

M.C. DAVIS COMPANY
Purchase Order Quality Assurance Clauses

***QA-1 Quality Control System**

- Suppliers Quality System must comply with or exceed ISO-9001:2000.
- Suppliers Quality System must comply with or exceed Mil-Q-9858A, Quality Program Requirements.
- Suppliers shall establish and maintain a system that complies with Mil-I-45208, ISO 10012, ANSI Z540-1, and ISO 17025 for inspection and calibration equipment.
 - Calibration must be traceable to the National Institute of Standards and Technology (NIST).
 - System must include a periodic recall system for calibration
 - System includes all Tools, Gages, & Measuring Equipment

***QA-2 Certifications**

- Supplier shall provide with each shipment:
 - Certificate of Conformance referencing the customer purchase order number, part number and revision level, lot identification, date code and quantity shipped. The C of C must state that all materials and processes used to produce the subject part as described on the PO conforms to the PO specifications and drawing requirements.
 - Special Process Certifications, if applicable.
 - Certification of Solderability and Inspection Personnel, if applicable
 - The supplier's quality system shall contain documented evidence of compliance to J-STD-001, Class 3 or greater, and the parts have been inspected by personnel that are trained to IPC specification IPC-A-610 for high reliability soldering.
 - Certification of Origin stating the country of origin, if applicable
 - Certification of Lead-free, if applicable
 - All certifications shall have signature and title of authorized representative of seller.

***QA-3 Inspections & Surveillances**

- Source Inspections may be required by:
 - Buyer
 - Buyer's Customer
 - Military/Government Agencies
- A minimum notification of 72 hours is required prior to ship date for scheduling of source inspections.
- First Article Inspections
 - First piece inspections must meet all of the requirements of the part specifications. All documentation and data must be available for inspection either at the supplier's facility or provided with the shipment at the discretion of the buyer. Once approval has been given the supplier shall make no changes to the materials or processes used without written authorization from buyer.
- Right of Entry/Access
 - Supplier shall permit buyer and/or buyer's customer right of access to the facility and to all records related to the manufacture or assembly of the parts supplied by supplier and provide reasonable assistance.

***QA-4 Test Reports**

- First Article Inspection Test Report
 - Format as specified by SAE AS9102 Revision A which includes First Article Date, Vendor Name & Address, Part no. & revision level, P.O. no., Calibration Equipment utilized, Drawing Attributes and results.
- Production Test Data
 - Attribute Data as required maybe either:
 - Pass/Fail
 - Read & Record

***QA-5 Supplier Non-Conforming Materials**

- The supplier shall ensure that product which does not conform to engineering and specification requirements is identified and controlled to prevent its unintended use or delivery. The supplier shall identify the root cause of the non-conformance and implement corrective action to eliminate non-conformances.
- When Non-Conforming Materials are received from the supplier a Non-Conforming Report (NCR) will be generated describing the non-conformance and forwarded to the supplier for action. The supplier shall have the responsibility of establishing corrective actions to prevent recurrence of the non-conformance. If a formal Supplier Corrective Action Request (SCAR) is

generated, then failure of the supplier to respond to the SCAR may affect vendor approval status.

***QA-6 Record Retention Requirements**

- Supplier shall retain copies of material certifications, manufacturing processes, inspection documentations, and other build documentation pertaining to all materials supplied under contract for a period of no less than seven years from shipment.

***QA-7 Quality Improvement Requirements**

- Continuous Improvement
 - Lean Manufacturing
 - Lean Manufacturing is a proven approach to reduce waste and streamline operations. Lean manufacturing embraces a philosophy of continually increasing the proportion of value added activity through ongoing waste elimination. A lean manufacturing approach provides suppliers with tools to survive in a market that demands higher quality, faster delivery, lower cost, and controlled processes.
 - Six Sigma
 - Six Sigma is a philosophy of doing business with a focus on eliminating defects through fundamental process knowledge. The goal of Six Sigma is to eliminate variability, defects and waste.

***QA-8 Controls**

- Age, Shelf Life, and Date Code Control
 - Products, which deteriorate with age or environment, shall be permanently and legibly marked with the product expiration date. The date must also be included on the packing list. No more that 50% of the shelf life specified by the supplier shall have expired at the time of receipt. Date codes for supplied components and materials shall not exceed three years, unless otherwise specified.
- Packaging
 - Parts delivered shall be packaged and protected from deterioration and physical damage. When multiple part types are shipped in one container, each part number shall be segregated and packaged into a separate container. The applicable part number shall appear on each individual package. All data sheets or other documentation shall be in a common envelope.
- ESD
 - When ESD controls are required, it shall be noted in the quality assurance clauses of the purchase order. When a product is defined as ESD sensitive, work shall be performed at ESD protected workstations.
 - The protection level provided by the supplier shall be extended through all procurement handling, storage, packaging and shipping cycles.
- Process Changes
 - Supplier shall notify the buyer of changes to the materials, components, construction processes or methods and facility relocations that may affect parts supplied to M.C. Davis. M.C. Davis Quality Department will make a determination if any action, such as first article inspection or on site survey is appropriate.
- Use of Sub-Tier Suppliers
 - Supplier, in their purchasing documents to their supplier, shall flow down the M.C. Davis Purchase Order Quality Requirements specified on the M.C. Davis Purchase Order as appropriate including Key Characteristics where required.