

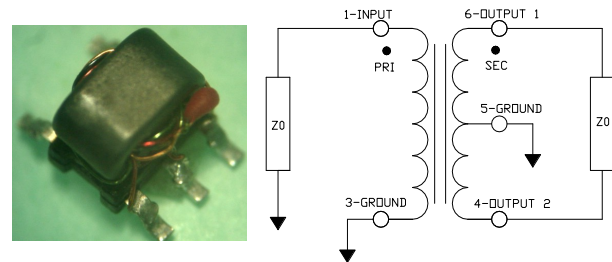
## 1:1 Flux Coupled Transformer 5 - 200 MHz

Rev. V4

### Features

- Surface Mount Package
- 1:1 Impedance Ratio
- Centre Tap on Secondary
- Suitable for DOCSIS 3.0
- 260°C Reflow Compatible
- RoHS\* Compliant, Lead Free
- Available on Tape & Reel.
- Available in Weld & Soldered Versions\*\*

### Functional Schematic



### Description

The MABA-007532-CF18A0 is a 1:1 RF flux coupled transformer in a surface mount package.

Ideally suited for broadband CATV applications.

### Pin Configuration

Pin #	Function
1	Primary Dot
3	Primary
4	Secondary
5	Secondary Centre Tap
6	Secondary 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 - 60 MHz	dB	—	0.3	0.5
	60 - 150 MHz			0.4	0.8
	150 - 200 MHz			0.7	1.1
Amplitude Unbalance	Nominal 0 dB, 5 - 60 MHz	dB	—	0.0	$\pm 0.1$
	60 - 200 MHz			0.2	$\pm 0.6$
Phase Unbalance	Nominal 180°, 5 - 60 MHz	°	—	0.1	$\pm 2.0$
	60 - 200 MHz			0.3	$\pm 4.0$
Input Return Loss	5 - 60 MHz	dB	20	31	—
	60 - 200 MHz		10	17	

### Ordering Information

Part number	Description
MABA-007532-CF18A0	2000 piece reel
MABA-007532-CF18TB	Customer Test Board

### Recommended Maximum Ratings<sup>1,2</sup>

Parameter	Value
Input Power	631 mW
DC Current	600 mA @ 5 V
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°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.

\*\* MACOM reserves the right to supply parts with weld or solder wire attach.

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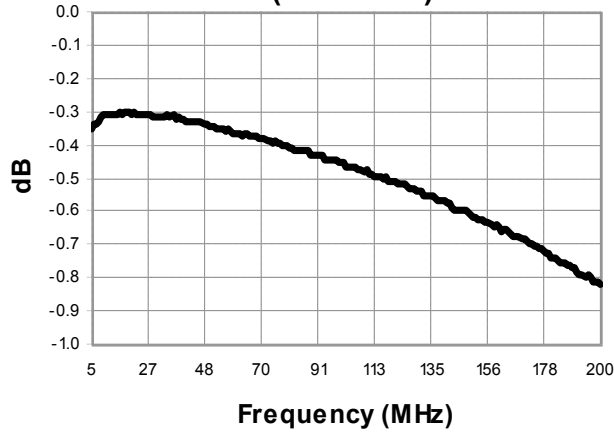
DS-MABA-007532-CF18A0

## 1:1 Flux Coupled Transformer 5 - 200 MHz

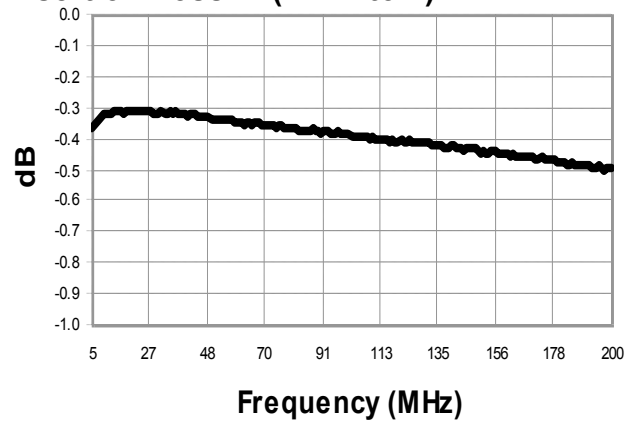
Rev. V4

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

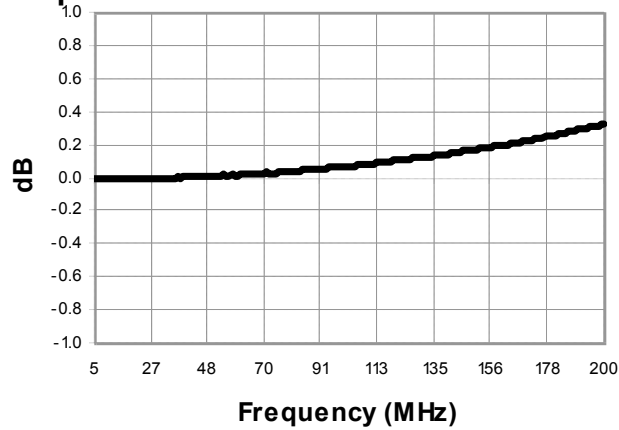
Insertion Loss 1: (Pin 1 to 6)



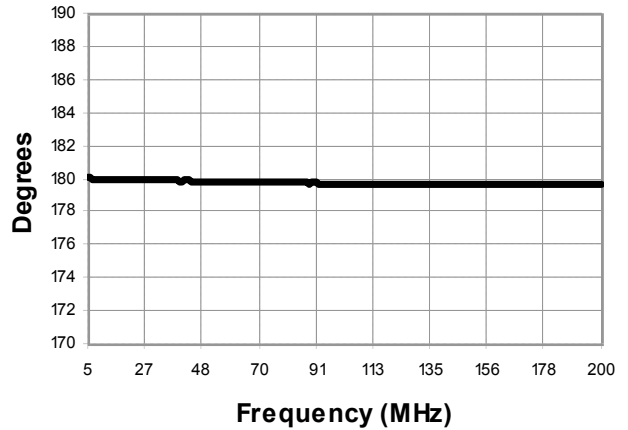
Insertion Loss 2: (Pin 1 to 4)



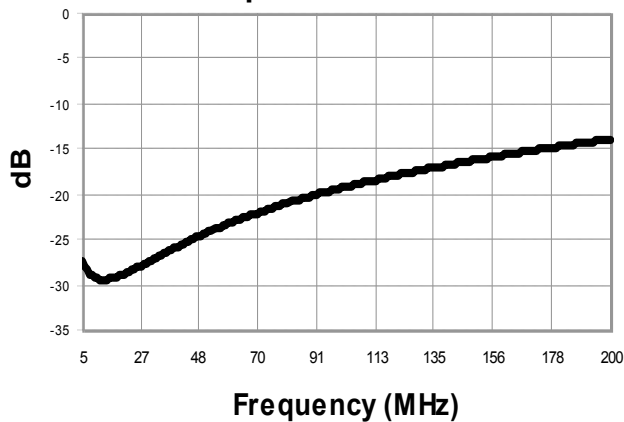
Amplitude Balance



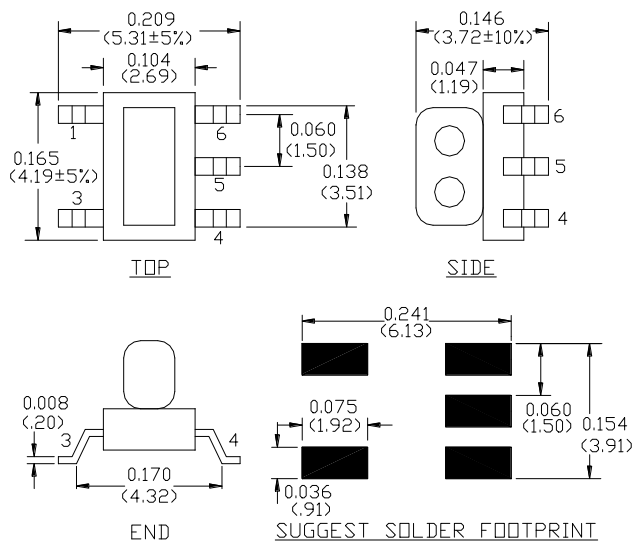
Phase Balance



Return Loss: Input



## Outline Drawing (SM-138)



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

## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel Size	mm	330
Tape Width	mm	12.00
Pitch	mm	8.00
Ao	mm	6.10
Bo	mm	4.60
Ko	mm	4.00
Orientation	-	F26
Reference Application Note ANI-019 for orientation		

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