

LTCC 巴伦变压器 (RF Transformer)

HT-TCN2-14+

Features

- Multilayer LTCC Technology
- Miniatured Size
- Low Insertion Loss reduces power consumption
- Low inband Amplitude and Phase imbalance
- Single ended 50 ohm differential 100 ohm

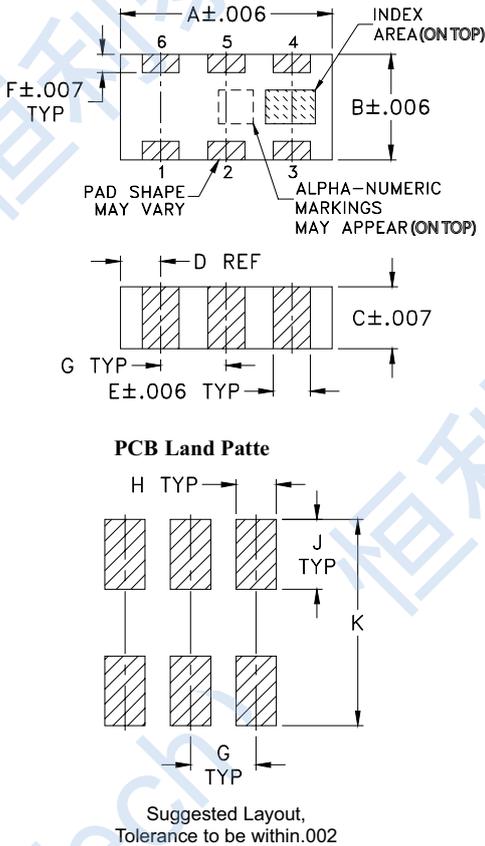
Applications

- GSM
- TDMA、CDMA
- WIN
- TACS
- PDC
- AMPS、NAMPS

Pad Connections

| | |
|---------------|-----|
| PRIMARY DOT | 4 |
| PRIMARY (GND) | 2,5 |
| SECONDARY | 6 |
| SECONDARY DOT | 1 |
| NOT USED | 3 |

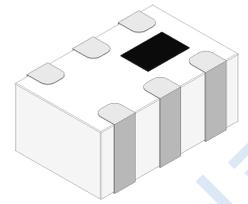
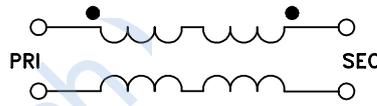
Outline Drawing



Outline Dimensions : inch mm

| | | | | | | |
|------|------|------|------|------|------|-------|
| A | B | C | D | E | F | |
| .126 | .063 | .035 | .024 | .022 | .011 | |
| 3.20 | 1.60 | 0.89 | 0.61 | 0.56 | 0.28 | |
| G | H | J | K | | | wt |
| .039 | .024 | .042 | .123 | | | grams |
| 0.99 | 0.61 | 1.07 | 3.12 | | | .020 |

Functional Schematic



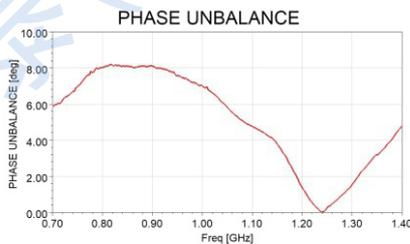
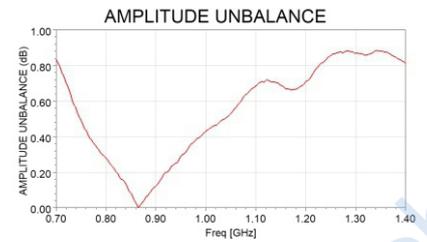
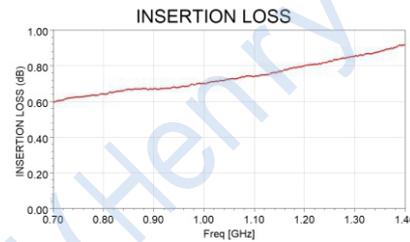
50 Ω 1:2 Ratio
700MHz to 1400MHz

Electrical Specifications(1,2) at 25°C

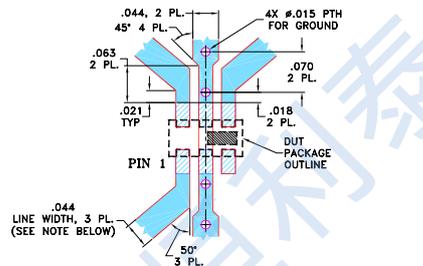
| Ω RATIO (Secondary/Primary) | FREQUENCY (MHz) | INSERTION* LOSS (dB) | PHASE UNBALANCE* (Deg.) Typ. | AMPLITUDE UNBALANCE (dB) Typ. |
|-----------------------------|----------------------|----------------------|------------------------------|-------------------------------|
| 2 | 700-1400 800-1000 | 0.9 0.7 | 8.0 8.0 | 0.8 0.35 |

- (1) Insertion Loss is referenced to mid-band loss, 1.0 dB.
(2) Relative to 180°

Typical Performance Data at 25°C



Suggested PCB Layout



- NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
■ DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER).
■ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Maximum Ratings

| | |
|-----------------------|-----------------|
| Operating Temperature | -55°C to +100°C |
| Storage Temperature | -55°C to +100°C |
| RF Power Input* | 5W at 25°C |

*Permanent damage may occur if any of these limits are exceeded.
From 85°C derate linearly to 2.5W at 100°C.