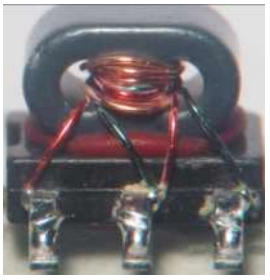
MABA-011056

Transformer, 2:1 Flux Coupled Transformer
5 - 300 MHz

Rev. V2

Features

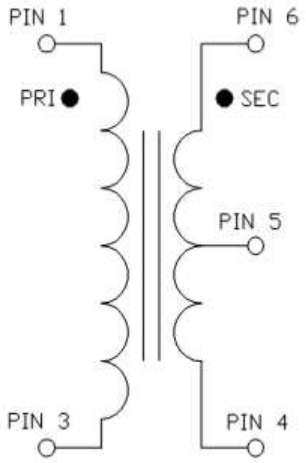
- Surface mount
- 2:1 Impedance ratio
- Centre tap on secondary
- Suitable for DOCSIS 3.1
- RoHS compliant and Pb free
- Available on tape and reel



Description

The MABA-011056 is a 2:1 step down flux coupled balun transformer in a low cost surface mount package. Ideally suited for CATV Broadband applications.

Functional Schematic



Ordering Information

Part Number	Package
MABA-011056	Tape & Reel
MABA-011056-TB	Customer test board

Pin Configuration

Pin No.	Function
1	Primary Dot
3	Primary
4	Secondary
5	Secondary Centre Tap
6	Secondary Dot

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Transformer, 2:1 Flux Coupled Transformer
5 - 300 MHz

Rev. V2

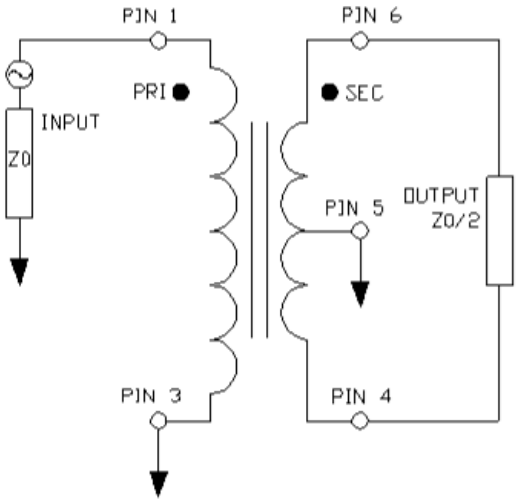
Electrical Specifications: Freq. = 5 - 300 MHz, T_A = 25°C, Z_0 = 75 Ω, P_{IN} = 0 dBm

Parameter	Conditions	Units	Min.	Typ.	Max.
Impedance Ratio	—	—	—	2:1	—
Insertion Loss (Pin 1 - Pin 6)	5 - 50 MHz 50 - 85 MHz 85 - 205 MHz 205 - 300 MHz	dB	—	0.4 0.5 0.8 1.3	0.6 0.7 1.5 2.2
Insertion Loss (Pin 1 - Pin 4)	5 - 50 MHz 50 - 85 MHz 85 - 205 MHz 205 - 300 MHz	dB	—	0.4 0.5 0.7 1.2	0.6 0.7 1.4 2.0
Amplitude Balance	5 - 50 MHz 50 - 85 MHz 85 - 205 MHz 205 - 300 MHz	dB	—	0.02 0.04 0.04 0.1	0.2 0.3 0.5 0.7
Phase Balance	5 - 50 MHz 50 - 85 MHz 85 - 205 MHz 205 - 300 MHz	°	—	0.1 0.3 1.1 1.2	2.0 3.0 6.0 7.0
Input Return Loss (Pin 1)	5 - 45 MHz 45 - 85 MHz 85 - 205 MHz 205 - 300 MHz	dB	20 15 8 6	25 19 13 9	—

Absolute Maximum Ratings

Parameter	Units
Input RF Power	0.5 W
DC Current	500 mA
Operating Temperature	-40°C to +85°C

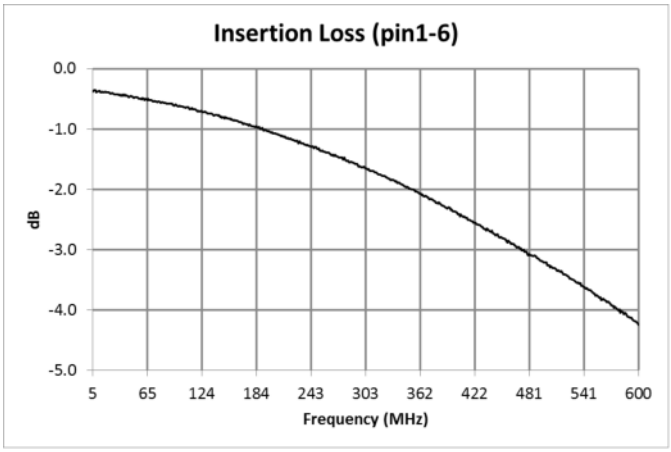
Application Circuit

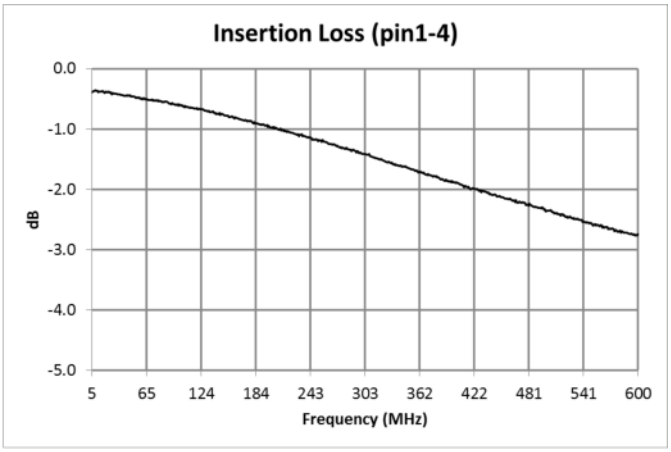


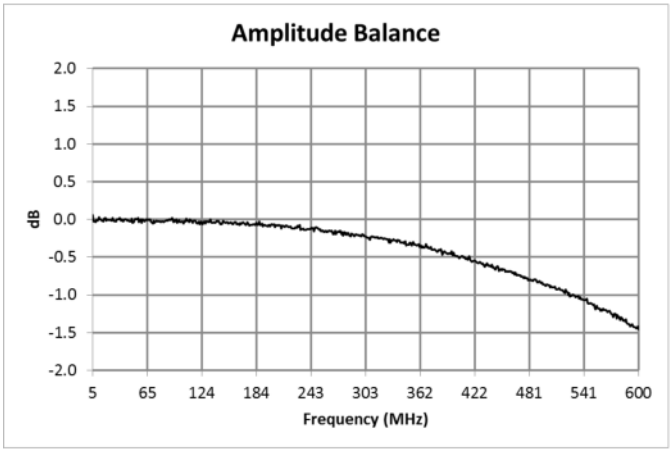
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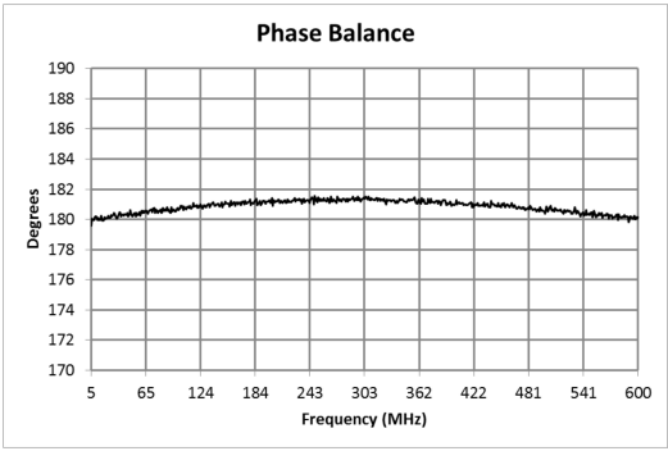
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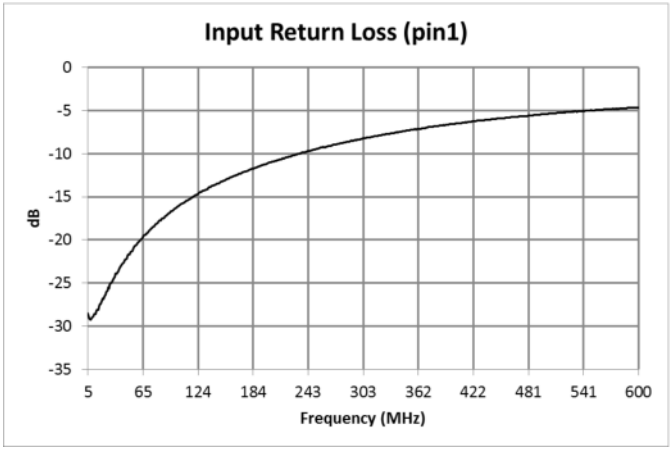
Typical Performance Curves

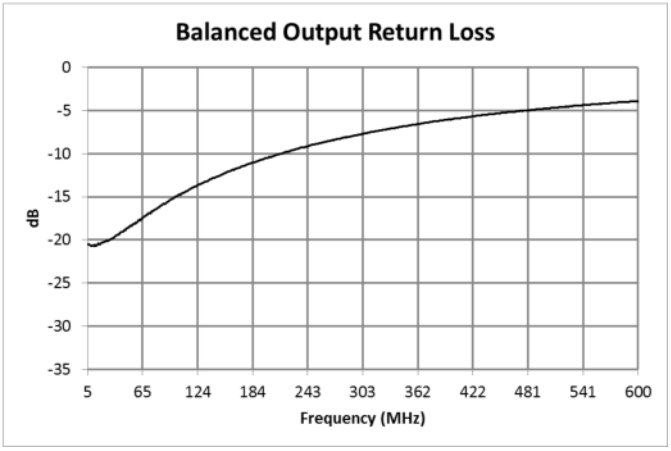












Full temperature plots available on request

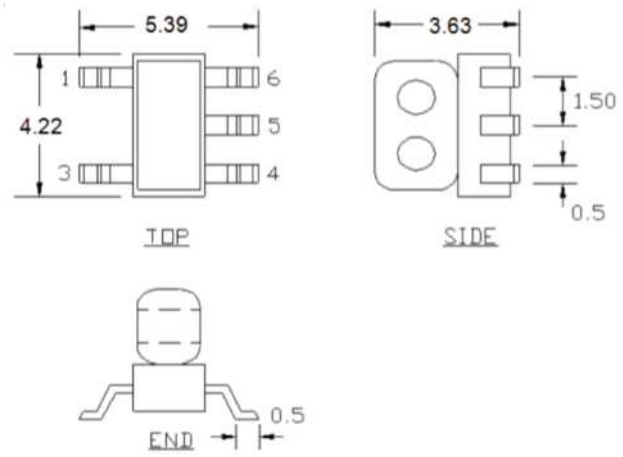
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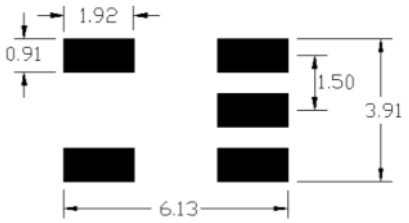
Rev. V2

Outline Drawing



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

PCB Layout



Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.00
Pitch (P1)	mm	8.00
A_0	mm	5.6
B_0	mm	4.5
K_0	mm	4.0
Orientation	-	F26
Reference Application note ANI-019 for orientation		

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