



## The S0603 - A Small High Reliability Space Level SMD Inductor designed to meet your engineering challenges.

Ideal for space and aerospace applications, the S0603 inductor offers excellent temperature stability, High Q and Ultra High SRF values, Low Outgassing Properties and an Operating Temperature Range of -55 to +125 C degrees (higher operating temperatures available) - all in a super small rugged package. Our environmental testing lab conducts load life, thermal shock, powdered burn-in, short time overload, real time x-ray, and extreme temperature testing to guarantee the S0603's outstanding reliability in challenging environments. It's manufactured in our cleanroom and rigorously tested to MIL-STD-981 for the high performance criteria demanded in space flight.

### S0603 Features:

- Manufactured and Tested in the USA by qualified MIL-STD-981, MIL-PRF-39010 "S" company for the level of reliability demanded for Space Flight
- Fully Documented Baselines in accordance with MIL-STD-981C, MIL-PRF-83446, and MIL-PRF-39010: Customer approved Quality Control, Inspection, Materials and Process Traceability
- Group A and B regimen available
- High Temperature Ceramic Cores and Magnet Wire provide excellent temperature stability and mechanical ruggedness
- Optional water dissolvable top cap for automated pick and place systems
- Low AC and DC Resistance minimizes voltage drops and dissipated power
- High Q and Ultra High SRF values enable inductor functionality into GHz range
- Operating Temperature Range of -55 and +125 degrees C with optional higher operating temperatures available
- Low Outgassing Properties

### Typical Applications:

- Space Flight RF Filters and Oscillators
- Bias Chokes for RF Gain Amplifier Blocks
- Hi-Rel RF Transmitters and Receivers
- Noise and EMI Suppressors for Analog, Digital and Mixed Signal Circuits
- Frequency Synthesizers and Mixers
- RF Switched Filter Banks
- Test Equipment like Network and Spectrum Analyzers, Frequency Counters, RF Power Meters and LCR Meters
- Medical Instrumentation
- Down Hole and Deep-Sea programs
- HF and RF Impedance and Antenna matching circuits
- Low-Power Military and Defense ground, sea, and aerospace electrical/electronic power systems
- Low-Power SMPS, Voltage Regulators and DC-DC converters
- Microwave signal splitter/distribution systems

**API Delevan**, an ISO9001:2015 & AS9100D certified company, is a global leader in the manufacture and development of coil winding electronic technologies and continues to maintain the industry's most extensive offering of High Reliability and Military QPL products, including the world's largest selection of magnetics, industry standard devices, circuit solution devices and application specific devices. API Delevan specializes in markets that demand technical innovation & performance, while providing superior engineering expertise, solutions and service.