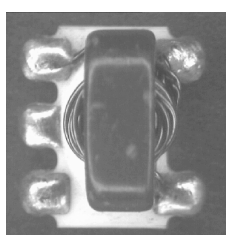


## E-Series RF 1:4 Flux Coupled Step-up Transformer



### Features

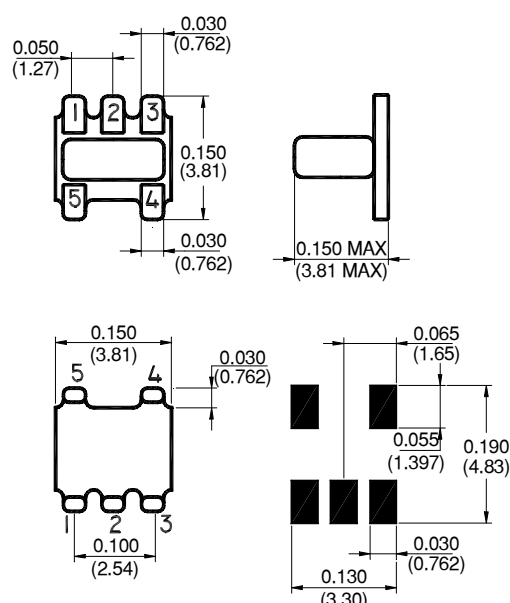
- Surface Mount
- 1:4 Impedance Ratio
- CT on Secondary
- Available on Tape & Reel



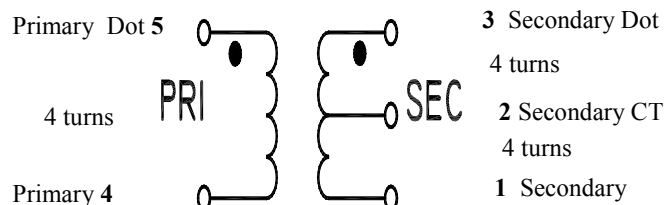
### Description

M/A-COM's ETC4-1 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.

### SM-22 Package



### Schematic



### Electrical Specifications @25°C

| Parameter                      | Units   | Nominal | Maximum | Mean (x) | Sigma ( $\sigma$ ) |
|--------------------------------|---------|---------|---------|----------|--------------------|
| Frequency Range 1-350          | MHz     | —       | —       | —        | —                  |
| Insertion Loss ( $f_L - f_U$ ) |         |         |         |          |                    |
| 5 - 100 MHz                    | dB      | —       | 1.0     | —        | —                  |
| 2 - 300 MHz                    | dB      | —       | 2.0     | 1.21     | 0.032              |
| 1 - 350 MHz                    | dB      | —       | 3.0     | —        | —                  |
| Amplitude Unbalance            |         |         |         |          |                    |
| 5 - 100 MHz                    | dB      | —       | 0.1     | —        | —                  |
| 1 - 350 MHz                    | dB      | —       | 0.5     | —        | —                  |
| Phase Unbalance                |         |         |         |          |                    |
| 5 - 100 MHz                    | Degrees | —       | 1.0     | —        | —                  |
| 1 - 350 MHz                    | Degrees | —       | 5.0     | —        | —                  |

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

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**Absolute Maximum Ratings**

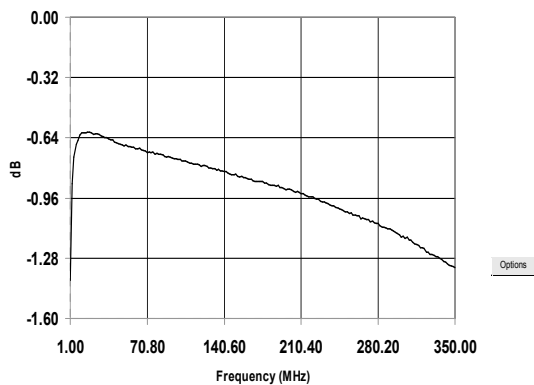
| Parameter             | Absolute Maximum |
|-----------------------|------------------|
| RF Power              | 250 mW           |
| DC Current            | 30 mA            |
| Operating Temperature | -20°C to +85°C   |
| Storage Temperature   | -20°C to +85°C   |

**Functional Configuration**

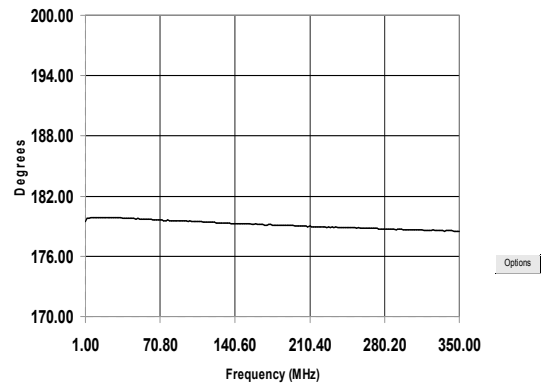
| Function      | Pin No. |
|---------------|---------|
| Secondary     | 1       |
| Secondary CT  | 2       |
| Secondary Dot | 3       |
| Primary Dot   | 5       |
| Primary       | 4       |

**Typical Performance @ 25°C**

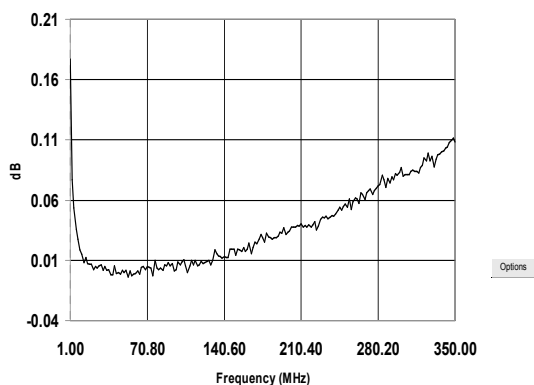
**Insertion Loss**



**Phase Unbalance**



**Amplitude Unbalance**



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