

4:1 flux Coupled Transformer 5-200MHz

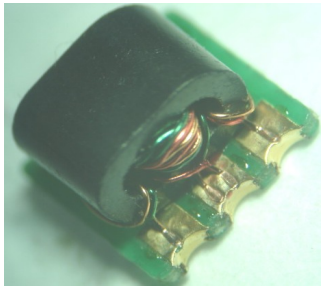
Rev. V2

Features

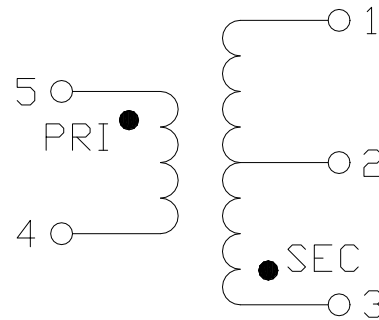
- SMT unit.
- 4:1 Impedance
- 260°C Reflow Compatible
- RoHS* Compliant
- RoHS version of MABACT0045
- Available on Tape and Reel. Reel quantity 2000

Description

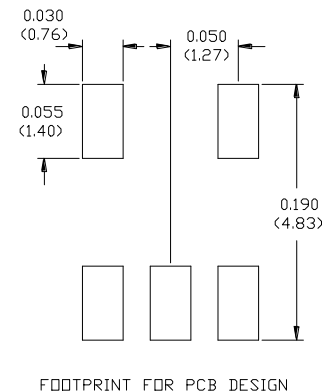
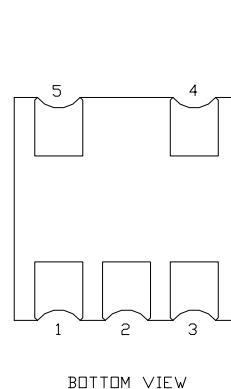
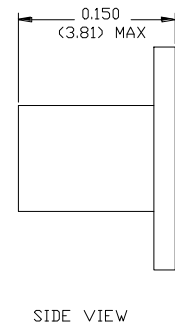
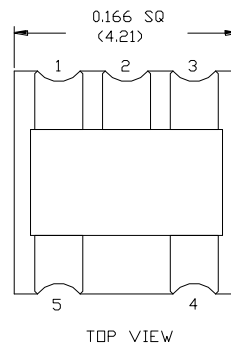
M/A-COM's MABA-008260-CF4A40 is a low cost surface mount 4:1 flux coupled transformer. Ideally suited for high volume CATV/Broadband applications. Suitable for use in 50 Ohm and 75 Ohm systems.



Schematic



Case Style: SM-164



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

Pin Configuration

Pin No.	Function
1	Secondary Output 2
2	Centre Tap (ground)
3	Secondary Dot Output 1
4	Primary (ground)
5	Primary Dot (input)

Ordering Information

Part Number	Package
MABA-008260-CF4A40	2000
MABA-008260-CF4ATB	Customer Test Board

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

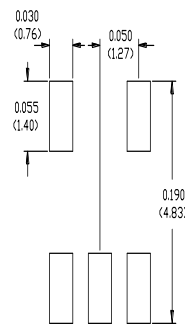
Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss	5 - 65 MHz	dB	-	0.6	1.0
	65 - 200 MHz	dB	-	0.8	1.0
Amplitude Balance	5 - 200 MHz	dB	-	0.2	0.3
Phase Balance	5 - 65 MHz	dB	-	0.1	2.0
	65 - 200 MHz	dB	-	0.3	3.0
Input Return Loss	5 - 65 MHz	dB	15	25	-
	65 - 200 MHz	dB	12	17	-

Absolute Maximum Ratings ^{1,2}

Parameter	Absolute Maximum
RF Power	250 mW
DC current	30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°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



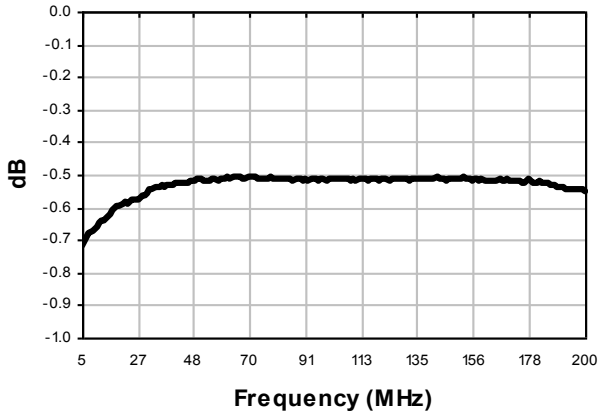
FOOTPRINT FOR PCB DESIGN

**4:1 flux Coupled Transformer
5-200MHz**

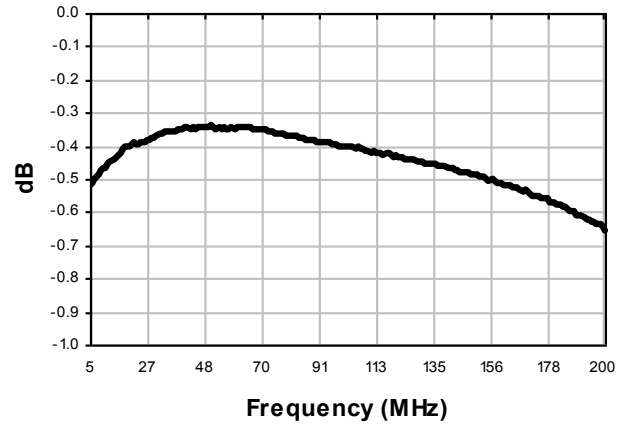
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

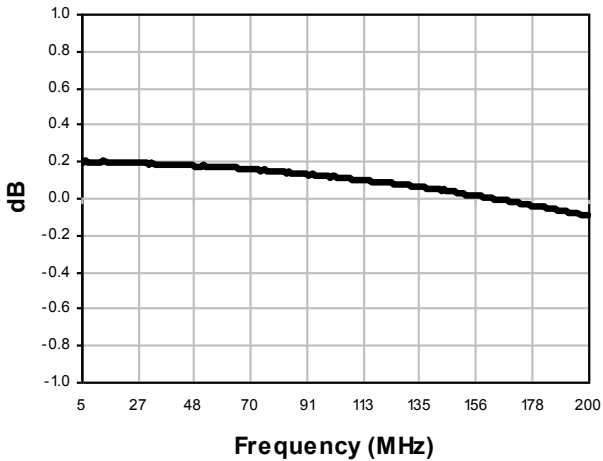
Insertion Loss 1: pin 5-3



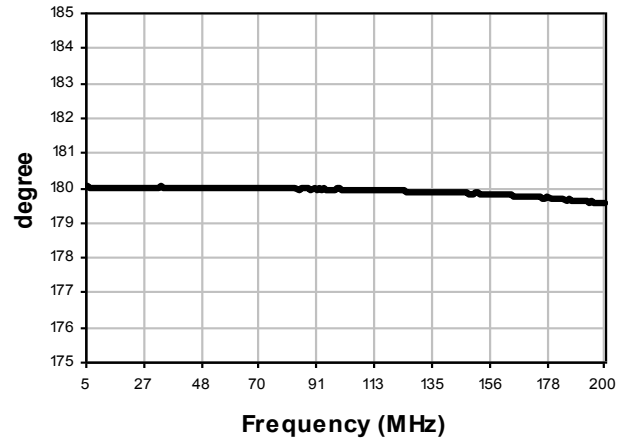
Insertion Loss 2: pin 5-1



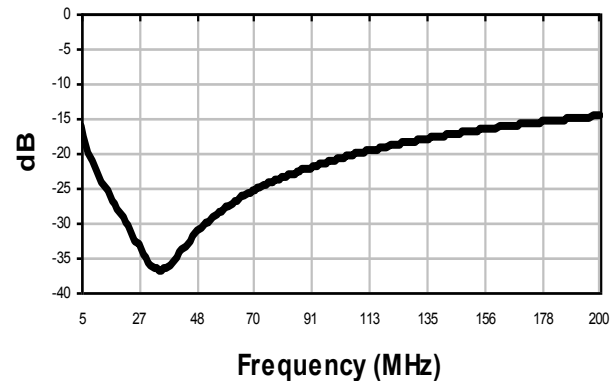
Amplitude Balance



Phase Balance



Return Loss: Input



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