4:1 Transmission Line Transformer 500 - 3000 MHz

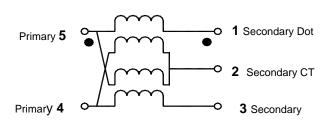
Features

- Surface mount
- Wide frequency range
- 4:1 Impedance Ratio, unbalanced to unbalanced
- CT on Secondary
- Pb Free
- RoHS* version of ETC1.6-4-2-3
- 260°C reflow compatible.

Description

M/A-COM Technology Solutions 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.

Schematic



Component Dimensions

3.81

3.81



Pin Configuration

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

¹

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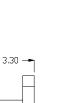
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- Visit www.macomtech.com for additional data sheets and product information.

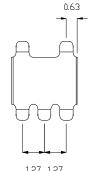
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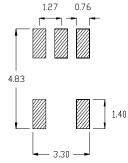


Technology









1.27

1.27 1.27

Dimensions in mm. Tolerance: .xx ± .15 Drawing not to scale

MABACT0065



4:1 Transmission Line Transformer 500 - 3000 MHz

Rev. V2

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

Parameter	Frequency	Units	Min	Тур	Max	Mean(x)	Sigma
RF Frequency	500 - 3000	MHz				_	
Insertion Loss	500 - 750 750 - 1200 1200 - 3000	dB dB dB			3.0 1.0 3.0	 0.22 	 0.159

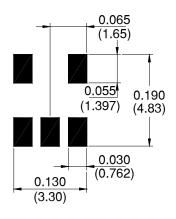
Recommended Maximum Ratings^{1,2}

Parameter	Value
DC Power	250 mW
DC Current	30 mA
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.

 M/A-COM Technology Solutions does not recommend sustained operation near these survivability limits.

Recommended PCB Configuration



2

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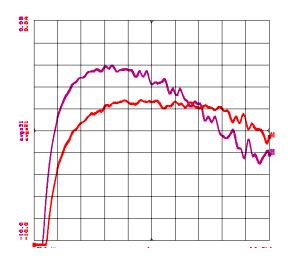
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MABACT0065

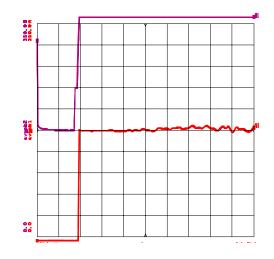


Typical Performance Curves: $T_A = 25^{\circ}C$, $Z_0 = 50\Omega^{-1}$

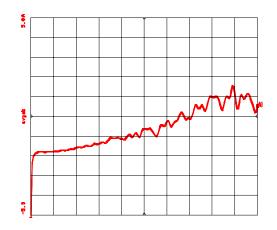
Insertion Loss



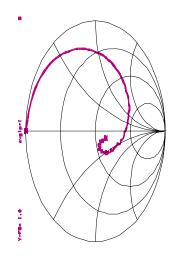
Phase Unbalance



Amplitude Unbalance



Input Impedance



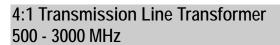
3

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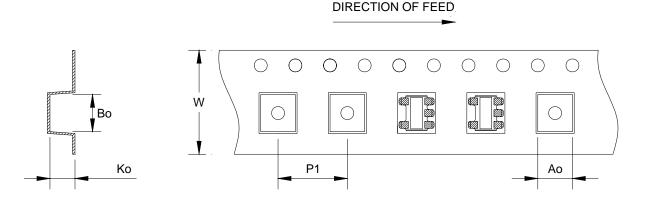
MABACT0065





Rev. V2

Tape & Reel Information



ltem	Dimension
Ao	4.10mm +/- 0.1mm
Во	4.20mm +/- 0.1mm
Ko	3.40mm +/- 0.1mm
W	12.00mm +/- 0.3mm
P1	8.00mm +/- 0.1mm

Ordering Information

Part number	Description		
MABACT0065	2000 piece reel		

4

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