MABA-009573-CF1A40

1.77:1 Flux Coupled Balun Transformer
5 - 100 MHz

Features
- Surface Mount Package
- 1.77:1 Impedance
- 75 Ω Single Ended to 133 Ω Balance
- RoHS Compliant, Lead Free
- Available on Tape and Reel

Description
The MABA-009573-CF1A40 is a 1.77:1 RF flux coupled balun transformer in a surface mount package.

Ideally suited for high volume CATV/Broadband applications.

Electrical Specifications: Freq. = 5 - 100 MHz, \( T_A = 25^\circ C, Z_0 = 75 \Omega, P_{IN} = 0 \text{ dBm} \)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test Conditions</th>
<th>Units</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss 1 (Pin 4 to Pin 1)</td>
<td>5 - 50 MHz 50 - 100 MHz</td>
<td>dB</td>
<td>—</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Insertion Loss 2 (Pin 4 to Pin 3)</td>
<td>5 - 50 MHz 50 - 100 MHz</td>
<td>dB</td>
<td>—</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Amplitude Balance</td>
<td>—</td>
<td>dB</td>
<td>—</td>
<td>0.01</td>
<td>±0.1</td>
</tr>
<tr>
<td>Phase Balance</td>
<td>—</td>
<td>°</td>
<td>—</td>
<td>0.2</td>
<td>±2.0</td>
</tr>
<tr>
<td>Input Return Loss (Pin 4)</td>
<td>—</td>
<td>dB</td>
<td>24</td>
<td>27</td>
<td>—</td>
</tr>
</tbody>
</table>

Ordering Information

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>MABA-009573-CF1A40</td>
<td>2000 piece reel</td>
</tr>
<tr>
<td>MABA-009573-CF1ATB</td>
<td>Customer Test Board</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Input Power</td>
<td>250 mW</td>
</tr>
<tr>
<td>DC Current</td>
<td>30 mA</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to +85°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-40°C to +85°C</td>
</tr>
</tbody>
</table>

MACOM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. Visit www.macom.com for additional data sheets and product information.
1.77:1 Flux Coupled Balun Transformer

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

### Insertion Loss 1 (Pin4 - Pin1)

![Insertion Loss 1 Graph]

### Insertion Loss 2 (Pin4 - Pin3)

![Insertion Loss 2 Graph]

### Amplitude Balance

![Amplitude Balance Graph]

### Phase Balance

![Phase Balance Graph]

### Return Loss: Input (Pin4)

![Return Loss Graph]
1.77:1 Flux Coupled Balun Transformer
5 - 100 MHz

Case Style SM-164

Dimensions are inches (millimetres) ±0.015 (0.38) unless otherwise specified.
1.77:1 Flux Coupled Balun Transformer
5 - 100 MHz

MACOM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with MACOM Technology Solutions Inc ("MACOM") products. These materials are provided by MACOM as a service to its customers and may be used for informational purposes only. Except as provided in MACOM's Terms and Conditions of Sale for such products or in any separate agreement related to this document, MACOM assumes no liability whatsoever. MACOM assumes no responsibility for errors or omissions in these materials. MACOM may make changes to specifications and product descriptions at any time, without notice. MACOM makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppels or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MACOM FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. MACOM SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

MACOM products are not intended for use in medical, lifesaving or life sustaining applications. MACOM customers using or selling MACOM products for use in such applications do so at their own risk and agree to fully indemnify MACOM for any damages resulting from such improper use or sale.

Visit www.macom.com for additional data sheets and product information.

For further information and support please visit:
https://www.macom.com/support