

MABA-009005-CF1A40



1:1 Flux Coupled Balun Transformer
5 - 120 MHz

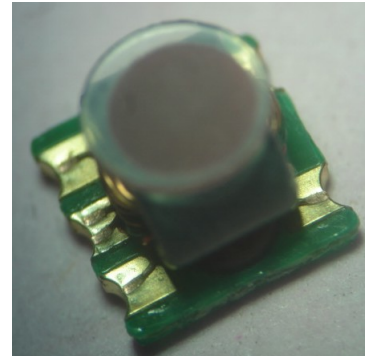
Rev. V2

Features

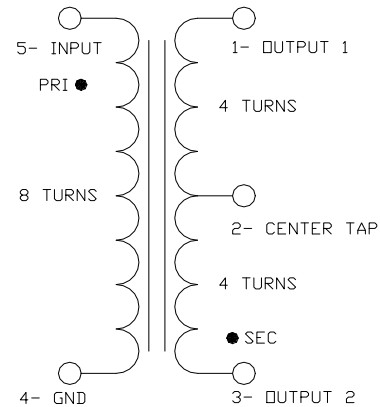
- Surface Mount
- 1:1 Impedance
- 75 Ohm
- RoHS Compliant and lead free

Description

MABA-009005-CF1A40 is a 1:1 RF flux coupled Transformer in a low cost surface mount package. Ideally suited for high volume CATV application.



Schematic



Ordering Information

Part Number	Package
MABA-009005-CF1A40	2000 pieces per reel
MABA-009005-CF1ATB	Customer test board

Pin Configuration

Pin Number	Function
1	Secondary (Output 1)
2	Secondary Centre Tap
3	Secondary Dot (Output 2)
4	Primary (Ground)
5	Primary Dot (Input)

* Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

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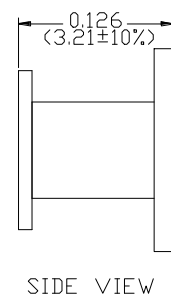
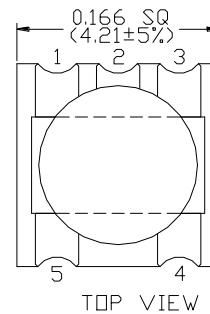
Electrical Specifications: $T_A = 25^\circ\text{C}$, 0 dBm, $Z_0 = 75 \Omega$

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range	5 – 120 MHz				
Insertion Loss 1 (Pin 5 to Pin 1)	5 – 80 MHz	dB	–	0.1	0.4
	80 – 120 MHz	dB	–	0.3	0.5
Insertion Loss 2 (Pin 5 to Pin 3)	5 – 80 MHz	dB	–	0.2	0.4
	80 – 120 MHz	dB	–	0.4	0.6
Amplitude Un-Balance	5 – 80 MHz	dB	–	± 0.06	± 0.2
	80 – 120 MHz	dB	–	± 0.18	± 0.3
Phase Un-Balance	5 – 65 MHz	$^\circ$	–	± 0.05	± 1.5
	65 – 120 MHz	$^\circ$	–	± 0.10	± 3.0
Input Return Loss (Pin 5)	5 – 70 MHz	dB	19	25	–
	70 – 120 MHz	dB	14	19	–

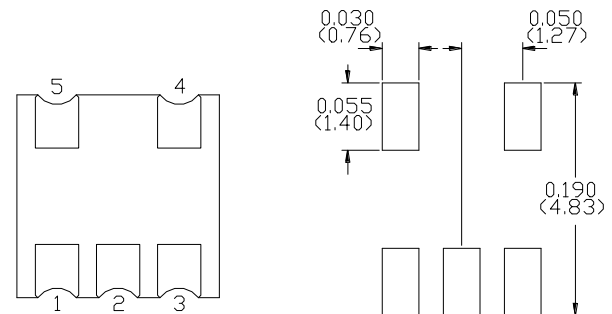
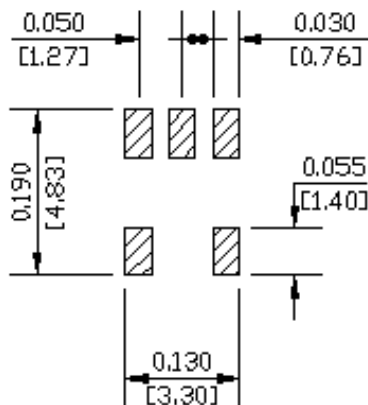
Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating Temperature	-40°C to $+85^\circ\text{C}$
Storage Temperature	-40°C to $+85^\circ\text{C}$

Case Style SM-164A



Recommended PCB Configuration



Dimensions are inches (millimeters) ± 0.015 (0.38) unless otherwise specified.

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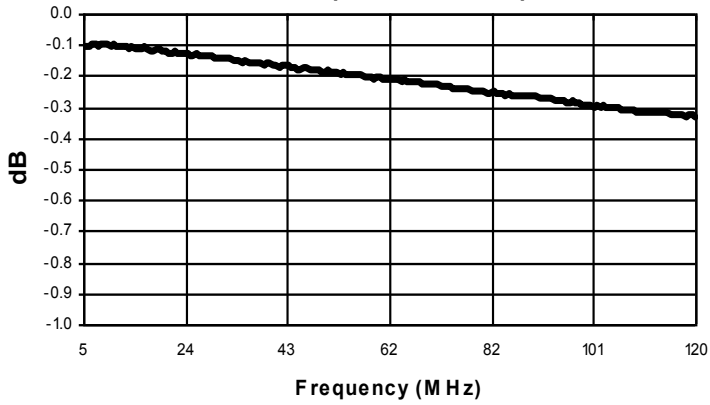


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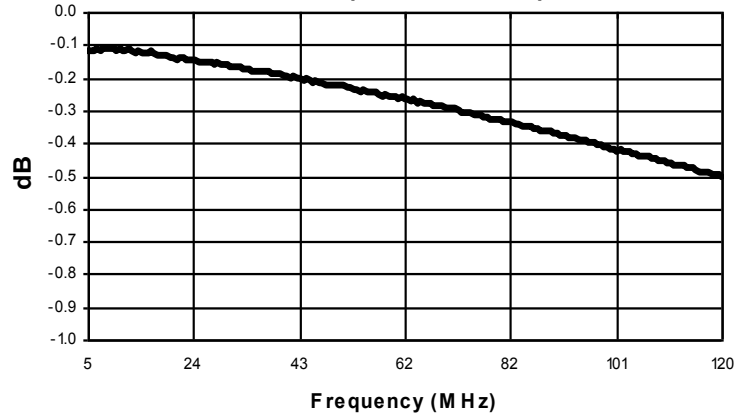
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Typical Performance: $T_A = 25^\circ\text{C}$, 0dBm, $Z_0 = 75\Omega$

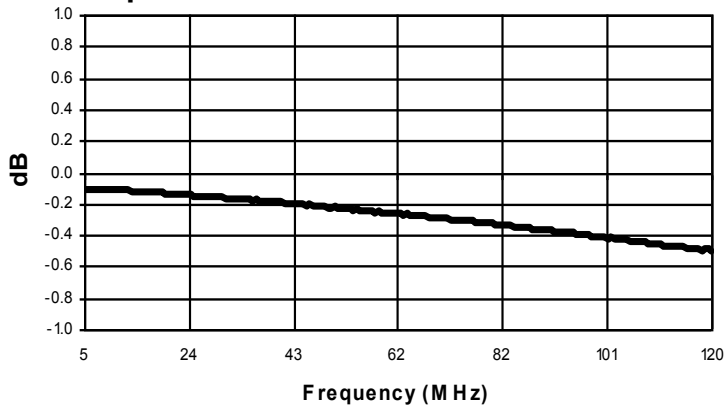
Insertion Loss 1 (Pin 5 - Pin 1)



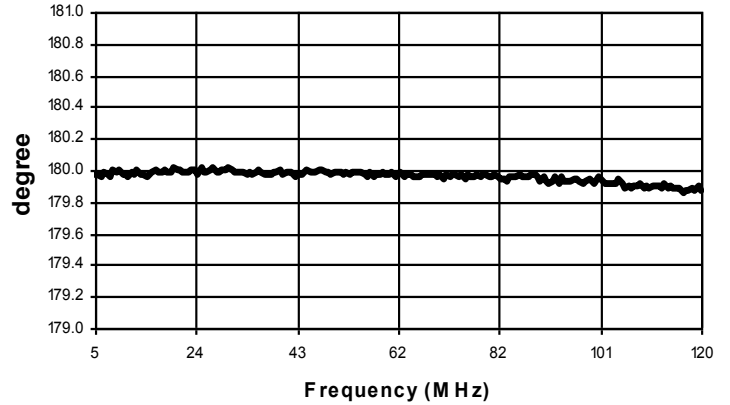
Insertion Loss 2 (Pin 5 - Pin 3)



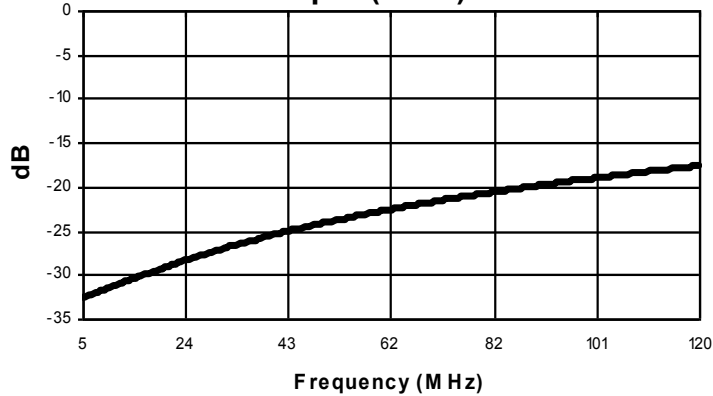
Amplitude Balance



Phase Balance



Return Loss: Input (Pin 5)



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