

### 1:1 RF Transformer 5-1200MHz

# MABA-007748-CT1160

#### **Features**

- Surface Mount
- 1:1 RF Transformer
- 260°C Reflow Compatible
- RoHS\* Compliant
- RoHS version of ETC1-1T-75
- Available on Tape and Reel. Reel quantity 2000

### **Description**

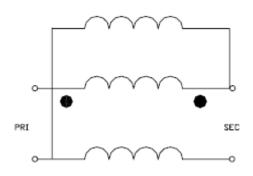
M/A-COM's MABA-007748-CT1160 is a 1:1 RF Transformer in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications.



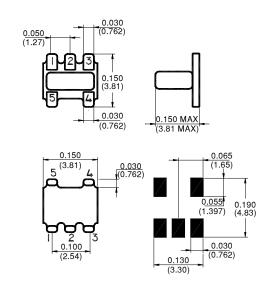
### **Pin Configuration**

Pin No.	Function	
1	Secondary (Dot)	
2	Not connected	
3	Secondary	
4	Primary	
5	Primary (Dot)	

### **Schematic**



### Case Style: SM-22



Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010

### **Ordering Information**

Part Number	Package
MABA-007748-CT1160	2000
MABA-007748-CT11TB	Customer Test Board

Note: Reference Application Note M513 for reel size information.

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.

North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400

• India Tel: +91.80.43537383 • China Tel: +86.21.2407.1588 Visit www.macomtech.com for additional data sheets and product information.

<sup>\*</sup> Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.



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Electrical Specifications:  $T_A = 25^{\circ}C$ ,  $Z_0 = 75\Omega^{1}$ 

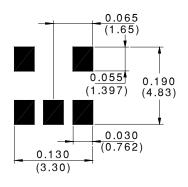
Parameter	Frequency	Units	Min	Тур	Max
Insertion Loss	5 - 40 MHz 40 - 600 MHz 600 - 1000 MHz 1000 - 1200 MHz	dB dB dB dB	- - - -	0.27 0.32 0.57 1.62	0.5 1.0 2.0 3.0
Amplitude Balance	5 - 1200 MHz	dB	-	0.36	1.0
Phase Balance	5 - 1000 MHz 1000 - 1200 MHz	0		0.58 9.15	10 20
Input Return Loss	5 - 40 MHz 40 - 200 MHz 200 - 400 MHz 400 - 600 MHz 600 - 1200 MHz	dB dB dB dB dB	17 22 15 10 6	27 29 22 17 11	- - - -

# **Absolute Maximum Ratings <sup>1,2</sup>**

Parameter	Absolute Maximum		
RF Power	250 mW		
DC current	30mA		
Operating Temperature	-20°C to +85°C		
Storage Temperature	-20°C to +85°C		

- Exceeding any one or combination of these limits may cause permanent damage to this device.
- M/A-COM does not recommend sustained operation near these survivability limits.

## **Recommended PCB Configuration**



<sup>•</sup> India Tel: +91.80.43537383

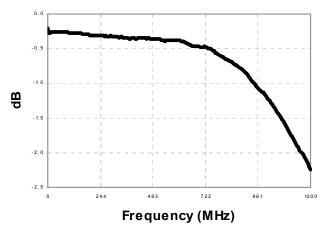


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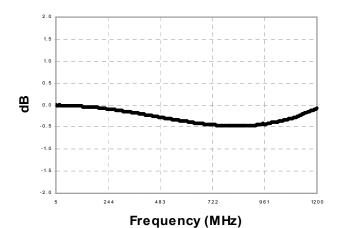
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Typical Performance Curves:  $T_A = 25^{\circ}C$ ,  $Z_0 = 75\Omega^{1}$ 

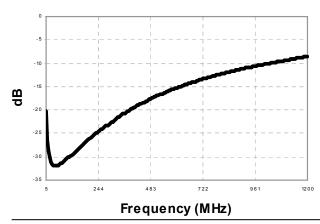
### Insertion Loss 1: Pin5 - Pin3



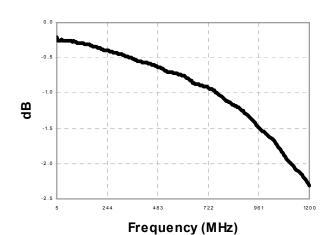
### **Amplitude Balance**



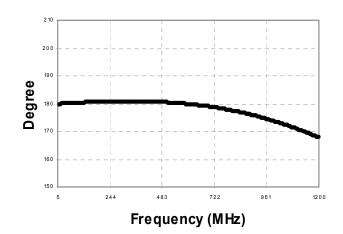
#### **Return Loss: Input**



#### Insertion Loss 2: Pin5 - Pin1



**Phase Balance** 



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