

## 1:4 Flux Coupled Transformer 5 - 100 MHz

Rev. V2

### Features

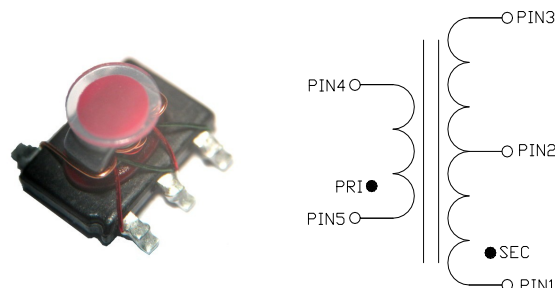
- 1:4 Impedance Ratio
- Surface Mount Package
- Centre tap on Secondary
- 260°C Reflow Compatible
- RoHS\* Compliant and Lead Free
- Available on Tape & Reel

### Description

The MABA-010061-CF4FA0 is a 1:4 RF flux coupled transformer in a surface mount package.

Ideally suited for broadband CATV applications.

### Schematic



### Pin Configuration

Pin #	Function
1	Secondary dot
2	Secondary Centre Tap
3	Secondary
4	Primary
5	Primary Dot

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

Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss	5 - 100 MHz	dB	—	1.22	1.5
Amplitude Unbalance (Nominal 0 dB)	5 - 100 MHz	dB	—	0.01	$\pm 0.1$
Phase Unbalance (Nominal 180°)	5 - 100 MHz	°	—	0.05	$\pm 1.0$
Input Return Loss	5 - 65 MHz 65 - 200 MHz	dB	15 16	19 18	—

### Ordering Information

Part #	Description
MABA-010061-CF4FA0	900 piece reel
MABA-010061-CF4FTB	customer test board

### Recommended Maximum Ratings

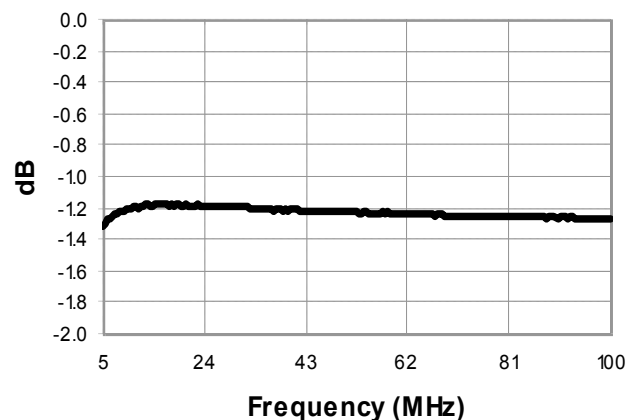
Parameter	Value
Input power	$>+28\ \text{dBm}$ (631 mW)
DC current, (tested @ 5 V)	$>600\ \text{mA}$
Operating Temperature	$-40^\circ\text{C}$ to $+85^\circ\text{C}$
Storage Temperature	$-55^\circ\text{C}$ to $+100^\circ\text{C}$

## 1:4 Flux Coupled Transformer 5 - 100 MHz

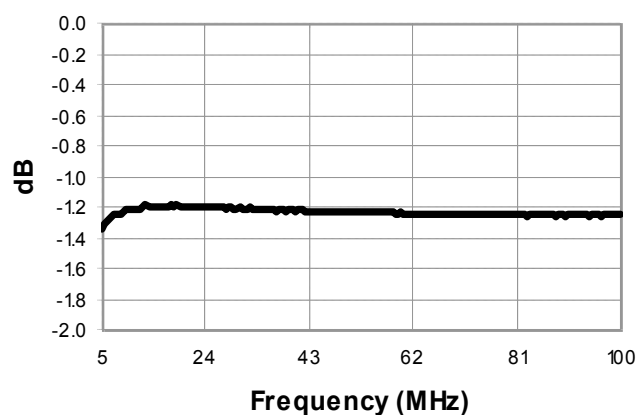
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Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\ \Omega$ ,  $P_{IN} = 0\ \text{dBm}$

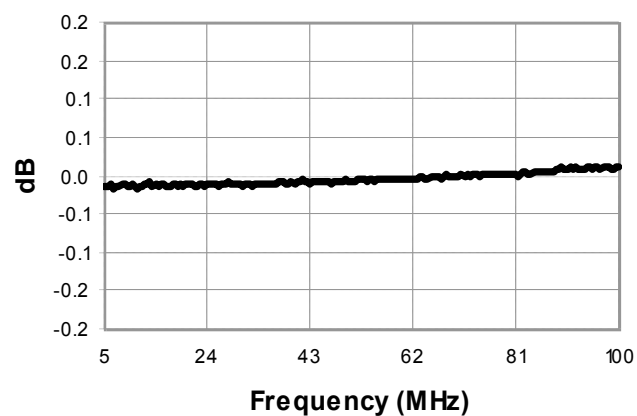
**Insertion Loss 1: (Pin 5 to 1)**



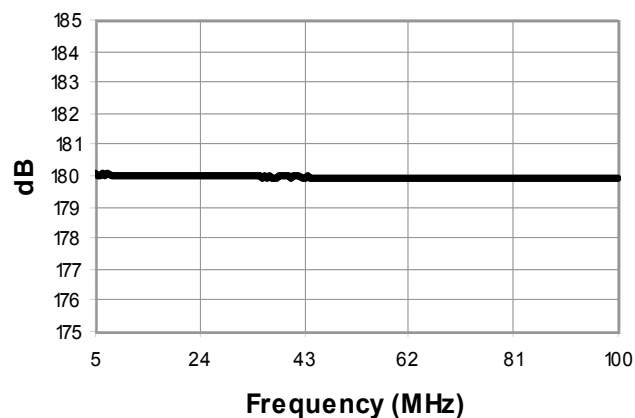
**Insertion Loss 2: (Pin 5 to 3)**



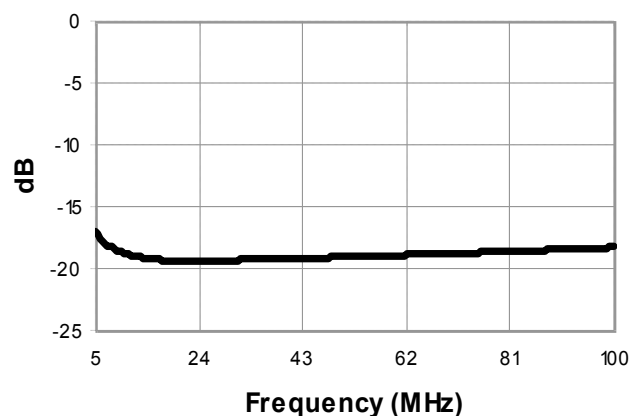
**Amplitude Balance**



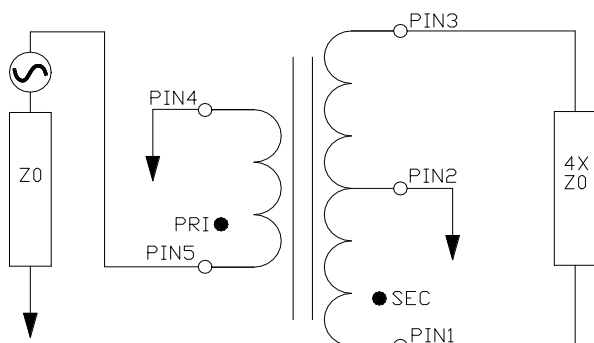
**Phase Balance**



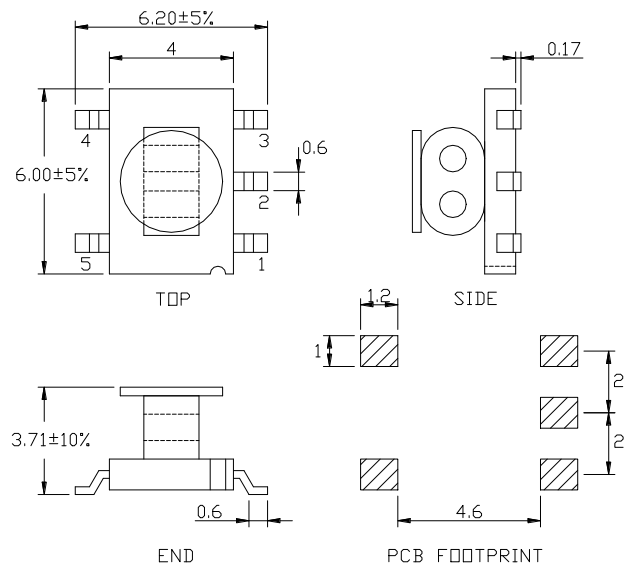
**Return Loss: Input (Pin 5)**



## Application Circuit

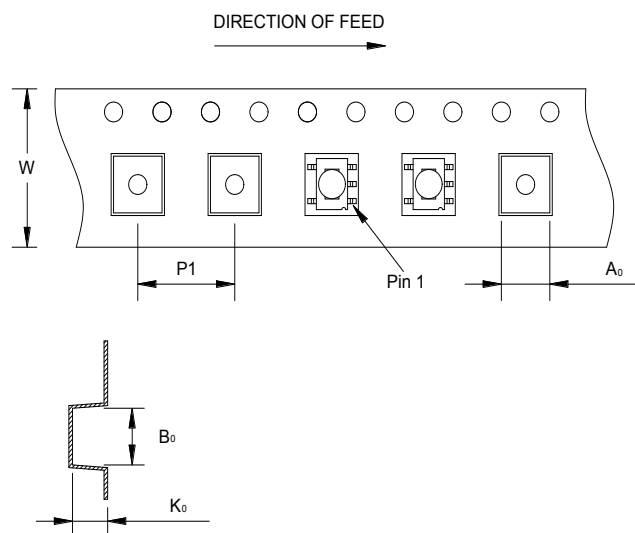


## Outline Drawing



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

## Reel Orientation



## Tape & Reel Information

Item	Dimension
Ao	6.6 mm, +/-0.1 mm
Bo	6.2 mm, +/-0.1 mm
Ko	4.2 mm, +/-0.1 mm
W	16.0 mm, +/-0.3 mm
P1	8.0 mm, +/-0.1 mm

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