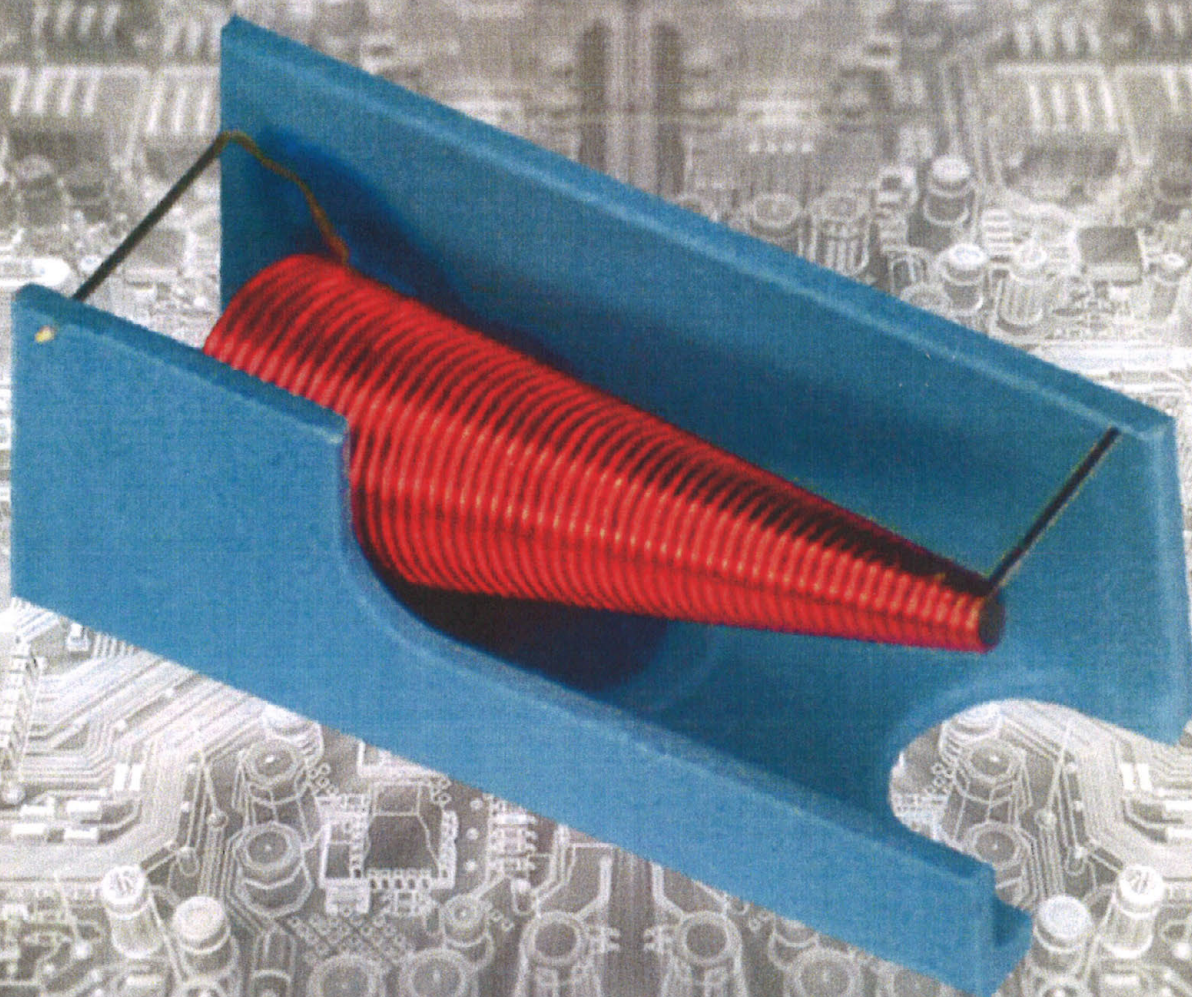




PICONICS

High-Quality Micro-Electronic Inductors



Inductor Products

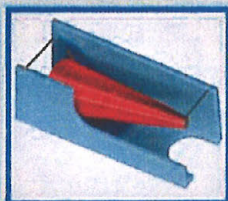


High-Quality Micro-Electronic Inductors

Piconics is a world-class supplier of high-quality microelectronic inductors for a wide variety of applications in the space, military, telecom, test & measurement and medical electronics industries. Piconics specializes in miniature MIL-Spec grade inductors along with tight tolerance, fine awg windings such as the Broadband Conical and Microwave Air Coil Inductors. Piconics keeps the innovative spirit alive by continuing to work with industry leaders in microelectronics to provide inductor solutions to the most challenging problems. The Engineering team at Piconics continues the philosophy of promoting and innovating high-quality microelectronic inductors for the industries most cutting edge applications.

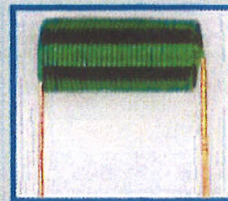
Broadband Conical Inductors

Piconics broadband conical inductors cover an extreme frequency range from 10 MHz to 65+ GHz. A single conical is capable of replacing several narrow band inductors cascaded in broadband bias applications.



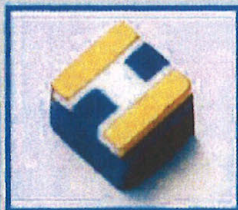
Rf & Mw Air Coils

Piconics Rf & Mw Air Inductors are designed for high frequency applications in the Rf, microwave and millimeter wave frequencies. High precision, tight tolerance construction methods and quality control give consistent, controlled performance.



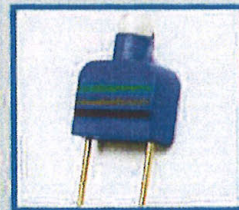
Fixed Inductors - QPL & COTS

Piconics Fixed Inductors have a tradition of being used in a wide variety of applications from Commercial Microwave to Space. Major military customers have used our QPL products for their reliability and tight quality control.



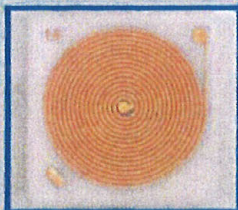
Tunable Inductors - QPL & COTS

Piconics Tunable Inductors have a tradition of being used in a wide variety of applications from Commercial Microwave to Space. Major military customers have used our QPL products for their reliability and tight quality control.



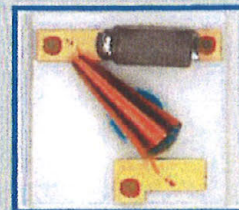
Spiral Inductors

Piconics SP Series is a thin film gold spiral inductor on a ceramic or quartz chip. This style inductor can be used where low inductance values and gold wire bond is the interconnection method.



Value Added Services & Custom Capabilities

Piconics can simplify your manufacturing needs by providing subassemblies and surface mount packages. Piconics also provides custom windings to customer specification.



www.piconics.com

ISO 9001:2008

RoHs Compliant

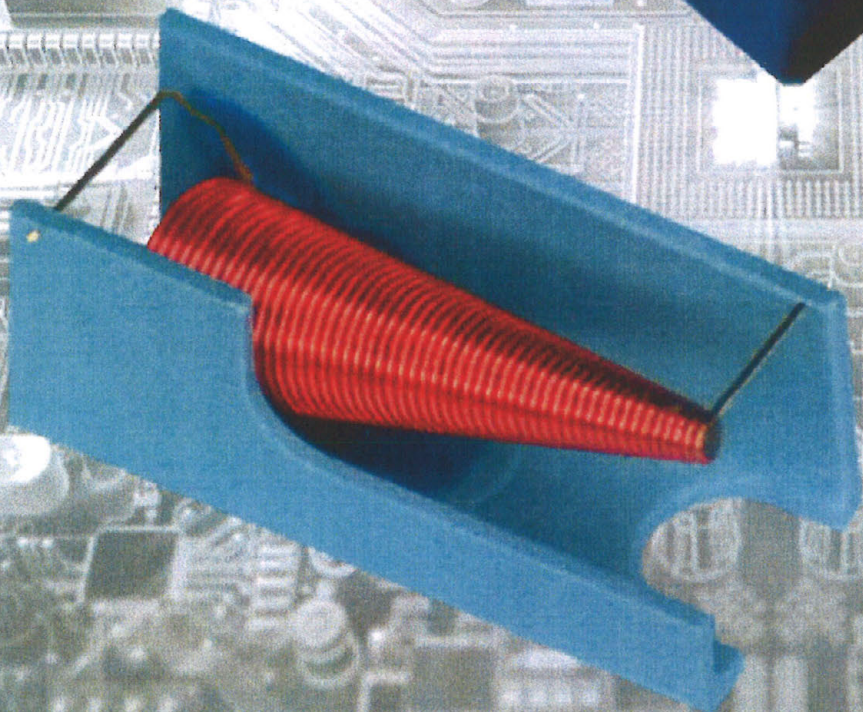
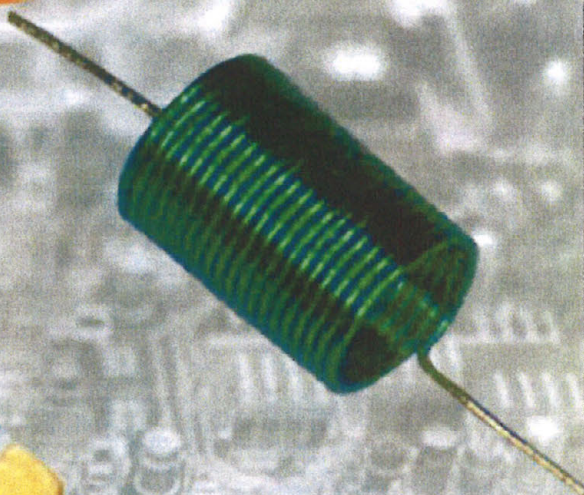
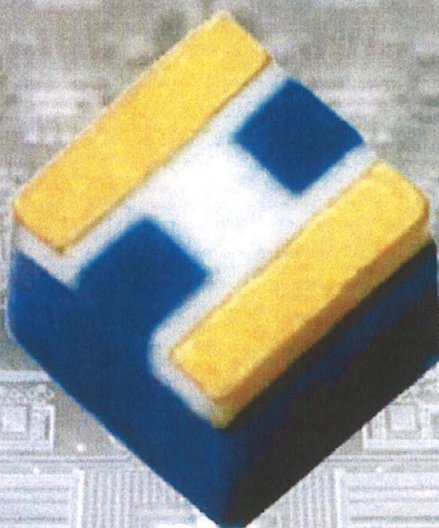
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PICONICS

High-Quality Micro-Electronic Inductors



Space Qualification



Space Level Inductors

Since our inception in 1963, Piconics has supplied inductors for the most prestigious space applications. From B-series inductors for the Apollo program to Broadband Conicals & PA series for more recent satellite and launch vehicle programs, Piconics has been synonymous with high quality and high reliability inductors. Piconics products are designed to withstand the harshest environments and most demanding applications. Our in house test capabilities allow us to up-screen test inductors to meet space level requirements. Space level designers use Piconics inductors for their high quality and proven reliability.

Design & Manufacturing

Piconics uses MIL-STD-981 as a guideline when designing for a space application. Many inductors offered are already qualified to MIL-PRF-83446 and MIL-PRF-15305 and only require additional testing to meet space level requirements. The material selection process takes into account NASA outgas standards of 1% TML and 0.1% CVCM for space. All wire conforms to NEMA MW1000 standards. Most products adhere to the 44awg minimum wire size requirement for space while finer awgs do require a waiver process. Our encapsulated inductors feature internal weld connections and interlocking cases for enhanced reliability. All products go through an inspection process after each manufacture step. If we required, Piconics can provide high detail photographs for pre and post encapsulation along with x-ray analysis. Piconics inductors are manufactured in the USA.

Qualification Testing

Piconics in house electrical and environment test lab is certified to perform DSSC testing to MIL-PRF-83446 & MIL-PRF-15305. All testing is capable of conforming to MIL-STD-981 and MIL-STD-202. Piconics has partnered with outside test facilities to perform certain environmental tests such as Barometric pressure and Continuity monitored thermal shock. Recorded data, serialization and traceability can be provided with space level product. Piconics works with their customer to create an SCD to meet the requirements of the customer's specific space application. Typical tests performed are:

- Electricals (L,Q,DCR & SRF)
- Thermal Shock
- Load & No-Load Burn-In (96hrs)
- DWV/IR
- Solderability
- Overload
- Life Testing (1000 Hrs)
- High Temp Exposure

Specifications

- MIL-PRF-83446
- MIL-PRF-15305
- MIL-PRF-38534
- MIL-PRF-27

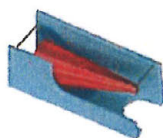
Heritage

Apollo
Orion **TDRSS**
Exomars **SOLAR**

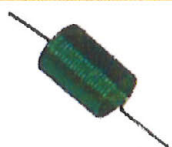
Standards

- MIL-STD-981
- MIL-STD-202
- MIL-STD-1580
- ASTM-E-595

Space Up-Screen Capable Products



Conicals



Air Coils



Fixed



Tunable



Spirals



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PICONICS

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Engineering Kits

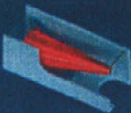


Engineering Kits

Piconics Engineering Kits are an RF Designers best friend. Now you can have high quality inductors from Piconics right at your fingertips. Each kit contains up to 5 pieces each of 5 to 6 different inductors to assist you during the design phase. Broadband Conical Inductor kits are available in Flying Lead and SMT styles with performance to 65 GHz and beyond. The -X Conical kit features a lower loss fill material for RF Power Applications.

The Gold and Copper Air Coil kits are for narrower band applications up to 20 GHz.


Contact a Piconics representative to request your kit today.



SMT

(Broadband Conical)
Inductor Kit #2

CC19T40K240G5-C	CC21T36K240G5-C	CC45T47K240G5-C2
L(uH) I _{max} (mA) .220 700	L(uH) I _{max} (mA) .425 1000	L(uH) I _{max} (mA) .840 160
CC50T40K240G5-C	CC82T44K240G5-C	CC110T47K240G5-C
L(uH) I _{max} (mA) 1.65 400	L(uH) I _{max} (mA) 6.70 180	L(uH) I _{max} (mA) 8.00 100



-X Conical

(RF Power Applications)
Inductor Kit #3


CC21T36K240G5-B	CC21T36K240G5-X	CC12T30K240G5-X
L(uH) I _{max} (mA) 0.260 1000	L(uH) I _{max} (mA) 0.150 1000	L(uH) I _{max} (mA) 0.060 3000
CC25T30K240G5-X		CC31T30K240G5-X
L(uH) I _{max} (mA) 0.275 2500		L(uH) I _{max} (mA) 0.450 2250



Flying Lead

(Broadband Conical)
Inductor Kit #1

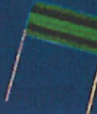
CC21T36K240G5	CC25T47K240G5	CC45T47K240G5
L(uH) I _{max} (mA) .425 1000	L(uH) I _{max} (mA) .250 230	L(uH) I _{max} (mA) .840 160
CC50T40K240G5	CC75T36K240G5	CC110T47K240G5
L(uH) I _{max} (mA) 1.65 400	L(uH) I _{max} (mA) 6.93 650	L(uH) I _{max} (mA) 8.00 100



Copper Air Coil

(High Frequency Applications)
Inductor Kit #4

MK3T47.018SXS-00	MK5T47.018SXS-00	MK10T47.018SXS-00
L(nH) 8 ±10%	L(nH) 15 ±10%	L(nH) 35 ±10%
MK15T47.018SXS-00	MK20T47.018SXS-00	MK30T47.018SXS-00
L(nH) 60 ±10%	L(nH) 85 ±10%	L(nH) 140 ±10%



Gold Air Coil

(High Frequency Applications)
Inductor Kit #5

MG3T47.018SXS-00	MG5T47.018SXS-00	MG10T47.018SXS-00
L(nH) 8 ±10%	L(nH) 15 ±10%	L(nH) 40 ±10%
MG15T47.018SXS-00	MG20T47.018SXS-00	MG30T47.018SXS-00
L(nH) 60 ±10%	L(nH) 95 ±10%	L(nH) 150 ±10%

Order online @ piconics.com/engineering-kits

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