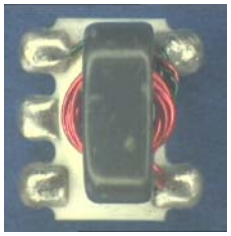
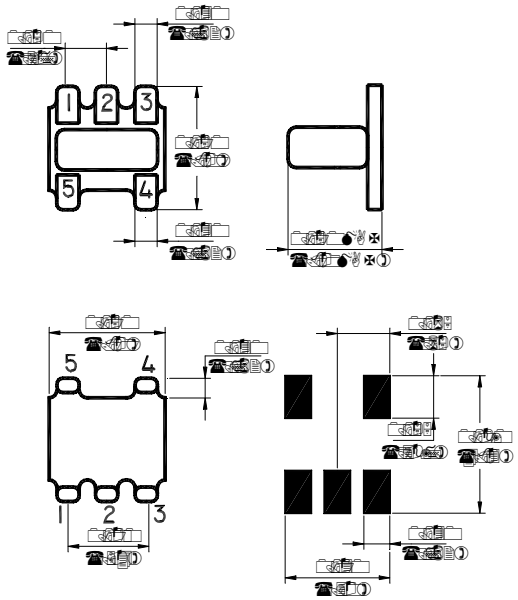
# E-Series RF 1:4 Flux Coupled Step-up Transformer
# 2.0 - 800 MHz

## Features

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



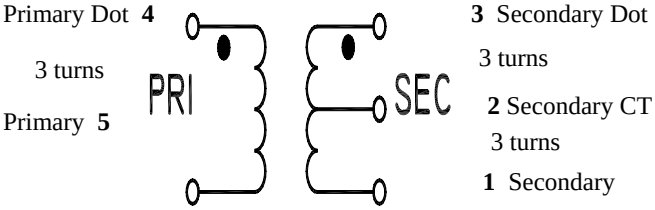
## SM-22 Package




## Description

M/A-COM's ETC4-1-2 is a 1:4 RF flux coupled 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.

## Schematic




## Electrical Specifications @25°C

| Parameter | Units | Nominal | Maximum | Mean (x) | Sigma (σ) |
|---|---|---|---|---|---|
| Frequency Range 2.0 - 800 | MHz | — | — | — | — |
| Insertion Loss ($f_L$ - $f_U$) | | | | | |
| 10 - 100 MHz | dB | — | 1.0 | — | — |
| 5.0 - 600 MHz | dB | — | 2.0 | 1.21 | 0.032 |
| Amplitude Unbalance | | | | | |
| 10 - 100 MHz | dB | — | 0.25 | — | — |
| 2.0 - 800 MHz | dB | — | 1.0 | — | — |
| Phase Unbalance | | | | | |
| 10 - 500 MHz | Degrees | — | 2.0 | — | — |
| 2.0 - 800 MHz | Degrees | — | 10 | — | — |

Note: Mean and Sigma calculated from average loss at @ 105 MHz.

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

V2.00 S 0258 M

**ADVANCED:** Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
**PRELIMINARY:** Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

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## Absolute Maximum Ratings

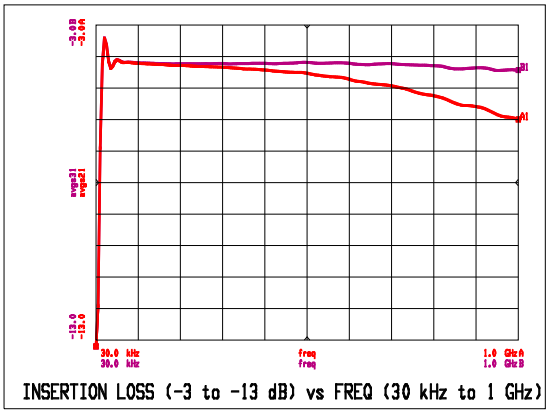
| Parameter | Absolute Maximum |
|---|---|
| RF Power | 250 mW |
| DC Current | 30 mA |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -40°C to +85°C |

## Functional Configuration

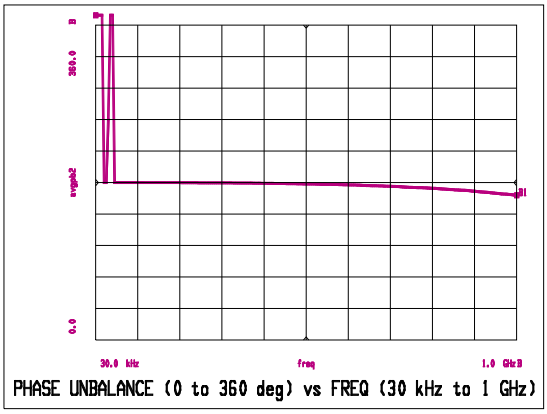
| Function | Pin No. |
|---|---|
| Secondary | 1 |
| Secondary CT | 2 |
| Secondary Dot | 3 |
| Primary Dot | 4 |
| Primary | 5 |

## Typical Performance Over Extended Bandwidth (30kHz - 1.0GHz)

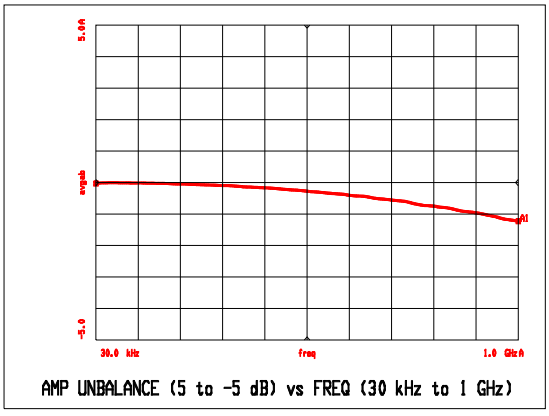
### Insertion Loss



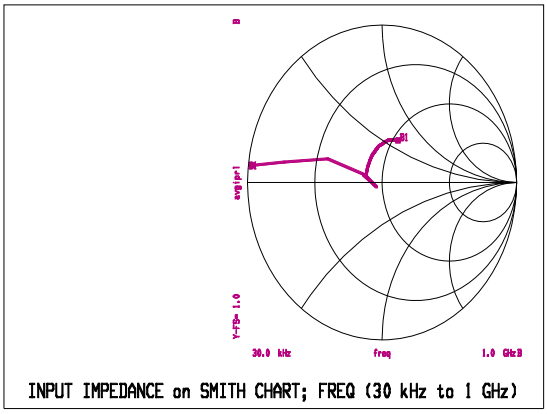

### Phase Unbalance




### Amplitude Unbalance




### Input Impedance




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





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