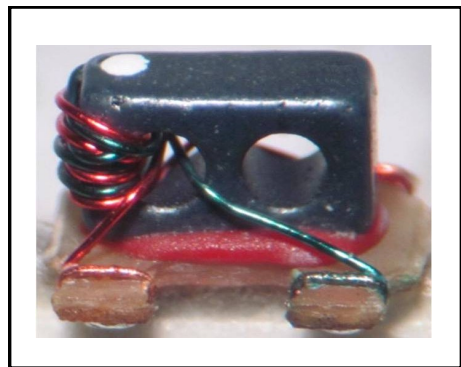


Transformer, 1:1 Transmission Line 45 to 1200 MHz

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 50Ω and 75Ω systems
- ◆ Suitable for all CATV, Broadband and FTTx applications



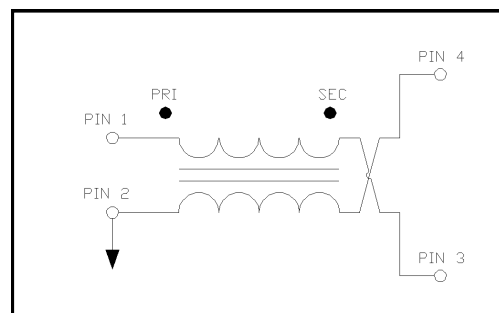
Electrical Specifications: $Z_0 = 75\Omega$, $T_A = 25^\circ\text{C}$, $P_{in} = 0\text{dBm}$

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

Pin Configuration

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

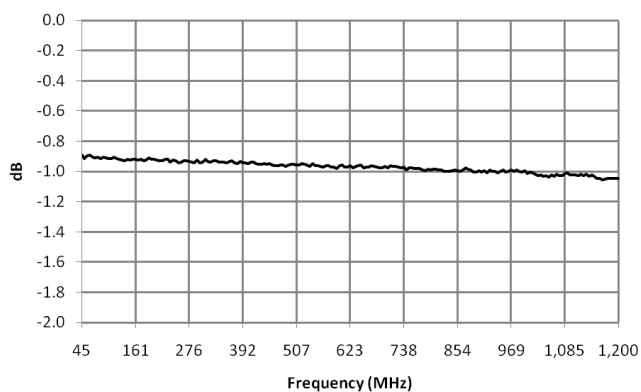
Schematic



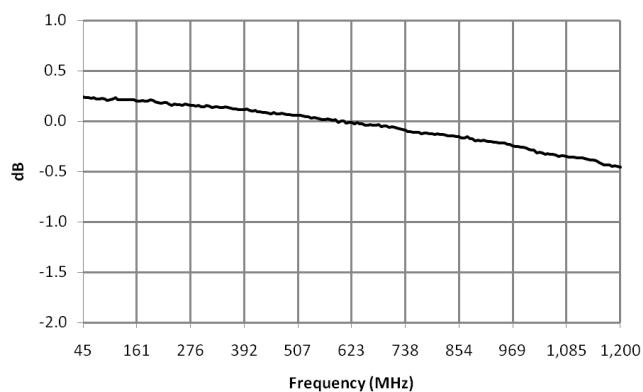
Transformer, 1:1 Transmission Line 45 to 1200 MHz

Rev. V3

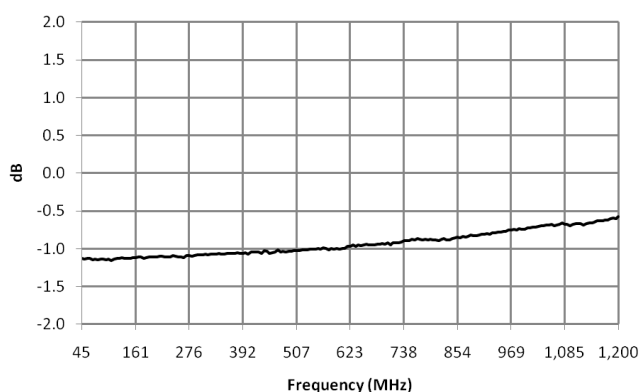
MABA-011014 insertion_loss_1_p1_4



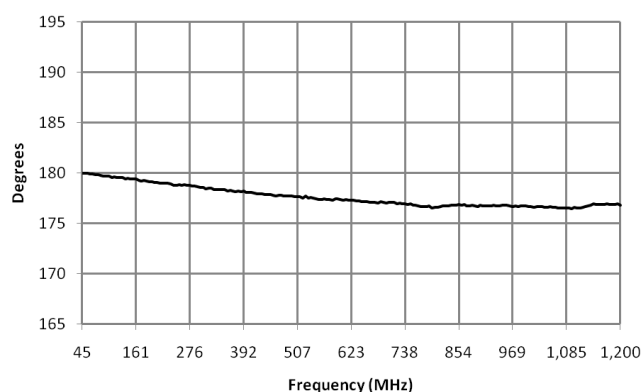
MABA-011014 insertion_loss_2_p1_3



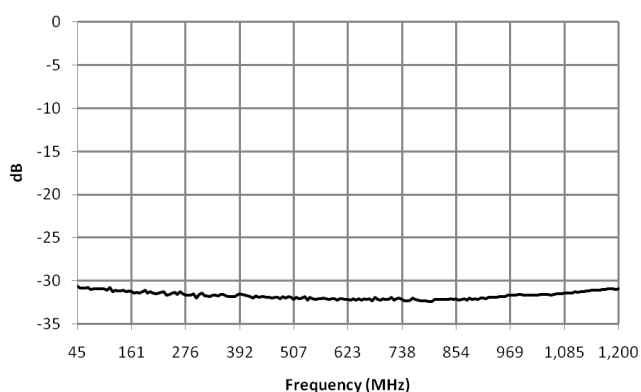
MABA-011014 amplitude_balance



MABA-011014 phase_balance



MABA-011014 input_return_loss_p1

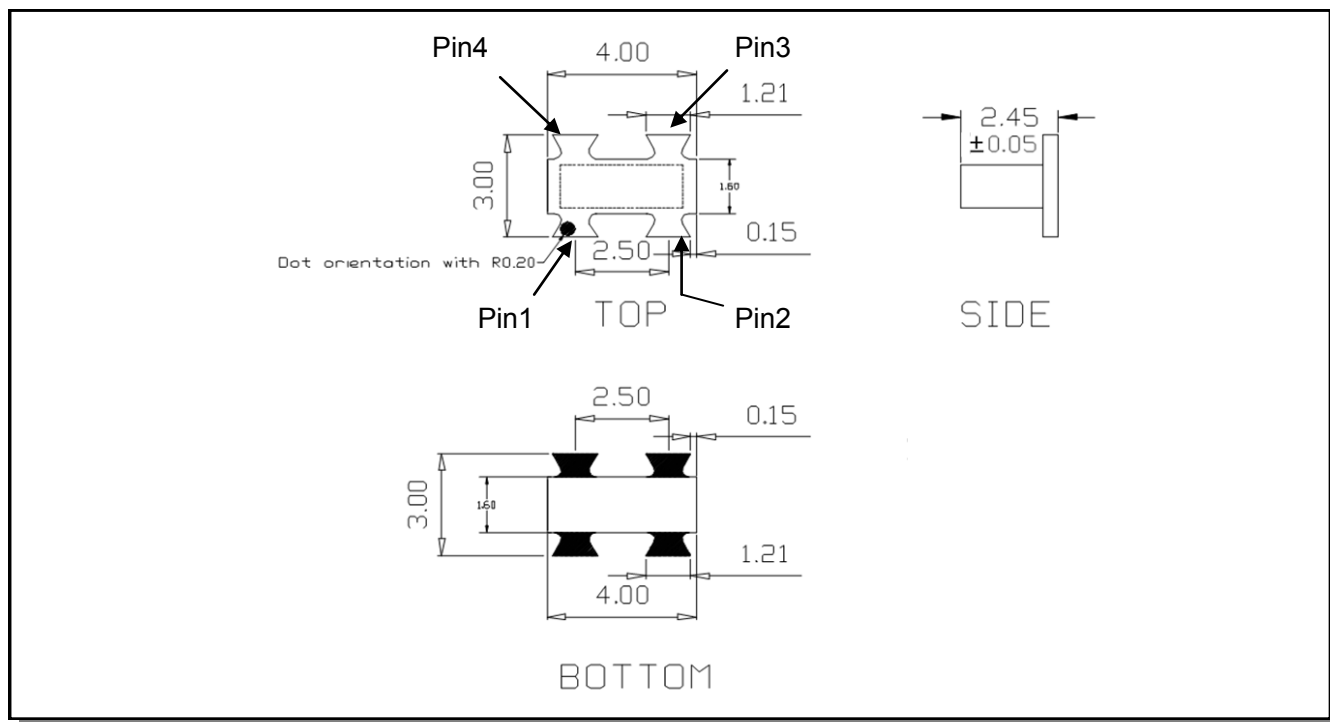


Electrical Specifications: $Z_0 = 75\Omega$, $T_A = 25^\circ\text{C}$, $P_{in} = 0\text{dBm}$

Transformer, 1:1 Transmission Line 45 to 1200 MHz

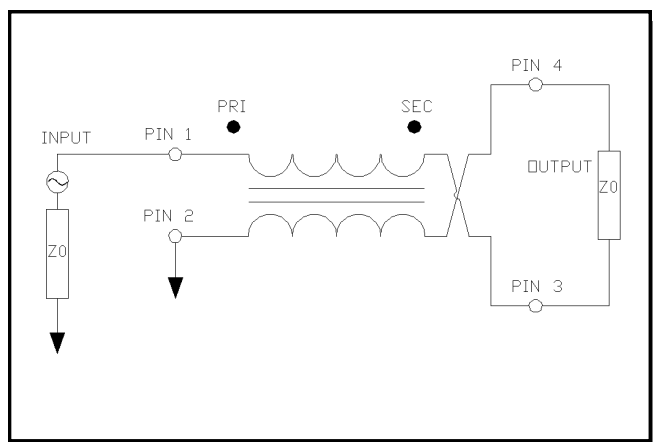
Rev. V3

Outline Drawing

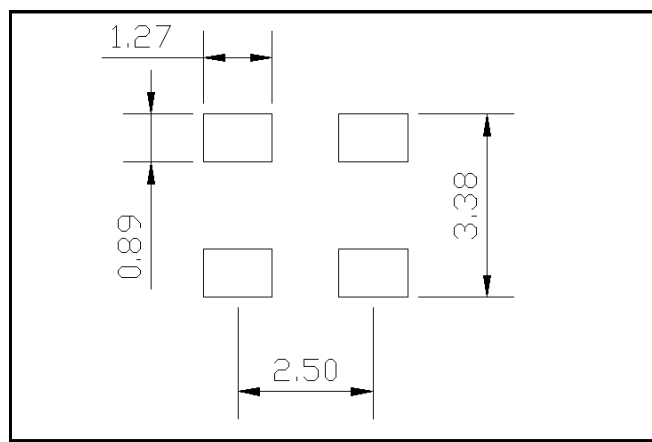


1. Dimensions in mm.
2. Tolerance: ± 0.2 mm unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: 96.5 % tin, 3% silver, and 0.5% copper

Application Circuit



Recommended Footprint



Transformer, 1:1 Transmission Line 45 to 1200 MHz

Rev. V3

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		

Ordering Information

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

Recommended Maximum Ratings

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

Temperature data available on request