

# MABACT0066

Transformer, 4:1 transmission line  
5 to 1000 MHz

M/A-COM Products  
Released, Rev. V1

## Features

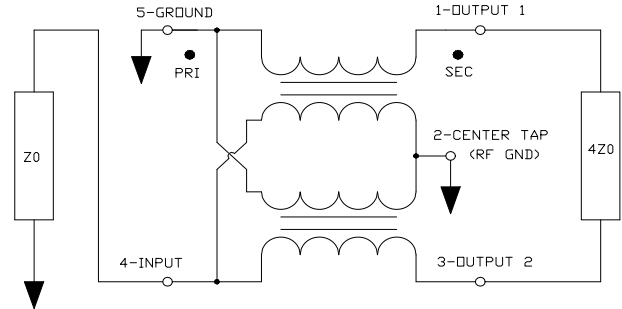
- Surface mount
- 4:1 Impedance ratio
- Excellent amplitude and phase balance
- Can be used in both 50Ω and 75Ω systems
- 260°C reflow compatible
- RoHS\* compliant and Pb free
- Available on tape and reel.

## Description

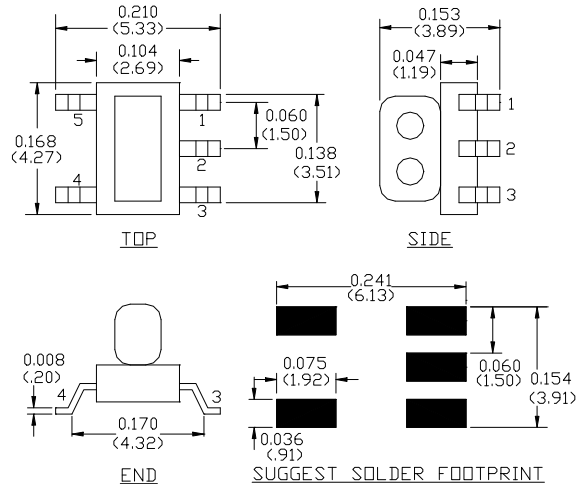
M/A Com's MABACT0066 is a 4:1 RF flux coupled step up transformer in a low cost, surface mount package. Ideally suited for broadband CATV Broadband applications.



## Schematic



## Case style: SM-138



## Pin configuration

Pin no.	Function
1	Secondary dot (Output 1)
2	Centre tap (Ground)
3	Secondary (Output 2)
4	Primary (Input)
5	Primary dot (Ground)

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

## Ordering information

Part number	Description
MABACT0066	2000 piece reel
MABA-007968-CT66TB	Customer Test Board

Note: Reference Application Note **M513** for reel size information.

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

1

**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: +91.80.4155721 • **China** Tel: +86.21.2407.1588  
Visit [www.macomtech.com](http://www.macomtech.com) for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

Transformer, 4:1 transmission line  
5 to 1000 MHz

M/A-COM Products  
Released, Rev. V1

**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 50\Omega$ ,  $P_{in} = 0\text{dBm}$**

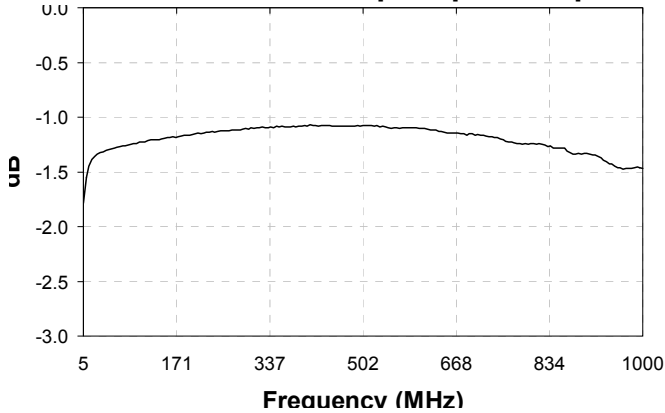
Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss 1	5 - 50 MHz	dB	-	1.5	2.0
	50 - 879 MHz	dB	-	1.0	1.5
	879 - 1000 MHz	dB	-	1.5	2.0
Amplitude Unbalance (Nominal 0dB)	5 - 1000 MHz	dB	-	$\pm 0.25$	$\pm 0.5$
Phase Unbalance (Nominal 180°)	5 - 500 MHz	°	-	$\pm 4$	$\pm 8$
	500 - 1000 MHz	°	-	$\pm 8$	$\pm 12$

## Absolute maximum ratings

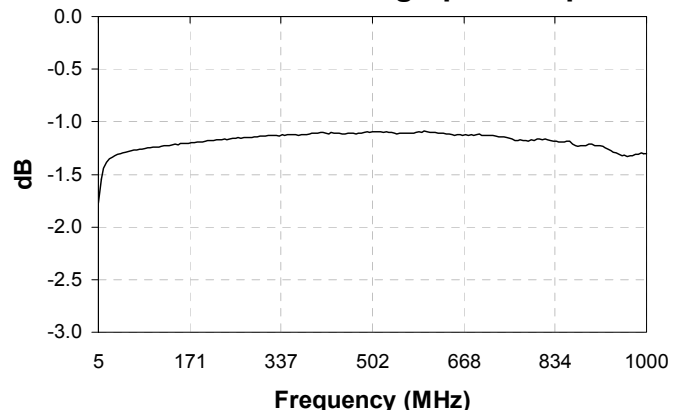
Parameter	Absolute maximum
Max input power	250mW
DC current	120mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

**Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 50\Omega$ ,  $P_{in} = 0\text{dBm}$**

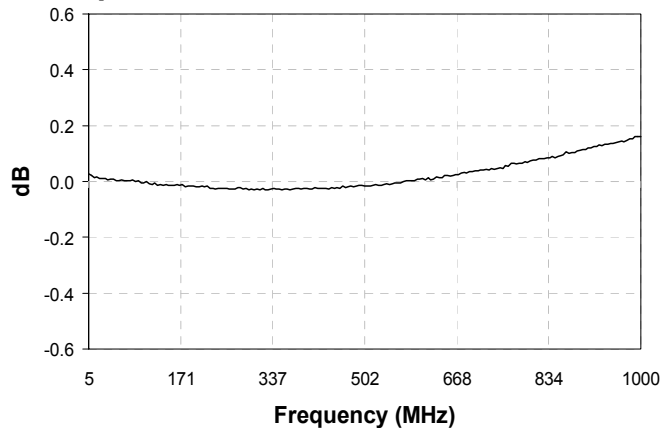
**Insertion Loss 1: coupled pin 4 to pin 1**



**Insertion Loss 2: through pin 4 to pin 3**



**Amplitude Balance**



**Phase Balance**

