MABACT0064



Transformer, 4:1 Flux coupled balun transformer 1 to 650 MHz

M/A-COM Products Released, Rev. V2

Features

- Surface mount
- 4:1 Impedance ratio
- Excellent amplitude and phase balance
- Can be used in both 50Ω and 75Ω systems
- RoHS* compliant and lead-free
- Available on tape and reel.

Description

M/A Com's MABACT064 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.



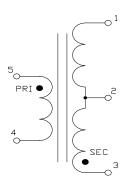
Pin configuration

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

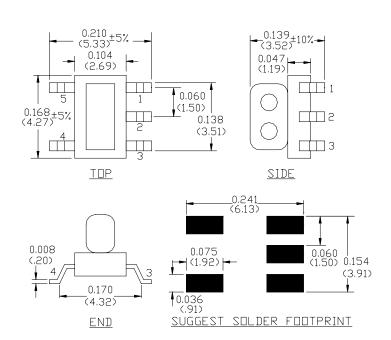
Ordering information

Part number	Description		
MABACT0064	2000 piece reel		
MABA-007948-CT64TB	Customer Test Board		

Schematic



Case style: SM-138



Dimensions in inches [mm] Tolerance: .xx \pm .02, .xxx \pm .010, Unless otherwise stated

Note: Reference Application Note M513 for reel size information.

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

ADVANCED: Data Sheets contain information regarding a product M/A-COM is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not quaranteed.

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- North America Tel: 800.366.2266 / Fax: 978.366.2266
- Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298
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Electrical Specifications: $T_A = 25$ °C, $Z_0 = 50\Omega$

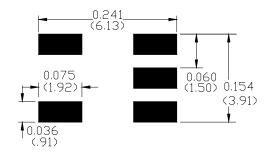
Parameter	Test Conditions	Units	Min	Тур	Max
Insertion Loss	10 - 200 MHz 1 - 450 MHz 450 - 650 MHz	dB dB dB	- - -	0.7 1.5 3.0	1.0 2.0 3.5
Amplitude Unbalance (Nominal 0dB)	10 - 200 MHz 1 - 650 MHz	dB dB	-	±0.1 ±0.6	±0.25 ±1.0
Phase Unbalance (Nominal 180°)	10 - 200 MHz 1 - 500 MHz 500 - 600 MHz	0 0 0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

Absolute maximum ratings

Parameter	Absolute maximum		
Max input power	250mW		
DC current	200mA		
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.
- M/A-COM does not recommend sustained operation near these survivability limits.

Recommended PCB Configuration



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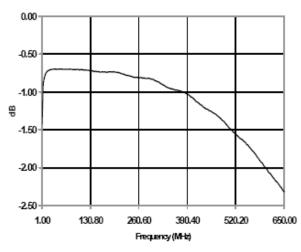


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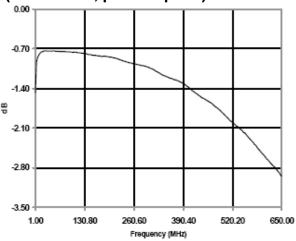
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Typical Performance Curves: $T_A = 25^{\circ}C$, $Z_0 = 50\Omega$

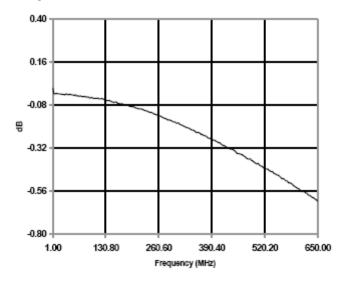
Insertion Loss 1 (PRI to SEC DOT, pin 5 to pin 3)



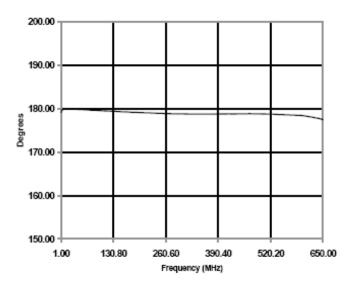
Insertion Loss 2 (PRI to SEC, pin 5 to pin 1)



Amplitude Unbalance



Phase Balance



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