

# Surface Mount Broadband Conical Inductors





#### **Features**

- Broadband performance past 65 GHz
- SMT style for volume manufacturing
- Inductance values up to 8 μH
- Low insertion loss across band (<-.35 dB Typical)</li>

| SMT Conical Inductor Specification |                 |                     |               |                                    |                             |                                |                       |                       |                       |                                 |                  |
|------------------------------------|-----------------|---------------------|---------------|------------------------------------|-----------------------------|--------------------------------|-----------------------|-----------------------|-----------------------|---------------------------------|------------------|
| Carrier                            | Part Number     | L<br>(uH)<br>+/-20% | l max<br>(mA) | Upper<br>Freq. Limit<br>(GHz) Typ. | Return<br>Loss (dB)<br>Typ. | Insertion<br>Loss (dB)<br>Typ. | Q Typ.<br>@ 10<br>MHz | DCR<br>Typ.<br>(Ohms) | Wire<br>Size<br>(AWG) | Foot Print<br>(L x W)<br>Inches | Carrier<br>Color |
| A                                  | CC19T40K240G5-C | 0.220               | 700           | 30                                 | -26                         | 35                             | 25-30                 | 0.180                 | 40                    | .110 x .050                     | Blue             |
|                                    | CC45T47K240G5C2 | 0.840               | 160           | 65+                                | -26                         | 35                             | 25-30                 | 1.60                  | 47                    | .110 x .050                     | Tan              |
|                                    | CC36T44K240G5-C | 0.600               | 300           | 40+                                | -20                         | 35                             | 20-25                 | 0.65                  | 44                    | .110 x .050                     | Tan              |
| В                                  | CC21T36K240G5-C | 0.425               | 1000          | 36                                 | -26                         | 35                             | 25-30                 | 0.140                 | 36                    | .150 x .100                     | Tan              |
| С                                  | CC50T40K240G5-C | 1.65                | 400           | 25                                 | -26                         | 35                             | 25-30                 | 0.625                 | 40                    | .230 x .090                     | Blue             |
|                                    | CC82T44K240G5-C | 6.7                 | 180           | 15                                 | -26                         | 35                             | 25-30                 | 2.83                  | 44                    | .230 x .090                     | Tan              |
|                                    | CC110T47K240G5C | 8.0                 | 100           | 65+                                | -26                         | 35                             | 25-30                 | 6.55                  | 47                    | .230 x .090                     | Tan              |

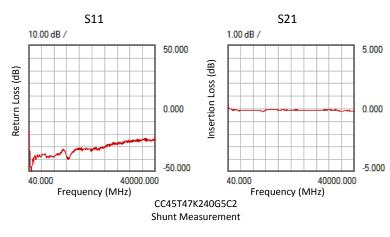
Custom conicals available upon Request - Contact Piconics for more info.

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<br>(Coil & Housing Only, Alt Epoxy Required) |  |  |
| MSL Rating     |                 | 1  |  |  |
| Soldering:     | Max Temp        | 260°C  |  |  |
|                | Max # Reflow    | 3  |  |  |
|                | Max Time        | 10 seconds   |  |  |

#### **Frequency Response:**





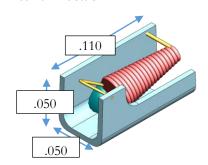


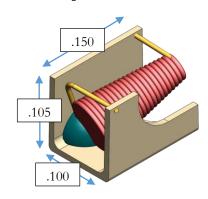
www.piconics.com

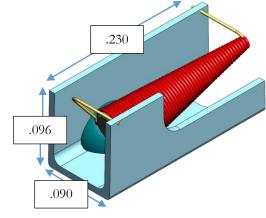


#### **Mechanicals & Foot Prints:**

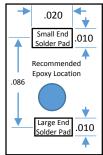
- \*See "Mounting Instructions" on our website for additional mounting instructions\*
- \*All Dimensions in Inches\*
- \*Not Drawn To Scale\*

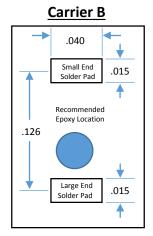


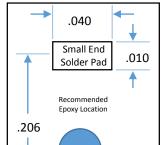




#### Carrier A







Large End

Solder Pad

.010

**Carrier C** 

## **Tape & Reel Specs:**

|                          |   | Alignment notch |   |                            |
|--------------------------|---|-----------------|---|----------------------------|
|                          | А   | В               | С   | denotes small end of coil. |
| Part #                   | CC19T40K240G5-C<br>CC45T47K240G5C2<br>CC36T44K240G5-C | CC21T36K240G5-C | CC50T40K240G5-C<br>CC82T44K240G5-C<br>CC110T47K240G5C | Top View                   |
| Qty. Per Reel            | 2000 MAX/ Reel  | 650 MAX/ Reel   | 1300 MAX/ Reel  |                            |
| Tape Width               | 8.0 mm  | 12 mm           | 12 mm   |                            |
| Pocket Pitch             | 4.0 mm  | 8.0 mm          | 4.0 mm  |                            |
| Outside Reel<br>Diameter | 180 mm  | 180 mm          | 180 mm  | Bottom View                |

#### **Notes:**

- 1. L & Q measured 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 100°C temperature rise over an ambient temperature of 25°C.
- 3. Please see "Conical Frequency Range Measurement Document" to see process for determining the inductors frequency range.
- 4. Please see "Mounting Instructions" in our application data section of our website for additional mounting instructions.

