Transformer, 1:1 4.5 MHz - 1200 MHz

Features

- ♦ 1:1 impedance ratio
- Transmission line transformer
- 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.

Schematic

PIN6

PRI

PIN4

• North America Tel: 800.366.2266 • India Tel: +91.80.43537383

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

-					
Parameter	Conditions	Units	Min	Тур	Max
Frequency Range		MHz	4.5		1200
Impedance		Ω		75	
Impedance Ratio				1:1	
Insertion Loss 1 (Pin 6 to Pin 1)	4.5 - 870 MHz 870 - 1200 MHz	dB dB		0.50 1.20	1.0 2.0
Insertion Loss 2 (Pin 6 to Pin 3)	4.5 - 870 MHz 870 - 1200 MHz	dB dB		0.60 0.70	1.0 1.4
Amplitude Balance (Nominal 0dB)	4.5 - 50 MHz 50 - 1000 MHz 1000 - 1200 MHz	dB dB dB	- - -	±0.9 ±0.4 ±0.7	±1.3 ±1.0 ±1.1
Phase Balance (Nominal 180 ⁰)	4.5 - 50 MHz 50 - 1200 MHz	0 0	-	±5 ±6	±15 ±10
Input Return Loss (Pin 6)	4.5 - 350 MHz 350 - 1000 MHz 1000 - 1200 MHz	dB dB dB	20 16 13	28 23 19	- - -

Pin No. **Function** 1 Secondary Dot 2, 5 Not Connected (ground) 3 Secondary 4 Primary 6 Primary Dot

Pin Configuration

1

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Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

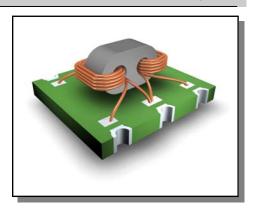
• Europe Tel: +353.21.244.6400 • China Tel: +86.21.2407.1588 Visit www.macomtech.com for additional data sheets and product information.

PIN1

SEC

PIN3 -O

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Transformer, 1:1 4.5 MHz - 1200 MHz

RELEASED

1.0

0.5

0.0

-1.5

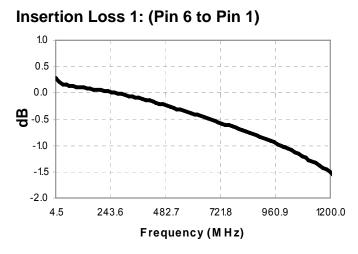
-2.0

4.5

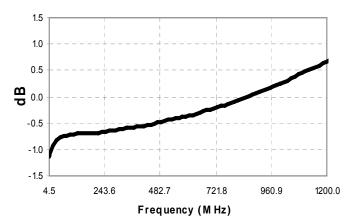
9 -0.5

Insertion Loss 2: (Pin 6 to Pin 3)

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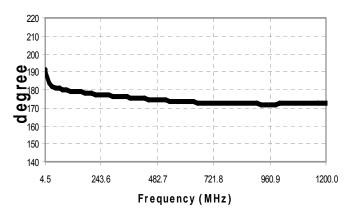


Amplitude Balance:



Phase Balance:

243.6



482.7

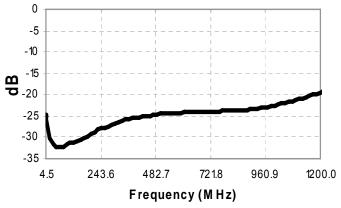
Frequency (MHz)

721.8

960.9

1200.0





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

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²

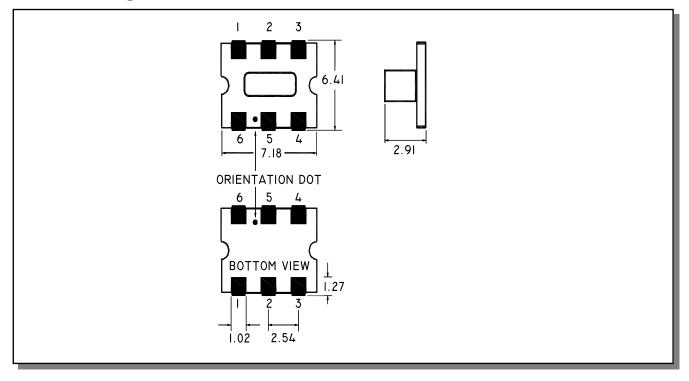
Transformer, 1:1 4.5 MHz - 1200 MHz

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Rev. V1

Technology Solutions

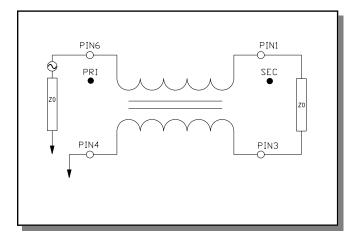
Outline Drawing



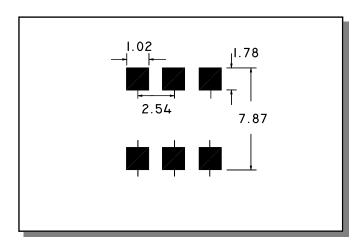
- 1. Dimensions in mm.
- 2. Tolerance: ±0.2mm unless otherwise noted.
- 3. Model number and lot code printed on reel.
- 4. Finish: Electreless nickel immersion gold

Application Circuit

3



Recommended Footprint



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Tape & Reel Information

Parameter	Units	Value	
Qty per reel	-	900	
Reel Size	mm	330	
Tape Width	mm	16	
Pitch	mm	12	
Ao	mm	6.7	
Во	mm	7.4	
Ko	mm	3.1	
Orientation	-	F-15	
Reference Application Note ANI-019 for orientation			

Ordering Information

Part Number	Description		
MABA-010314-CT1370	Tape & Reel		
MABA-010314-CT13TB	Customer Evaluation Board		

Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		200
Operating Temperature Range	°C	-40	+85
Storage Temperature Range	°C	-55	+125

Temperature data available on request

ECO History

Rev	Date	Description	ECO
V1	28 May 2010	Created datasheet	20100510

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