MABACT0066

Transformer, 4:1 transmission line
5 to 1000 MHz

Rev. V3

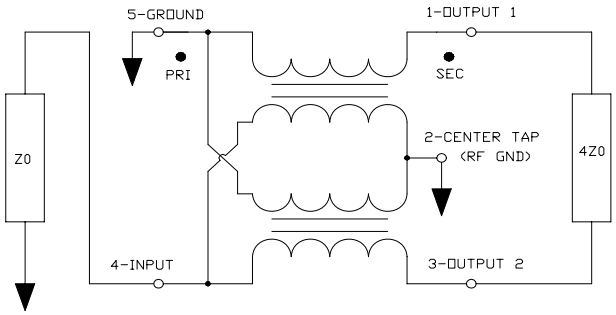
Features

- 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, Pb free
- Available on tape and reel.

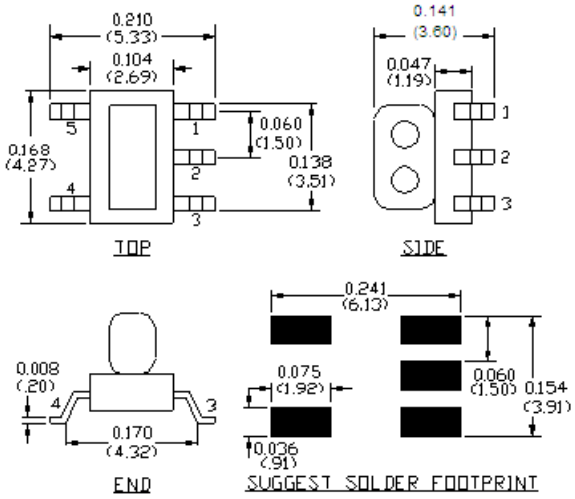
Description

M/A-Com Technology Solutions 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



Component Dimensions



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

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)

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

• **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 for additional data sheets and product information.

Electrical Specifications: T_A = 25°C, Z_0 = 50Ω, P_{in} = 0dBm

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

Recommended Maximum Ratings[1,2]

Parameter	Value
Max input power	250mW
DC current	120mA
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.

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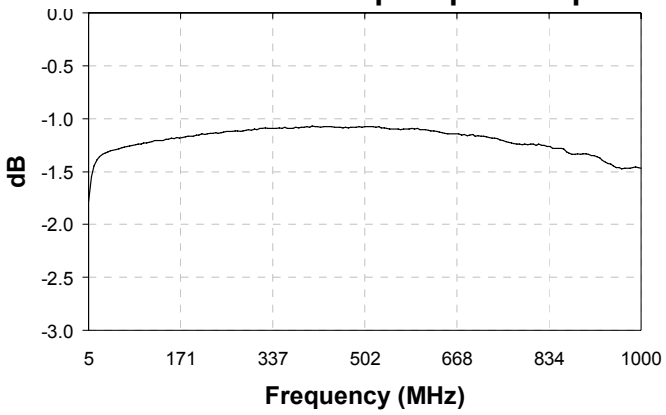
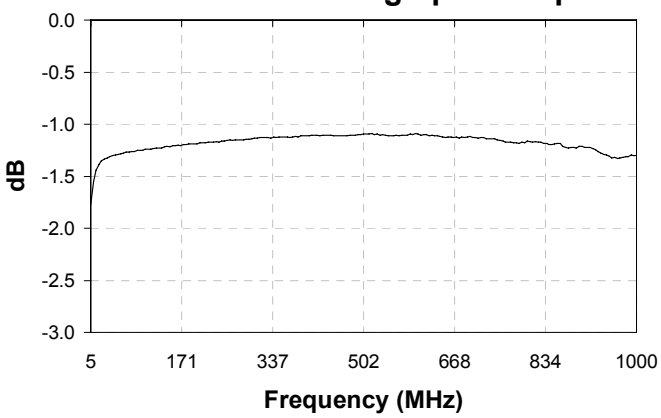
Typical Performance Curves: T_A = 25°C, Z_0 = 50Ω, P_{in} = 0dBm

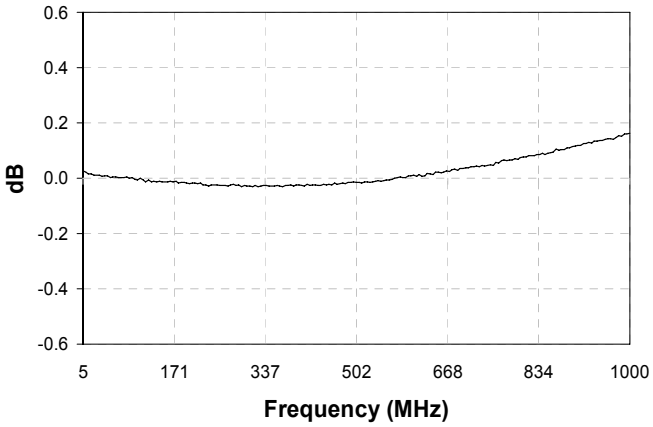
Insertion Loss 1: coupled pin 4 to pin 1



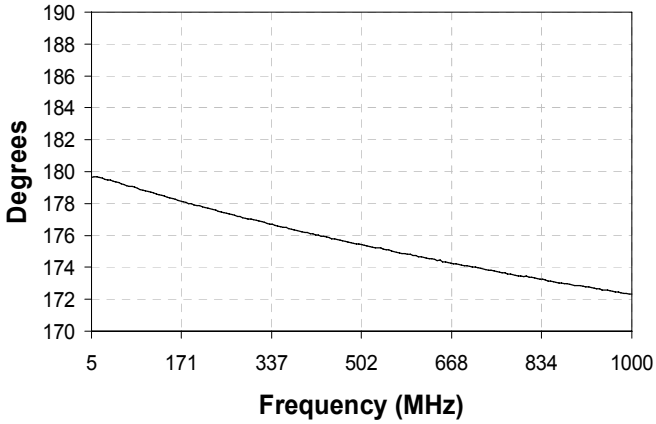
Insertion Loss 2: through pin 4 to pin 3



Amplitude Balance



Phase Balance



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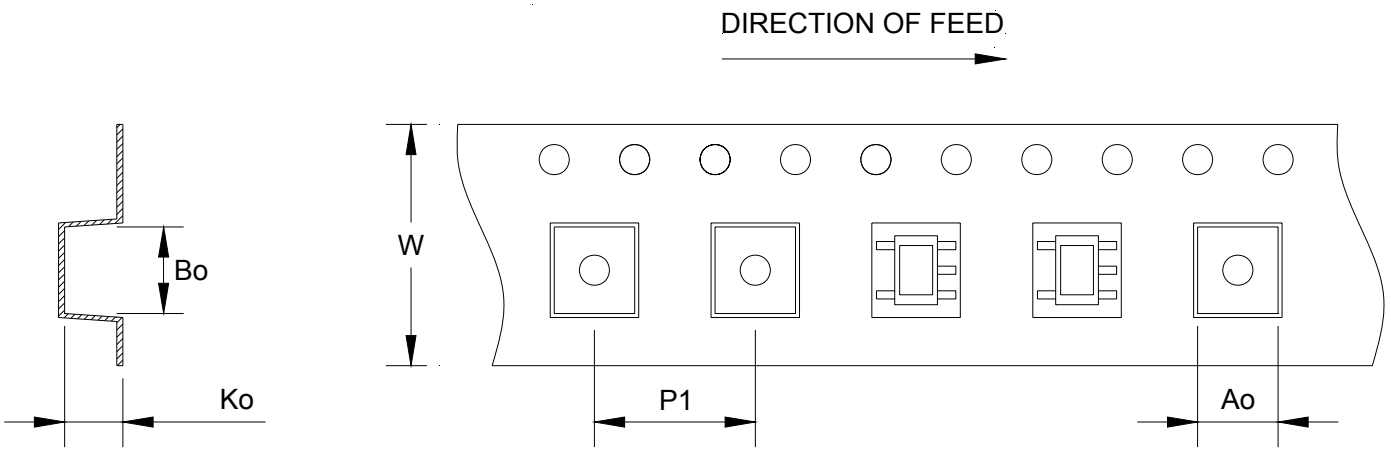

Item	Dimension
Ao	6.10mm +/- 0.1mm
Bo	4.60mm +/- 0.1mm
Ko	4.00mm +/- 0.1mm
W	12.00mm +/- 0.3mm
P1	8.00mm +/- 0.1mm

Ordering information

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

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