



**INNOVATIVE EXCELLENCE IN MICRO-ELECTRONIC COIL INDUCTORS SINCE 1963**

## Piconics, Inc

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## Company Profile

Since 1963 Piconics has been committed to Engineering Excellence through innovative micro-electronic inductor products. Our facility is located in Tyngsboro, MA USA and is fully integrated with Manufacturing, Engineering, Testing, R&D and Sales / Administration.

The Company is both financially and fundamentally stable with average employee tenure of 15 years; thus allowing the Company to engineer a plan to grow organically. We are a semi-automated manufacturing facility with clearly defined Coil Inductor products which require the combination of skilled labor and advanced technology; hence we are able to create a direct link between your Coil Inductor requirements to our Core Competencies.

## Customer and Market Focus

Eighty percent of Piconics customer base consists of Primary, Tier 1, 2 and 3 DoD and Homeland Security contractors/sub-contractors. The balance of our important customer base consists of Test and Measurement and Commercial Communication sub-system designers/manufacturers. Piconics' mission is to provide quality Coil Inductors for precise Frequency control in single and multi-function communication platforms. Piconics is utilizing your feedback that smaller packaging sizes, higher Frequency performance, the speed of data transmitted, the amount of data communicated and the importance of controlling the Frequencies to which payloads are operating are driving your demands. Piconics uses these demands as the platform of our Inductor-manufacturing processes and developments.

Within Piconics Inductor categories, there are several parts that were developed as a result of your feedback. Our goal is to understand the Electrical and Mechanical requirements of your project and offer a Catalogue part, or design an Inductor within our capabilities that meets your requirements.

## Product Focus

Piconics Core Competencies fall within four major Product categories:

**1. Broadband Conical Inductors** which were developed for two reasons; the first is to achieve **ultra-broad bandwidths**. An example of this is

our CC45T47K240G5 which has a SRF of 40+ GHz and has customer feedback of remaining flat past 90 GHz. The second reason Piconics brought you the Conical Inductors is to achieve **high Inductance values at low Frequencies**. An example of this is our CC110T47K240G5 with an achievable Inductance of 8 uH at 10 MHz. The ultra broadband performance allows the designer to **utilize a single component in place of several Inductors cascaded for broadband applications**.

**2. Fine AWG Narrow-band Air Core Coil Inductors; Piconics manufacturing methods are set up to handle 26 – 52 AWG, and focus on precise lead stripping** with strip dimension-options up to a quarter turn into the body of the Inductor; thus allowing for a leadless mount and decreasing the potential for parasitics and loss.

**3. MIL-spec Grade Fixed and Tunable Inductors** which are designed / manufactured for harsh and rugged environments, and are available in **Commercial Catalogue form or from the QPL under MIL 83446/12 - /19 and MIL 15305 with applicable testing**.

These parts have operating Frequencies up to 3 GHz with Inductance values from 10nH up to **1mH**. Standard MIL-spec Tests are; Thermal Shock, No Load Burn-in, DWV/IR (Accordance with MIL-PRF-15305), Barometric Pressure and Electrical Characteristics and Moisture Resistance.

**4. Spiral Chip Inductors;** constructed by depositing a gold spiral on a ceramic or quartz substrate and can be used as Chokes or passives where low Q values are acceptable. The manufacturing processes allow for high-repeatability and low costs. Footprints range from .080" x .080" to .020" x .020".

## Supplier-Customer Relationship

Piconics' goal is to build and maintain equitable relationships with our Customers'. As a Value Proposition to you, Piconics carefully specifies and selects our raw materials; therefore we control quality and consistency lot-to-lot, piece-to-piece efficiently. We are an ISO 9001:2008 Company that strives for excellence, with a 98% on-time delivery rating.

**Please contact us for further information on Products or Services!**