

**4:1 Transmission Line Transformer  
5-1000MHz**

**MABACT0066  
V1P**

**Features**

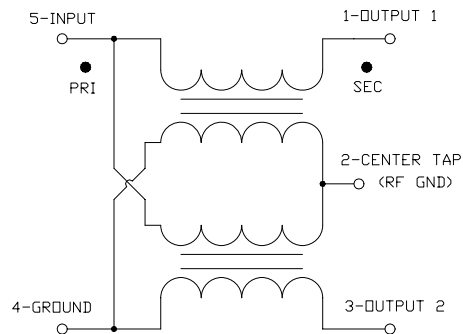
- Surface Mount
- 4:1 Impedance
- Excellent amplitude and phase balance
- Can be used in both 50Ω and 75Ω systems
- 260°C Reflow Compatible
- RoHS\* Compliant
- RoHS version of MABAES0054
- Available on Tape and Reel. Reel quantity 2000

**Description**

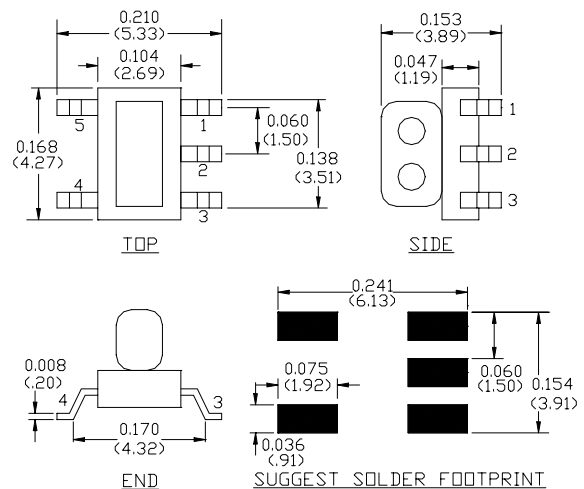
M/A Com's MABACT0066 is a 4:1 RF flux coupled step up transformer in a low cost, surface mount package. Ideally suited for high volume CATV/ Broadband applications.



**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)

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

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

**Ordering Information**

Part Number	Package
MABACT0066TR	2000 piece reel
MABA-007968-CT66TB	Customer Test Board

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

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Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information.

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

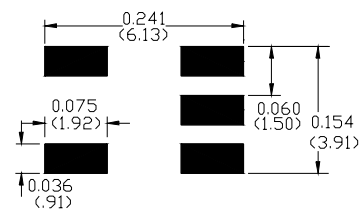
Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss	5 - 50 MHz	dB	-	1.5	2.0
	50 - 879 MHz		-	1.0	1.5
	879 - 1000 MHz		-	1.5	2.0
Amplitude Unbalance (Nominal 0dB)	5 - 1000 MHz	dB	-	$\pm 0.25$	$\pm 0.5$
Phase Unbalance (Nominal 180°)	5 - 500 MHz	°	-	$\pm 4.0$	$\pm 8.0$
	500 - 1000 MHz	°	-	$\pm 8.0$	$\pm 12.0$

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

Parameter	Absolute Maximum
Max Input Power	250mW
DC current	40mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

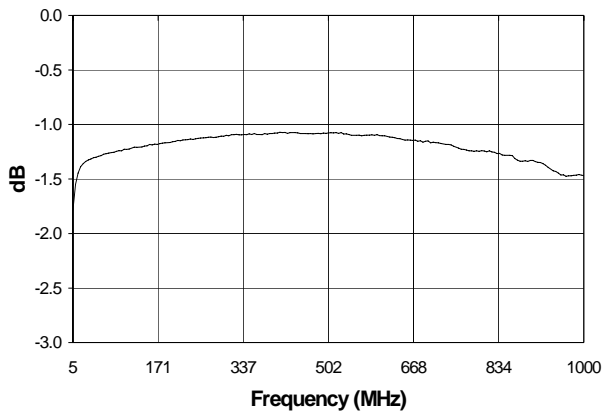
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

**Recommended PCB Configuration**

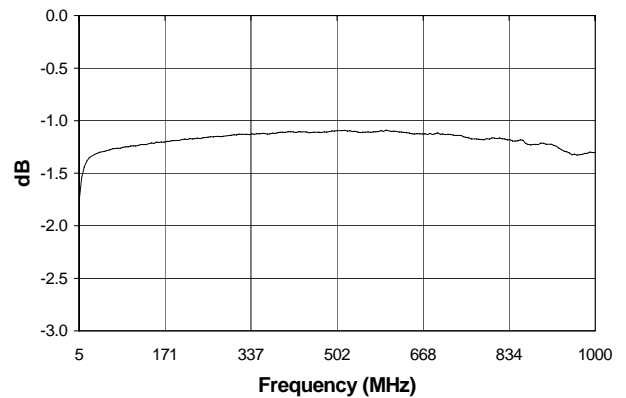


**Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 50\Omega$**

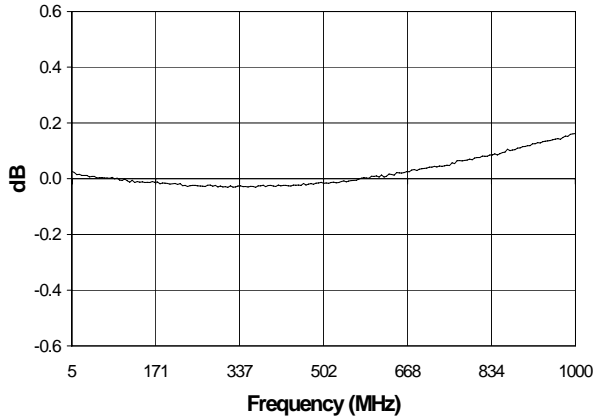
**Insertion Loss 1 (through pin 4 to pin 1)**



**Insertion Loss 2 (coupled pin 4 to pin 3)**



**Amplitude Unbalance**



**Phase Balance**

