

1:1 Flux Coupled Balun Transformer 5-120MHz

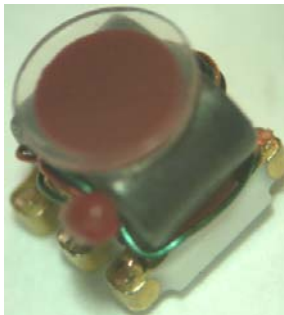
MABA-008182-CF1160
V3

Features

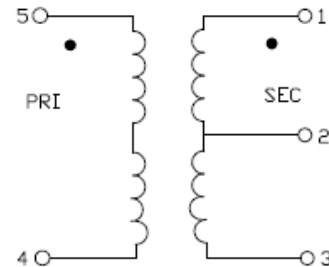
- Surface Mount
- 1:1 Impedance
- RoHS* Compliant
- RoHS version of MABACT0031, part is welded.
- Available on Tape and Reel. Reel quantity 2000

Description

M/A-COM's MABA-008182-CF1160 is a 1:1 RF Flux Coupled Transformer in a low cost, surface mount package. Ideally suited for high volume cellular & wireless applications.



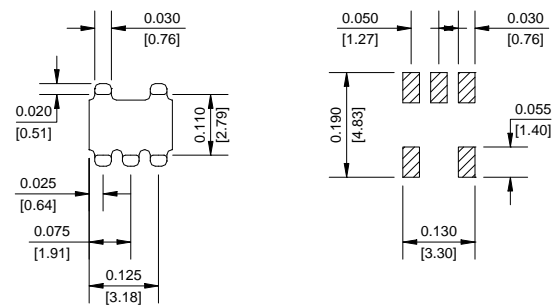
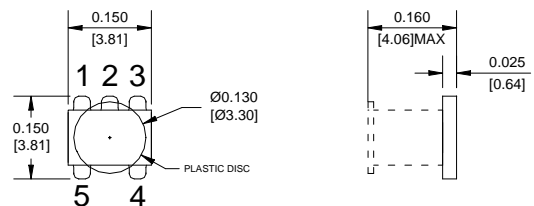
Schematic



Pin Configuration

Pin No.	Function
1	Secondary Dot (Output)
2	Not connected (Ground)
3	Secondary (Output)
4	Primary (Ground)
5	Primary Dot (Input)

Case Style: SM-22A



PCB FOOTPRINT

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

Ordering Information

Part Number	Package
MABA-008182-CF1160	2000
MABA-008182-CF11TB	Customer Test Board

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

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

1

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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

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

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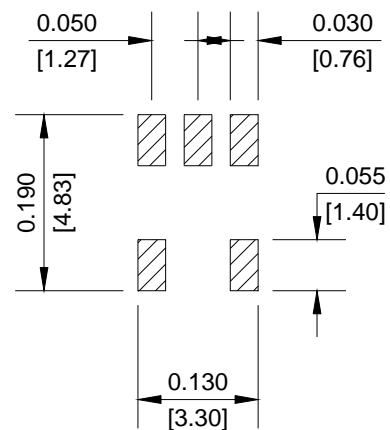
Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss (above -3dB)	50 - 120MHz	dB	-	0.5	0.8
Amplitude Unbalance	50 - 120MHz	dB	-	0.2	0.4
Phase Unbalance	50 - 120MHz	°	-	1	4
Input Return Loss	50 - 75MHz	dB	20	25	-
	75 - 120MHz	dB	15	20	-

Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30mA
Operating Temperature	-40°C to +100°C
Storage Temperature	-40°C to +100°C

Recommended PCB Configuration



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.

2

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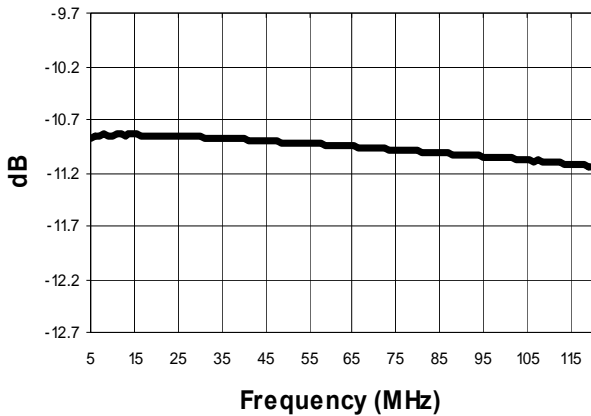
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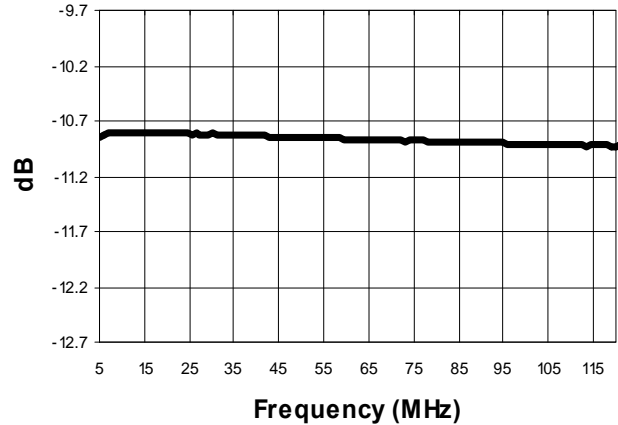
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

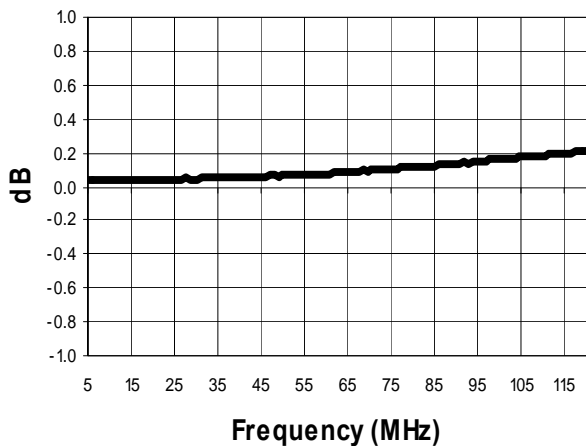
Insertion Loss: (Pin5 - Pin1) ref value -10.7dB



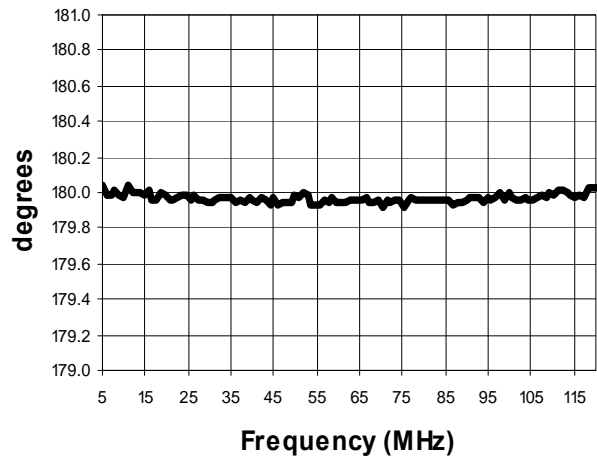
Insertion Loss: (Pin5 - Pin3) ref value -10.7dB



Amplitude Unbalance



Phase Unbalance



Return Loss: Input

