

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

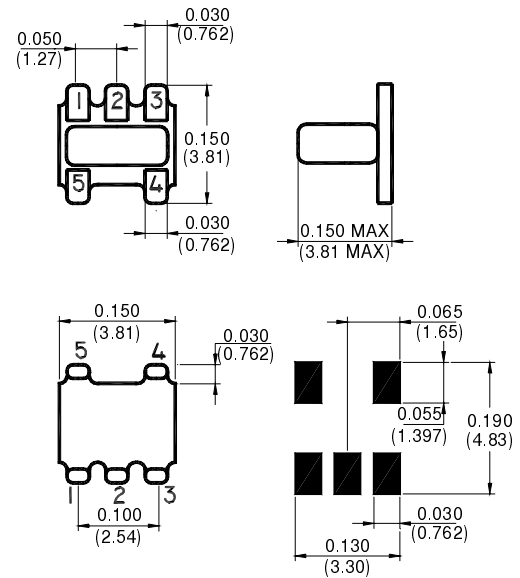


## Features

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



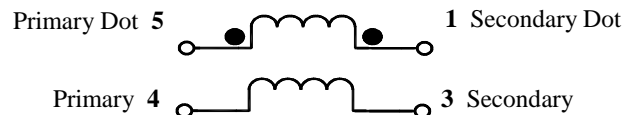
## SM-22 Package



## 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.

## Schematic



## Electrical Specifications @25°C

Parameter	Units	Nominal	Maximum	Mean (x)	Sigma (σ)
Frequency Range 4.5 - 3000	MHz	—	—	—	—
Insertion Loss ( $f_L - f_U$ )					
4.5 - 1000 MHz	dB	—	1.0	0.32	0.036
1000 - 2000 MHz	dB	—	2.0	—	—
2000 - 3000 MHz	dB	—	3.5	—	—
Amplitude Unbalance					
4.5 - 1000 MHz	dB	—	1.0	—	—
Phase Unbalance					
4.5 - 1000 MHz	Degrees	—	20	—	—

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.

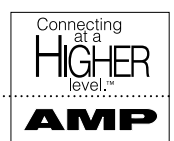
V2.00 S 0831 F



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**Absolute Maximum Ratings**

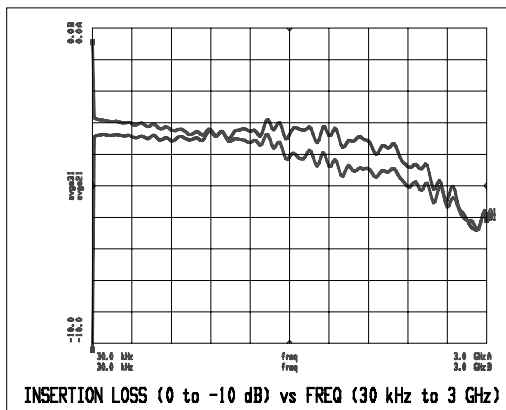
Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating/Storage Temperature	-40°C to +85°C

**Functional Configuration**

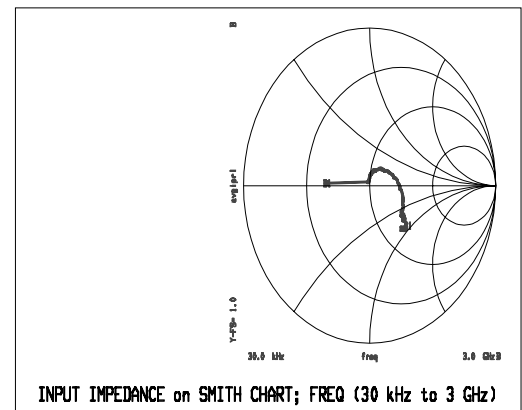
Function	Pin No.
Secondary Dot	1
Not Connected	2
Secondary	3
Primary	4
Primary Dot	5

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

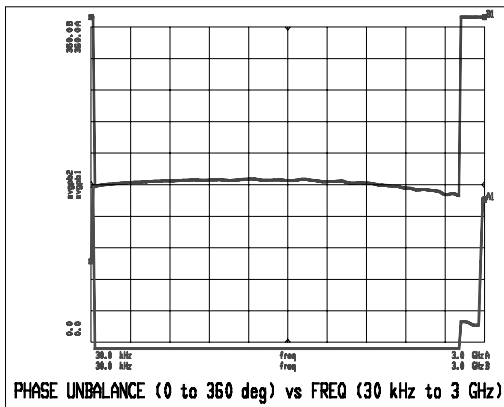
**Insertion Loss**



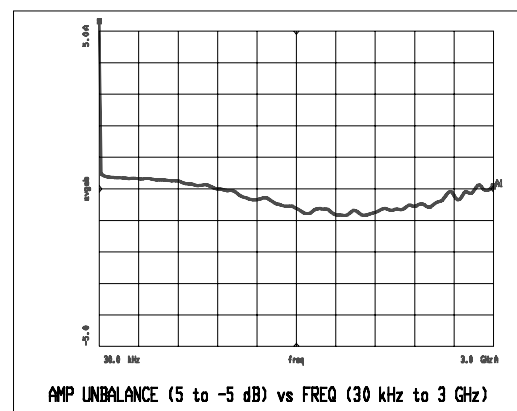
**Input Impedance**



**Phase Unbalance**



**Amplitude Unbalance**



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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