

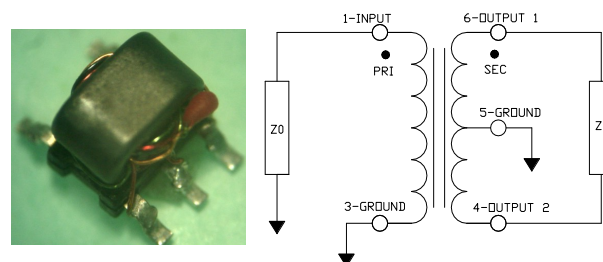
1:1 Flux Coupled Transformer 5 - 200 MHz

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 60 - 150 MHz 150 - 200 MHz	dB	—	0.3 0.4 0.7	0.5 0.8 1.1
Amplitude Unbalance	Nominal 0 dB, 5 - 60 MHz 60 - 200 MHz	dB	—	0.0 0.2	± 0.1 ± 0.6
Phase Unbalance	Nominal 180° , 5 - 60 MHz 60 - 200 MHz	$^\circ$	—	0.1 0.3	± 2.0 ± 4.0
Input Return Loss	5 - 60 MHz 60 - 200 MHz	dB	20 10	31 17	—

Ordering Information

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

Recommended Maximum Ratings^{1,2}

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.

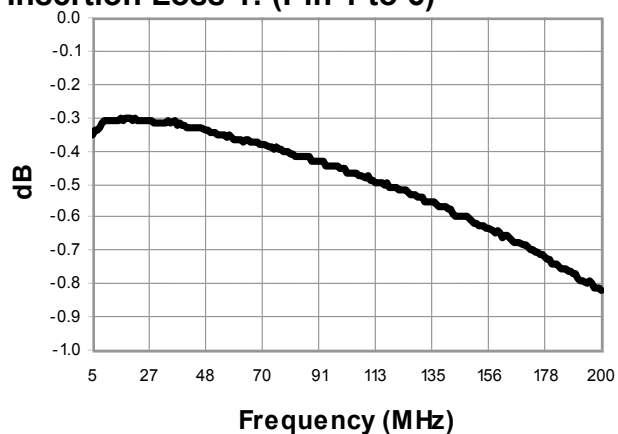
** MACOM reserves the right to supply parts with weld or solder wire attach.

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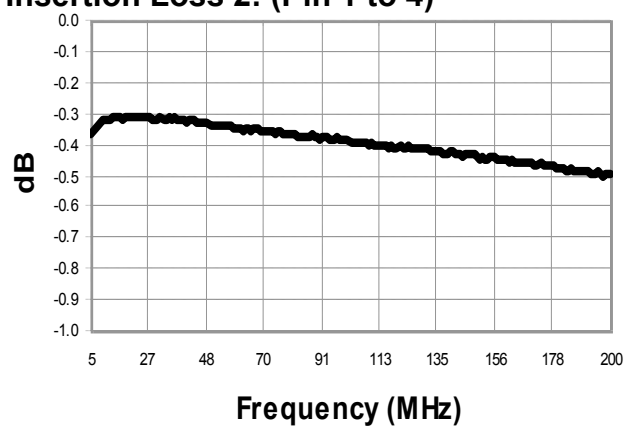
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75\ \Omega$, $P_{IN} = 0\ \text{dBm}$

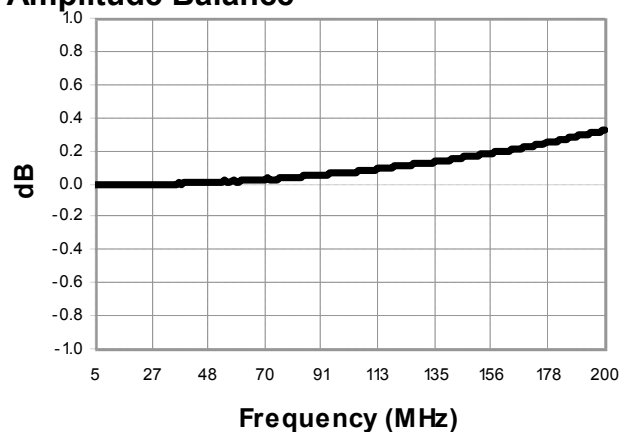
Insertion Loss 1: (Pin 1 to 6)



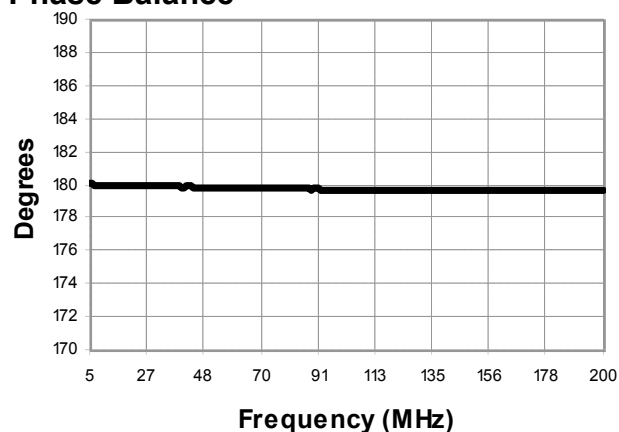
Insertion Loss 2: (Pin 1 to 4)



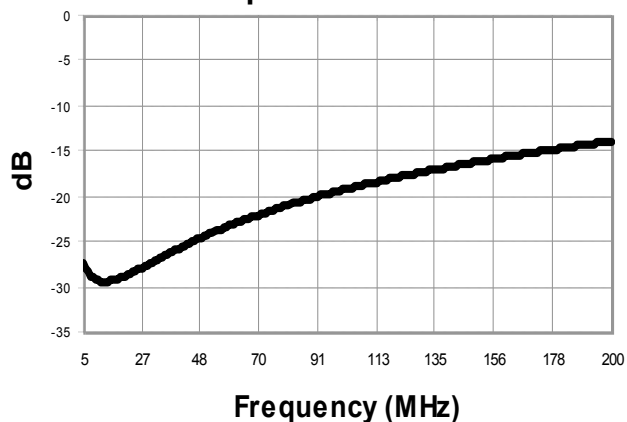
Amplitude Balance



Phase Balance



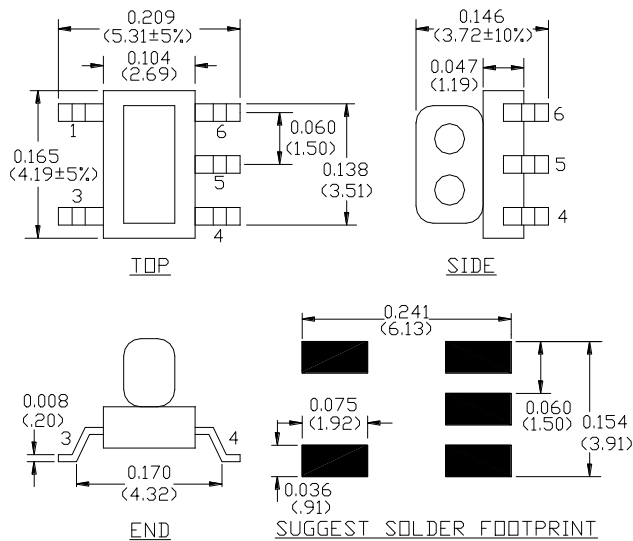
Return Loss: Input



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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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