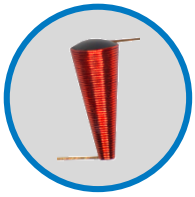
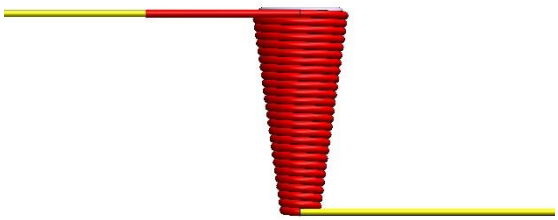
# -004 Series
# Broadband Conical Inductor





**Features**

- Broadband performance up to 90 GHz
- Improved return loss over standard conicals.
- Smaller cone tip for enhanced high frequency performance.

## -004 Series Conical Inductor Specification

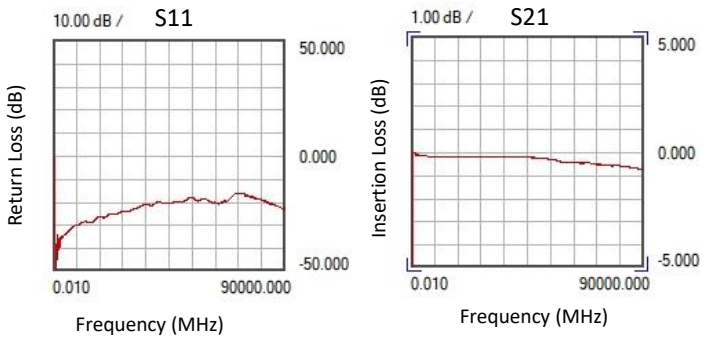
| Part Number | L (uH) | I max (mA) @ 90 C | Upper Freq. Limit (GHz) Typ. | Return Loss (dB) Typ. | Insertion Loss (dB) Typ. | Q Typ. @ 10 MHz | DCR Typ (Ohms) | Foot Print (OD x L ) Inch |
|---|---|---|---|---|---|---|---|---|
| **CC25T50K240G5-004** | .125 | 175 | 90 | -20 | -.35 | 6-10 | 1.00 | .016 x .034 |
| **CC25T47K240G5-004** | .155 | 200 | 90 | -20 | -.35 | 12-18 | .60 | .020 x .045 |
| **CC55T47K240G5-004** | 1.00 | 150 | 90 | -20 | -.35 | 25-30 | 1.60 | .040 x .096 |

**Custom conicals available upon request - Contact Piconics for more info.**
**S-Parameters available @ www.piconics.com**

## Environmental:

| | |
|---|---|
| **Operating Temp.** | -55°C to +155°C |
| **Storage Temp.** | -55°C to +155°C |
| **RoHS Compliant** | Yes |
| **Outgas** | Meets ASTM E595 |
| **Wire Material** | Copper |
| **Wire Insulation** | 240C Polyimide |
| **Standard G5 Lead Finish** | 5-10 µin Au |
| **Wirebondable G5/1 Lead Finish** | 100 µin Au / 20 µin Ni |

## Frequency Response:




CC55T47K240G5-004
Shunt Measurement

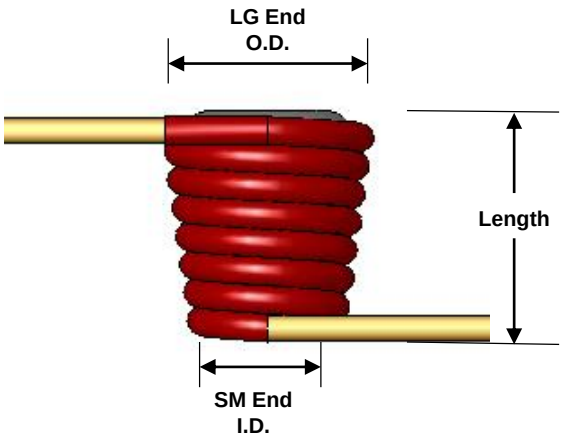
PICONICS
High-Quality Micro-Electronic Inductors

# -004 Series Conical Inductor Specification

| Part Number | Turns | Wire AWG | Length Inches [mm] | LG End O.D. Inches [mm] | SM End I.D. Inches [mm] | Lead Finish | Insulation Color |
|---|---|---|---|---|---|---|---|
| **CC25T50K240G5-004** | 25 | 50 | .034 [.86] | .016 [.41] | .004 [.10] | 5-10 µin Au | Red |
| **CC25T47K240G5-004** | 25 | 47 | .045 [1.14] | .020 [.51] | .004 [.10] | 5-10 µin Au | Red |
| **CC55T47K240G5-004** | 55 | 47 | .096 [2.44] | .040 [1.02] | .004 [.10] | 5-10 µin Au | Red |

**Custom conicals available upon request - Contact Piconics for more info.**
**S-Parameters available @ www.piconics.com**

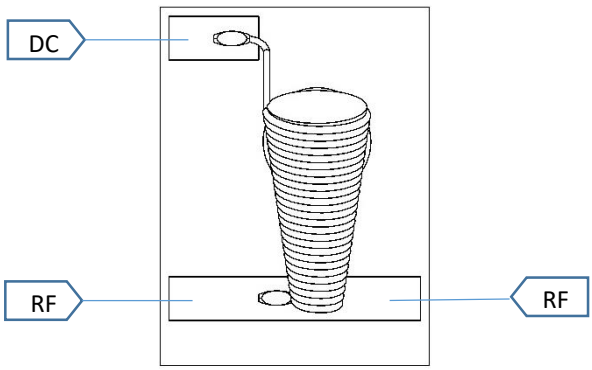
## Mechanicals:




- Lead length is 0.200 inches MIN
- Insulation stripped within .050 of coil at large end
- Insulation stripped to coil body at small end
- Dimensions listed are nominal values

*Not Drawn To Scale*

## Mounting:




Orient Small End
Towards RF Signal

## Packaging:

| | |
|---|---|
| **Package Type** | Gel Pak |
| **Quantity / Pack** | 100 |

## Notes:

1. L & Q measured @ 10 MHz on an HP 4191A RF Impedance Analyzer using a 16092A Spring Clip Fixture.
2. Idc Max is the DC current at which the device sees a 35°C temperature rise over an ambient temperature of 90°C.
3. Please see “Conical Frequency Range Measurement Document” for process of determining the inductors frequency range.
4. Please see “Mounting Instructions” on our website for additional mounting instructions.