

I. PURPOSE

A. This document defines the Quality Assurance requirements for products and services ordered by dataCon, Inc. Purchase Order. **General Section III of this document applies to and forms part of all dataCon, Inc. purchase orders.** In addition, Special Product Assurance Requirements indicated in Section IV of this document apply when and as indicated on the purchase order.

II. DEFINITIONS

- A. **Buyer:** The term "BUYER" means dataCon issues and administers the Purchase Order which this document supplies.
- B. **Vendor/Seller:** The term "VENDOR/SELLER" means the legal entity which is the contracting party with the Buyer with respect to the Purchase Order.
- C. **Product:** Purchase order deliverable requirement, that includes any and all raw, semi-finished and finished material used to; fabricate, assemble and test the purchase order deliverable.

III. GENERAL REQUIREMENTS

Unless otherwise specified in the Purchase Order, the following general requirements apply to this Purchase Order:

- A. **Applicability:** These general requirements shall apply to dataCon Vendors whenever SPQAR-7255 is invoked by Purchase Order. Other specifications apply when referenced on drawings or the Purchase Order.
 - 1. **Important:** Special Product Quality Assurance Requirements, Section IV of this document, apply when specifically invoked by the code number on the Purchase Order.
- B. **Specifications:** The Vendor may obtain copies of pertinent specifications through the dataCon Purchasing Department or the cognizant Government agency.
- C. Deleted
- D. **Vendor Assistance:** In the event that the requirements are not completely clear, or where special assistance is needed, dataCon will provide qualified

personnel to consult with the Vendor on items and services being procured.

- E. **Vendor's Quality Control System:** The Vendor's Quality Management System shall conform to the following:
 - 1. **Organization:** Quality Assurance responsibility shall be clearly designated with the Vendor's organization. Personnel having this responsibility shall have sufficient authority to assure that quality not be compromised.
 - 2. **Procedures:** The Vendor's Quality Assurance System shall be implemented by written procedures which adequately provide for compliance with the requirements of the Purchase Order.
- F. **Surveys:** dataCon may conduct a survey of the Vendor's Quality Assurance System to evaluate the degree of ability to comply with these and other applicable requirements, or assist in the resolution of Quality issues.
- G. **Records:** The Vendor shall retain adequate records of operations and related product/services for a minimum period of seven (7) years, unless otherwise required by customer contract. Records shall provide objective evidence of:
 - 1. Quality Assurance inspection, raw material procurement data, product dimensional measurement and testing data, fabrication and assembly methods etc. All records shall be available to dataCon Inc. upon request.
- H. **Final Acceptance:** Inspection/Test acceptance at the Vendor's facility by dataCon does not guarantee final acceptance. Final acceptance shall be at dataCon unless otherwise specified on the Purchase Order.
- I. **Conformance Responsibility:** Inspection or tests conducted by dataCon or representatives of the dataCon customer at the Vendor's facility shall not relieve Vendors from their responsibility in meeting the Quality Requirements of the Purchase Order.
- J. **Sampling:** dataCon reserves the right to use MIL-STD-105 or equivalent sampling plans for the acceptance or rejection of product. If a lot is rejected by the sampling procedure, the entire

lot may be returned to the Vendor for screening at the Vendor's expense, or the rejected lot may be screened by dataCon at the Vendor's expense (if agreed to by the Vendor).

- K. **Certification Requirements:** The vendor is responsible for compliance with all certification requirements referenced through the Purchase Order and for the maintenance of Quality Assurance records evidencing compliance regardless of whether work was performed by the vendor or the vendor's sub-tier supplier.
- L. **Drawing and Change Controls:** The vendor's Quality Management System shall ensure that the latest applicable drawings, specifications, technical requirements, purchase order information and changes thereto will be available at the time and place of the vendor's acceptance of product.
- M. **Design:** When design is the vendor's responsibility, but requires dataCon, Inc. approval, changes shall not be made without written authorization from dataCon, Inc.
- N. **Supplier Flowdown- Includes Special Processes:** The Vendor shall maintain a system to assure that Vendor-procured material and services conform to drawing and specification requirements. Applicable Quality Assurance requirements shall be flowed to the Vendors in every tier. The seller's Quality System shall assure all Purchase Order requirements are flowed down to their sub-tier suppliers. The seller's sub-tier suppliers shall comply with the requirements specified on the Purchase Order.

Important * Note:

1. The vendor shall use only qualified, dataCon, Inc. or dataCon Inc. customer, approved sub-tier suppliers for out sourced special processes (i.e. soldering, welding, printing, passivating, chromating, NDT, anodizing, painting, plating, etc.) The vendor is responsible for requesting from dataCon, Inc. the name(s) of qualified and approved special process sub-tier suppliers, if not known, before execution of the

purchase order. C of C's for all special processes performed shall comply with Code 23 in section IV and be included with the product shipment. Form SPQAR-7255-01 will accompany the purchase order for the supplier to sign and return acknowledging the understanding of the SPQAR-7255 codes, the requirements stated on form SPQAR-7255-01 and on the Purchase Order. Exempt will be procurement of Commercial Off The Shelf, (COTS), items.

2. **Counterfeit Part Mitigation:** The vendor and or the vendor's sub-tier supplier shall provide a certificate of origin traceable to the original manufacturer for all EEE parts and devices supplied under the purchase order. Failure to include a certificate of origin will be cause for non-acceptance of the components and devices by dataCon.
- O. **Processing:** The Vendor shall establish a system that assures product processing, the control of which cannot be readily determined by inspection of the part and will be performed in accordance with specification requirements in adequate facilities by competent personnel using proper procedures. Any process performed outside the Vendor's facility shall be controlled in the same manner.
- P. **Inspection:** The Vendor shall perform inspection and/or test on end items covered by the Purchase Order prior to submission to dataCon, or prior to delivery. Records to include; production methods, travelers, inspection/tests and test specimens shall be maintained for a minimum period of seven (7) years by the Vendor, unless otherwise required by customer contract. Any statistical sampling procedures used in Final Inspection/Test may be subject to approval by dataCon.
- Q. **Inspection Status:** The Vendor shall maintain a system for identifying product Inspection Status. Identification may be by means of stamps, tags, routing cards, labels or other normal control devices.
- R. **Material Review:** The Vendor shall not Repair or disposition final product as "Use as is" when product is found to be defective without written approval by dataCon Quality Assurance.
- S. **Preservation and Packaging:** (Note: Specific packaging and preservation instructions identified on the Purchase Order take precedence over the following requirement.)
1. All materials intended for dataCon shall be protected and packed against corrosion, contamination, deterioration, damage through handling or improper storage or other spoilage at Vendor's, in transit and during storage at dataCon before use.
- T. **Measuring and Test Equipment Calibration System:** The Vendor's measuring test equipment calibration must comply with requirements of MIL-STD-45662 or ANSI540Z; and ANSI540Z shall be traceable to the National Institute of Standards and Technology. The Vendor shall maintain records and other conclusive evidence that proper control is being provided.
- U. **Corrective Action:** The following acts or practices are strictly prohibited:
1. **Unauthorized Repair:** Repair of any parts deemed critical by dataCon without written authorization from dataCon.
 2. **Unauthorized Processing:** Addition, revisions or deletions of thermal and/or chemical processes in manufacturing are prohibited, at every tier, when processes are subject to specific controls.
 3. **Disregard of Approvals:** Change in any process or Quality Assurance procedure that is subject to specific approval by dataCon without proper notification and re-approval.
 4. **Improper Product Submittal:** Submission of product having known defect/problems to dataCon without notification.
 5. **Improper Product Re-submittal:** Resubmission of product to dataCon without being clearly identified as resubmitted product.
 6. **dataCon, Inc.** will not accept RoHS compliant/lead free parts unless it is specifically stated on the P.O.
- V. **Parts/wire/components** procured under this Quality Provision must be received with a Certificate of Compliance stating that they were solderability tested and meet the requirements of J-STD-001 & J-STD-002. The Certificate of Compliance must state the date the solderability test was performed. Test data must be available and furnished upon request. NOTE: Un-tinned component leads expire in 120 days; tinned components expire in two (2) years. Material received must have 75% available shelf life.
- W. Vendor shall utilize industry standard techniques on all relevant processes, operating, and inspection areas handling ESD sensitive components, including static sensitive packaging. Systems shall be adequate to protect the most sensitive components in use per MIL-STD-1686 and DOD-HDBK-263 or ANSI/ESD S20.20.
- Y. **Foreign Object Damage:** The seller shall establish and maintain an effective Foreign Object Damage (FOD) Prevention Program to reduce FOD. The Seller's program shall utilize effective FOD prevention practices. The program shall be proportional to the sensitivity of the design of the product(s) to FOD, as well as, to the FOD generating potential of the manufacturing methods.
- The written or policies developed by the Seller shall be subject to review and audit by the dataCon, Inc.
- Z. **Process Changes:**
1. Parts supplied under this contract shall be homogenous and identical. The contractor shall not implement any changes in the design, process steps, process sequence, consumable materials used, suppliers of components, suppliers of processes and/or tooling used in the manufacturing of items supplied under this contract without the express written authorization of dataCon. A design change shall be defined as all changes in materials, material characteristics, and all dimensional changes. A processing/method of manufacturing change shall be defined as a change in processing methods, e.g. plating, wiring routing, Heat treat, sub-tier supplier, manufacturing site, etc. Tooling in the context of this note

includes shop-aids, molds, holding fixtures, etc. Acceptance tolling and any other tools used to assist in manufacturing the first and subsequent production article.

2. The contractor shall submit a formal request for change to the appropriate buyer. The proposal shall provide a full and adequate description of the proposed change including an anticipated effectivity date. The buyer shall forward the technical disposition to the contractor. If the change is approved the contractor shall provide the buyer with a firm effectivity date. Failure to notify dataCon may result in rejection of items produced subsequent to changes. If a first article is a requirement of the contract, cost incurred as a result of performance of a new first article will be the sole responsibility of the contractor.

AA. dataCon and its customers, Federal Prime Contractor and/or regulatory authority representatives shall have right of access to quality management system documentation, all applicable records and all facilities involved in this Purchase Order.

AB. Moisture sensitive parts shall be packaged in moisture proof packaging and the moisture sensitivity level shall be indicated.

IV. SPECIAL PRODUCT ASSURANCE REQUIREMENTS

These **Special Product Quality Assurance Requirements** shall apply to dataCon Vendors when specifically invoked by the code number on the Purchase Order.

- Code 1:** The Seller shall comply with the provisions of "Inspection System Requirement" MIL-I-45208, revision in effect on date of Purchase Order.
- Code 2:** The Seller shall have implemented a "Quality Management System In accordance with; MIL-Q- 9858, or AS9100 or ISO9001 Quality Management System requirements.
- Code 3:** A "First Article configuration Inspection" is required prior to delivery of first production unit(s). The FAI shall be

performed and submitted using the AS9102 format.

- Code 4:** Deleted
- Code 5:** First Piece Inspection, dimensional data shall be included with the shipment.
- Code 6:** Inspection reports shall be furnished with each shipment. Reports shall include actual recorded readings of measurements taken.
- Code 7:** Seller shall submit a Certificate of Conformance, signed by an authorized representative, with each shipment of items covered by the purchase order. The Certificate of Conformance shall certify items as delivered comply with all specifications and other **requirements. C of C from Authorized Distributors for NAS, MIL Spec hardware, and similar Military certified parts need to have the Original Equipment Manufacturer identified for each component on the C of C.**
- Code 8:** All boards shall be serialized to Coupons and Cross-Sections. Coupons, Cross-Sections and Evaluation Test data to be supplied with each lot in accordance with IPC- 6012 revision in effect on date of Purchase Order.
- Code 9:** dataCon Source inspection is required. Notify dataCon Procurement within five working days to permit scheduling of Source Inspection.
- Code 10:** All printed circuits making up a panel will be scrapped if any printed circuit board is found to have an inner layer short or open. This will occur regardless of what stage of manufacture the panel is in.
- Code 11:** **Electrical Testing required.** Test records must be traceable to each unit.
- Code 12:** **Government Inspection** is required prior to shipment from your plant. Upon receipt of this order: promptly notify and furnish a copy of the order to the Government Representative who normally services your plant or if none, to the nearest Army, Navy, Air Force, or

Defense Supply Agency inspection office. In the event the representative or office cannot be located, our purchasing agent should be notified immediately.

- Code 13: Plating/Thickness and Alloy Verification Analysis** shall be submitted with each shipment demonstrating compliance with applicable specifications as referenced on the Purchase Order or Drawing. NOTE: Data may be included on the Certificate of Conformance or attached thereto.
- Code 14:** The Vendor shall incorporate good commercial practices for preservation and packaging of all articles applying to this Purchase Order. The purchase order number, quantity and part number as a minimum must be referenced on all shipping containers.
- Code 15: Certificates of Compliance** for raw material laminates, solder mask, solder; shall be submitted with each shipment demonstrating compliance with applicable specifications as required on the Purchase Order or drawing and traceable to receiving inspecting records.
- Code 16: PCB's** shall be date coded in accordance with MIL-STD-1285 and serialized in accordance with IPC-6012 revision in effect on date of Purchase Order
- Code 17: Operators / Assemblers / Inspectors** shall be certified to J-STD-001/IPC-610 revision in effect on date of Purchase Order
- Code 18:** ESD Program: Vendor shall comply with the requirements of MIL-STD-1686, or ANSI/ESD S20.20 and revision in effect on date of Purchase Order. See Code19 below.
- Code 19:** Vendor shall utilize industry standard techniques on all relevant processes, operating, and inspection areas handling ESD sensitive components, including static sensitive packaging. Systems shall be adequate to protect the most sensitive components in use.

- Code 20: Parts/wire/components**
procured under this Quality Provision must be received with a Certificate of Compliance stating that they were solder ability tested in accordance with J-STD-002 and the date of the tests. Test data shall be available and furnished upon request. NOTE: Un-tinned component leads expire in 120 days; tinned components expire in two (2) years. Material received must have 75% available shelf life.
- Code 21: Time Sensitive Material:** Time and temperature storage conditions must be attached to the packing sheet and accompany each shipment to be delivered. The outermost shipping packaging must be marked to indicate "Time and Temperature Storage Range in Degrees." Time sensitive product shall be received with a minimum of 75% available shelf life.
1. Seller shall submit a Certificate of Conformance that shall indicate the date of manufacture and the expiration date for time sensitive material. The supplier in addition to material produced by them is responsible for ensuring that the requirements of this quality clause is known and indicated on the C of C for any and all time sensitive material procured from their sub tier vendors.
- Code 22: Statistical Process Control (SPC)**
techniques shall be used to the extent practical. The contractor shall identify during the development/planning phase(s) processes which would benefit from the implementation of SPC methodologies. Upon request by dataCon, the contractor shall make available objective evidence that such analysis has taken place and the results of the analysis.
- Code 23: Certificates of Compliance** for material, finish, and any applicable special process (i.e. soldering, welding, printing, passivating chromating, NDT, etc.) shall be submitted with each shipment. Certificate of Compliance shall be specific to applicable requirement specified on the purchase order or drawing. In addition every delivery of PCBs must include a solder sample board.
- Code 24: Certificate of Conformance** for solder must state conformance per QQ-S-571, and as procured, solder bar content shall contain no more than 0.01% phosphorus, or 0.0001% Sulphur.
- Code 25: Certificate of Conformance** for flux shall state conformance to J-STD-004.
- Code 26: Certificate of Conformance** for cleaners and solvents must state conformance to applicable spec, trichloroethane 1.1.1 to MIL-T-81533, isopropyl alcohol to TT-1735, etc.
- Code 27: Material Safety Data Sheets (MSDS)** shall be included with shipment. Catalog items; raw parts and materials used in deliverables shall be traceable to the manufacturer's purchased lot records.
- Code 28: Catalog items** (not requiring MSDs) and raw material used in deliverables must be traceable to the manufacturer's purchased lot records
- Code 29: Records** See Section III, paragraph "G"
- Code 30: Wire, gages 32-24** used for wire wrap purposes shall be supplied on a reel with a minimum core diameter of eight (8) inches.
- Code 31:** Deleted - See Section III, paragraph "V"
- Code 32: Moisture sensitive parts** shall be packaged in moisture proof packaging and the moisture sensitivity level shall be indicated.
- Code 33: Certificate of Conformance** for Specialty metals - means: Steel (A) With a maximum alloy content exceeding one or more of the following limits: manganese, 1.65 %; silicon, 0.60 %; or copper, 0.60 %; or (B) Containing more than 0.25 percent of any of the following elements: aluminum, chromium, cobalt, columbium, molybdenum, nickel, titanium, tungsten, or vanadium; (ii) Metal alloys consisting of nickel, iron-nickel, and cobalt base alloys containing a total of other alloying metals [except iron] in excess of 10 percent; (iii) Titanium and titanium alloys; or (iv) Zirconium and zirconium base alloys. (b) Any specialty metals incorporated in delivered articles shall be melted in the United States or its outlying areas. This clause does not apply to specialty metals melted in a qualifying country or incorporated in an article manufactured in a qualifying country. The Supplier shall insert the substance of this clause, including this paragraph (d) in all purchase orders to the supplier's sub-tier suppliers including commercial subcontracts, for items containing specialty metals.