

RoHS Compliant

MACOM

MABACT0065

V1

4:1 Transmission Line Transformer 500-3000MHz

Features

- Surface Mount
- 4:1 Impedance, unbalanced to unbalanced
- Centre tap on secondary
- 260°C Reflow Compatible
- RoHS* Compliant
- RoHS version of ETC1.6-4-2-3
- Available on Tape and Reel. Reel quantity 2000

Description

M/A-COM's MABACT0065 is a 4:1 RF transmission line step-up transformer in a low cost, surface mount package. Ideally suited for high volume cellular and wireless applications. Typical applications include single to balanced mode conversion and impedance matching.



Pin Configuration

Pin No.	Function		
1	Secondary Dot (output 1)		
2	Secondary centre tap (ground)		
3	Secondary (output 2)		
4	Primary (ground)		
5	Primary Dot (input)		

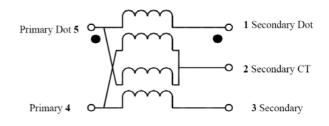
Ordering Information

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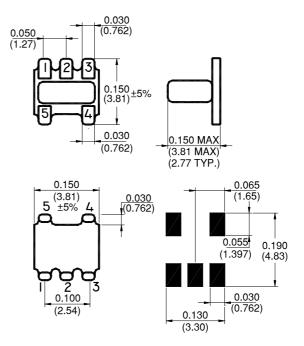
Part Number	Package		
MABACT0065TR	2000 piece reel		
MABA-007949-CT65TB	Customer test board		

Note: Reference Application Note M513 for reel size information.

Schematic



Case Style: SM-22



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

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

- 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

Visit www.macom.com for additional data sheets and product information.

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Electrical Specifications: $T_A = 25^{\circ}C$, $Z_0 = 50\Omega^{-1}$

Parameter	Units	Nominal	Maximum	Mean (x)	Sigma (σ)
Frequency Range 500 - 3000	MHz	_	_	—	—
Insertion Loss (f _L - f _U) 500 - 750 MHz 750 - 1200 MHz 1200 - 3000 MHz	dB dB dB	 	3.0 1.0 3.0	 0.22 	0.159 —

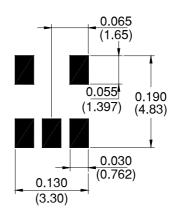
Absolute Maximum Ratings ^{1,2}

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



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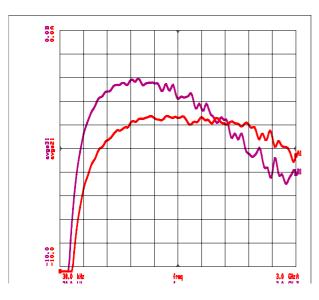


RoHS Compliant

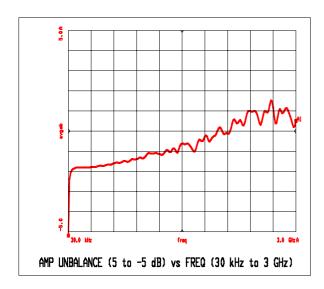
4:1 Transmission Line Transformer 500-3000MHz

Typical Performance Curves: $T_A = 25^{\circ}C$, $Z_0 = 50\Omega^{-1}$

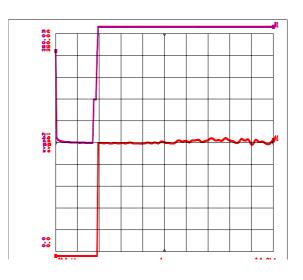
Insertion Loss



Amplitude Unbalance



Phase Unbalance

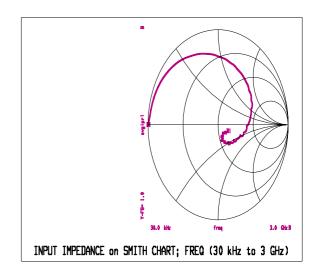


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Input Impedance



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