# MABA-009776-CF28A0



## 2:1 Flux Coupled Balun Transformer

### 5 - 100 MHz

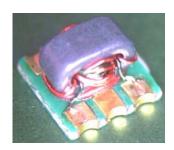
M/A-COM Products Rev. V1

#### **Features**

- Surface Mount
- 2:1 Impedance
- $75\Omega$  single ended to  $37.5\Omega$  Balance
- RoHS Compliant, lead free
- Available on Tape and Reel

### **Description**

M/A-COM's MABA-009776-CF28A0 is a 2:1 RF Flux coupled step-down BalUn transformer with out a center tap, in a low cost surface mount package. Ideally suited for high volume CATV/Broadband applications.



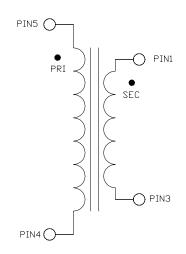
## **Pin Configuration**

Function	Pin Number		
Secondary Dot	1		
No connection	2		
Secondary	3		
Primary	4		
Primary Dot	5		

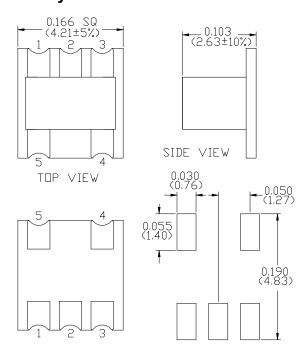
### **Ordering Information**

Part Number	Package		
MABA-009776-CF28A0	2000		
MABA-009776-CF28TB	Customer Test Board		

#### **Schematic**



### Case Style SM-164



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

<sup>•</sup> North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400

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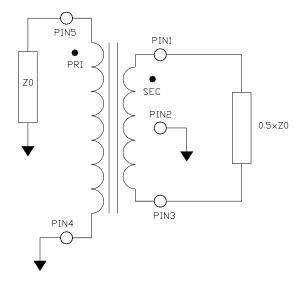
Electrical Specifications:  $T_A = 25^{\circ}C$ ,  $Z_0 = 75\Omega$ ,  $P_{in} = 0$ dBm

Parameter	Test Conditions	Units	Min.	Тур.	Max.
Frequency Range	5 - 100 MHz				
Insertion Loss 1 (Pin 5 to Pin 1)	5 - 100 MHz	dB	-	0.4	0.8
Insertion Loss 2 (Pin 5 to Pin 3)	5 - 100 MHz	dB	-	0.4	8.0
Amplitude Balance	5 - 100 MHz	dB	-	0.1	±1.0
Phase Balance	5 - 100 MHz	0	_	2.0	±6.0
Input Return Loss (Pin 4)	5 - 100 MHz	dB	14	22	-

## **Recommended Maximum Ratings**

Parameter	Value		
RF Power	+27dBm (500mW)		
DC Current	300mA		
Operating Temperature	-40°C to +100°C		
Storage Temperature	-55°C to +115°C		

# **Application Circuit**



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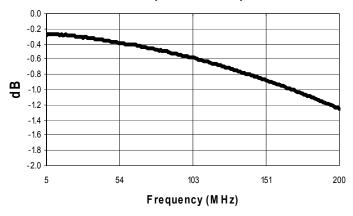
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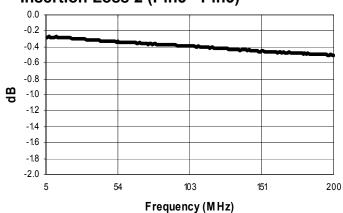
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Typical Performance:  $T_A = 25^{\circ}C$ ,  $Z_0 = 75\Omega$ ,  $P_{in} = 0$ dBm

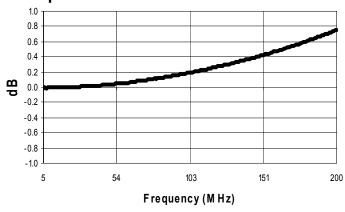
## **Insertion Loss 1 (Pin5 - Pin1)**



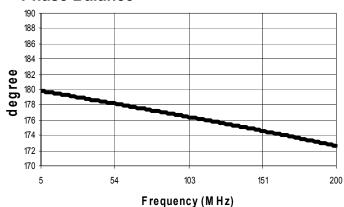
## Insertion Loss 2 (Pin5 - Pin3)



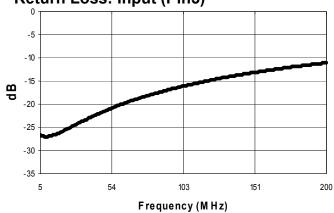
### **Amplitude Balance**



#### **Phase Balance**



### **Return Loss: Input (Pin5)**



Note: Graphs plotted to 200MHz for reference only

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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