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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



4:1 Step Down Balun Transformer 5 - 200 MHz

Rev. V3

Features

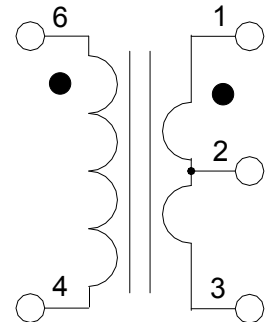
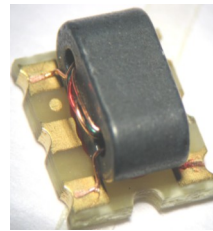
- Surface Mount Package
- 4:1 Step Down Transformer
- Excellent performance under DC bias current, also when current flows is imbalanced through outputs
- 260°C Reflow Compatible
- RoHS* Compliant, lead free
- Available on Tape and Reel.

Description

The MABA-011002 is a 4:1 step down balun transformer.

This transformer is ideally suited for CATV Broadband applications.

Functional Schematic



Pin Configuration

Pin #	Function
1	Secondary Dot (output1)
2	Ground (center tap)
3	Secondary (output2)
4	Primary (RF ground)
5	Ground (not used)
6	Primary dot (input)

Electrical Specifications: Freq. = 5 - 200 MHz, T_A = +25°C, Z₀ = 75 Ω, P_{IN} = 0 dBm

Parameter	Frequency Test Conditions (MHz)	Units	Min.	Typ.	Max.
Impedance Ratio	—	ratio	—	4:1	—
Insertion Loss (pin 6 - pin 1)	5 - 50	dB	—	0.4	0.8
	50 - 150			1.0	2.2
	150 - 200			2.0	3.1
Insertion Loss (pin 6 - pin 3)	5 - 50	dB	—	0.4	0.8
	50 - 150			1.1	2.5
	150 - 200			2.4	3.6
Amplitude Balance	5 - 50	dB	—	0.0	±0.4
	50 - 150			0.0	±1.0
	150 - 200			0.3	±1.4
Phase Balance	5 - 50	°	—	0.6	±4
	50 - 200			0.8	±9
Input Return Loss (pin 6)	5 - 25	dB	17	20	—
	25 - 50		12	15	
	50 - 150		5	9	
	150 - 200		3	5	

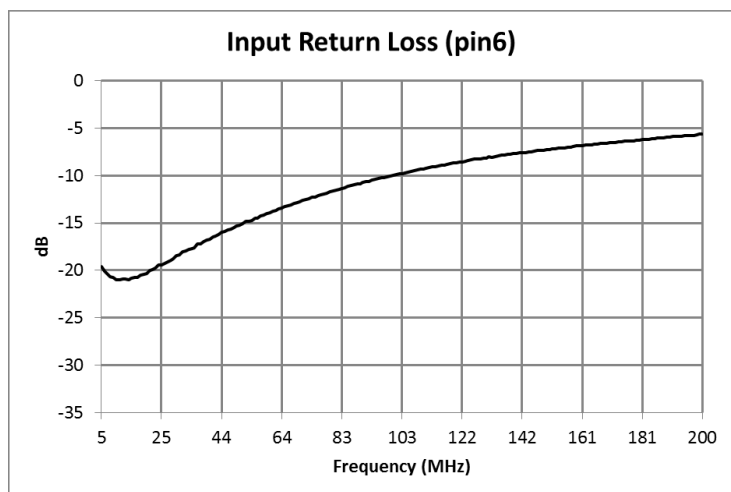
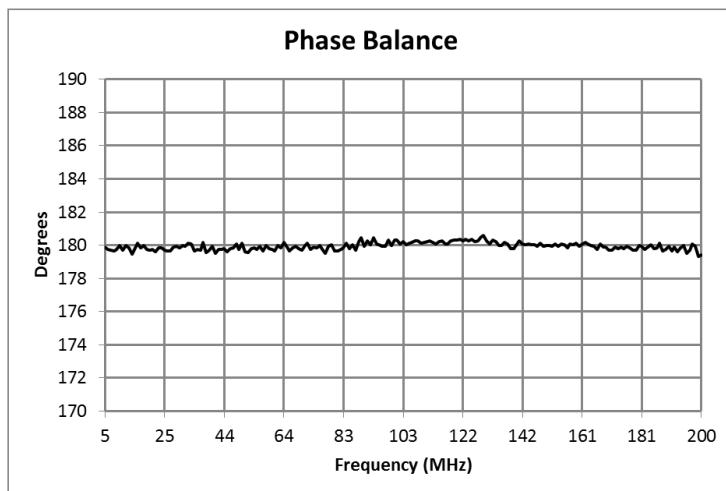
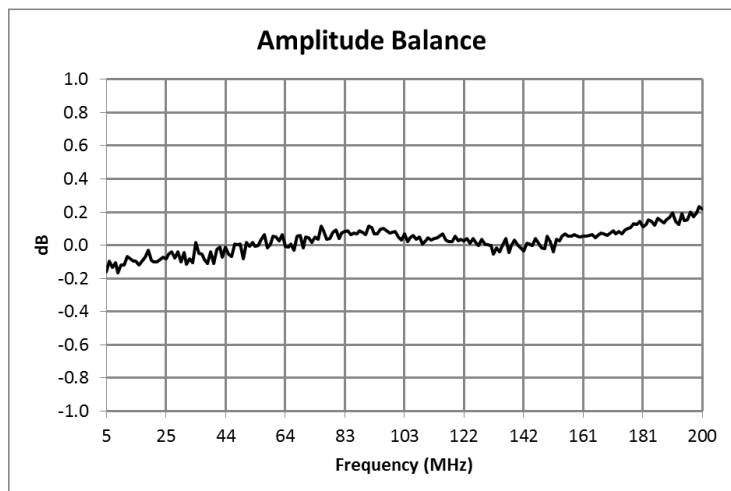
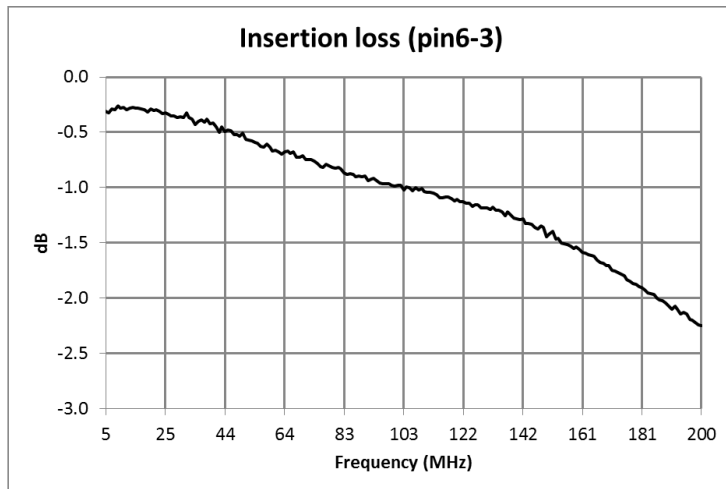
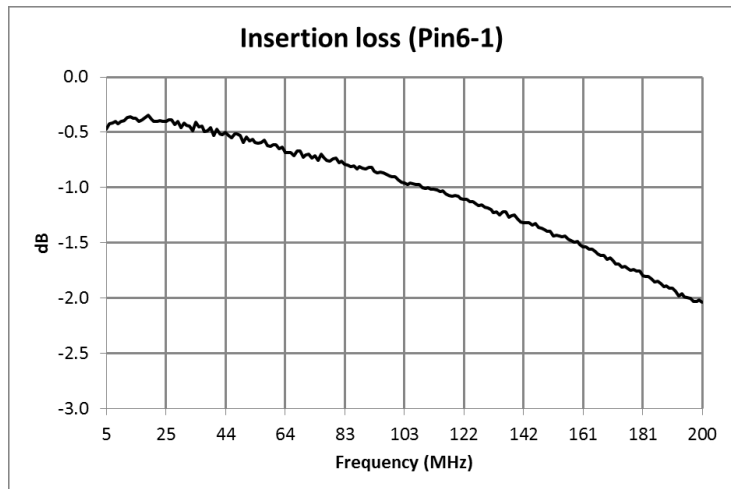
Ordering Information

Part Number	Description
MABA-011002	900 piece reel
MABA-011002-TB	Customer Evaluation Board

Recommended Maximum Ratings

Parameter	Units
Input RF Power	1 W
Internal Load Dissipation	0.125 W
DC Bias Current	>900 mA
Operating Temperature	-40°C - +85°C

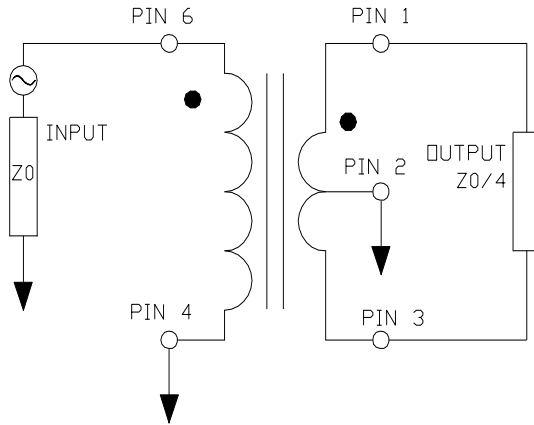
Typical Performance Curves



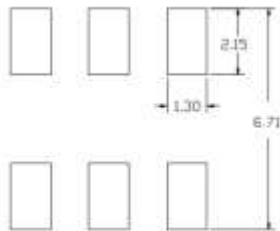
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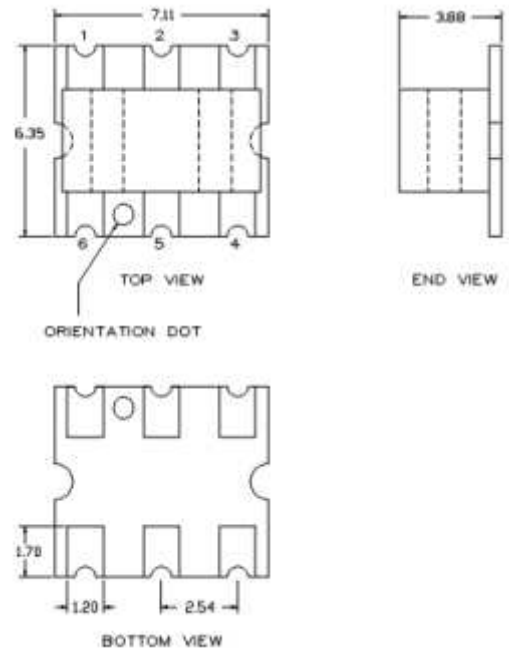
Application Circuit



PCB Layout



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 plating: ENIG.

Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	900
Reel Size	mm	330
Tape Width	mm	16.00
Pitch	mm	12.00
Ao	mm	6.60
Bo	mm	7.40
Ko	mm	4.10
Orientation	-	F38
Reference Application Note ANI-019 for orientation		

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