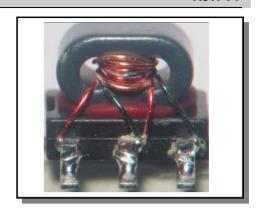


# Transformer, 2:1 Flux Coupled Transformer 5MHz - 85 MHz

Rev. V1

#### **Features**

- Surface mount
- 2:1 Impedance ratio
- Centre tap on secondary
- Suitable for DOCSIS 3.0
- RoHS compliant
- Available on tape and reel



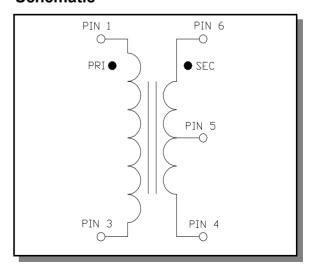
**Electrical Specifications:**  $Z_0 = 75\Omega$ ,  $T_A = 25$ °C,  $P_{in} = 0$ dBm

Parameter	Conditions	Units	Min	Тур	Max
Frequency Range		MHz	5		85
Impedance		Ω		75	
Impedance Ratio				2:1	
Insertion Loss (Pin1 - Pin6)	5 - 50 MHz 50 - 85 MHz	dB dB	-	0.4 0.5	0.6 0.7
Insertion Loss (Pin1 - Pin4)	5 - 50 MHz 50 - 85 MHz	dB dB	-	0.4 0.5	0.6 0.7
Amplitude Balance	5 - 50 MHz 50 - 85 MHz	dB dB	-	0.02 0.04	±0.2 ±0.3
Phase Balance	5 - 50 MHz 50 - 85 MHz	0	-	0.1 0.3	±2.0 ±3.0
Input Return Loss (Pin1)	5 - 45 MHz 45 - 85 MHz	dB dB	20 15	25 19	-

## Pin Configuration

Pin No.	Function	
1	Primary Dot	
3	Primary	
4	Secondary	
5	Secondary Centre Tap	
6	Secondary Dot	

#### **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

**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.

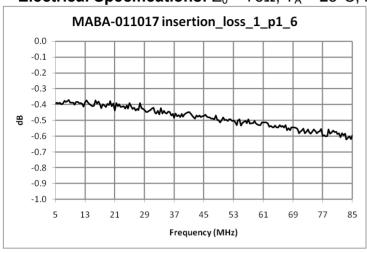
North America Tel: 800.366.2266
 India Tel: +91.80.43537383
 Europe Tel: +353.21.244.6400
 China Tel: +86.21.2407.1588
 Visit www.macomtech.com for additional data sheets and product information.

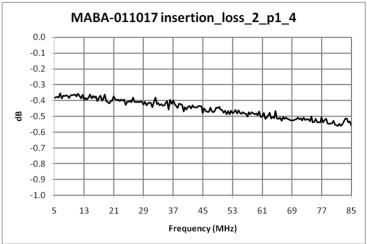


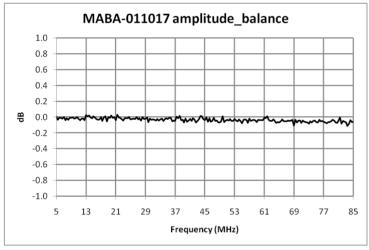
Transformer, 2:1 Flux Coupled Transformer 5MHz - 85 MHz

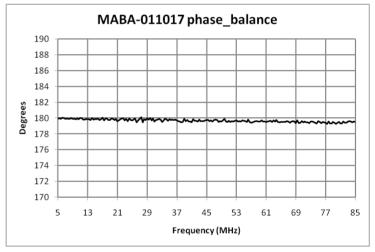
Rev. V1

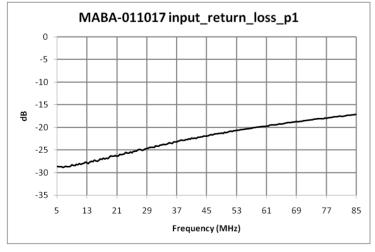
### **Electrical Specifications:** $Z_0 = 75\Omega$ , $T_A = 25$ °C, $P_{in} = 0$ dBm









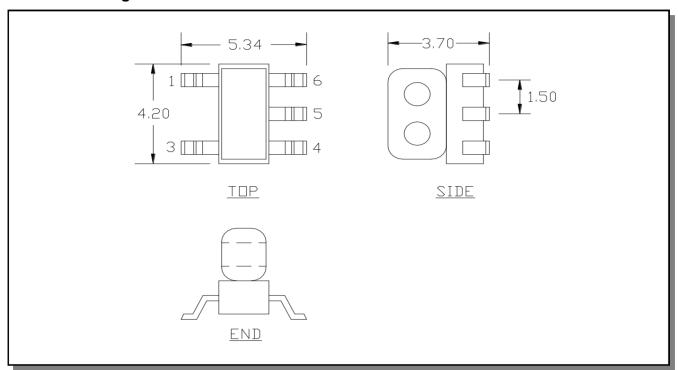




Transformer, 2:1 Flux Coupled Transformer 5MHz - 85 MHz

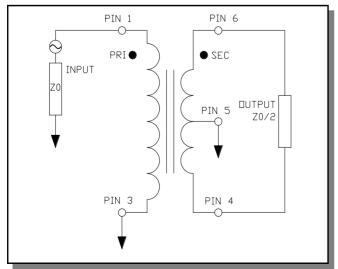
Rev. V1

#### **Outline Drawing**

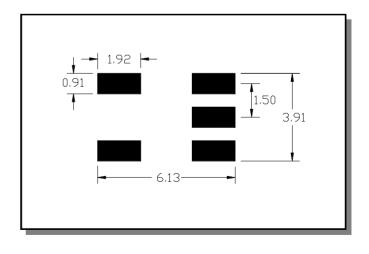


- 1. Dimensions in mm.
- 2. Tolerance: ±0.2mm unless otherwise noted.
- 3. Model number and lot code printed on reel.
- 4. Plating finish: CuSn6

## **Application Circuit**



### **Recommended Footprint**



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Transformer, 2:1 Flux Coupled Transformer 5MHz - 85 MHz

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### **Tape & Reel Information**

Parameter	Units	Value		
Qty per reel	-	2000		
Reel size	mm	330		
Tape width (W)	mm	12.00		
Pitch (P <sub>1</sub> )	mm	8.00		
A <sub>0</sub>	mm	5.6		
B <sub>0</sub>	mm	4.5		
K <sub>0</sub>	mm	4.0		
Orientation	-	F26		
Reference Application note ANI-019 for orientation				

## **Ordering Information**

Part Number	Description	
MABA-011017	Tape & Reel	
MABA-011017-TB	Customer Evaluation Board	

### **Recommended Maximum Ratings**

Parameter	Value	
Input Power	At least +28dBm (631mW)	
DC Current (tested at 5V)	At least 600mA	
Operating Temperature Range	-40°C to +85°C	

Temperature data available on request