

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

Rev. V3

Features

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

Product Image



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

Part Number	Package
ETC16-1T-2TR	Tape and Reel (2000 piece Reel)

Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	5 - 40	MHz	—	—	—
Insertion Loss	—	5 - 40 22	dB dB	—	—	1.0 0.8
Amplitude Imbalance	—	5 - 40	dB	—	—	0.3
Phase Imbalance	—	5 - 40	Degrees	—	—	3

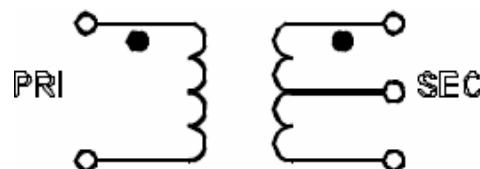
Pin Configuration

Pin No.	Function
1	Secondary
2	Secondary CT
3	Secondary Dot
4	Primary Dot
5	Primary

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Power	250 mW
DC Current	240 mA ²
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

Schematic



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

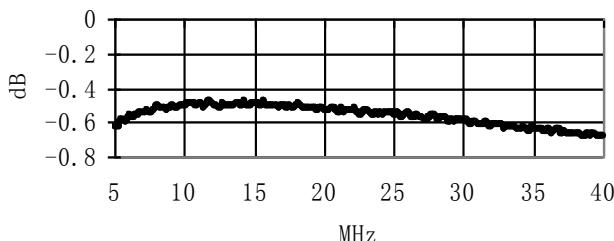
E-Series RF 1:16 Transformer 5-40 MHz

Rev. V3

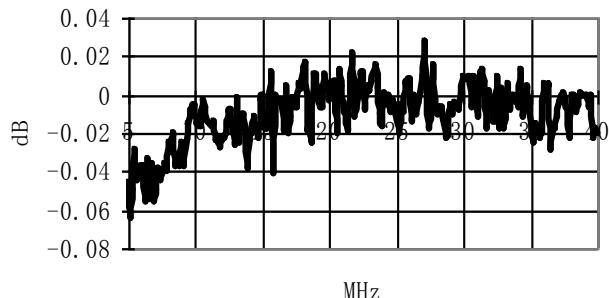
Typical Performance Curves at +25°C

SM - 22 Package

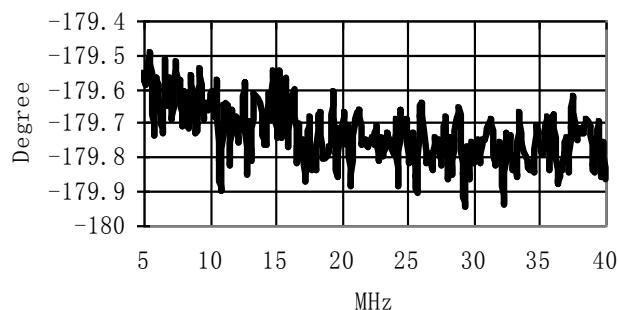
Insertion Loss



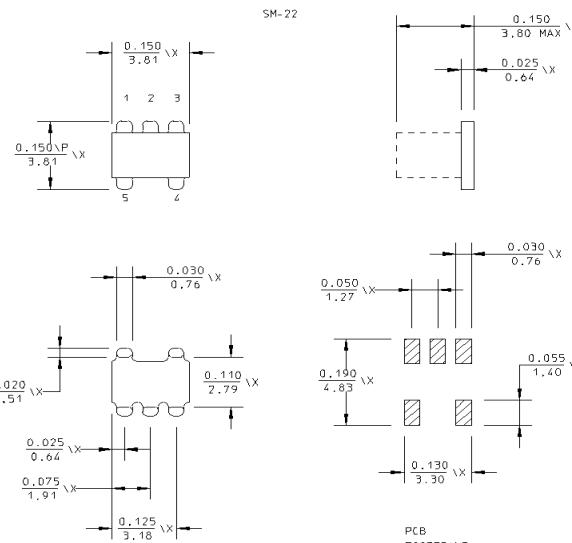
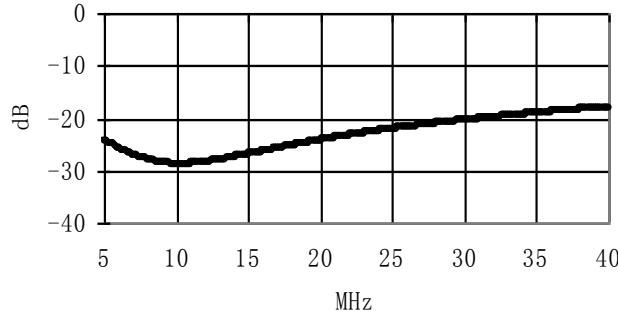
Amplitude Balance



Phase Balance



Input Return Loss



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

M/A-COM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with M/A-COM 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.