



## HT-TC3-1T+

0.3-500MHz 50Ω 1:3 Balun

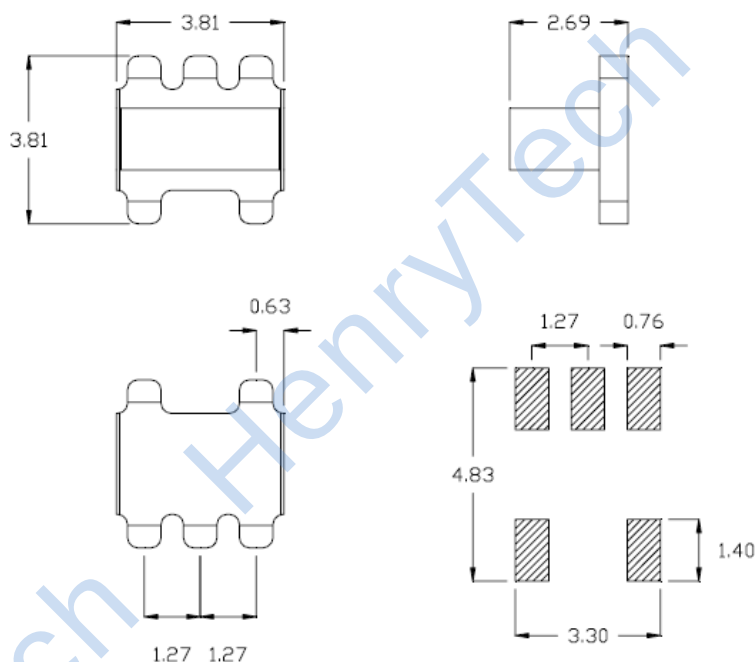
### • APPLICATIONS

- Ideally suited for high volume cellular and wireless applications.

### • FEATURES

- used in 50ohm systems
- 1 : 3 impedance transformer
- Packaging 2000pcs per ree
- RoHS compliant and Pb free
- 260°C reflow compatible

### BASE DIMENSION

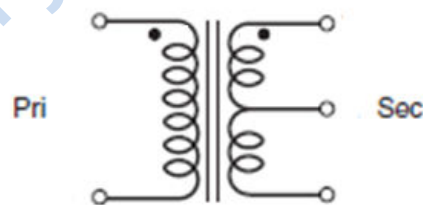


All Dimensions in mm.  
Tolerance  $\pm 0.20\text{mm}$

### ELECTRICAL SPECIFICATIONS@25°C:

| Parameter                            | Test Conditions | Units  | Min. | Typ.   | Max.   |
|--------------------------------------|-----------------|--------|------|--------|--------|
| Insertion Loss                       | 0.3-5MHz        | dB     | ---  | 1.2    | 2.5    |
|                                      | 5-250MHz        | dB     | ---  | 0.7    | 0.9    |
|                                      | 250-500MHz      | dB     | ---  | 1.3    | 1.9    |
| Input Return Loss                    | 0.3-5MHz        | dB     | 7    | 11     | ---    |
|                                      | 5-250MHz        | dB     | 18   | 22     | ---    |
|                                      | 250-500MHz      | dB     | 10   | 15 °   | ---°   |
| Phase Unbalance<br>(Nomonal 180 °)   | 0.3-100MHz      | degree | ---- | +/-0°  | +/-3°  |
|                                      | 100-250MHz      | degree | ---- | +/-0.8 | +/-6   |
|                                      | 250-500MHz      | degree | ---- | +/-3.5 | +/-20  |
| Amplitude Unbalance<br>(Nomonal 0dB) | 0.3-100MHz      | dB     | ---  | +/-0.0 | +/-0.2 |
|                                      | 100-250MHz      | dB     | ---  | +/-0.2 | +/-0.4 |
|                                      | 250-500MHz      | dB     | ---  | +/-0.6 | +/-1.5 |

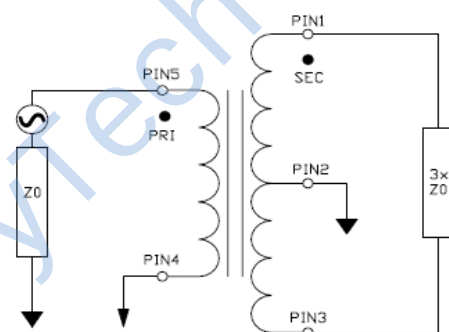
### FUNCTIONAL SCHEMATIC



### PIN CONFIGURATION

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

### APPLICATION & TEST CIRCUIT



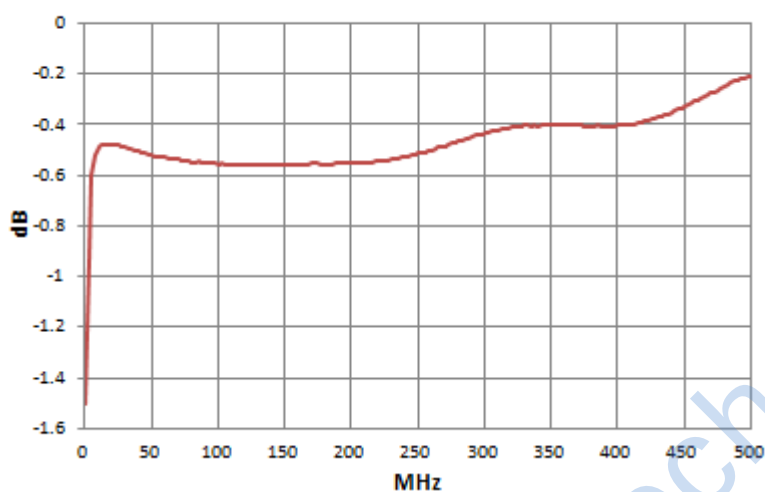
### ABSOLUTE MAXIMUM RATINGS

| Parameter                   | Value       |
|-----------------------------|-------------|
| Input Power                 | 250mW MAX   |
| DC Current                  | 30mA MAX    |
| Operating Temperature Range | -20 to 85°C |

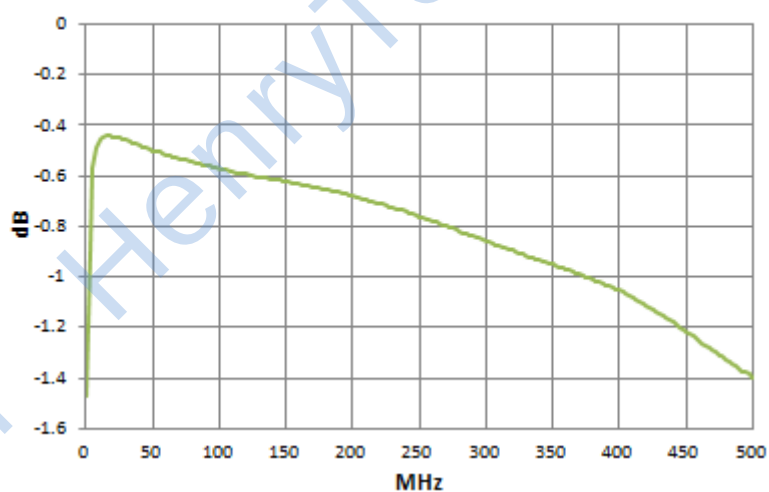


## TEST CURVE

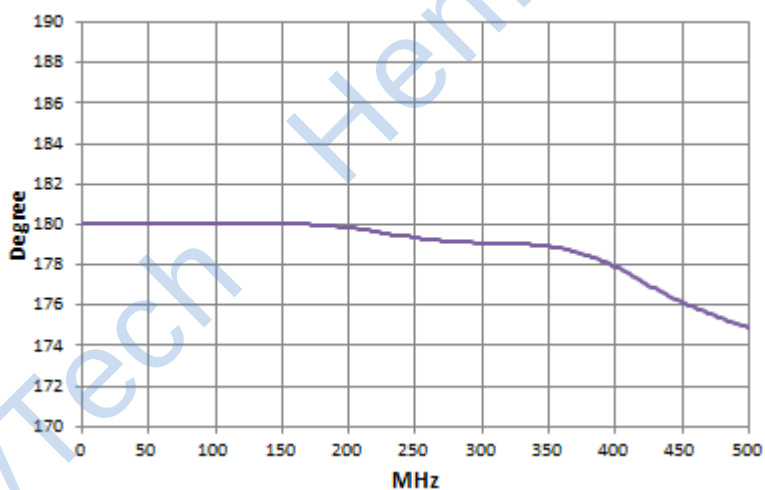
### Insertion Loss 4-1



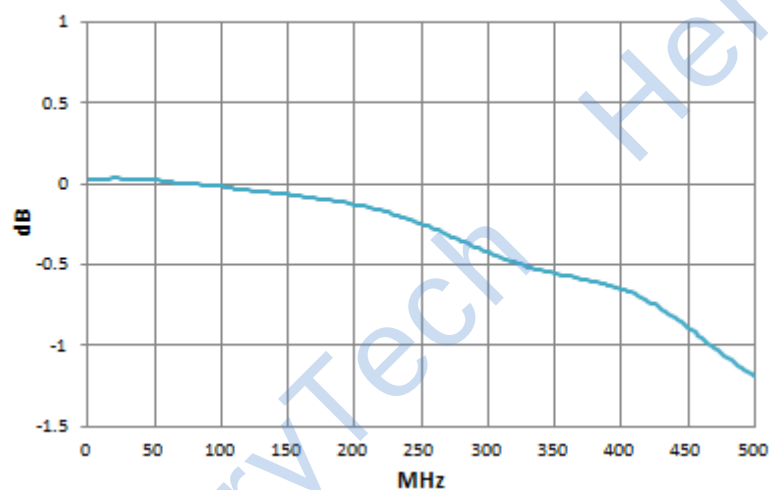
### Insertion Loss 4-3



### Phase Unbalance



### Amplitude Unbalance



### Input Return Loss

