ETC16-1T-2TR

E-Series RF 1:16 Transformer  
5-40 MHz

Features
- 1:16 Impedance Ratio
- CT on Secondary
- Surface Mount
- Tape and reel packaging available
- 260°C Reflow Compatible

Description
M/A-COM's ETC16-1T-2TR is a 1:16 RF transformer in a low cost, surface mount package. Ideally suited for high volume cellular and wireless applications. Typical applications include single to balanced mode conversion and impedance matching. The ETC16-1T-2TR is available in a SM-22 surface mount package. Parts are packaged in tape & reel.

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETC16-1T-2TR</td>
<td>Tape and Reel (2000 piece Reel)</td>
</tr>
</tbody>
</table>

Electrical Specifications:  \( T_A = 25°C, Z_0 = 50\Omega \)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test Conditions</th>
<th>Frequency</th>
<th>Units</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Frequency</td>
<td>—</td>
<td>5 - 40 MHz</td>
<td>dB</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Insertion Loss</td>
<td>—</td>
<td>5 - 40 dB</td>
<td>dB</td>
<td>—</td>
<td>1.0</td>
<td>0.8</td>
</tr>
<tr>
<td>Amplitude Imbalance</td>
<td>—</td>
<td>5 - 40 dB</td>
<td>—</td>
<td>0.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase Imbalance</td>
<td>—</td>
<td>5 - 40 °</td>
<td>—</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Power</td>
<td>250 mW</td>
</tr>
<tr>
<td>DC Current</td>
<td>240 mA^2</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to +85°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55°C to +125°C</td>
</tr>
</tbody>
</table>

1. Exceeding any one or combination of these limits may cause permanent damage to this device.

For further information and support please visit:  
https://www.macom.com/support
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5-40 MHz

Rev. V3

 Typical Performance Curves at +25°C

**Insertion Loss**

![Insertion Loss graph](image)

**Amplitude Balance**

![Amplitude Balance graph](image)

**Phase Balance**

![Phase Balance graph](image)

**Input Return Loss**

![Input Return Loss graph](image)

Dimensions are inches (millimeters) ±0.015 (0.38) unless otherwise specified.
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