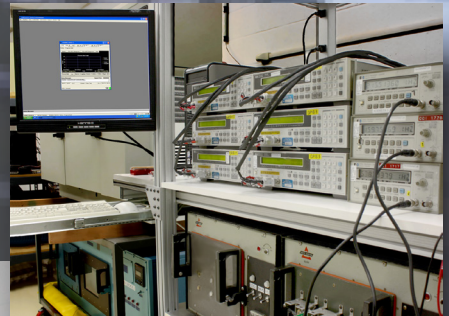


Testing and Validation Services



Screening Standards and Services

Coilcraft regularly performs qualification on passive magnetic components in accordance with established standards and specifications. We routinely perform qualification testing in accordance with AEC-Q200, MIL-STD-883 and MIL-STD-202. Screening is also available for MIL-STD-981, MIL-PRF-83446, MIL-PRF-27 and many others, as defined below.



Screening Codes – Military and Space

For screening using the current military and space standards, use the T, U or F codes. These options do not use Coilcraft documentation and will streamline the documentation process.

Screening Code	Screening	Screening Level	SLDC	Component Type
T	—	Screening per MIL-STD-981 (Class S or B)	SLDC Option B	All components
U	—	Screening per EEE-INST-002 (Levels 1, 2 or 3)	SLDC Option B	All components
F	—	Screening per ESCC 3201	SLDC Option B	All components

Screening Codes – Coilcraft-specific Standards

The following screening flows use Coilcraft-specific screening standards. See details of each screening standard below.

Screening Code	Screening	Screening Level	SLDC	Component Type
H	CP-SA-10001	High-reliability basic		All components
G	CP-SA-10001	High-reliability basic	SLDC Option A	All components
D	CP-SA-10001	High-reliability basic	SLDC Option B	All components

Current Testing Documents

CP-SA-10001 screening standard was developed for the medical industry, but has found usage in the military and space sectors as well. It is a low cost, quick and efficient way to prove reliability in a variety of applications. Based on market feedback, compiled customer requests and Coilcraft's expertise in screening and qualification, this standard comprises a robust screening procedure with optional qualification using various MIL-STDs as guidelines.

TOR screenings available.

Custom Screening Coilcraft can also accommodate custom screening requests that may be a modification of an existing screening document, or by creating and implementing custom-built screening flow from the ground up. Whatever the requirements, Coilcraft can adapt to your needs.

Single Lot Date Code (SLDC); Lot size restrictions apply.

Option A Components are manufactured in one continuous manufacturing run.

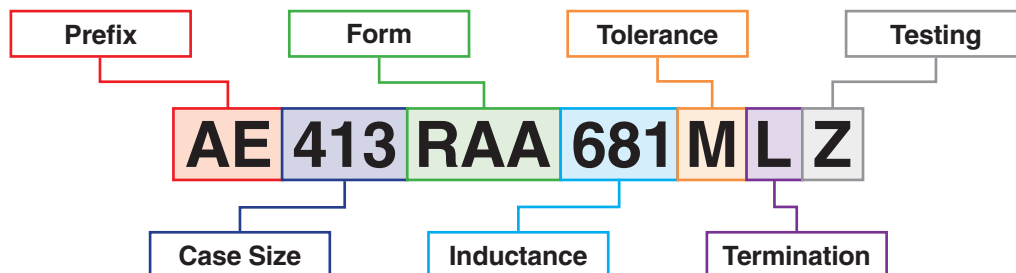
Option B Components are manufactured in one continuous manufacturing run and all raw materials shall be from a single batch.

Older Testing Documents

CP-SA-10003/4/5 are based on MIL-STD-981 (screening and optional qualification) for their respective component types. Coilcraft has tailored these documents to be applicable to modern-day components, while maintaining the high level of scrutiny and reliability as demanded in MIL-STD-981. Parts screened to these levels are typically used in space and military applications.

CP-SA-10006/7/8 are based on EEE-INST-002 (also with screening and optional qualification) for their respective component types. Coilcraft has captured all three levels of the screening flow, and the customer can choose which one fits their needs best. Parts procured to this standard are used in NASA space applications.

Part Numbering – Coilcraft-CPS RF Magnetics



To learn more visit us at www.coilcraft-cps.com/pn

Testing and Validation Services

Passive Magnetic Component Testing

Coilcraft CPS operates advanced electronic component testing facilities in North America and Asia, providing a comprehensive range of product testing and validation services to help you determine the reliability of assemblies you manufacture and parts you procure.

Capabilities

Testing and services to support product performance verification of Coilcraft (and non-Coilcraft) components include, but are not limited to:

General

- Vibration testing
- Mechanical shock testing
- Complete electrical testing
- Elemental analysis
- Radiographic inspection
- Programmable chamber exposures
- Thermal shock and cycling tests
- Independent loads
- Resistance to solvents
- Customized data reporting for qualification and screening
- Customized certificates of compliance

Electrical Testing

- Dielectric Withstanding Voltage (DWV) and Insulation Resistance (IR)
- Independent loads (0 to 125 Amps, 0 to 300 Volts)
- Temperature rise
- Inductance (at frequencies from 5 Hz to 40 GHz)
- Q (from 5 Hz to 6 GHz)
- DCR
- SRF (from 5 Hz to 40 GHz)
- Impedance (up to 40 GHz)
- Harmonic distortion (from 1 kHz to 100 kHz, up to 6 Volts)
- Longitudinal balance (from 20 kHz to 30 MHz)
- Voltage ratio/Polarity
- Leakage inductance
- Insertion loss (from 5 Hz to 40 GHz)
- Pulse Testing



Simulated Environmental Performance Testing

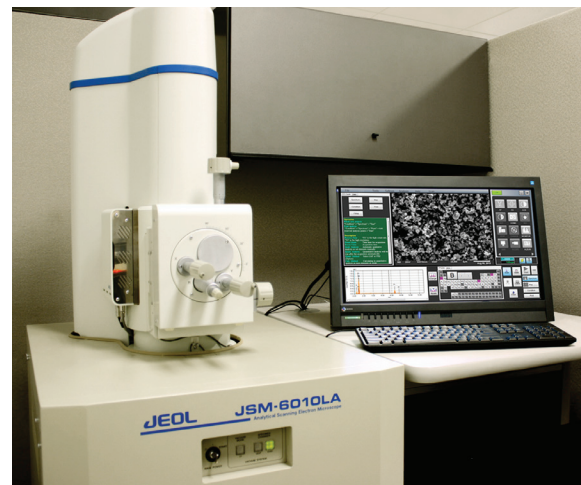
- Humidity (20% to 90% RH)
- Moisture resistance (-10°C to +150°C, 20% to 98% RH)
- Thermal shock (-100°C to +155°C)
- Thermal cycling (-100°C to +200°C)
- High and low temperature storage (-55°C to +250°C)
- Vibration per MIL-STD-202, method 214, conditions A, B and H
- Mechanical shock per MIL-STD-202, method 213, conditions A, C, D, E and F
- Steam aging

Analytical Laboratory Services

- X-ray imaging
- Sample cross-sectioning
- Scanning Electron Microscope (SEM) imaging
- Plating thickness analysis using SEM + X-Ray Fluorescence (XRF)
- Qualitative elemental analysis using Energy Dispersive Spectroscopy (EDS) and XRF

Other Tests and Services

- Solderability testing
- Resistance to solder heat testing
- Electrical characterization
- Tin whisker testing to International Electronics Manufacturing Initiative (iNEMI) standard
- Preparation of First Article Inspection data



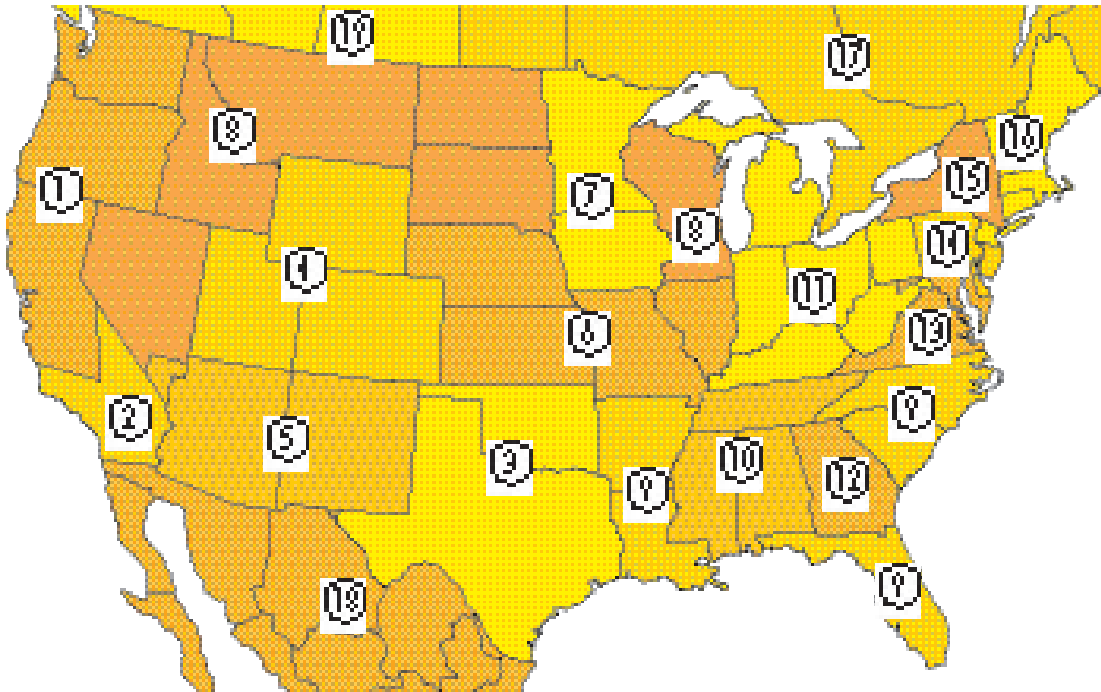
MIL-STD-981 :: MIL-PRF-38534 :: MIL-STD-202 :: MIL-PRF-83446 :: MIL-PRF-27 :: AEC-Q200 :: TOR :: EEE-INST-002 :: ESCC 3201

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