

2:1 Flux Coupled Balun Transformer 5 - 100 MHz

Rev. V2

Features

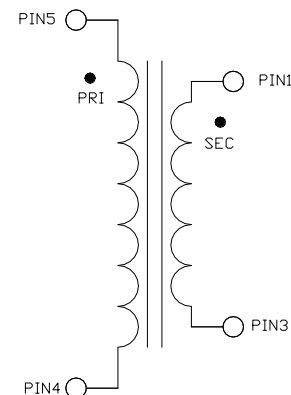
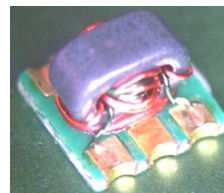
- 2:1 Impedance
- Surface Mount Package
- 75 Ω Single Ended to 37.5 Ω Balance
- RoHS Compliant, Lead Free
- Available on Tape and Reel

Description

The MABA-009776-CF28A0 is a 2:1 RF flux coupled step-down balun transformer with out a center tap, in a surface mount package.

Ideally suited for high volume CATV/Broadband applications.

Schematic



Pin Configuration

Pin #	Function
1	Secondary Dot
2	No Connection
3	Secondary
4	Primary
5	Primary Dot

Electrical Specifications: Freq. = 5 - 100 MHz, $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{IN} = 0 \text{ dBm}$

Parameter	Test Conditions	Units	Min.	Typ.	Max.
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	—

Ordering Information

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

Recommended Maximum Ratings

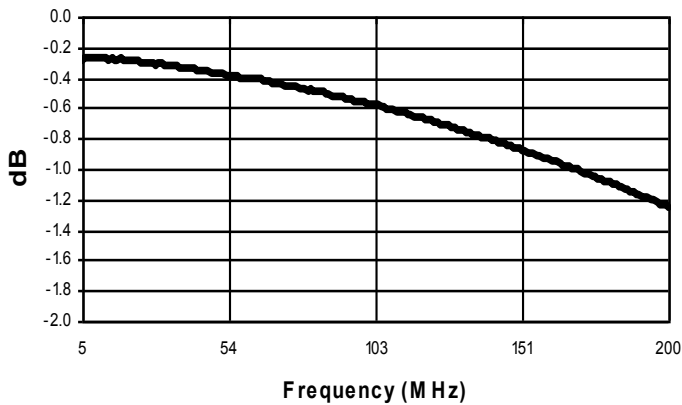
Parameter	Value
RF Power	27 dBm (500 mW)
DC Current	300 mA
Operating Temperature	-40°C to $+100^\circ\text{C}$
Storage Temperature	-55°C to $+115^\circ\text{C}$

2:1 Flux Coupled Balun Transformer 5 - 100 MHz

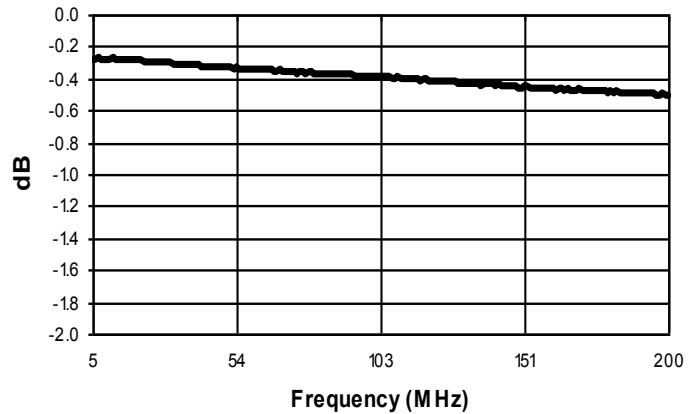
Rev. V2

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

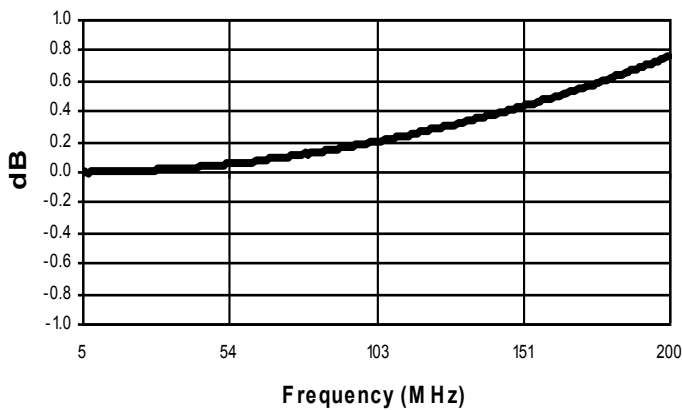
Insertion Loss 1 (Pin5 - Pin1)



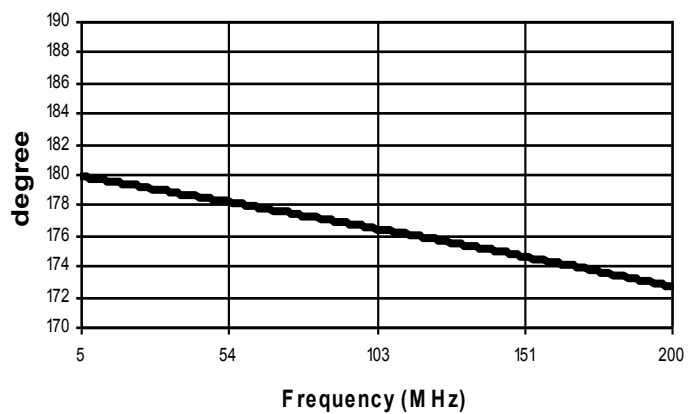
Insertion Loss 2 (Pin5 - Pin3)



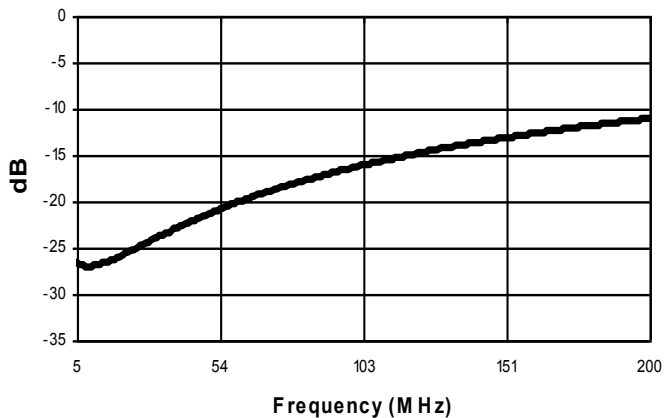
Amplitude Balance



Phase Balance



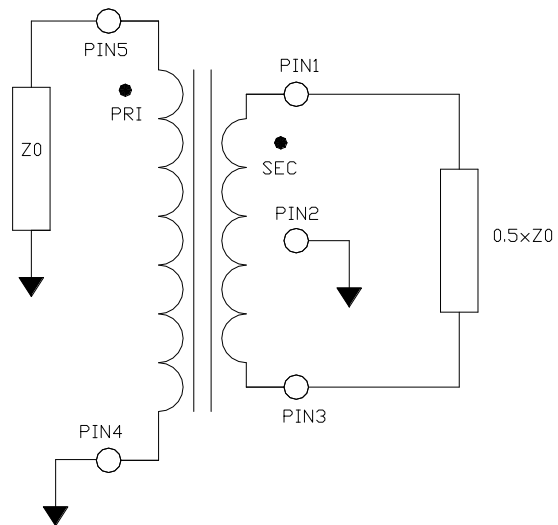
Return Loss: Input (Pin5)



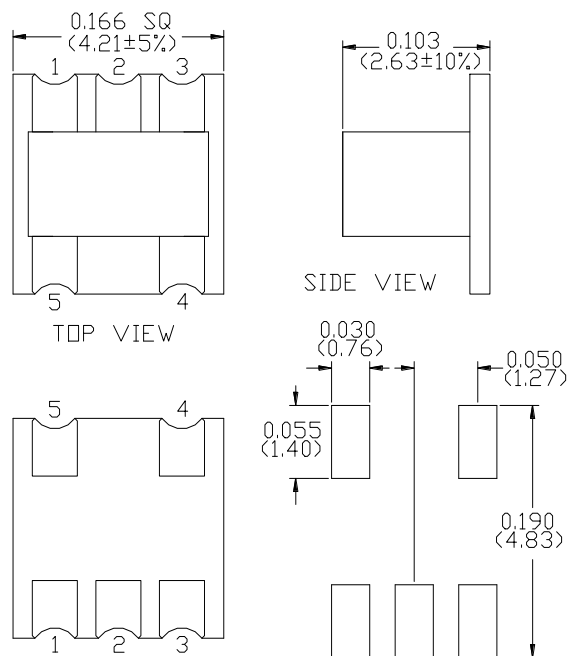
Note:

Graphs plotted to 200 MHz for reference only.

Application Circuit



Case Style SM-164



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