

## E-Series RF 1:4 Transmission Line Step-up Transformer



### Features

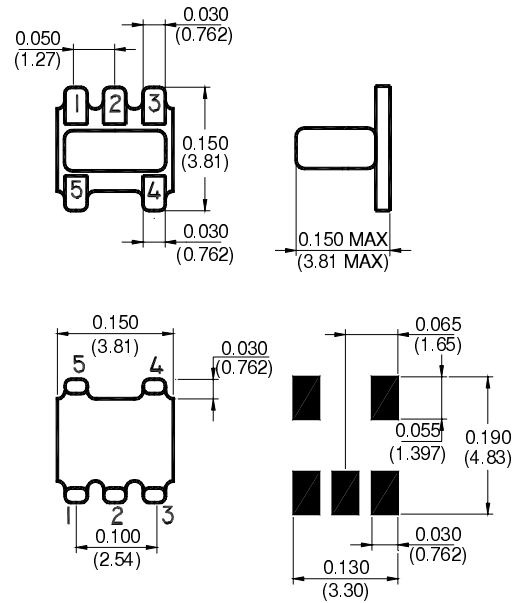
- Surface Mount
- 1:4 Impedance Ratio
- CT on Secondary
- Available on Tape & Reel



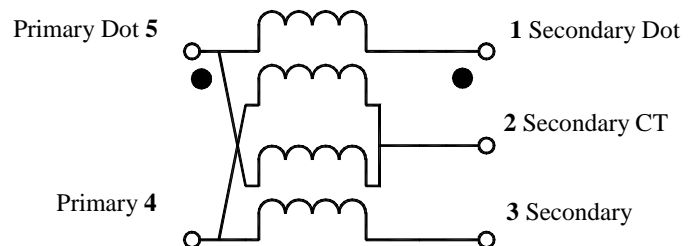
### Description

M/A-COM's ETC4-1T-7 is a 1:4 RF transmission line step-up 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.

### SM-22 Package



### Schematic



### Electrical Specifications @25°C

Parameter	Units	Nominal	Maximum	Mean (x)	Sigma ( $\sigma$ )
Frequency Range	6.0 - 1000	—	—	—	—
Insertion Loss ( $f_L - f_U$ )	6.0 - 600 MHz	—	2.0	1.06	0.027
	600 - 1000 MHz	—	3.0	—	—
Amplitude Unbalance	6.0 - 1000 MHz	—	1.0	—	—
Phase Unbalance	6.0 - 1000 MHz	—	10	—	—

Note: Mean and Sigma calculated from average loss at @  $(f_U - f_L)/2 + f_L$

Please Note that the photograph above indicates typical package only, not actual unit.

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**Absolute Maximum Ratings**

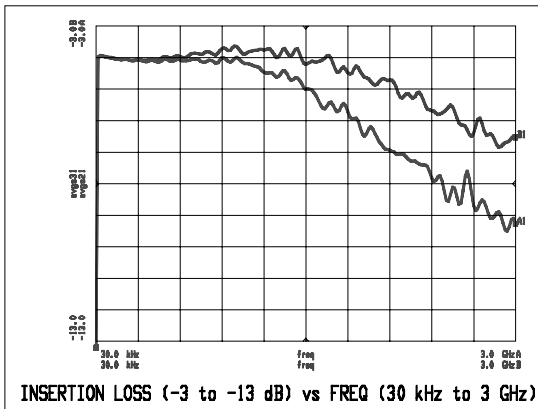
Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating Temperature	-20°C to +85°C
Storage Temperature	-20°C to +85°C

**Functional Configuration**

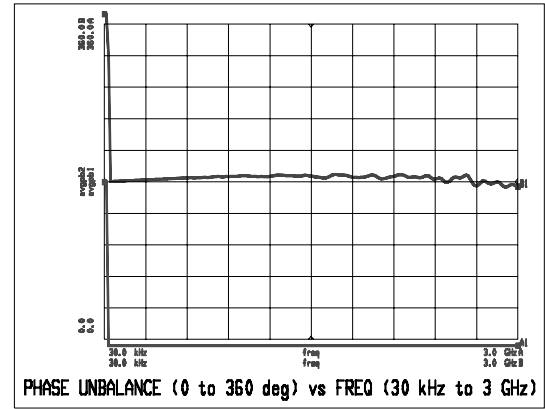
Function	Pin No.
Secondary Dot	1
Secondary CT	2
Secondary	3
Primary	4
Primary Dot	5

**Typical Performance Over Extended Bandwidth (30kHz - 3.0GHz)**

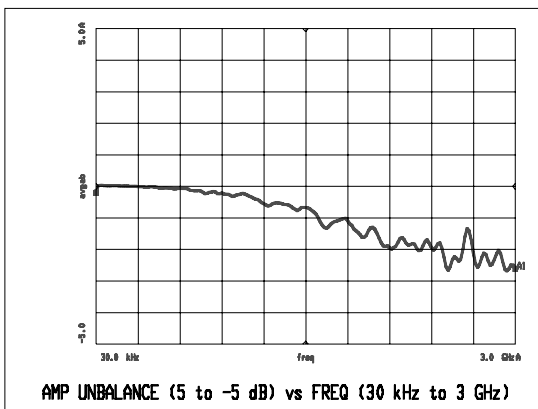
**Insertion Loss**



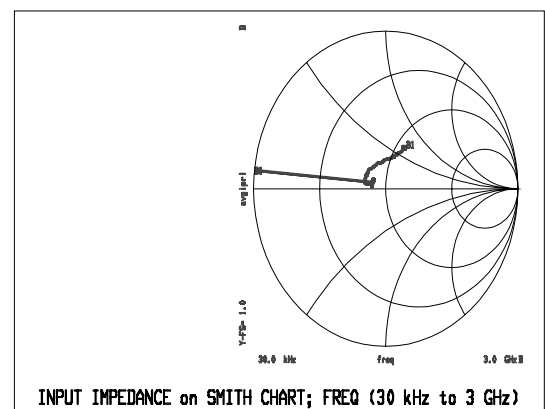
**Phase Unbalance**



**Amplitude Unbalance**



**Input Impedance**



Note: All measurements performed on Hewlett Packard 8753D Network Analyser (201 sample points, linear scale) in a 50 ohm coplanar waveguide environment. Tables created using MDS software.

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MACOM Division of AMP Incorporated ■ North America: Tel. (800) 366-2266, Fax (800) 618-8883 ■ Asia/Pacific: Tel. +85 2 2111 8088, Fax +85 2 2111 8087 ■ Europe: Tel. +44 (1344) 869 595, Fax+44 (1344) 300 020

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