

# Purchase Order Quality Assurance Requirements

## Standard Codes: Q01-Q14

### Q01. QUALITY SYSTEM

- The Supplier will provide and maintain a Quality Assurance system that complies with any one of the following systems, or is approved by LeeMAH Electronics:
  - ISO9001
  - AS9100
  - AS9120
- The Supplier shall immediately notify LeeMAH in writing of any change to its Quality Assurance system that may affect the inspection, conformity or safety of the product, or quality system status (e.g., Supplier is no longer registered with ISO9000).

### Q02. NOTIFICATION OF CHANGES

- Suppliers with design authority shall notify LeeMAH of any changes of fit, form, function or safety of product and obtain approval prior to manufacture and delivery. Suppliers shall submit proposed changes to the Buyer in writing.
- Suppliers shall immediately notify the Buyer in writing of any planned change to the manufacturing facility location of the contracted part or assembly.

### Q03. PRESERVATION AND PACKAGING

Unless otherwise specified by the item drawing, specification or Purchase Order, packaging shall meet the following criteria:

- The Supplier is responsible for assuring that all items are delivered without damage or deterioration and are efficiently and economically packed for the method of transportation and type of handling involved.
- Identification: Each shipping container and intermediate package shall be identified with:
  - Purchase Order number
  - Part number/Drawing number and Revision (when applicable)
  - Quantity
  - Electro Static Discharge (ESD) sensitive warning (when applicable)
  - Cautionary Handling Instructions (when applicable)

### Q04. SUBSTITUTION

Regarding commercial off-the-shelf material, the Supplier shall not substitute "equivalent" items in place of those items specified on the Purchase Order. If an equivalent item to a specified material is to be supplied, it must be offered with supporting documentation prior to the shipment. All changes relating to part number, drawing specification, delivery or price must be agreed to by Buyer and confirmed by a change to the Purchase Order.

**Q05. OBSOLESCENCE**

The Supplier shall notify the Buyer of impending part obsolescence for all parts that are on open orders or which have been shipped by the Supplier over the past 12 months. The notification shall occur at the earliest point possible and at least 6 months prior to the "end of life" order date.

**Q06. PRODUCT IDENTIFICATION AND TRACEABILITY**

The Supplier shall maintain documented procedures for identification of product from receipt through processes of production (if required) and delivery. The procedures shall address the identification of individual products or batches and the recording thereof.

All items supplied under a Purchase Order shall be traceable to the raw materials used. If not supplied with the items, the information shall be made available to LeeMAH upon request.

**Q07. CORRECTIVE ACTION**

The Supplier is responsible for prompt replies to the "Supplier Corrective Action Request" (Document No.QR-Q14-03) as well as implementation of corrective actions. Failure to do so can cause removal from the "Approved Supplier List".

**Q08. SAMPLING BY LEEMAH**

LeeMAH reserves the right to use sampling plans for the acceptance or rejection of material and/or services. If a lot is rejected by the sampling procedure, the entire lot may be returned to the Supplier or LeeMAH may screen the rejected lot at the Supplier's expense.

**Q09. CERTIFICATE OF CONFORMANCE**

Each shipment must be accompanied by one legible copy of a Certificate of Conformance (C of C). The purpose is to certify that the Supplier's material, processes and finished parts were controlled and tested (when applicable) in accordance with the drawing specifications and/or Purchase Order. All electronic components, off-the-shelf material, processes and raw materials supplied to LeeMAH Electronics must be traceable to the OEM, as identified on the Purchase Order. All documents pertaining to the manufacturing of material shipped to LeeMAH Electronics must accompany the C of C or must be maintained by the Supplier/Distributor and be made available upon request to LeeMAH Electronics. Component parts and assemblies delivered to LeeMAH Electronics must be new and unused.

**Q10. COUNTERFEIT ELECTRONIC PARTS PREVENTION**

All electronic components supplied to LeeMAH Electronics must be traceable to the Original Equipment Manufacturer, as identified on the Purchase Order or by LeeMAH Electronics. The OEM certification must be maintained by the Supplier and be made available upon request by LeeMAH Electronics.

- The OEM or Franchised Distributor shall provide with the shipment a Certificate of Conformance (C of C), certifying that the component provided is the part number being procured.

- In the event that any source of supply cannot provide a C of C certifying the component provided is the part number being procured and establishing traceability to the OEM, the Supplier must put the shipment on hold and notify the Buyer in writing. The Buyer will advise the Supplier in writing on the validity of the order. The Buyer will send a revised Purchase Order with instructions, or notify the Supplier of the cancellation of such order at no charge whatsoever to LeeMAH Electronics. Any material shipped prior to review and acceptance in writing from LeeMAH Electronics will be rejected and returned to Supplier at their expense.

**Q11. NOTIFICATION OF NONCONFORMING OR UNSAFE PRODUCT**

The Supplier shall notify LeeMAH if there may be a form, fit, function, usability, or reliability problem with material that has already been delivered.

**Q12. CALIBRATION**

The Supplier shall maintain a calibration system in accordance with MIL-STD-45662 "Calibration System Requirements" or ANSI Z540-1 or equivalent.

**Q13. SURVEYS AND QUALITY REVIEW**

LeeMAH Electronics may conduct a survey and/or perform a review of the Supplier's Quality Assurance system to evaluate the degree of ability to comply with these and other applicable requirements, or to assist in the resolution of quality problems. As necessary, a representative of LeeMAH's Customer may accompany LeeMAH's Quality Assurance representative. The Supplier shall grant right of access and all reasonable assistance to LeeMAH, LeeMAH's Customer, and regulatory authorities, such as the Federal Aviation Administration, to all facilities involved in the order and all applicable records.

The Supplier shall maintain adequate records of inspections, tests and other Quality Assurance activities. Records shall provide objective evidence of the Quality Assurance operations performed, the results obtained and corrective actions taken. Such records shall be available to LeeMAH. Where such records are traceable by serial or lot designation to material supplied to LeeMAH, they shall be retained for a period of at least eleven (11) years from the date of shipment to LeeMAH. At the expiration of this period, LeeMAH reserves the right to request delivery of such records. In the event that LeeMAH chooses to exercise this right, Supplier shall promptly deliver such records to LeeMAH at no additional cost on media agreed to by both parties.

**Q14. SUPPLIER PERFORMANCE REPORTS**

Supplier performance is reported periodically and derived from Supplier responsibilities to deliver within the agreed upon 'delivery window', deliver acceptable material and/or services and provide acceptable documentation as required by the Purchase Orders.

## **Additional Codes: Q15-Q23**

### **Q15. LEEMAH FIRST ARTICLE INSPECTION (FABRICATION ORDER ONLY)**

Orders are subject to the approval of a First Article sample at LeeMAH. Supplier should deliver at least one sample or a lot, which represents in all aspects the items to be delivered, and await approval before producing the remainder of the order. Manufacture of the remainder prior to the First Article Approval is at the risk of the Supplier.

### **Q16. SUPPLIER FIRST ARTICLE REQUIREMENT**

The Supplier shall create or select a first article inspection sample and perform a complete inspection to all drawing requirements. The First Article Inspection Report shall accompany the product upon delivery and the part the First Article Inspection was performed on shall be appropriately identified in the delivery.

The Supplier shall establish and maintain internal processes for the accomplishment of each First Article Inspection ("FAI") in accordance with AS9102 and C019. FAIs are performed to ensure delivered Items are in compliance with the requirements of the Purchase Orders. Suppliers may obtain copies of AS9102 from the Society of Automotive Engineers at: [www.sae.org](http://www.sae.org). Forms can be obtained at: [www.standards.sae.org/as9102a](http://www.standards.sae.org/as9102a).

References to AS9102 in this document refer to the revision in effect at the time of the Purchase Order, or Supplier may work to a more current version of AS9102, if desired, at no additional cost, price or fee to the Order.

### **Q17. FUNCTIONAL TEST REPORTS**

If functional test reports are required per the Purchase Order, the shipment must be accompanied by a legible and reproducible copy of the actual test results, identifiable with the test parameters and products submitted. These reports must contain the signature and title of the authorized representative for the agency performing the test.

### **Q18. SOLDER SAMPLES**

2 (Two) Solder samples are required for First Article inspection.  
1 (One) Solder sample is required for every date code produced.

### **Q19. MATERIAL SAFETY DATA SHEET (MSDS)**

As applicable, the Supplier shall provide LeeMAH with a current Material Safety Data Sheet (MSDS) in conformance with the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and Washington Administrative Code (WAC) 296-62-054. Submittal of the MSDS shall be made at the time of initial shipment or receipt. Thereafter, the Supplier shall provide LeeMAH with the MSDS for the material only if the formulation of the material is modified from that previously supplied and/or annually. The submitted MSDS shall be dated and include the name of the preparer. In the event that the Supplier's point of contact is different than the preparer, then that individual shall also be named in the MSDS.

**Q20. SHELF LIFE MATERIALS**

Supplier shall provide "Shelf Life" materials with a minimum of 60% of said shelf life at time of shipment. Shelf life shall be noted on the Certificate of Conformance (C of C).

**Q21. FOREIGN OBJECT DAMAGE**

The Supplier shall establish and maintain an effective Foreign Object Damage (FOD) prevention program to reduce FOD using NAS412 as a guideline. The material supplied on all orders shall be manufactured in an environment free of foreign objects. Additionally, the material supplied shall be free of foreign objects.

**Q22. FINAL ACCEPTANCE**

Inspection/test acceptance at the Supplier's facilities by LeeMAH does not guarantee final acceptance. Final acceptance shall be at LeeMAH's facility unless otherwise specified on the Purchase Order.

**Q23. REACH**

"Registration Evaluation and Authorization of Chemicals Conformance": Any shipment to LeeMAH Electronics containing SVHC's "Substances of Very High Concern" as described in EU No. 1907/2006 must identify the designated chemicals present in the purchased article and state the conditions under which handling precautions should be taken.

**Q24. PWB QUALITY REQUIREMENTS**

Manufacturer must be certified to MIL-PRF-55110.

**All Printed Copies of this documentation are considered to be UNCONTROLLED.**