



# E-Series RF 1:1 Transmission Line Transformer 4.5 – 3000 MHz

ETC1-1-13 V4

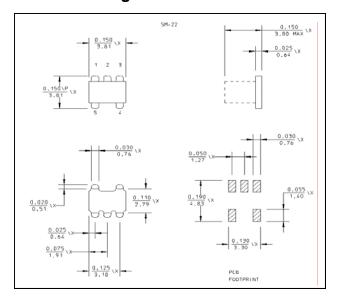
#### **Features**

- 1:1 Impedance Ratio
- Surface Mount
- Tape and reel packaging available

## **Description**

M/A-COM's ETC1-1-13 is a 1:1 RF transmission line transformer in a low cost, surface mount package. Ideally suited for high volume cellular and wireless applications. Parts are packaged in tape & reel.

## SM - 22 Package



## Electrical Specifications: $T_A = 25$ °C, $Z_0 = 50\Omega^1$

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
RF Frequency	_	4.5 - 3000	MHz	_	_	_
Insertion Loss	F <sub>L</sub> —f <sub>U</sub>	4.5 - 1000 1000 - 2000 2000 - 3000	dB dB dB		0.32 — —	1.0 2.0 3.5
Amplitude Unbalance	_	4.5 - 1000	dB		_	1.0
Phase Unbalance	_	4.5 - 1000	Degrees	_	_	20

## **Absolute Maximum Ratings** <sup>1</sup>

Parameter	Absolute Maximum
DC Power	250 mW
DC Current	30 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

Operation of this device above any one of these parameters may cause permanent damage.

## **Ordering Information**

Part Number	Package
ETC1-1-13TR	Tape and Reel (2000 piece Reel)

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<sup>•</sup> North America Tel: 800.366.2266 / Fax: 978.366.2266

<sup>•</sup> Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300

<sup>•</sup> Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298





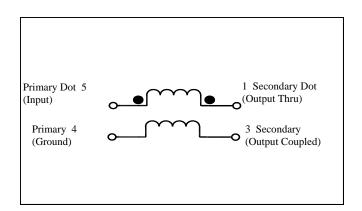
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## **Pin Configuration**

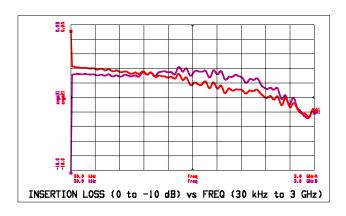
Pin No.	Function	
1	Output (thru)	
2	Not Connected	
3	Output (coupled)	
4	Ground	
5	Input	

### Schematic

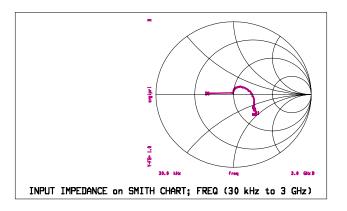


## **Typical Performance Curves**

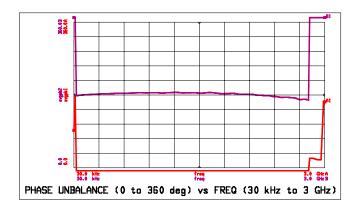
#### Insertion Loss



#### Input Impedance



#### Phase Unbalance



#### Amplitude Unbalance



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<sup>2</sup>