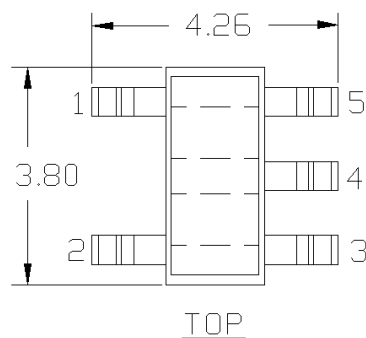
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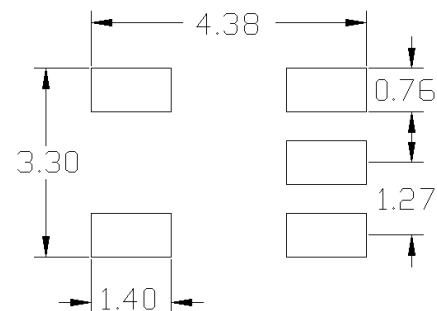
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Outline Drawing

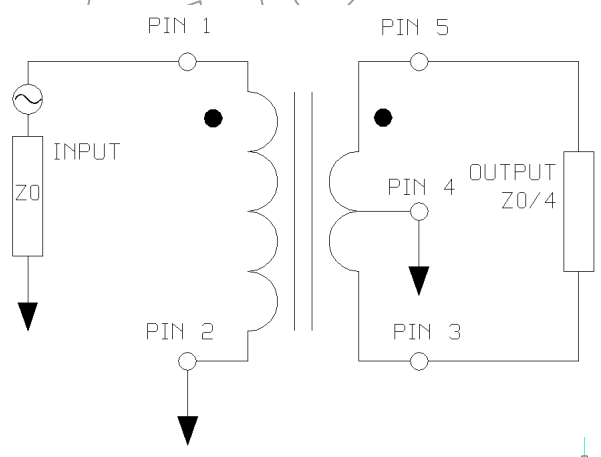


1. Dimensions in mm.
2. Tolerance: $\pm 0.2\text{mm}$ unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Lead plating (CuSn6) Lead finish SAC-305.

PCB Layout



Application Schematic



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		

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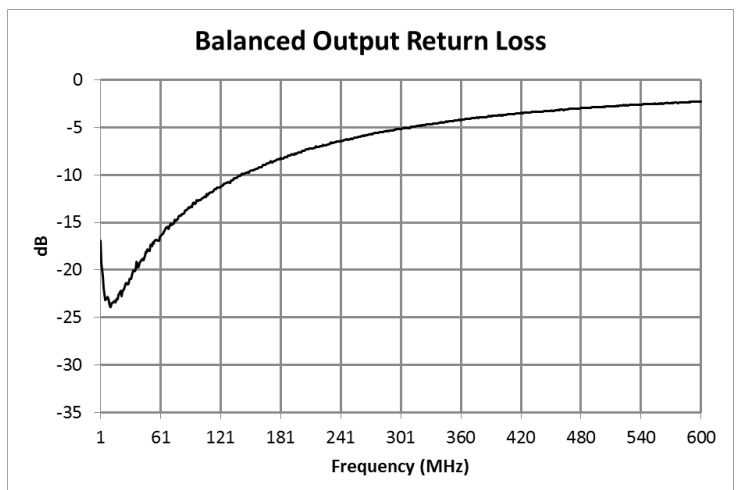
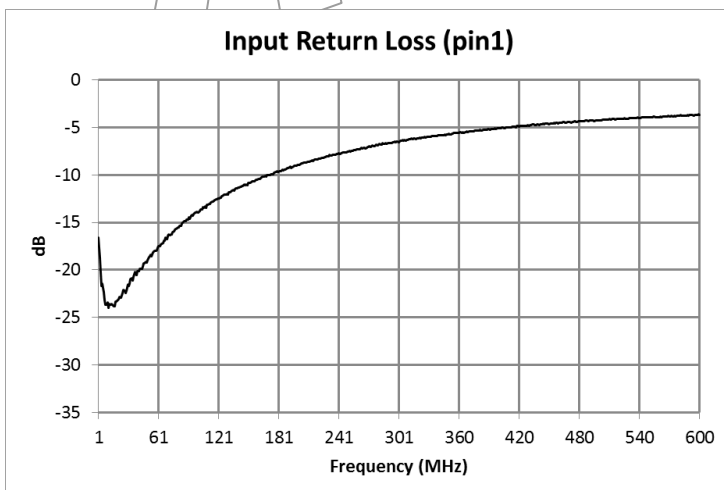
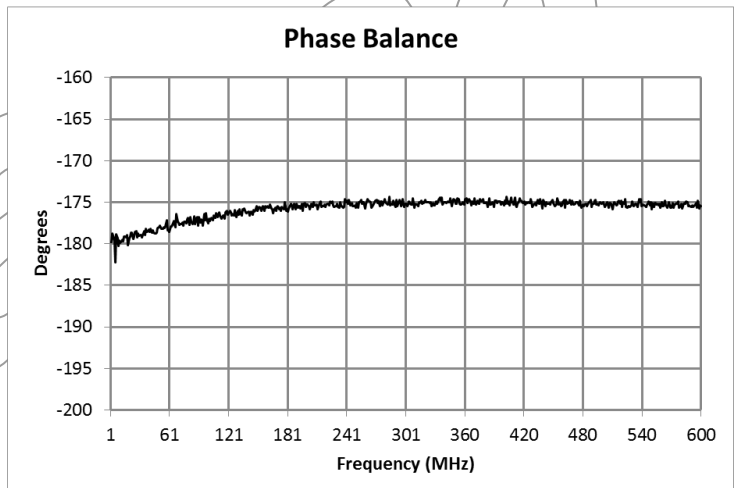
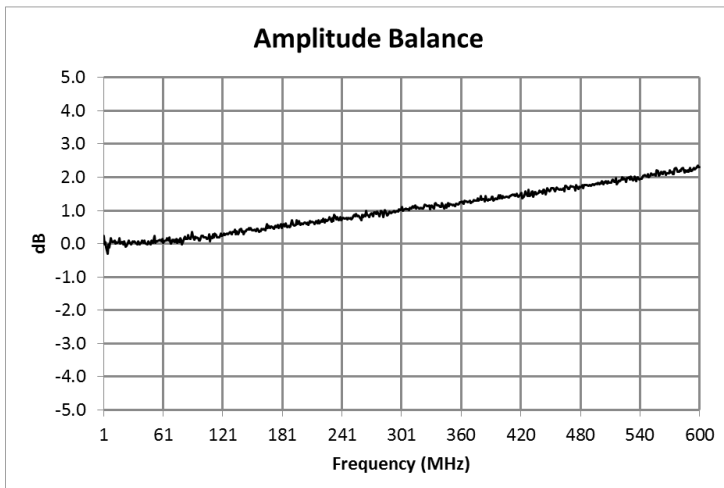
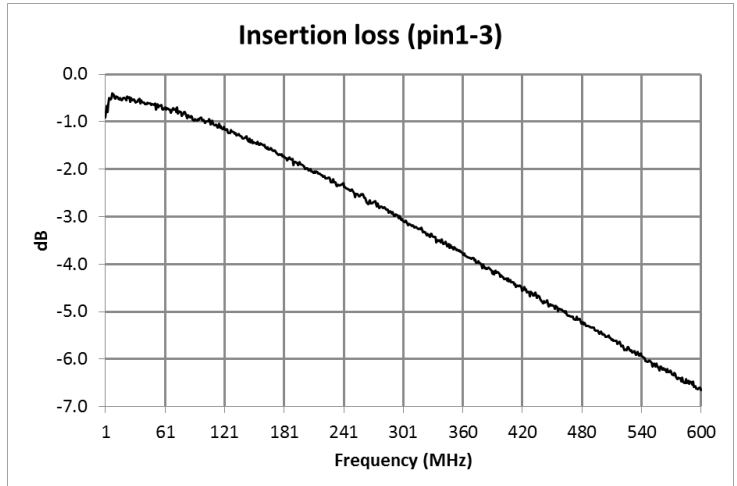
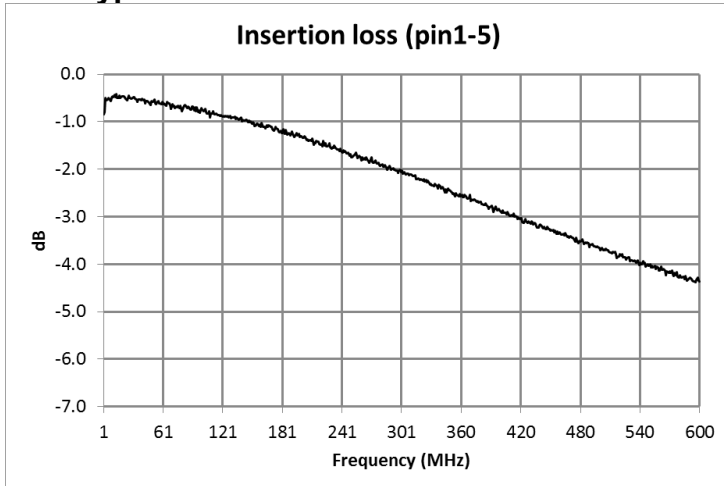
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Typical Performance Curves



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

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