

RoHS Compliant



2:1 Flux Coupled Transformer
5-200MHz

MABACT0048
V1P

Features

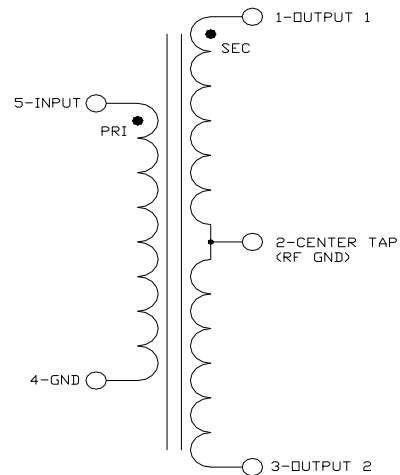
- Surface Mount
- 2:1 Impedance
- Excellent amplitude and phase balance
- 260°C Reflow Compatible
- RoHS* Compliant
- Available on Tape and Reel. Reel quantity 2000

Description

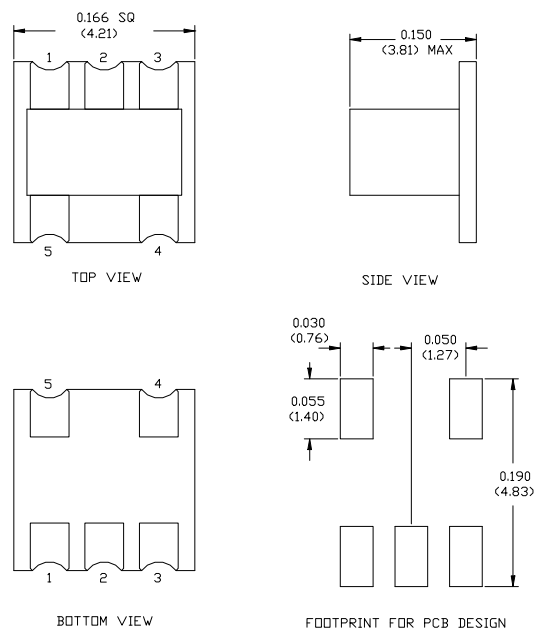
M/A-COM's MABACT0048 is a 2:1 RF Flux Coupled transformer in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications. Suitable for use in 50 and 75 Ohm systems.



Schematic



Case Style: SM-164



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

Pin Configuration

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

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

Ordering Information

Part Number	Package
MABACT0048TR	2000 piece reel

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

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PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400
• India Tel: +91.80.4155721 • China Tel: +86.21.2407.1588

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Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$

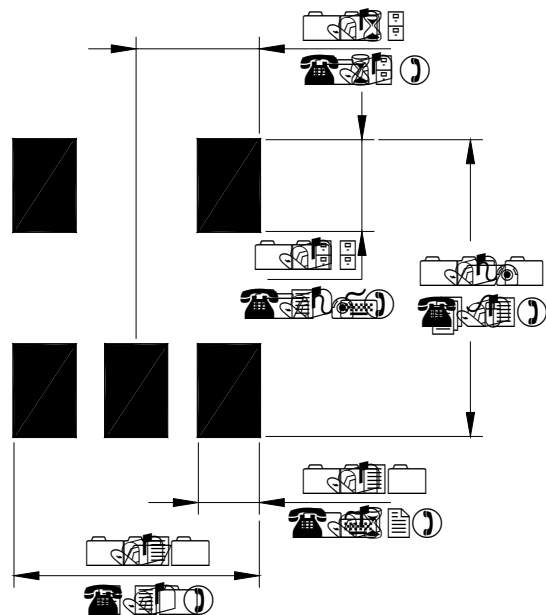
Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss	5 - 65 MHz	dB	-	0.25	0.4
Insertion Loss	65 - 200 MHz	dB	-	0.4	0.9
Amplitude Unbalance (Nominal 0dB)	5 - 65 MHz	dB	-	± 0.02	± 0.15
Phase Unbalance (Nominal 180°)	5 - 50 MHz	°	-	± 0.00	± 2.00
Input Return Loss	5 - 10 MHz	dB	15	20	-
Input Return Loss	10 - 200 MHz	dB	18	22	-

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

- 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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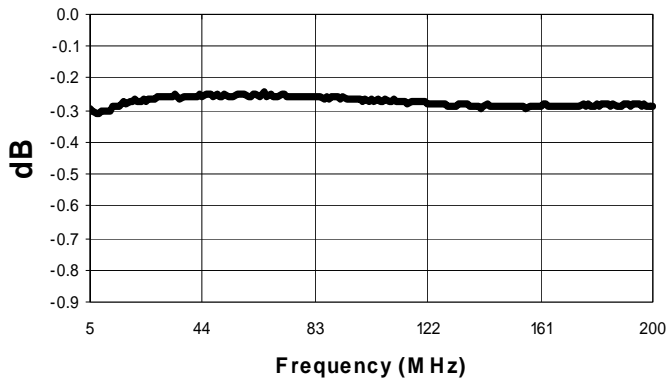


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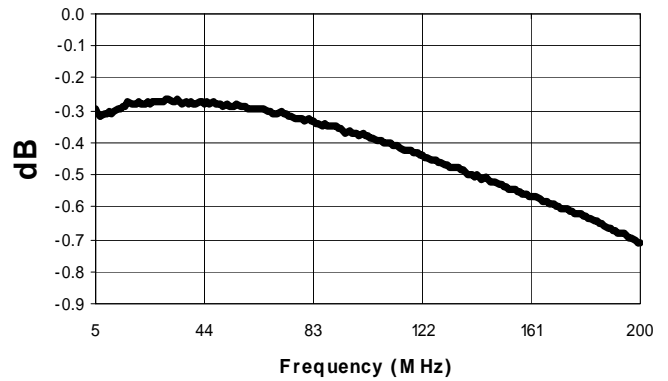
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$

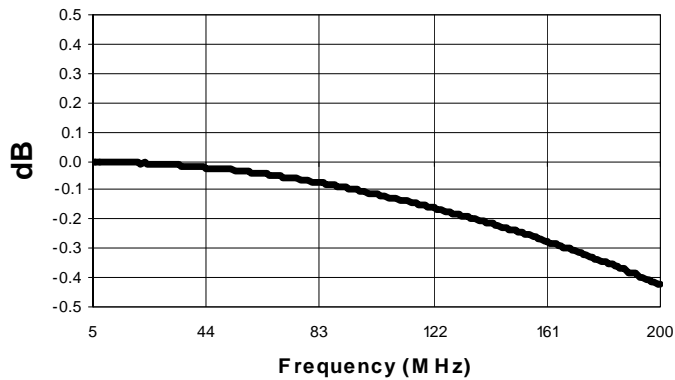
Insertion Loss (coupled pin 5 to pin 3)



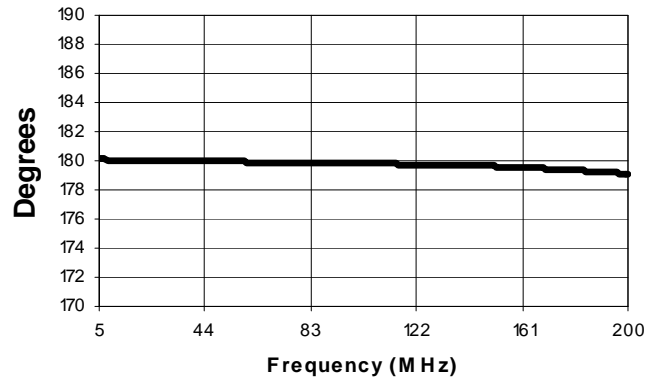
Insertion Loss (through pin 5 to pin 1)



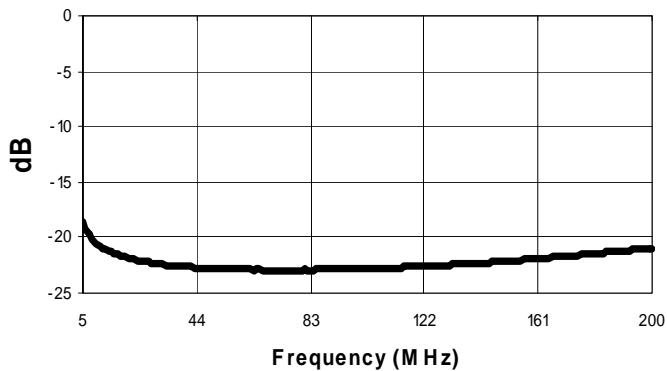
Amplitude Unbalance



Phase Balance



Input Return Loss



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