

Transformer, 1:1 Transmission Line 45 - 1200 MHz

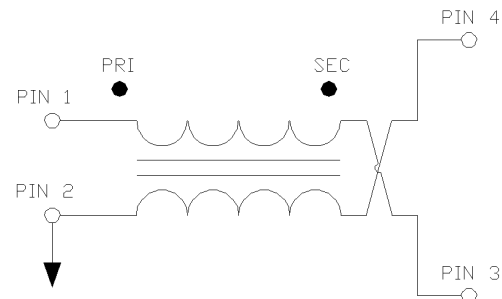
Rev. V3

Features

- 1:1 Impedance Ratio
- Surface Mount
- Available on tape and reel
- 260°C Reflow compatible
- RoHS Compliant and Pb free
- Excellent Temperature Stability
- Can be used on 50 Ω and 75 Ω systems
- Suitable for all CATV, Broadband and FTTx applications.



Schematic



Pin Configuration

Pin No.	Function
1	Primary Dot
2	Primary
3	Secondary
4	Secondary Dot

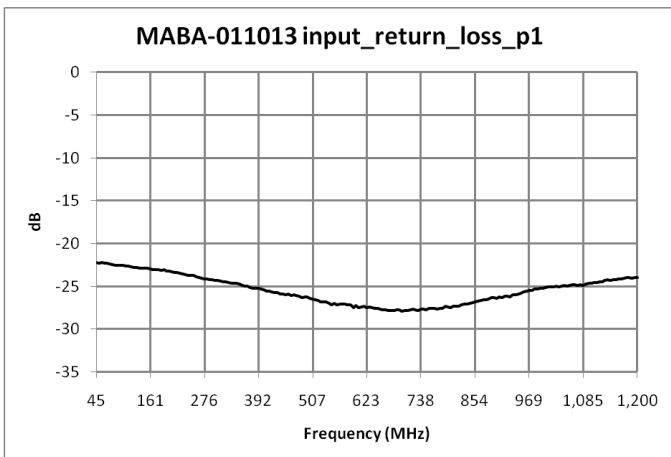
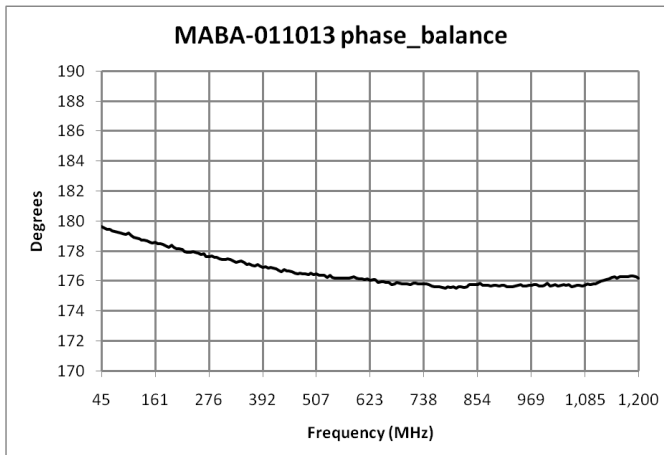
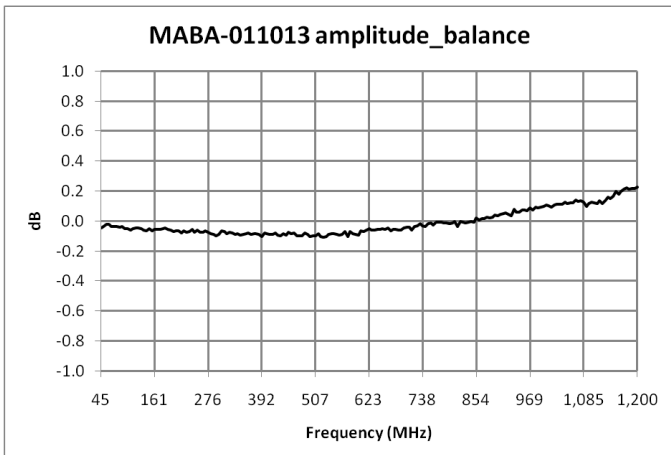
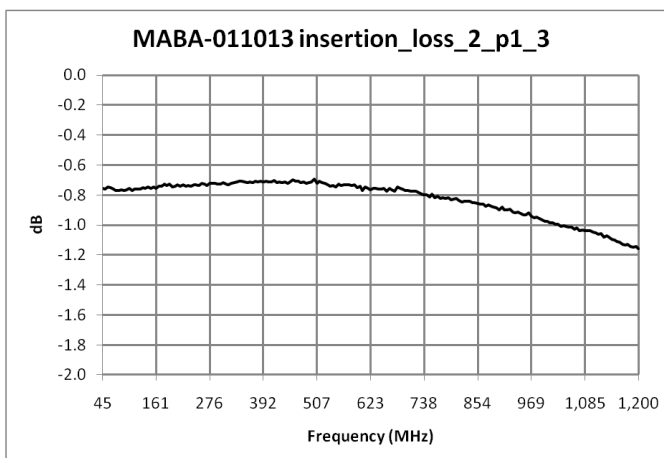
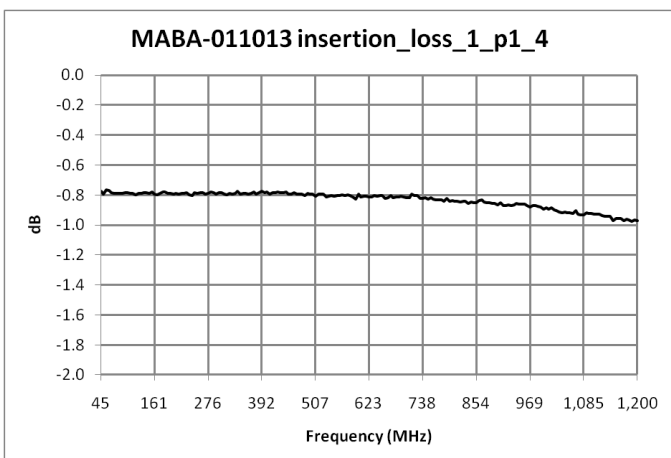
Ordering Information

Part Number	Description
MABA-011014	Tape & Reel
MABA-011014-TB	Evaluation Board

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

Parameter	Conditions	Units	Min.	Typ.	Max.
Frequency Range	—	MHz	45	—	1200
Impedance	—	Ω	—	75	—
Impedance Ratio	—	Ratio	—	1:1	—
Insertion Loss (Pin1 - Pin4)	45 - 100 MHz	dB	—	0.9	1.1
	100 - 600 MHz			0.9	1.2
	600 - 1000 MHz			1.0	1.3
	1000 - 1200 MHz			1.0	1.4
Insertion Loss (Pin1 - Pin3)	45 - 100 MHz	dB	—	-0.2	0.1
	100 - 600 MHz			-0.1	0.2
	600 - 1000 MHz			0.2	0.5
	1000 - 1200 MHz			0.35	0.7
Amplitude Balance	45 - 600 MHz	dB	—	1.1	±1.4
	600 - 1000 MHz			0.9	±1.5
	1000 - 1200 MHz			0.9	±1.5
Phase Balance	45 - 600 MHz	°	—	2	±6
	600 - 1000 MHz			4	±10
	1000 - 1200 MHz			4	±10
Input Return Loss (Pin1)	45 - 600 MHz	dB	20	30	—
	600 - 1000 MHz		20	31	
	1000 - 1200 MHz		20	31	

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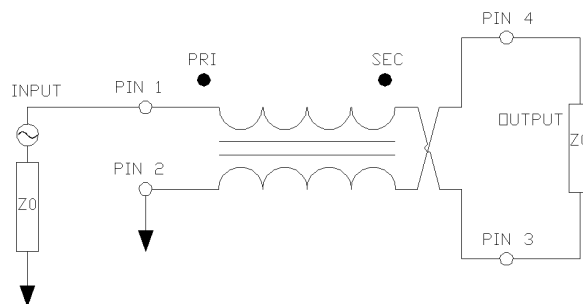
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Recommended Maximum Ratings

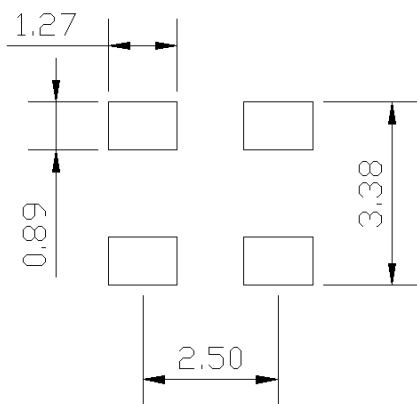
Parameter	Units
Input Power	2 W
DC Current	200 mA
Operating Temperature	-40°C to +100°C

Temperature data available on request

Application Circuit



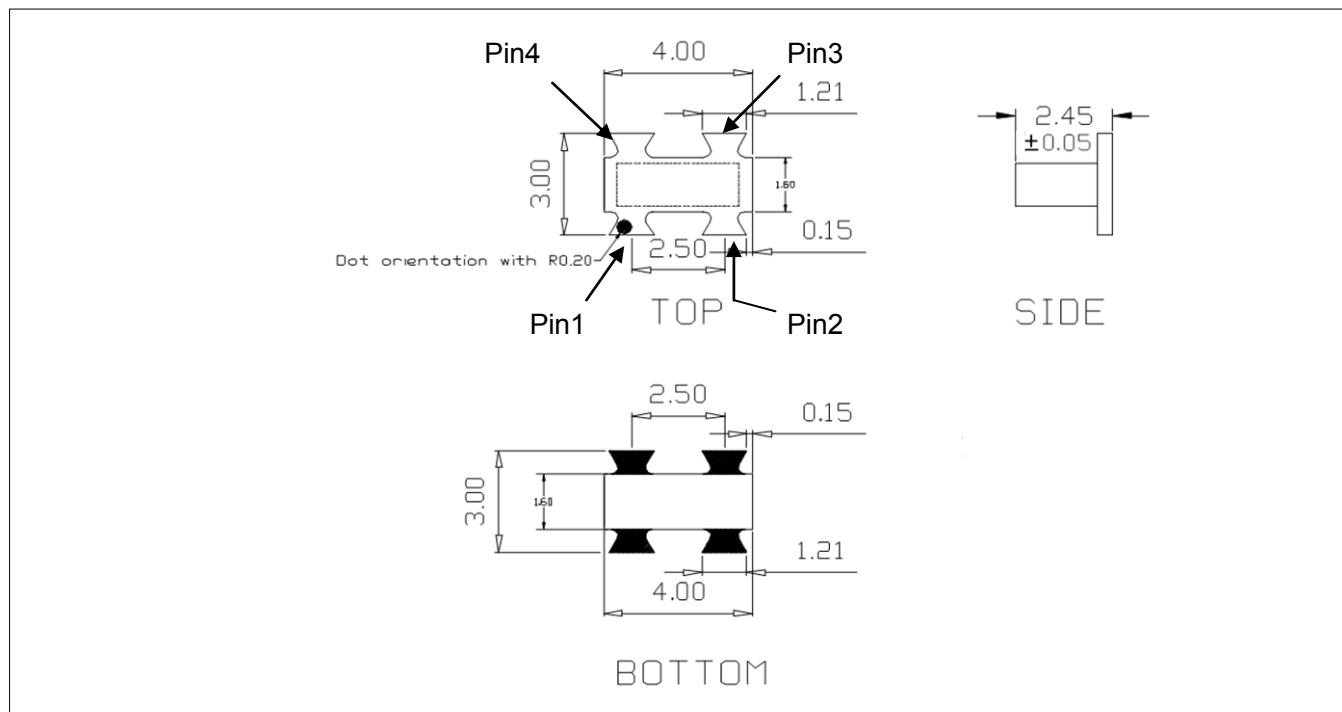
Recommended Footprint



Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.00
Pitch (P ₁)	mm	8.00
A ₀	mm	3.3
B ₀	mm	4.3
K ₀	mm	2.6
Orientation	-	F51
Reference Application note ANI-019 for orientation		

Outline Drawing



1. Dimensions in mm.
2. Tolerance: ± 0.2 mm unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: 96.5 % tin, 3% silver, and 0.5% copper

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5

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