

1:1 Flux Coupled Transformer
0.3-200MHz

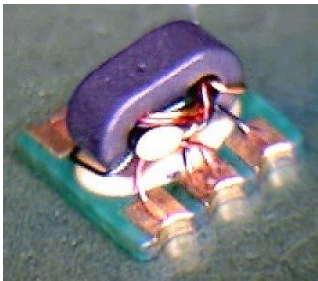
**MABACT0071
V2P**

Features

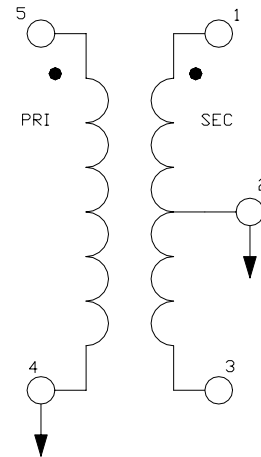
- Surface Mount
- 1:1 Impedance
- Centre tap on secondary
- 260°C Reflow Compatible
- RoHS* Compliant
- Available on Tape and Reel. Reel quantity 2000

Description

M/A-COM's MABACT0071 is a 1:1 RF flux coupled transformer in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications.



Schematic



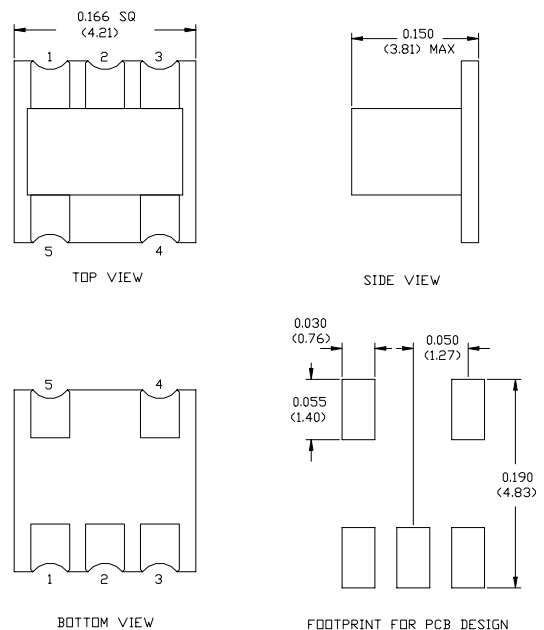
Pin Configuration

Pin No.	Function
1	Secondary Dot
2	Secondary centre tap
3	Secondary
4	Primary
5	Primary Dot

Ordering Information

Part Number	Package
MABACT0071TR	2000 piece reel

Case Style: SM-164



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

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: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

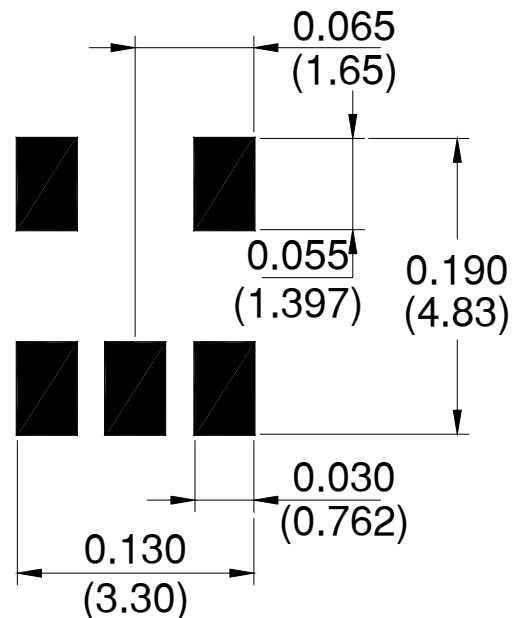
Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss (Pin 1-5)	-	0.3 - 5 MHz	dB	-	1.0	2.6
Insertion Loss (Pin 1-5)	-	5 - 200 MHz	dB	-	0.5	0.9
Insertion Loss (Pin 3-5)	-	0.3 - 10 MHz	dB	-	1.0	2.6
Insertion Loss (Pin 3-5)	-	10 - 200 MHz	dB	-	0.4	0.75
Amplitude Unbalance (Nominal 0dB)	-	0.3 - 200 MHz	dB	-	±0.1	±0.3
Phase Unbalance (Nominal 180°)	-	0.3 - 200 MHz	°	-	±0.3	±3.0
Input Return Loss	-	0.3 - 5 MHz	dB	5	13	-
Input Return Loss	-	5 - 120 MHz	dB	19	27	-
Input Return Loss	-	120 - 200 MHz	dB	15	21	-

Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
Max Input Power	250mW
DC current	240mA
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

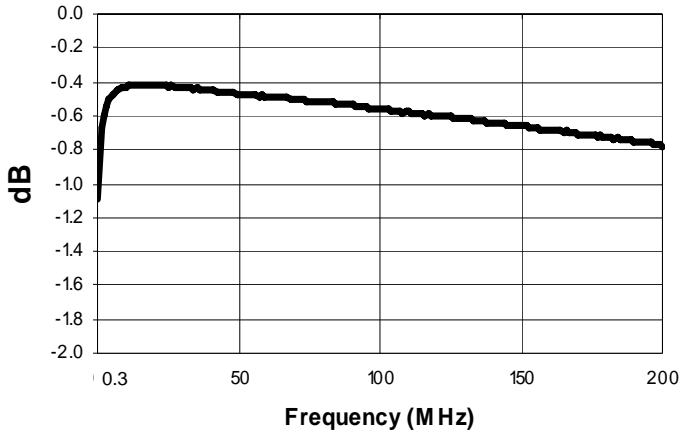


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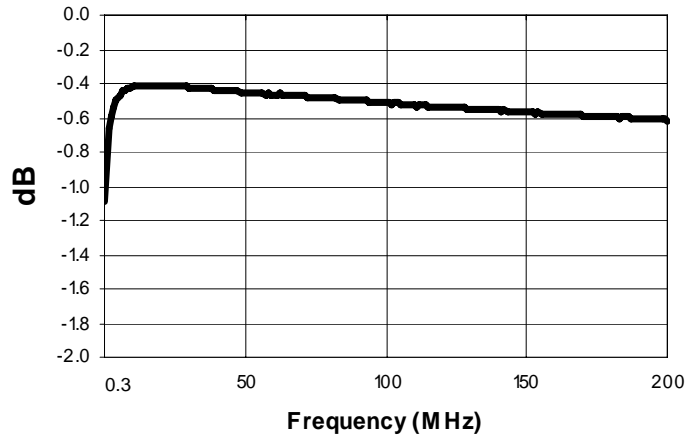
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

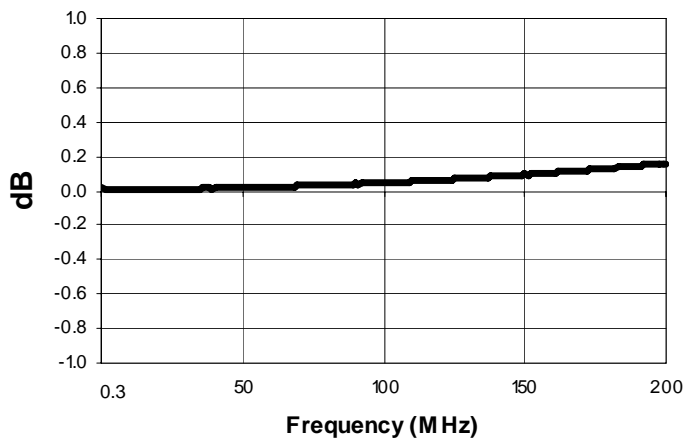
Insertion Loss 1: (Pin 5 to 1)



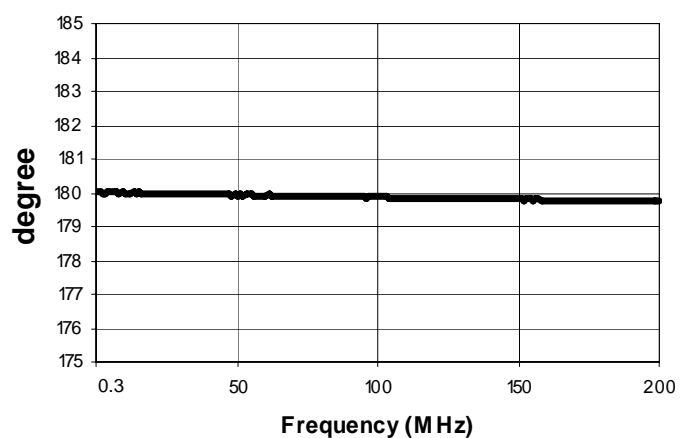
Insertion Loss 2: (Pin 5 to 3)



Amplitude Unbalance



Phase Balance



Input Return Loss

