

2:1 Flux Coupled Balun Transformer 5 - 100 MHz

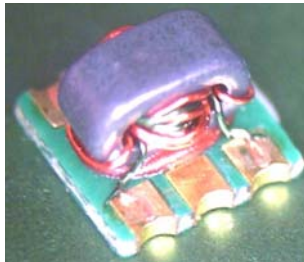
M/A-COM Products
Rev. V1

Features

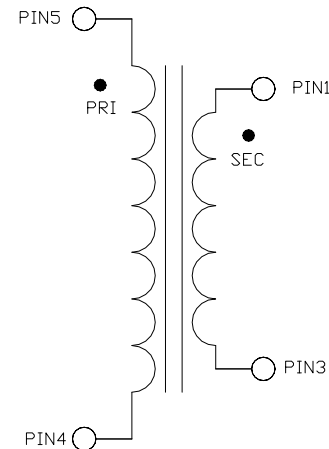
- Surface Mount
- 2:1 Impedance
- 75Ω single ended to 37.5Ω Balance
- RoHS Compliant, lead free
- Available on Tape and Reel

Description

M/A-COM's MABA-009776-CF28A0 is a 2:1 RF Flux coupled step-down BalUn transformer with out a center tap, in a low cost surface mount package. Ideally suited for high volume CATV/Broadband applications.



Schematic



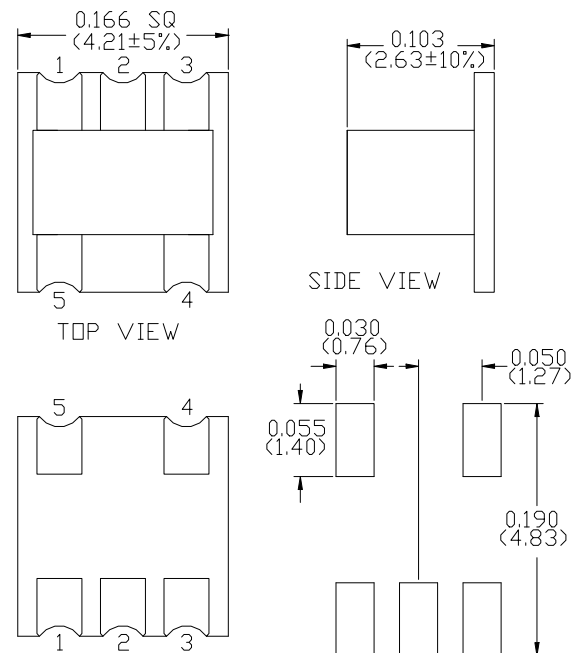
Pin Configuration

Function	Pin Number
Secondary Dot	1
No connection	2
Secondary	3
Primary	4
Primary Dot	5

Ordering Information

Part Number	Package
MABA-009776-CF28A0	2000
MABA-009776-CF28TB	Customer Test Board

Case Style SM-164



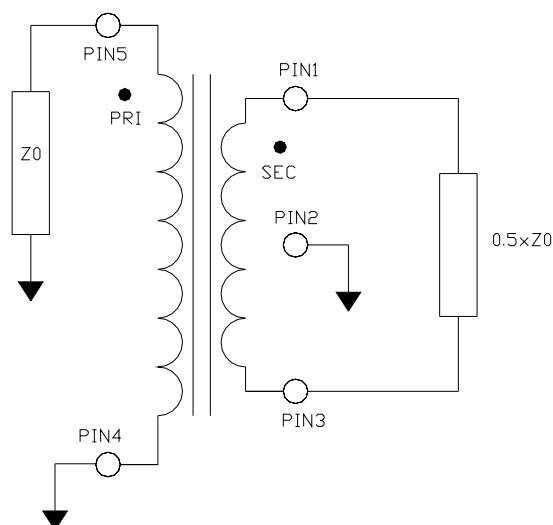
Dimensions are inches (millimetres) ±0.015 (0.38) unless otherwise specified.

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Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range	5 - 100 MHz				
Insertion Loss 1 (Pin 5 to Pin 1)	5 - 100 MHz	dB	-	0.4	0.8
Insertion Loss 2 (Pin 5 to Pin 3)	5 - 100 MHz	dB	-	0.4	0.8
Amplitude Balance	5 - 100 MHz	dB	-	0.1	± 1.0
Phase Balance	5 - 100 MHz	$^\circ$	-	2.0	± 6.0
Input Return Loss (Pin 4)	5 - 100 MHz	dB	14	22	-

Recommended Maximum Ratings

Parameter	Value
RF Power	+27dBm (500mW)
DC Current	300mA
Operating Temperature	-40°C to $+100^\circ\text{C}$
Storage Temperature	-55°C to $+115^\circ\text{C}$

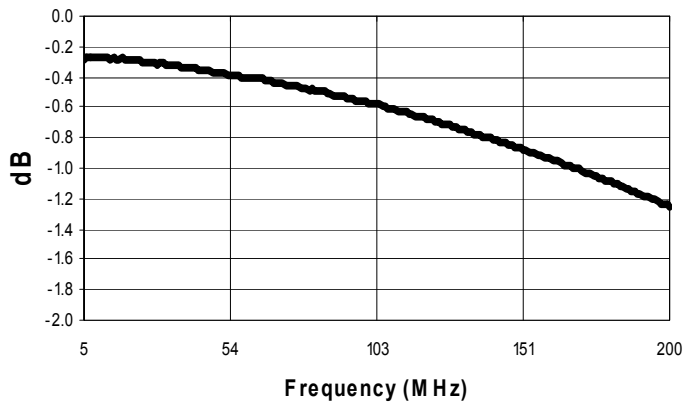
Application Circuit


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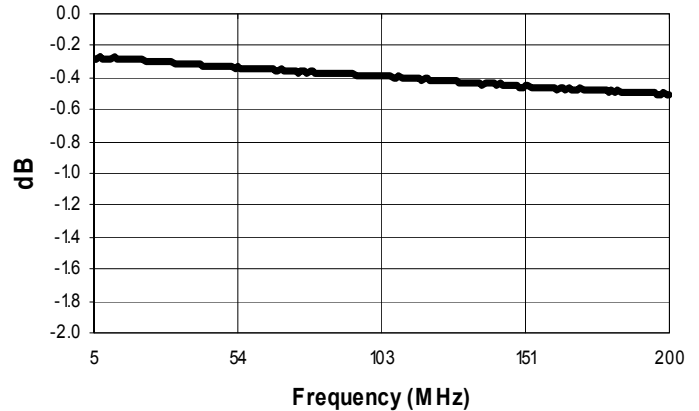
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Typical Performance: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

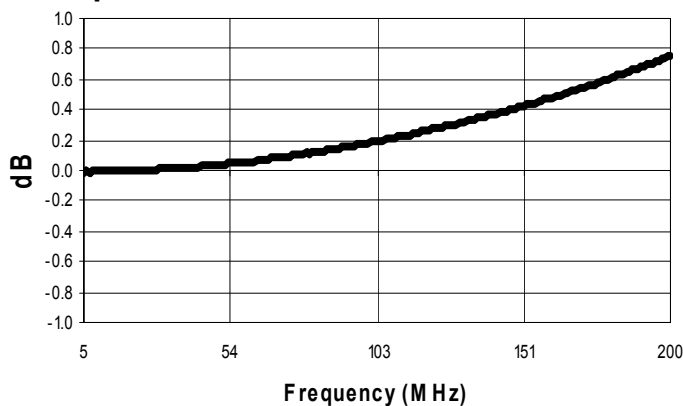
Insertion Loss 1 (Pin5 - Pin1)



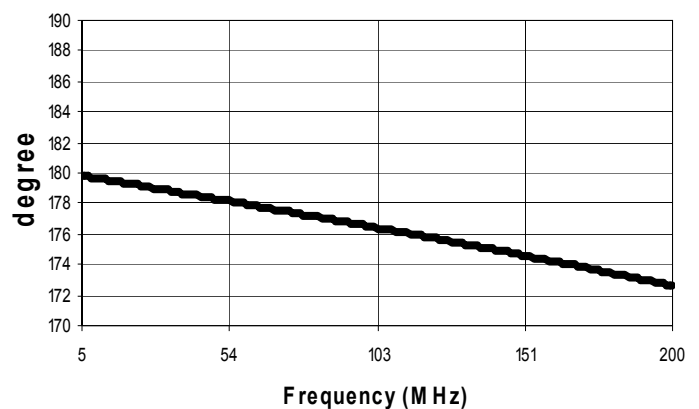
Insertion Loss 2 (Pin5 - Pin3)



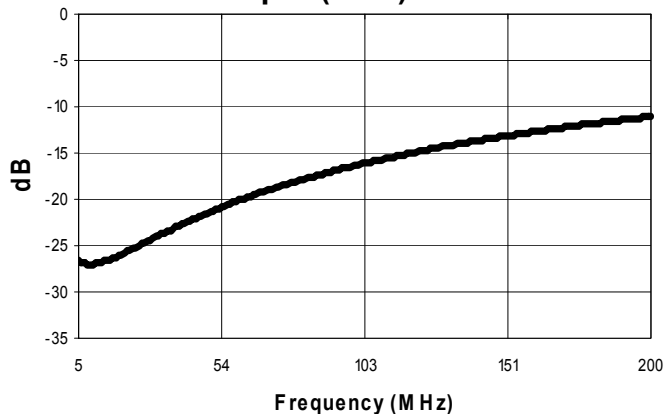
Amplitude Balance



Phase Balance



Return Loss: Input (Pin5)



Note: Graphs plotted to 200MHz
for reference only