

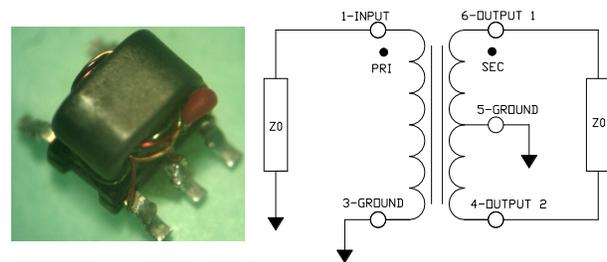
1:1 Flux Coupled Transformer 5 - 200 MHz

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 | ± 0.1 |
| | 60 - 200 MHz | | | 0.2 | ± 0.6 |
| Phase Unbalance | Nominal 180°, 5 - 60 MHz | ° | — | 0.1 | ± 2.0 |
| | 60 - 200 MHz | | | 0.3 | ± 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^{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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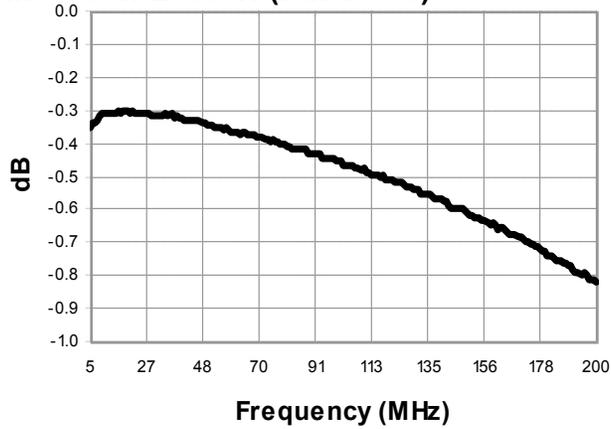
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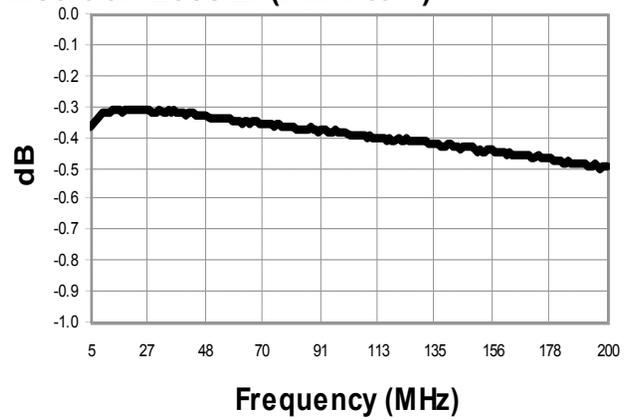
DS-MABA-007532-CF18A0

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

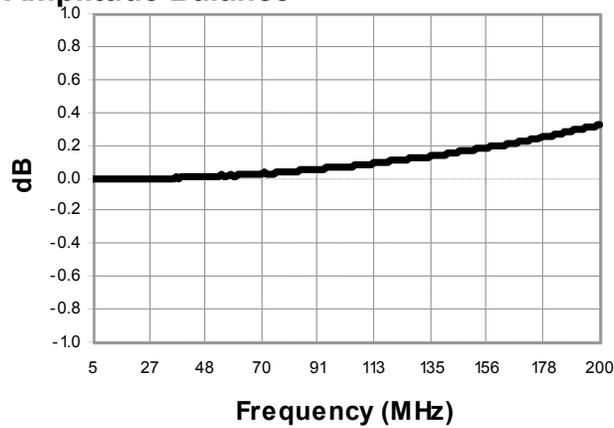
Insertion Loss 1: (Pin 1 to 6)



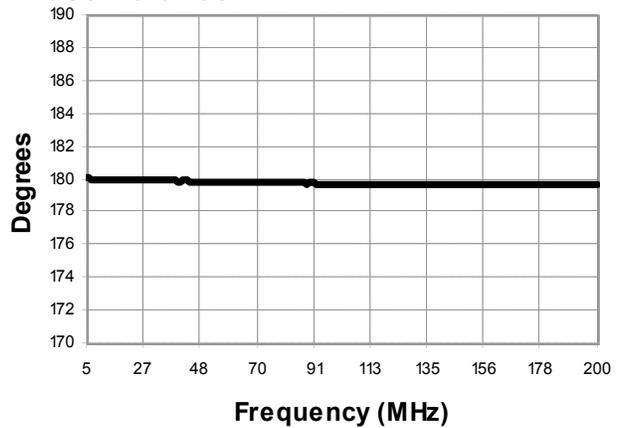
Insertion Loss 2: (Pin 1 to 4)



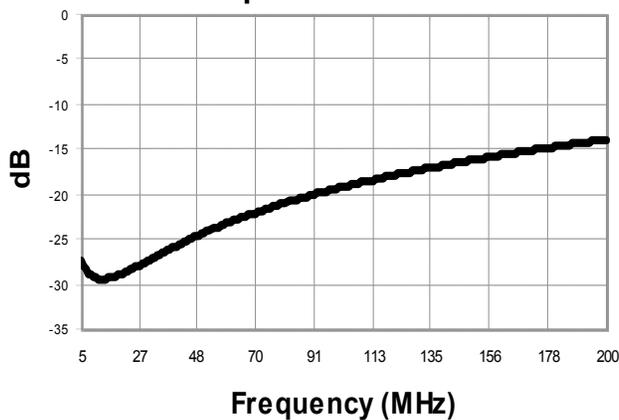
Amplitude Balance



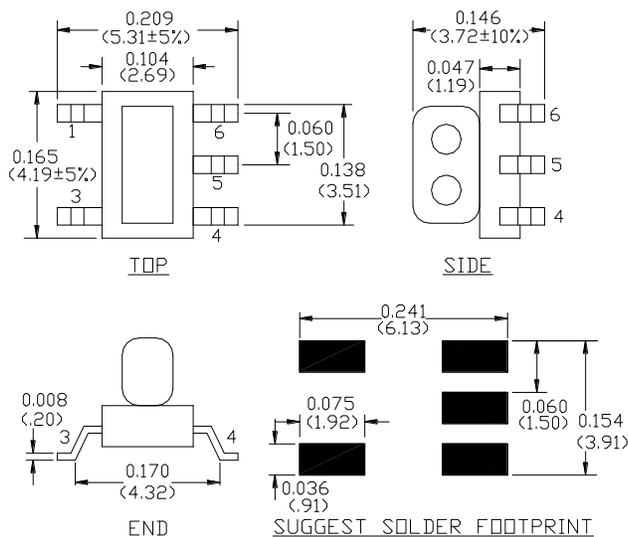
Phase Balance



Return Loss: Input



Outline Drawing (SM-138)



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 | | |

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

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