

4:1 Flux Coupled Step-up Transformer 1-350MHz

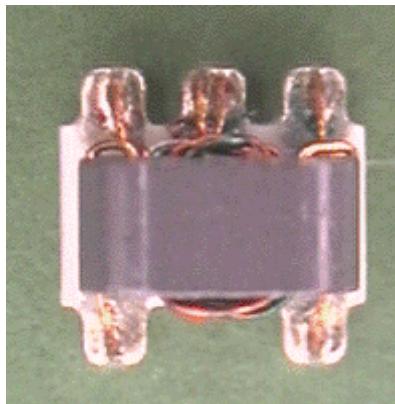
Rev. V2

Features

- n Surface Mount
- n 4:1 Impedance
- n 260°C Reflow Compatible
- n RoHS* Compliant
- n RoHS version of ETC4-1 and MABACT0011.
- n Available on Tape and Reel. Reel quantity 2000

Description

MABA-007493-CF4160 is a 4:1 flux coupled step-up transformer in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications.



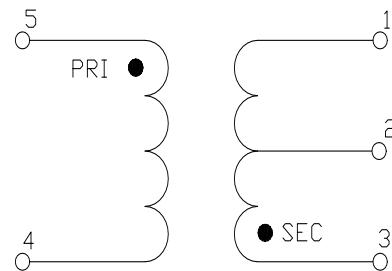
Pin Configuration

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

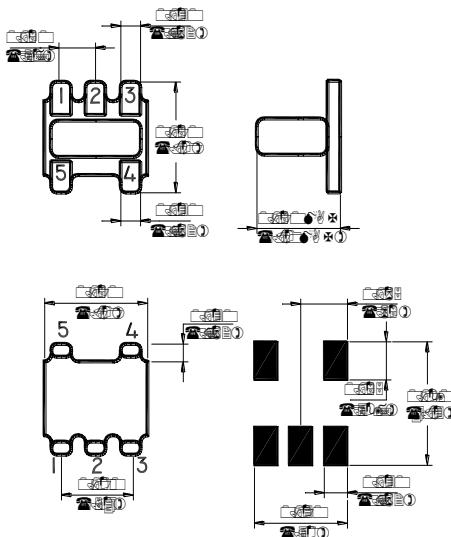
Note: Reference Application Note **M513** for reel size information.

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

Schematic



Case Style: SM-22



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

Ordering Information

Part Number	Package
MABA-007493-CF4160TR	2000 piece reel
MABA-007493-CF41TB	Customer test board

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

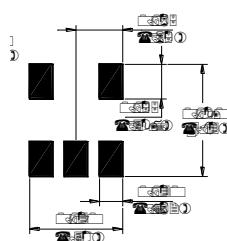
Parameter	Test Conditions	Units	Min	Typ	Max	Mean (x)	Sigma (x)
Insertion Loss 1	5 - 100 MHz 2 - 300 MHz 1 - 350 MHz	dB dB dB	- - -	0.8 1.6 2.0	1.0 2.0 3.0	- 1.21 -	0.032 - -
Amplitude Unbalance	5 - 100 MHz 1 - 350 MHz	dB db	- -	- -	± 0.1 ± 0.5	- -	- -
Phase Unbalance	5 - 100 MHz 1 - 350 MHz	° °	- -	- -	± 1.0 ± 5.0	- -	- -

Absolute Maximum Ratings ^{1,2}

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

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.

Recommended PCB Configuration

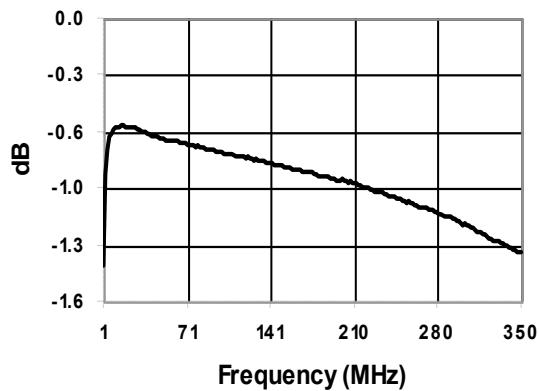


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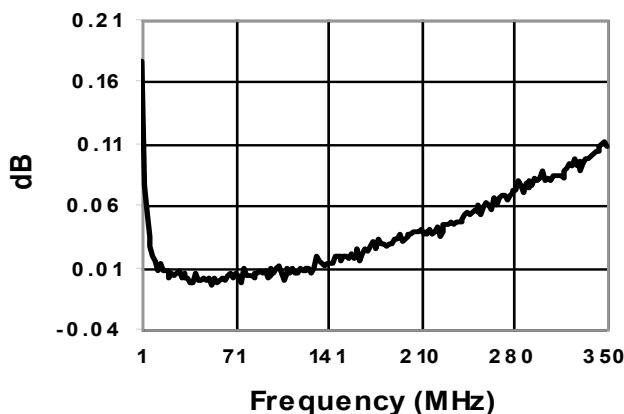
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

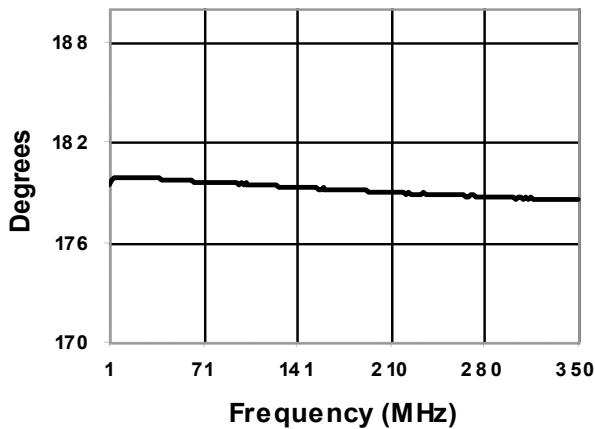
Insertion Loss



Amplitude Unbalance



Phase Balance



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