1:1 Flux coupled Balun Transformer,

5 - 120MHz

Features

- Surface Mount
- 1:1 Impedance
- 75 Ohm
- RoHS Compliant, Pb free.

Description

M/A-COM's MABA-009852-CF1A40 is a 1:1 RF flux coupled Transformer in a low cost surface mount package. Ideally suited for high volume CATV application.

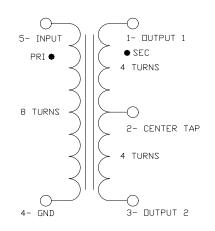


Parameter	Test Conditions	Units	Min.	Тур.	Max.
Frequency Range	5 – 120 MHz				
Insertion Loss 1 (Pin 5 to Pin 1)	5 – 75 MHz	dB	-	0.1	0.4
	75 – 120 MHz	dB	-	0.3	0.6
Insertion Loss 2 (Pin 5 to Pin 3)	5 – 75 MHz	dB	_	0.2	0.4
	75 – 120 MHz	dB	—	0.4	0.5
Amplitude Un-Balance	5 – 75 MHz	dB	_	±0.03	±0.17
	75 – 120 MHz	dB	—	±0.12	±0.38
Phase Un-Balance	5 – 75 MHz	0	_	± 0.05	±2.0
	75 – 120 MHz	0	—	±0.10	±3.0
Input Return Loss (Pin 5)	5 – 20 MHz	dB	25	30	_
	20 – 75 MHz	dB	20	28	-
	75 – 120 MHz	dB	15	19	—

Pin Configuration

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

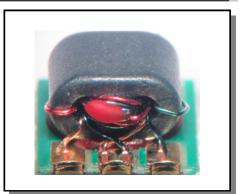
Schematic



ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed. **PRELIMINARY:** Data Sheets contain information regarding a product M/A-COM Technology 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.

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Rev. V5

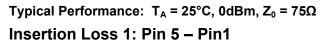
1



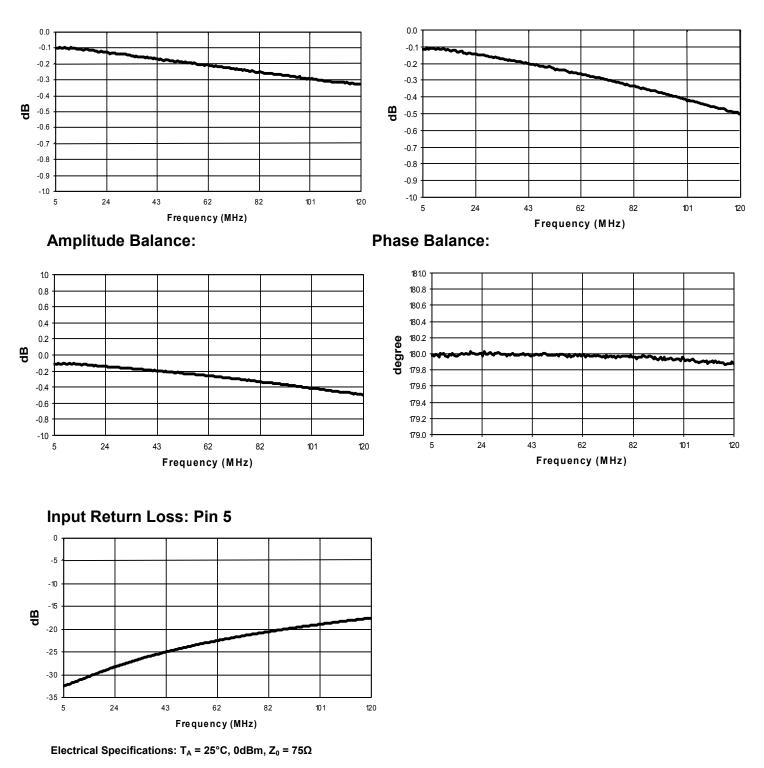


5 - 120MHz

Rev. V5



Insertion Loss 2: Pin 5-Pin 3



²

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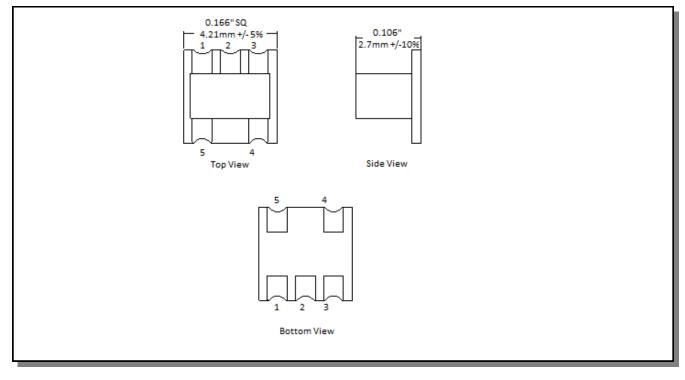


Rev. V5

1:1 Flux coupled Balun Transformer,

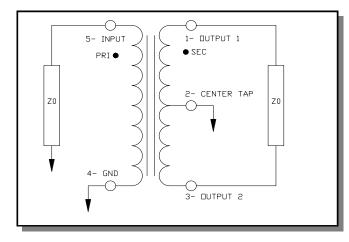
5 - 120MHz

Outline Drawing

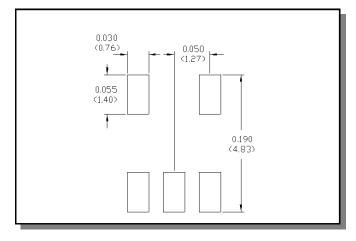


- 1. Dimensions are in inches (mm)
- 2. Tolerance: ±0.015" (0.38mm) unless otherwise noted.
- 3. Model number and lot code printed on reel.
- 4. Plating finish: ENIG on both sides, 0.05 to 0.1 µm gold over 3 to 6 µm nickel

Application Circuit



Recommended Footprint



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

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3



1:1 Flux coupled Balun Transformer,

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Tape & Reel Information

Parameter	Units	Value	
Qty per reel	-	2000	
Reel size	mm	330	
Tape width (W)	mm	12.0	
Pitch (P ₁)	mm	8	
A ₀	mm	4.5	
B ₀	mm	4.5	
K ₀	mm	2.73	
Orientation	-	F31	
Reference Application note ANI-019 for orientation			

Ordering Information

Part Number	Description	
MABA -009852-CF1A40	Tape & Reel	
MABA-009852-CF1ATB	Customer Evaluation Board	

Recommended Maximum Ratings

Parameter	Value
RF Power	250mW
DC Current	30mA
Operating Temperature	-40°C to +100°C
Storage Temperature	-40°C to +100°C

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