

## 1.77:1 Flux Coupled Balun Transformer 5 - 100 MHz

Rev. V2

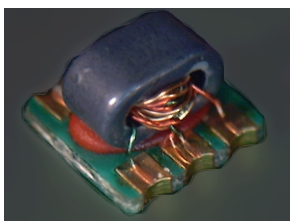
### Features

- Surface Mount Package
- 1.77:1 Impedance
- 75  $\Omega$  Single Ended to 133  $\Omega$  Balance
- RoHS Compliant, Lead Free
- Available on Tape and Reel

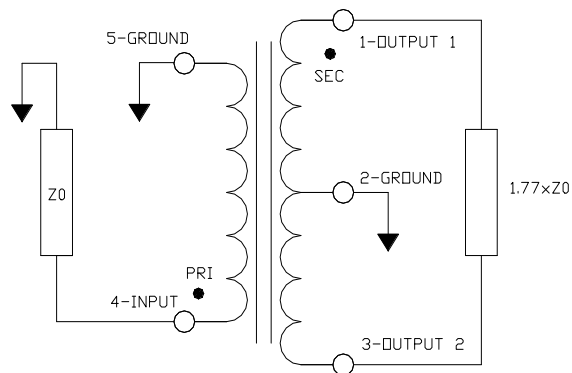
### Description

The MABA-009573-CF1A40 is a 1.77:1 RF flux coupled balun transformer in a surface mount package.

Ideally suited for high volume CATV/Broadband applications.



### Functional Schematic



### Pin Configuration

Pin No.	Function
1	Secondary Dot (output 1)
2	Primary (ground)
3	Secondary (output 2)
4	Primary Dot (Input)
5	ground

### 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 4 to Pin 1)	5 - 50 MHz	dB	—	0.3	0.4
	50 - 100 MHz			0.3	0.5
Insertion Loss 2 (Pin 4 to Pin 3)	5 - 50 MHz	dB	—	0.3	0.4
	50 - 100 MHz			0.4	0.5
Amplitude Balance	—	dB	—	0.01	$\pm 0.1$
Phase Balance	—	$^\circ$	—	0.2	$\pm 2.0$
Input Return Loss (Pin 4)	—	dB	24	27	—

### Ordering Information

Parameter	Package
MABA-009573-CF1A40	2000 piece reel
MABA-009573-CF1ATB	Customer Test Board

### Absolute Maximum Ratings

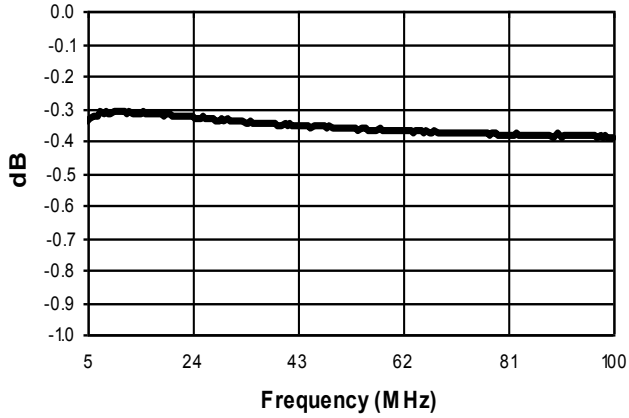
Parameter	Absolute Maximum
RF Input Power	250 mW
DC Current	30 mA
Operating Temperature	$-40^\circ\text{C}$ to $+85^\circ\text{C}$
Storage Temperature	$-40^\circ\text{C}$ to $+85^\circ\text{C}$

## 1.77:1 Flux Coupled Balun Transformer 5 - 100 MHz

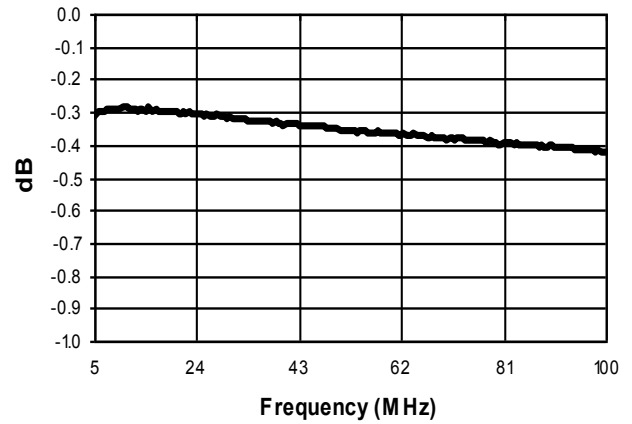
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Typical Performance:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75 \Omega$ ,  $P_{IN} = 0 \text{ dBm}$

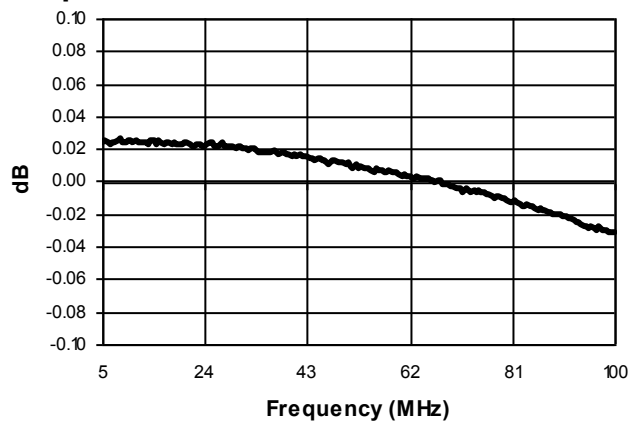
Insertion Loss 1 (Pin4 - Pin1)



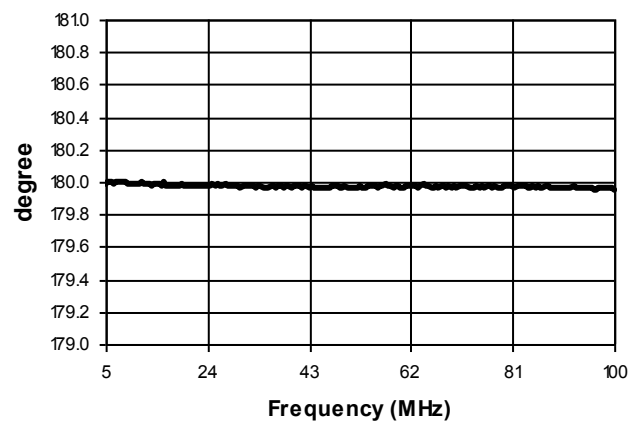
Insertion Loss 2 (Pin4 - Pin3)



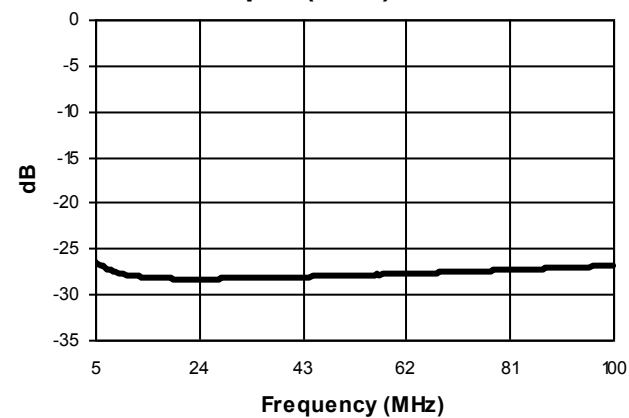
Amplitude Balance



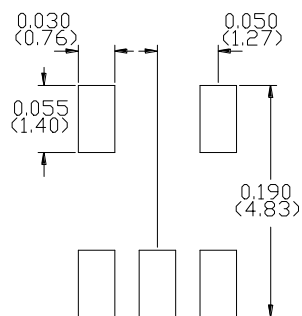
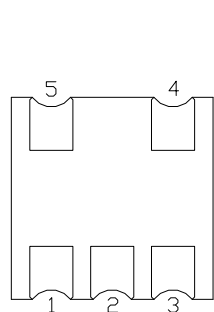
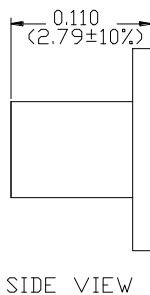
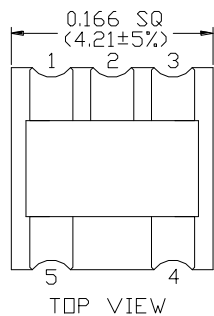
Phase Balance



Return Loss: Input (Pin4)



## Case Style SM-164



Dimensions are inches (millimetres)  $\pm 0.015$  (0.38) unless otherwise specified.

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