

E-Series RF 1:4 Transmission Line Step-up Transformer 2-1000 MHz

M/A-COM Products
Advanced - Rev. V1

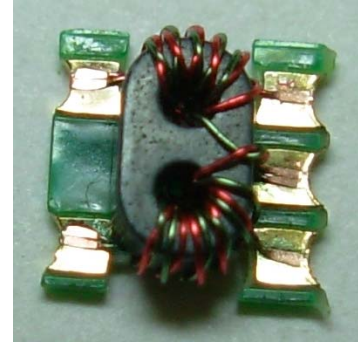
Features

- 1:4 Impedance Ratio
- Surface Mount
- Wide frequency range
- Tape and reel packaging available
- 260°C Reflow Compatible
- RoHS* compliant

Description

M/A-COM's MABA-009711-ETK2MM is a RoHS compliant 1:4 RF transmission line transformer in a low cost, surface mount package. The windings of the MABA-009711-ETK2MM are welded to the package substrate for improved reliability and to eliminate lead content. Ideally suited for high volume cellular and wireless application. Parts are packaged in tape & reel.

Product Image



Ordering Information

| Part Number | Package |
|--------------------|---------------------------------|
| MABA-009711-ETK2MM | Tape and Reel (2000 piece Reel) |

Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

| Parameter | Test Conditions | Frequency | Units | Min | Typ | Max |
|---------------------|-----------------|------------|---------|-----|-----|-----|
| RF Frequency | - | 2.0 - 1000 | MHz | - | - | - |
| Insertion Loss | - | 3.0 - 500 | dB | - | 0.7 | 1.0 |
| | | 2.0 - 700 | dB | - | - | 2.0 |
| | | 2.0 - 1000 | dB | - | - | 3.0 |
| Amplitude Unbalance | - | 2.0 - 1000 | dB | - | - | 0.3 |
| Phase Unbalance | - | 2.0 - 1000 | Degrees | - | - | 10 |
| Input Return Loss | - | 0.1 - 200 | dB | 28 | 15 | 8 |

Pin Configuration

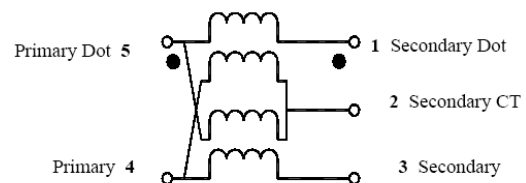
| Pin No. | Function |
|---------|---------------|
| 1 | Secondary Dot |
| 2 | Secondary CT |
| 3 | Secondary |
| 4 | Primary |
| 5 | Primary Dot |

Absolute Maximum Ratings^{1,2}

| Parameter | Absolute Maximum |
|-----------------------|---------------------|
| RF Power | 250 mW |
| DC Current | 240 mA ² |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -55°C to +125°C |

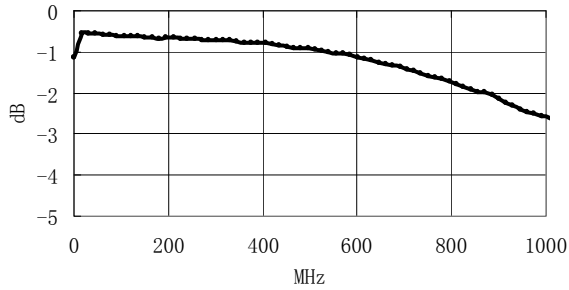
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

Schematic

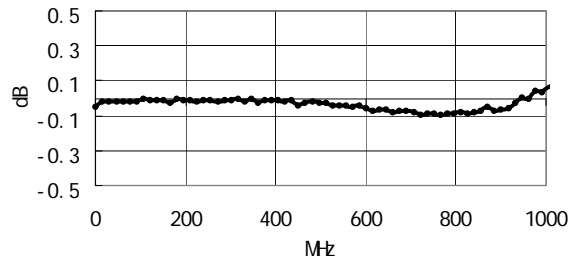


Typical Performance Curves at +25°C

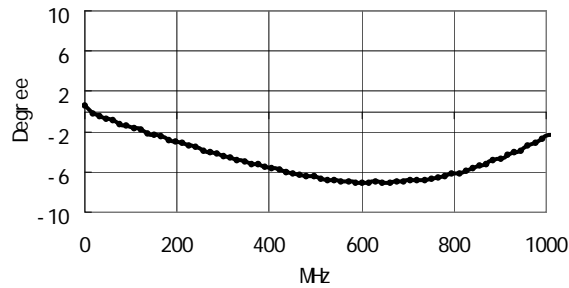
Insertion Loss



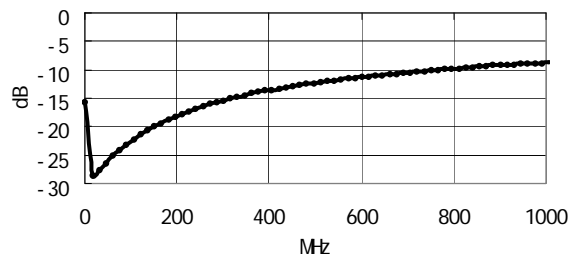
Amplitude Balance



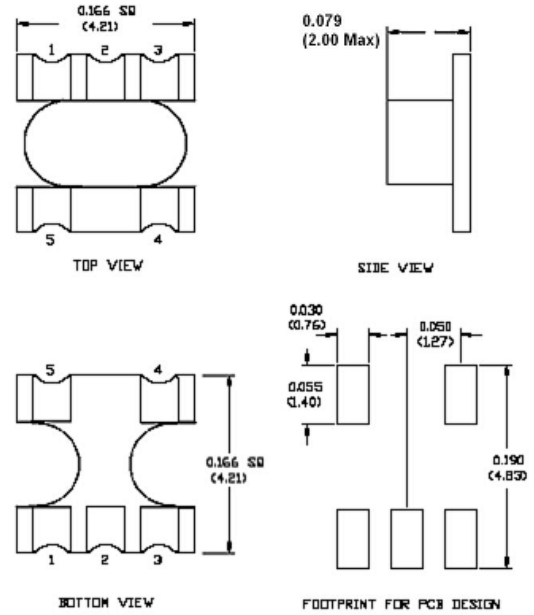
Phase Balance



Input Return Loss



SM-164B Case Style



Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010