

1:1 Flux Coupled Transformer 5 - 100 MHz

Rev. V2

Features

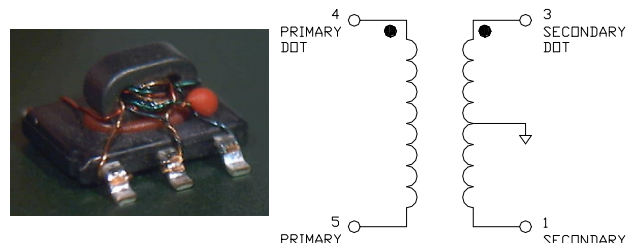
- 1:1 Impedance
- Surface Mount Package
- CT on Secondary
- 75 Ω
- RoHS Compliant

Description

The MABA-008124-CF1FA0 is a 1:1 RF flux coupled transformer in a surface mount package.

Ideally suited for high volume CATV application.

Schematic



Pin Configuration

Pin #	Function
1	Secondary
2	Secondary CT
3	Secondary Dot
4	Primary Dot
5	Primary

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

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Insertion Loss	5 - 100 MHz	dB	—	0.7	1.0
Amplitude Balance	5 - 100 MHz	dB	—	± 0.0	± 0.25
Phase Balance (ref value 180°)	5 - 100 MHz	°	—	± 0.3	± 4.0
Input Return Loss	5 - 75 MHz 75 - 100 MHz	dB	17 15	25 21	—

Ordering Information

Part #	Package
MABA-008124-CF1FA0	900 pieces per reel
MABA-008124-CF1FTB	Customer test board

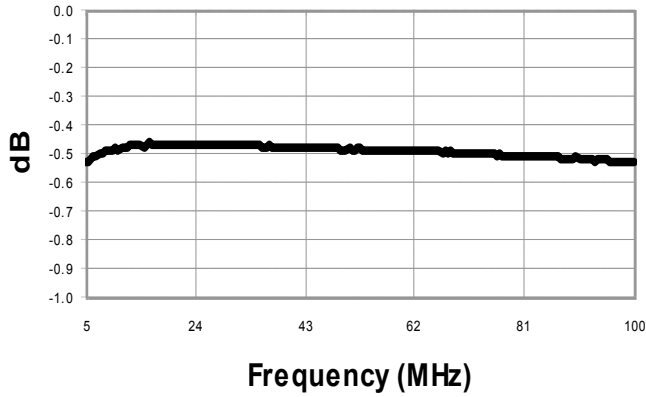
Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating Temperature	-40°C to +75°C
Storage Temperature	-40°C to +85°C

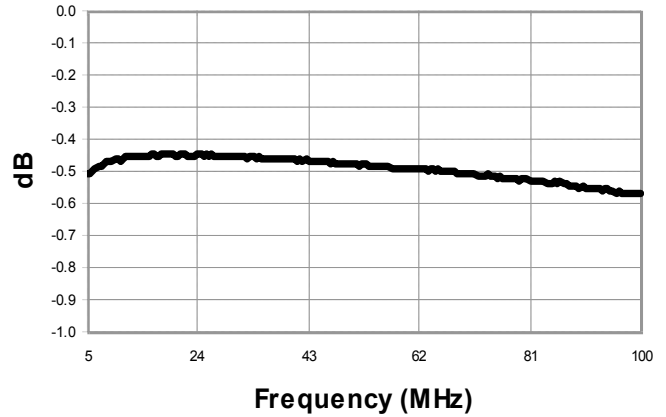
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

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

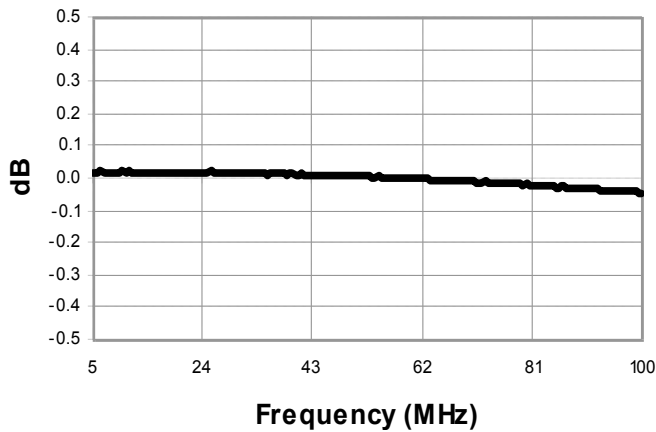
Insertion Loss 1



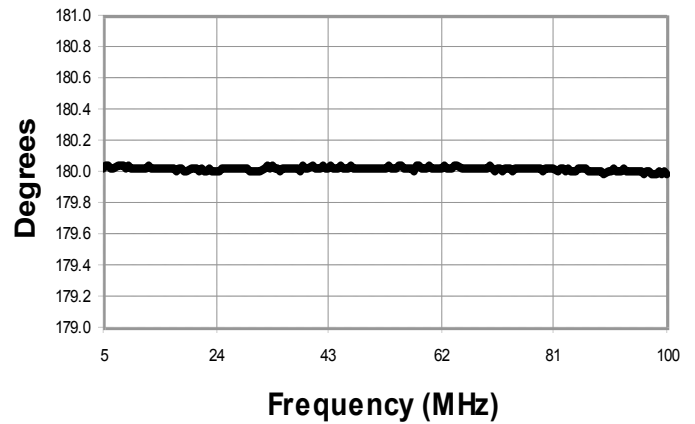
Insertion Loss 2



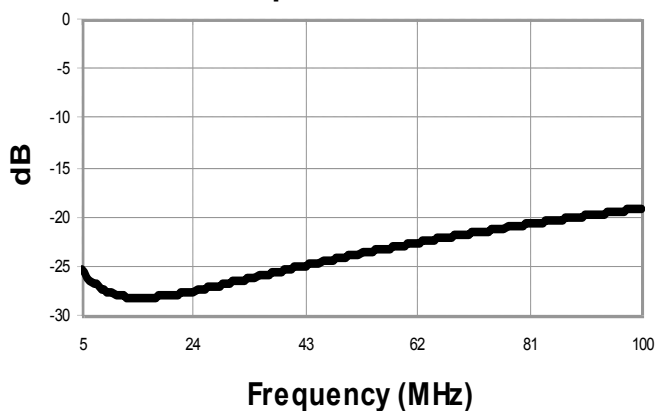
Amplitude Balance



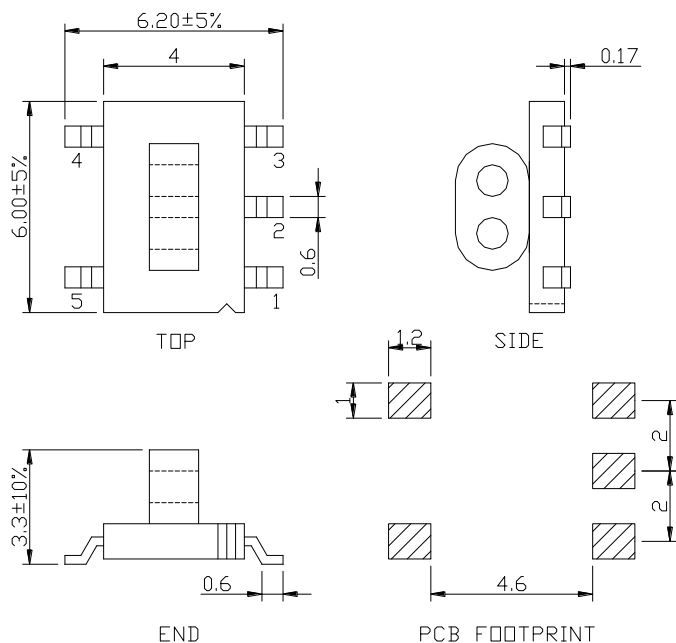
Phase Balance



Return Loss: Input



Outline Drawing (SM-250-5)



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

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