Transformer, 1:1 Transmission Line 45 - 1200 MHz



MABA-011014 Rev. V5

Features

- 1:1 Impedance Ratio
- Surface Mount Package
- Excellent Temperature Stability
- Can be used on 50 Ω & 75 Ω Systems
- Available on Tape & Reel
- RoHS* Compliant

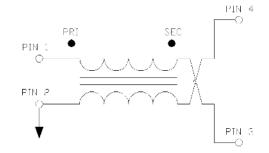
Applications

• CATV, Broadband and FTTx applications

Description

The MABA-011014 has a 1:1 impedance ratio and is available in a surface mount package. This device is well suited for CATV, Broadband, and FTTx applications.

Schematic



Ordering Information

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

Pin Configuration

Pin#	Function	Pin#	Function
1	Primary Dot	3	Secondary
2	Primary	4	Secondary Dot

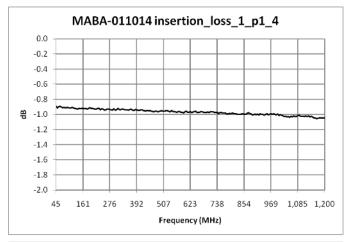
Electrical Specifications: Freq. = 45 - 1200 MHz, Z_0 = 75 Ω , T_A = 25°C, P_{IN} = 0 dBm

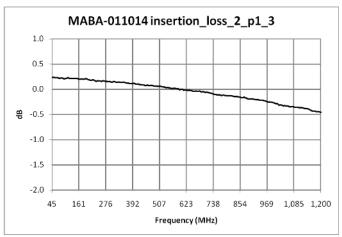
Parameter	Conditions	Units	Min.	Тур.	Max.
Impedance Ratio	<u> </u>	Ratio	_	1:1	_
Insertion Loss (Pin1 - Pin4)	45 - 100 MHz 100 - 600 MHz 600 - 1000 MHz 1000 - 1200 MHz	dB	_	0.9 0.9 1.0 1.0	1.1 1.2 1.3 1.4
Insertion Loss (Pin1 - Pin3)	45 - 100 MHz 100 - 600 MHz 600 - 1000 MHz 1000 - 1200 MHz	dB	_	-0.2 -0.1 0.2 0.35	0.1 0.2 0.5 0.7
Amplitude Balance	45 - 600 MHz 600 - 1000 MHz 1000 - 1200 MHz	dB	_	1.1 0.9 0.9	±1.4 ±1.5 ±1.5
Phase Balance	45 - 600 MHz 600 - 1000 MHz 1000 - 1200 MHz	o	_	2 4 4	±6 ±10 ±10
Input Return Loss (Pin1)	45 - 600 MHz 600 - 1000 MHz 1000 - 1200 MHz	dB	20 20 20	30 31 31	_

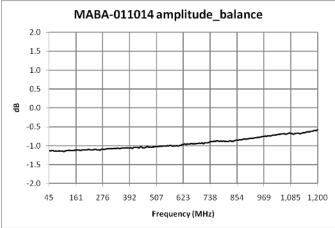


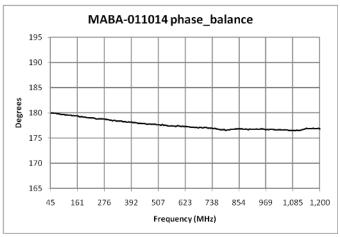
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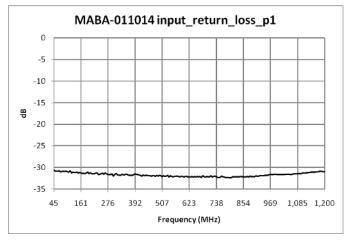
Electrical Specifications: $Z_0 = 75 \Omega$, $T_A = 25$ °C, $P_{IN} = 0 \text{ dBm}$













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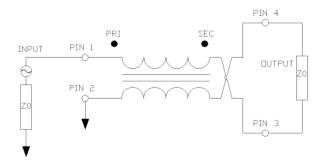
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Recommended Maximum Ratings

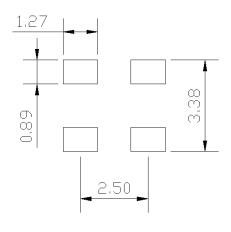
Parameter	Units
Input Power	2 W
DC Current	200 mA
Operating Temperature	-40°C to +100°C

Temperature data available on request

Application Circuit



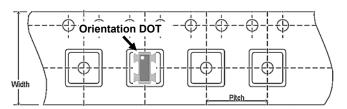
Recommended Footprint



Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width	mm	12.00
Pitch	mm	8.00
Orientation	-	F51
Reference Application note ANI-019 for orientation		

Carrier Tape Orientation

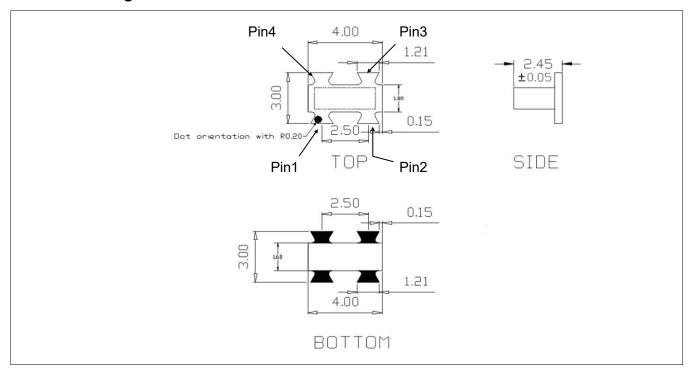




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Outline Drawing



- 1. Dimensions in mm.
- 2. Tolerance: ±0.2mm 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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