

4:1 Flux Coupled Transformer 1-650MHz

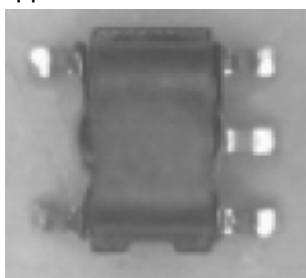
**MABACT0064
V1P**

Features

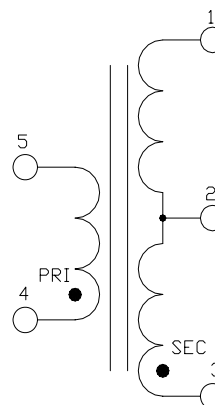
- Surface Mount
- 4:1 Impedance
- Excellent amplitude and phase balance
- Can be used in both 50Ω and 75Ω systems
- 260°C Reflow Compatible
- RoHS version of MABES0031
- RoHS* Compliant
- Available on Tape and Reel. Reel quantity 2000

Description

M/ACom's MABACT0064 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.



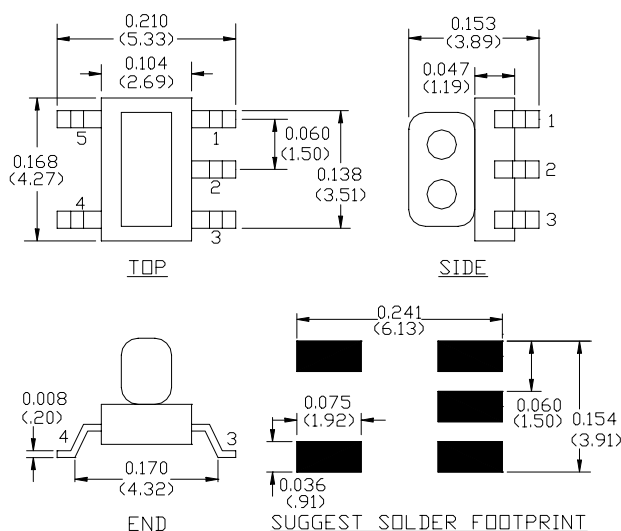
Schematic



Pin Configuration

Pin No.	Function
1	Secondary (output 2)
2	Centre Tap (ground)
3	Secondary Dot (output 1)
4	Primary Dot (ground)
5	Primary (Input)

Case Style: SM-138



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

Ordering Information

Part Number	Package
MABACT0064TR	2000 piece reel
MABA-007948-CT64TB	Customer test board

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

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

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

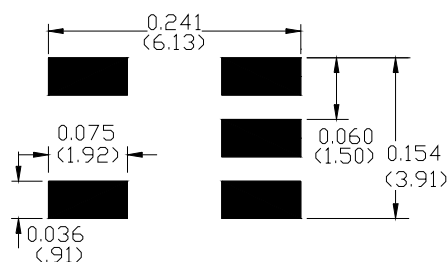
Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss	10 - 200 MHz	dB	-	0.7	1.0
	1 - 450 MHz	dB	-	1.5	2.0
	450 - 650 MHz	dB	-	3.0	3.5
Amplitude Unbalance (Nominal 0dB)	10 - 200 MHz	dB	-	± 0.1	± 0.25
	1 - 650 MHz	dB	-	± 0.6	± 1.0
Phase Unbalance (Nominal 180°)	10 - 200 MHz	°	-	± 1.0	± 2.0
	1 - 500 MHz	°	-	± 3.0	± 5.0
	500 - 600 MHz	°	-	± 7.0	± 10.0

Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
Max Input Power	250mW
DC current	30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°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

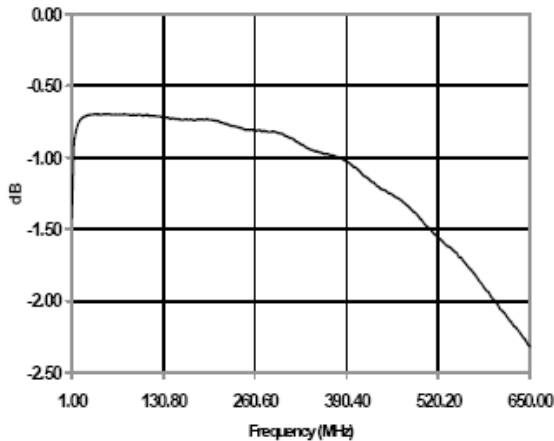


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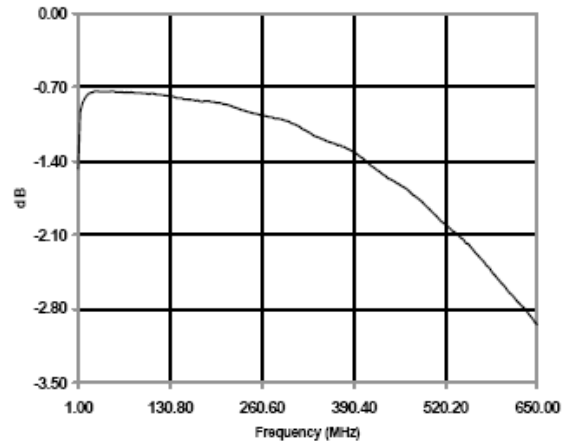
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

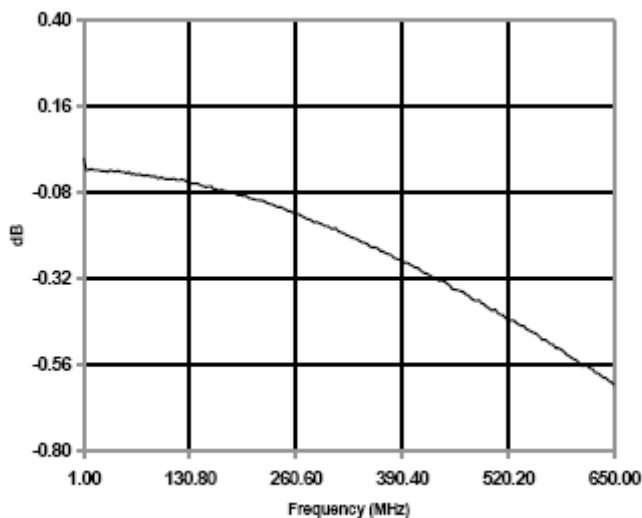
Insertion Loss 1 (PRI to SEC DOT, pin 5 to pin 3)



Insertion Loss 2 (PRI to SEC, pin 5 to pin 1)



Amplitude Unbalance



Phase Balance

