



## QP: 2061-04 Rev A Supplier Quality Requirements and Clauses

### Part 1: General Quality Requirements

<b>Quality Management System</b>	The supplier shall maintain a quality system meeting the requirements of ISO 9001 or AS9100. Third-party registration by an accredited registrar is preferred. Suppliers declaring compliance with no formal accredited registration may require review. The manufacture shall be responsible for maintaining certified personnel, facilities, processes, and procedures in accordance with their Quality management system. For suppliers not meeting these specifications, EMLINQ will review and determine if system implemented is sufficient based upon the nature and levels of control required by the parts, materials, or services.
<b>Design and/or Process and/or Material Changes</b>	The supplier shall not implement any changes to EMLINQ drawings and/or specifications and/or materials without written approval from EMLINQ in the form of a EMLINQ-approved Request for Deviation, available from EMLINQ Purchasing or Quality Assurance.
<b>Submission of Nonconforming Material to EMLINQ</b>	Items not in conformance with the requirements of the Purchase Order, EMLINQ drawings, specifications, and industry standards referenced therein, or that cannot be corrected through continuation of the original manufacturing process or by rework, shall not be submitted without prior written approval from EMLINQ in the form of an approved Request for Deviation, available from EMLINQ Purchasing or Quality Assurance. Submittals shall include supplier-recommended disposition(s) with sufficient technical, quality, and reliability justification.
<b>Resubmission of Material</b>	Nonconforming items returned from EMLINQ which are subsequently resubmitted by the supplier shall include indication of resubmission on the accompanying paperwork and shipping documents. Reference shall be made to the EMLINQ rejection documentation and evidence presented to demonstrate that the causes for rejection have been corrected.
<b>Notification of Previous Delivery of Defective Material</b>	In the event the supplier / special processor determines that material previously delivered to EMLINQ was defective, written notification to the EMLINQ Purchasing representative is required within thirty (30) calendar days.
<b>Corrective Action</b>	When requested by EMLINQ, the supplier shall investigate nonconformities to determine the root cause(s) of failures, and take effective action(s) as appropriate to correct the items and prevent future failures. Unless otherwise requested by EMLINQ, such corrective action(s) may be documented in the supplier's format.
<b>Calibration</b>	The supplier shall only utilize inspection and test equipment for acceptance that has been calibrated to the requirements of ANSI/NCCL Z540.1-1994 or other recognized standards.
<b>Preservation &amp; Packaging</b>	Unless otherwise specified, the supplier shall use best commercial practices for preservation and packaging of items supplied to EMLINQ.
<b>Flow Down of Requirements</b>	The supplier shall insure that requirements be flowed down to sub-tier suppliers, including key characteristics, materials selection, first article inspection, process control where required.
<b>Traceability</b>	The supplier shall maintain internal traceability to the raw material level, and shall be able to provide such traceability within a reasonable time frame if requested by EMLINQ.
<b>Record Retention</b>	Suppliers and special processors, as well their subcontractors, shall maintain records to substantiate product compliance to the EMLINQ purchase order requirements and must be capable of furnishing copies of these records upon request of EMLINQ, EMLINQ customers, and government / regulatory representatives as applicable. Such records shall be maintained for a minimum of 10 years after date of delivery to EMLINQ.
<b>Surveillance &amp; Right of Entry</b>	Representatives of EMLINQ, its customers, Government, and/or regulatory agencies (if applicable) reserve the right to visit the supplier and its suppliers with the intent of performing surveillance

	activities including inspections, surveys, audits, resolution of product quality issues, etc.
<b>Foreign Object Detection</b>	All materials, parts, and assemblies must be protected from the intrusion of foreign object debris that could potentially cause damage. As appropriate, the supplier shall develop and implement a Foreign Object Damage/Foreign Object Debris Prevention Program guided by National Aerospace Standard 412
<b>Electro-static Discharge Sensitive (ESDS) Materials</b>	If applicable, the supplier shall maintain an ESD Program meeting the requirements of ANSI/ESD S20.20 for the control, handling, packaging, and identification of ESDS parts and materials
<b>Certificate of Conformance</b>	A legible “Certificate of Conformance” (C of C) statement shall be provided with each shipment submitted to EMLINQ. The C of C shall be in the supplier’s format and may either be a separate document or may be included within the packing list. The C of C statement shall state that the items were produced in conformance with requirements as specified in the EMLINQ purchase order. As a minimum, the C of C shall note 1) the manufacturer or distributor’s name and address; 2) the EMLINQ purchase order number; 3) the part number(s) and revision(s) when applicable; 4) traceability information including serial numbers, lot codes, or date codes as appropriate; 5) shelf-life expiration dates if applicable; and 6) signature of the supplier’s authorized representative.
<b>Inspection and Test Data</b>	The supplier shall provide inspection and test data with the subject item(s). Such test data shall include individual or summary parameter measurements as appropriate.
<b>Counterfeit Parts &amp; Materials</b>	Supplier shall have a counterfeit parts avoidance, detection, mitigation, and disposition program meeting the requirements of Aerospace Standard AS5553. Seller shall only deliver authentic components, devices, pieces, material, modules, assemblies, subassemblies, goods, etc. that are manufactured by or obtained from original equipment manufacturers (OEMs), original component manufacturers (OCMs), or authorized distributors. Seller shall make available to EMLINQ documentation that authenticates and provides traceability of the Parts to the applicable OEM or OCM
<b>Refurbished and Reused Items</b>	Supplier shall not provide refurbished or re-used EEE parts, components, hardware, or materials.
<b>Change of Facility or Ownership</b>	The supplier shall notify EMLINQ when manufacturing operations being performed in support of this purchase order are moved to another facility with a separate street and/or city address. Supplier shall also notify EMLINQ if ownership of the supplier has changed.
<b>MSDS Sheets</b>	Material Safety Data Sheets are required for the product identified on this line of the Purchase Order. Please include these sheets in an envelope that is identified on the outside as the MSDS sheets with the packing list.
<b>EMLINQ-Furnished Material</b>	If applicable, supplier shall certify that material used in fabrication is the material furnished by EMLINQ. Certification shall reference EMLINQ’s Purchase Order of the material being supplied.
<b>UL Marking</b>	If applicable, mainly on the Printed Wiring Boards supplier shall put their UL mark/logo, voltage ratings, company name or trade name or file number and type designation to certify that material and process used in fabrication approved by UL (Underwriters Laboratories).



## Part 2: Specific Quality Clauses

<b>SQC 1: Supplier First Article Inspection</b>	<p>Supplier shall perform a First Article Inspection (FAI) on one piece chosen at random from the first lot presented for EMLINQ acceptance. The FAI shall be performed and documented per the requirements of SAE AS9102, or the supplier's equivalent format. A copy of the FAI report shall be submitted to EMLINQ with the shipment. If discrepancies are noted during the FAI, the supplier shall promptly notify the EMLINQ purchasing representative for guidance. NOTE: First article inspection is not required for supplier part numbers, OEM parts and materials, commercial off-the-shelf items (nuts, bolts, wire, piece parts), QPL parts, etc. Generally FAI's apply to items fabricated to EMLINQ drawings. If uncertain, contact EMLINQ purchasing representative for guidance.</p> <p>Full or delta FAI's shall be required as appropriate for:</p> <ol style="list-style-type: none"> <li>1) Revision change since the previous FAI (delta).</li> <li>2) Changes to supplier's process (delta or full depending on change(s)).</li> <li>3) Break in production exceeding 18 months (full).</li> <li>4) Change of facility (full)</li> </ol>
<b>SQC 2: EMLinQ First Article Inspection</b>	<p>EMLinQ may perform First Article inspection per SAE AS9102 under the following conditions: 1) new supplier; 2) new part number; 3) revision change; 4) same manufacturer but lapse between production runs; 5) verification of implementation of corrective &amp; preventive actions; 6) new facility; or 7) change of ownership.</p>
<b>SQC 3: EMLINQ-Directed Source</b>	<p>The Supplier shall use only those sources of goods or services that have been approved by EMLINQ. Such direction is generally provided on the EMLINQ purchase order.</p>
<b>SQC 4: Solderability</b>	<p>Component leads, terminations, lugs, terminals, and wires shall be capable of meeting the solderability requirements of IPC/EIA J-STD-002. Printed wiring boards shall be capable of meeting the solderability requirements of IPC/EIA JSTD-003.</p>
<b>SQC 5: Material from Different Lots</b>	<p>The Supplier may furnish material from different heats, lots, or batches, as applicable. Where shipments contain parts with different cure dates or are from different heats, lots, or batches, sub-lot separation with a separate certification for each sub-lot is required.</p>
<b>SQC 6: Single Lot / Date Code Traceability</b>	<p>Parts and materials provided against this line item shall be from one lot, manufactured and/or processed at the same time, and shall be traceable to the same raw material lot(s). For example, machined parts shall be manufactured in the same production run and utilize raw material from the same lot.</p>
<b>SQC 7: Mercury Exclusion</b>	<p>The items supplied under this Purchase Order shall contain no metallic mercury or mercury compounds and must be free from mercury contamination. During manufacturing, testing, or inspection, the items supplied shall not come in contact with mercury or any of its compounds nor with any mercury-containing devices employing only a single boundary of containment. Note: A single boundary of containment is one not backed by a second seal or barrier to prevent contamination in the event of an accidental rupture of the primary seal or barrier. In the event this requirement cannot be met, contact the EMLINQ Buyer.</p>
<b>SQC 8: Date Codes &gt; 5 Years</b>	<p>Shipment of electronic components with manufacturing date codes in excess of 5 years is not allowed. Should it not be possible to meet this requirement, supplier must contact EMLINQ purchasing representative for direction.</p>
<b>SQC 9: Traceability –Part Serial Number (If</b>	<p>Each part, component, or assembly specified on this Purchase Order shall be identified with a distinct serial number. Serial numbers shall not be duplicated for one part, component, or assembly number when manufactured in sequential lots and noted on shipment documentation.</p>

<b>Applicable)</b>	
<b>SQC 10: Printed Circuit Boards, Class 3</b>	Unless otherwise specified on the EMLINQ fabrication drawing, printed circuit boards (PCB's) shall meet the workmanship requirements of IPC-A-600, Class 3. When specified on the Purchase Order, independent testing is required prior to shipping the printed wiring boards. All test results and test specimens shall accompany shipments.
<b>SQC 11: IPC-6012</b>	Fabricate to the requirements of IPC-6012, Class 3 per IPC-6011. Acceptance requirements shall be in accordance with IPC-A-600, Class 3.
<b>SQC 12: Printed Circuit Boards, Class 2</b>	Unless otherwise specified on the EMLINQ fabrication drawing, printed circuit boards (PCB's) shall meet the workmanship requirements of IPC-A-600, Class 2. When specified on the Purchase Order, independent testing is required prior to shipping the printed wiring boards. All test results and test specimens shall accompany shipments.
<b>SQC 13: Harnesses and Cables</b>	Class 3 Requirements and Acceptance for Cable and Wire Harness Assemblies. The manufacture shall be responsible for maintaining certified personnel, facilities, processes, and procedures in accordance with the latest revision of IPCWHMA-620. Trainers must possess IPC (registered) approved certificates. The manufacturer further agrees to EMLINQ surveys / audits to verify compliance.
<b>SQC 14: Printed Wiring Boards</b>	When specified on the Purchase Order, independent testing is required prior to shipping the printed wiring boards. All test results and test specimens shall accompany this shipment.
<b>SQC 15: PWB Supplier Certification</b>	Suppliers of printed wiring boards must be certified to MIL-PRF-55110, MIL PRF 31032, or MIL-P-50884 as applicable
<b>SQC 16: Parts Obsolescence Program</b>	<ol style="list-style-type: none"> <li>1) The Supplier represents that it has procured or will maintain, during the performance of this order, sufficient components and materials necessary to perform this order, including obtaining commitments from its suppliers required to meet all option requirements.</li> <li>2) The Supplier represents that it has or will flow down and manage this requirement with its suppliers to ensure they can meet the Supplier's obligations.</li> <li>3) For a period of 24 months after completion of this order, the Supplier agrees to maintain an obsolescence procedure adequate to ensure that the Supplier and its suppliers can provide the Buyer adequate notice that components and material necessary to supply additional new-order quantities of the articles furnished hereunder can be purchased through the Supplier by placing an order within 90 days of receiving said notice. Further, the Supplier agrees to supply the Buyer with such additional articles or components of said articles which are due to be discontinued subject to the Buyer agreeing to compensate the Supplier for its reasonable cost plus profit for such additional orders.</li> </ol>
<b>SQC 17: Government Contract Orders (DPAS)</b>	When DPAS rating is flowed down in the purchase order, the supplier is required to flow down the rating to the EEE parts suppliers for priority allocation.
<b>SQC 18: Nadcap-Approved Special Processors Required</b>	The supplier shall utilize Nadcap-approved special processors to perform special processes as defined by Nadcap (primarily codes CP for chemical processes and HT for heat treating). Nadcap-approved special processors are listed in the eAuditnet Online QML at: <a href="https://www.eauditnet.com/eauditnet/eau/user/login.htm">https://www.eauditnet.com/eauditnet/eau/user/login.htm</a>
<b>SQC 19: Export Control</b>	Export Control Notice. This P.O. may contain technical data whose export, transfer, and /or disclosure may be controlled by the U.S. International Traffic and Arms Regulation (ITAR) 22 CFR part 120-130 or the Export Administration Regulations Commerce.

<b>CHANGE RECORD</b>					
Internal ECO #	From	To	Description of Change	Approval Date	Approved By:
010-2014	*	A	Initial release	08/21/2014	J.Simonoff