

		<i>Description:</i> SUPPLIER QUALITY CLAUSE DEFINITIONS		
		<i>Document no.:</i> SPO-002	<i>Revision:</i> M	<i>Document Owner:</i> CLAYTON WATSON

QC201 – Standard Requirements

Prohibited Practices

The following acts or practices are typical of those prohibited:

- a) Unauthorized Repair - Repair made on purchased items damaged or found to be defective during the fabrication and/or manufacture, which are not authorized by Kitron.
- b) Unauthorized Processing - The Seller shall not change, add, or delete any process, material, drawing characteristic, and/or procedure without the Buyer’s **WRITTEN** approval.
- c) Disregard of Approvals - The supplier shall not change or delete any quality control procedure or process that is subject to specific approval by Kitron without prior written approval by Kitron Quality Assurance.
- d) Improper Re-submittal - Supplies rejected by Kitron and subsequently re-submitted to Kitron shall be clearly and properly identified as re-submitted supplies. The Supplier’s shipping document shall contain a statement that supplies are either “replacement” or “reworked” supplies and shall refer to Kitron’s rejection document number.
- e) Unauthorized Submittal of Production Parts - When the Purchase Order requires Kitron acceptance of First Article prior to delivery, the Supplier shall not submit articles from a production run prior to Kitron’s approval of the First Article unless authorized by Kitron in writing.
- f) Notification of Facility Change - The supplier shall not relocate any production, manufacturing, and/or processing facilities, or transfer work between Supplier’s facilities, during performance of the Purchase Order, without promptly notifying Kitron and affording an opportunity to examine such facilities for compliance with required Quality Assurance requirements, including any necessary approvals.
- g) Subcontracting - The Supplier shall not procure or contract for procurement the complete or substantially complete manufacturing or fabrication of any item covered by this order without first securing the written approval of Kitron.

Responsibility for Conformance

Neither audit, surveillance, inspection, and/or tests made by Kitron personnel or representative at either the Supplier’s or Kitron’s facility, nor the Supplier’s compliance with all applicable Product Assurance Requirements shall relieve the Seller of the responsibility to furnish supplies which conform to the requirements of the Purchase Order.

Proprietary Rights

A. The Supplier shall notify Kitron, in writing, of any changes in product design, fabrication methods, materials, or processes of proprietary products, and shall obtain Kitron’s approval prior to effecting such

changes. In the event of Kitron approval, the Supplier shall identify those products on which the change(s) is incorporated and furnish the applicable revised specifications, drawings, and/or catalog with the initial shipment of the changed products on the Purchase Order.

B. Unless otherwise expressly agreed in contrary all information, data, specifications, data, part prints, drawings and other items which are supplied to Seller by Buyer or obtained or developed by Seller in the performance of this Purchase Order or paid for by Buyer shall be proprietary to Buyer, Shall be used only for purposes of providing goods or services to Buyer pursuant to this Purchase Order, and shall not be disclosed to any other party without Buyer's express written consent. All such items supplied by Buyer or obtained by Seller in performance of this Purchase Order or paid for by Buyer shall be promptly provided to Buyer on request or upon completion of this Purchase Order.

Documentation

a) Certificate of Conformance (CofC) - The supplier shall furnish all certifications/documents required by the Purchase Order whether specified directly on the Purchase Order or specified by reference to the clauses within. The Supplier is responsible for furnishing certifications and/or documents from any/all sub-tier suppliers. Certifications MUST include the signature and title of authorized personnel taking responsibility for the validity of all required certifications.

b) Sub-Tier CofC - The Supplier is responsible for obtaining, identifying, and furnishing certifications/documents from sub-tier suppliers. Prior to submittal, the Supplier shall reference on such sub-tier certifications/documents the Kitron Purchase Order number and item (part, process, material, etc.) for which the certification is supplied.

c) Kitron Acceptance - Kitron (the buyer) may refuse to accept the supplies delivered under the Purchase Order if the Supplier fails to submit the certifications/documents, test data or reports required by the Purchase Order and/or the requirements specified within.

d) Machined and / or fabricated metal parts / items requiring special surface treatments / preparation **shall** be accompanied with a certification, attesting that all special surface treatments / preparation have been successfully applied. **Note:** These special surface treatments/ preparation will be referenced on the body of prints and / or drawings supplied by Kitron for processing.

e) Retention of Records - Unless otherwise specified, the Supplier shall retain objective evidence, including records of the inspections and test performed in the course of manufacturing, testing, processing, inspecting, preserving, packaging, and shipping of items on the Purchase Order for a minimum of ten (10) years after completion of the order. Such records shall be made available to Kitron for review upon request.

f) Supplier is responsible for nonconformance reporting after delivery in the event that the supplier may be aware of nonconforming material may have been delivered to Kitron.

g) Supplier is required to obtain written approval from Kitron if there is a change to supplier's product or processes, including their Quality Management System.

h) Changes to External Providers: Supplier shall flow all requirements of the purchase orders from Kitron to their sub-tier suppliers. Supplier shall require sub-tier suppliers to comply with all requirements notify supplier of any organizational changes. These changes shall be provided to Kitron and require written authorization by Kitron to proceed.

i) Supplier shall notify Kitron of any changes to processes, products, or services including changes of their external providers or location of manufacturer, and obtain written approval from Kitron.

Authorized Deviations

A. Supplier may, upon approval of Kitron, submit for review material which does not meet the requirements of the drawings, specifications, and/or Purchase Order requirements. This submittal may be on the Supplier's format or the Kitron Discrepancy Report, as agreed by Kitron and shall include a complete description of each discrepancy, root cause, and the corrective action taken to preclude recurrence. Dependent upon Kitron's customer requirements and agreements pertaining to nonconforming material, Kitron shall review and disposition all supplier reported discrepancies. A completed copy of the submitted document shall be returned to the Supplier upon completion of the Kitron Review of Material. The Supplier shall not ship a discrepant item reported and submitted to Kitron without Kitron's prior concurrence. The Supplier shall reference the submitted document number on the shipping document and include a copy of the approved submittal document with each shipment of items identified of the submittal.

Access to Facilities

The seller agrees to provide the "the right of access by the organization, their customer, and regulatory authorities to the applicable areas of facilities and to applicable documented information, at any level of the supply chain. Kitron, its customers, regulatory and statutory authorities reserve the right to perform an on-site audit, inspection or visit of the Supplier's facility and it's sub-tier suppliers. This may include the Supplier's processes, procedures and the suppliers Quality System. The Supplier shall provide all necessary data as required by applicable drawings, Purchase Order, specifications, and inspection instructions to facilitate the on-site inspection notification.

Government Contracts - On items intended for use in Government contracts, the access to the Supplier's facilities as defined above shall be made available to authorized Government representative(s) upon request.

Fraud or falsification

This company / division / department / branch performs work under contracts which are in the jurisdiction of departments or agencies of the United States Government. Some of the work performed under these contracts affects the national security of the United States and the requirements of these contracts are designed to ensure that essential attributes of work are carefully checked or inspected and that records accurately reflect the results of all work. Any falsification, concealment or alteration of any material fact, or any false fraudulent or fictitious statement or representation in connection with the work under any contract within the jurisdiction of the Government is not only prohibited by company policy, but may also be punishable under Federal law. The seller further agrees that Confirmation & Acknowledgement of any Kitron Technologies Purchase Order, constitutes that you have read and understand the above and will conform & comply to this statement.

DFARS 252.204-7020 AND DFARS 252.204-7019

Beginning November 30, 2020, Contracting Officers must include the new DFARS 252.204-7019 provision and DFARS clause 252.204-7020 clause in all solicitations and contracts, with certain exceptions including solicitations or contracts solely for the acquisition of commercial-off-the-shelf (COTS) items. These will require the DoD supply chain to quantify their current cybersecurity compliance with NIST SP 800-171 requirements using the NIST SP 800-171 DoD Assessment Methodology. Pursuant to 252.204-7020,

contractors such as Kitron may not award a subcontract or other contractual instrument that is subject to the implementation of NIST SP 800-171 security requirements, in accordance with DFARS 252.204-7012, unless the supplier has:

1. Completed at least a Basic Assessment in accordance with NIST SP 800-171 DoD Assessment Methodology (or in the alternative the Government performed Medium or High Assessment) within the last three years for all covered contractor information systems relevant to its offer that are not part of an information technology system operated on behalf of the Government; and
2. To the extent the supplier completed a Basic Assessment, it submitted its summary level scores, and other information required by paragraph (d) of DFARS 252.204-7020, either directly into the Supplier Performance Risk System (SPRS) or via encrypted email to webpmsmh@navy.mil for posting to the SPRS.

QC202 – ISO/Calibration/ESD

Quality System per ISO 9001:2015 & AS9100D

The supplier shall provide and maintain, and require subcontractors provide and maintain, an inspection and quality assurance system meeting stipulated contract requirements that is acceptable to Kitron Defense Inc. and / or Government. The supplier shall notify Kitron Defense Inc. in writing of any change, other than editorial, to the quality system (manual).

Calibration System per ANSI/NCSLZ540-1:2006 (R2013)

The Supplier's calibration system shall meet the requirements of ANSI/NCSLZ540-1:2006 (R2013) MIL "Calibration System Requirements."

Electrostatic Discharge Procedures in conformance with MIL-STD-1686 and/or ANSI/ESD-S20.20

Special ESD Clause

Areas in which ESD items are handled SHALL be equipped with humidity monitoring devices. When the relative humidity drops below the permitted lower limit of 30%, all work on ESDS items SHALL cease until either:

- a) The relative humidity increases to at least the lower limit or,
- b) Ionization equipment utilized at the ESD workstation must be turned on and properly positioned with respect to the product and operated in accordance with the manufacturer's operating instructions.

Awareness

Supplier is required to ensure all persons doing work under the organization's control are aware of:

- a) Their contribution to product or service conformity.
- b) Their contribution to product safety.
- c) The importance of ethical behavior.

QC203 – Government Documentation

If a Government Contract is attached to this purchase order all documentation and reference data for purchases, purchase orders applying to a Government contract shall be available for review by the Government Representative to determine compliance with the requirements for control of such purchases. Copies of purchasing documents required for Government inspection purposes shall be furnished in accordance with instructions of the Government Representative.

If no Government Representative is assigned to your facility contact 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.

QC204 – Source Inspection

Items to be delivered under the Purchase Order require final inspection, test or surveillance by the Buyer's Quality Representative at the Supplier's plant, prior to delivery. When the product is ready for source inspection, the Supplier shall notify Buyer's Purchasing Department at least two working days in advance to permit scheduling of source inspection. Upon request, the Supplier shall make available to the Buyer, facilities, equipment and personnel to operate the equipment as required.

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QC205 – Government Source Inspection

If Government inspection is imposed by contract required to shipment from the Supplier's facility, supplier shall: Upon receipt of this Purchase Order, the Supplier shall promptly notify the Government Representative who normally services Supplier's plant, in order that appropriate planning for Government inspection can be accomplished.

The supplier shall make available to the Government Representative reports of any non-conformance found on Government source inspection supplies and shall (when requested) require the subcontractor to coordinate with his / her Government Representative on corrective action.

Measuring and Test Equipment (Government Source Inspection)

When required, the supplier's measuring and / or test equipment shall be made available for use by the Government Representative to determine conformance of contract requirements. In addition, if conditions warrant, supplier's personnel shall be made available for operation of such devices and for verification of their accuracy and condition.

The supplier shall repeat any measurement and / or test that the customer and / or Government Representative and Government Source inspection is required, may reasonably request to substantiate that the order requirements have been meet.

QC206 – Certificate of Compliance

The Supplier shall place on (or on a separate document attached to) their packing sheet/shipper covering each shipment of articles, a certificate of conformance worded substantially as follows and bearing in ink the signature and title of the Supplier's responsible quality representative.

Material supplied on this purchase order shall conform to requirements stated therein, and shall be accompanied by a CofC, which must contain the following information:

- Kitron Purchase Order Number, PO revision and line item number
- Part number of item (as specified on the purchase order), revision and quantity
- Drawing or specification number and revision if different than the Kitron part number and revision
- All raw materials, hardness, etc. that are specified on the purchase specification must be listed on the C of C
- Serial number(s), date code(s), lot, batch, heat number(s), must be recorded when applicable
- Cage Code (if applicable)
- Authorized agent's name, signature, title and date

The supplier or distributor shall provide a certificate of conformance with each shipment of items delivered to Kitron. The certificate shall state that the supplier and/or the original manufacturer has performed all inspections and required tests identified on the Kitron Purchase Order and the delivered Items meet all of the requirements identified on the Kitron Purchase Order.

Completion of this Certificate shall not modify or limit any representations, warranties or commitments made or in any way that affect the obligation of Seller to perform strictly in accordance with the provisions of the Purchase Order.

QC207 – Raw Material Test Reports

For each lot or heat of material supplied on this order, the Supplier shall furnish a certified material test report showing the material description, including as applicable, the material name or designation, alloy, type, grade or condition, the producer's (mill) name, the lot or heat number and the material specification and revision to which the material complies, and in addition, for:

a) **Ferrous Materials** - show the actual values of chemical and physical properties obtained from the lot or heat versus values required by the applicable material specification.

b) **Non-Ferrous Materials** - Show the typical or range of values of the chemical and physical properties of the material and a statement that the material conforms to the requirements of the applicable material specification.

QC208 – Kitron Furnished Material

Strict accountability of material furnished on this order must be maintained. The Supplier shall attach to the packing slip covering each shipment of articles a statement certifying that:

- a) The articles are manufactured from material furnished by Kitron;
- b) The articles are from material of lot number(s) identified on the material or Kitron shipper;
- c) Material substitution was NOT made. In the event that more than one lot of material is furnished, the Supplier shall maintain individual material lot integrity.

QC209– Traceability, ID & Control

The Supplier shall provide positive traceability of each part (and serial numbers, if applicable) to the material certifications and/or test reports of the specific raw material from which it was manufactured. Traceability may be provided by identifying individual parts with the producers heat lot number, batch or melt or a unique identifier assigned by the Supplier and referenced to the material certifications and/or

test reports. Parts with insufficient surface for marking may be packaged in separate lots and identified with lot numbers on unit packages on attached tags.

QC210 – Control of Special Processes

All special processes such as surface treatments, painting, plating, heat treating, welding, and non-destructive testing required for completion of this order shall be performed only by processors approved for the applicable process. Suppliers shall be certified to the applicable process service and / or shall be referenced on a current Qualified Products List (QPL).

Note: Use of non-approved suppliers shall result in rejection and return of material to supplier.

QC211 – Process Certifications

For all special processes (Ref. QC210) required by the Purchase Order and performed by the Supplier or by the sub-tier suppliers, the Supplier shall furnish the original certification/test report issued by the Supplier of his sub-tier supplier that actually performed the process. The certification/test report shall include a complete description of the special process performed (name, applicable process specification, type class, grade, etc.), the quantity and description (part number, name) or the items processed and when applicable a statement that the process was performed by certified operator(s). The following criteria shall be used to define original certification/test reports:

- Certifications/documents that have been written in ink, typed, or typed carbon copies, signed by a responsible official of the issuing organization in ink.
- Computer prepared certifications/documents that have been signed by a responsible official of the issuing organization in ink.
- Reproduced copies of certification/documents that have been attested and notarized in ink as true copies of the original certification/documents.

Note: It is the Supplier's responsibility to assure that sufficient copies of such certifications are obtained and available.

QC212 – Test Samples

The Supplier shall furnish for Buyer verification testing one (1) additional part of suitable test sample of the same material lot and processed simultaneously with each lot of parts supplied on this order. Both the test sample and Supplier shipping documents shall identify the sample part number, process and batch or lot number.

QC213 – Rubber Goods

Unless otherwise specified on the Purchase Order or reference documents, age control of rubber goods shall conform to the requirements of SAE-AS1933 (Aerospace hoses and hose assemblies) SAE-ARP5316 (O-rings and other molded seals). The Supplier shall have an effective system of age control of items for which acceptability is limited by age of the item. The system must include a method of identifying the age of such items and provisions for the rotation of stock. All other refer to MIL-HDBK-695 (Guidance Only) Recommended Shelf Life, Rubber Products for handling and storage.

QC214 – Limited Shelf Life Material

Supplier shall show on each container of materials having a limited or specified shelf life (both Supplier's in plant containers and containers in which material is delivered to Buyer) the cure of manufacture date, expiration date, lot or batch number and special storage and handling conditions applicable to the contents this information shall be in addition to the normal identification requirements of name, part or code number, specification number, type, size quantity, etc. Special handling conditions shall be recorded on certifications and shipping documents covering the material as delivered to Buyer, in addition to normal identification information. Each item purchased must exhibit at least 80% of its original shelf life in order to be accepted. Failure to do so will result in the rejection and return of this product.

QC215 – First Article Inspection at Supplier's Facility

Buyer acceptance of First Article is required prior to the production run. The First Article shall be identified as such including the Purchase Order number, part number and part name. The Supplier shall submit the First Article to Buyer's facility for test, inspection, and reporting.

QC216 – Reserved

QC217 – First Article Report

Supplier shall perform a complete first article inspection to applicable drawings, specifications, technical instructions, processing tooling, inspection and test equipment in accordance with the guidelines below to assure the product is compliant with the requirements of this purchase order.

FAI applies to one piece from the first production run, unless otherwise set forth in this purchase order through written waiver by quality assurance.

Supplier is responsible for determining the method of performing FAI and shall use a form that contains all required information as specified in SAE AS9102.

The FAI requirement, once invoked, shall continue to apply even after initial compliance. Any or all of the following events requires re-accomplishment of a full, or a delta / partial FAI for affected characteristics: (note: if none of the following conditions are applicable at the time of product delivery, first article inspection is not required.)

- A change in the design affecting form, fit, or function of the part
- A change in manufacturing source(s), processes, assembly line, inspection method(s), location, tooling, or materials
- A change in numerical control program or translation to another media
- A natural or man-made occurrence which may adversely affect the manufacturing process
- All repeat builds on production parts when more than two years has elapsed (or as otherwise directed in the purchase order) since the last production item was produced
- When required as part of corrective action for a part number with repetitive rejection history Supplier shall segregate and identify the FAI unit in a separate container when delivering to Kitron. The FAI report is to accompany the FAI unit.

Supplier shall assure that discrepancies and non-conformances, if any, discovered during the FAI are documented and dispositioned by the appropriate material review board (MRB). (Suppliers MRB for supplier designed and Kitron customer MRB for Kitron / Customer Design).

First Article reports for items controlled by CAD files as referenced in the item drawing shall record all dimensions listed on the drawing. A CAD file dimension not listed on the drawing is only to be documented in the inspection report when its respective tolerance is called out on the drawing.

QC218 – Supplier Inspection

Supplier shall perform 100% inspection of all items covered by the Purchase Order. Records of Supplier's 100% inspection results showing actual values shall accompany each delivery of articles.

QC219 – Functional Test Reports

The Supplier shall furnish the actual test results (data sheets) recording actual readings for all test parameters specified by the drawing specification or purchase order. Test reports must be identifiable with individual item or lot submitted and signed by Seller's authorized representative.

QC220 – Reserved

QC221 – Distributor Warehouse

Supplier must maintain a control system for the identification, storage, stock rotation, handling, and packaging of articles to ensure that manufacturers' quality levels are not degraded.

Supplier shall maintain specifications applicable to articles received from manufacturers.

Supplier shall use applicable specifications to determine requirements for handling, storage and packaging.

Supplier shall inspect articles upon receipt for identification and damage.

Supplier shall inspect articles prior to shipment for identification, degradation and packaging.

Supplier shall have a method for identifying articles controlled by QPL, as applicable.

Supplier shall have a method for matching test reports and/or chemical analyses with related articles.

Note: When the Supplier delivers "ALTERED ITEMS" per alteration drawings and/or assembly instructions, the following requirements are applicable.

Supplier shall maintain inspection records pertinent to specific alteration and/or assembly operations performed.

Supplier shall maintain drawings, specifications, and technical data pertinent to the work being performed.

Supplier shall employ inspections, measuring and test equipment of suitable range.

QC222 – Notice of Revision

A **NOTICE OF REVISION (NOR)**, DD Form 1695, is a document used by the customer and/or Design Agent to make a change to an existing design revision level. The NOR may or may not be incorporated in the latest

issue of the engineering drawing. When a NOR is NOT incorporated into the latest issue of the drawing, it becomes an attachment to the drawing until it is convenient to be incorporated into the drawing.

Items ordered on this purchase order may be subject to a drawing revision in the form of a **NOTICE OF REVISION (NOR)**. Any applicable NOTICE OF REVISION of NOR will be indicated on page one (1) of the purchase order, in the Description section. If a NOR number, such as "NOR 91C0032N49", appears in the description section of the purchase order, this requirement is included in the purchase order as a revision to the existing and/or available drawing and all DOCUMENTATION must reflect this NOR revision level.

A **DEVIATION** may be processed in lieu of an Engineering Change Proposal (ECP) when the deviation is considered temporary; deviations are submitted by the prime contractor for customer consideration. When an order included an approved Deviation, the Deviation number must be included in all documentation accompanying the items ordered.

QC223 – Moisture Sensitive Devices

Moisture sensitive components shall be controlled per IPC/JEDEC J-STD-033 "Standard for Handling, Packaging, Shipping and Use of Moisture/Reflow Sensitive Surface Mount Devices."

QC224 – NIST Traceability

Calibration services and calibration certificates obtained for measuring and test equipment shall state the equipment calibrated is traceable to N.I.S.T. along with any in-house reference numbers that attest to traceability.

QC225 – Pure Tin Exception

This purchase order specifically DIS-ALLOWS the use of pure tin and requires no less than 3 percent lead composition in any PLATING OR SOLDERING PROCESS / PROCESSES". Additionally accompanying Certificate of Compliance from suppliers / vendors must stipulate this requirement. Parts and assemblies shall be interpreted as absolute limits as defined by ASTM E29 (current revision), "Standard Practice for Using Significant Digits in Test Data to Determine Compliance with Specifications."

QC226 – Interpretation of Limits

Where not otherwise contractually involved, all specified limits for machining services and dimensional control of deliverable parts and assemblies **SHALL** be interpreted as absolute limits as defined by ASTM E29 (current revision), "Standard Practice for Using Significant Digits in Test Data to Determine Compliance with Specifications". Unless otherwise specified in the contract, for all other observed, measured or calculated product characteristics (e.g. for material suppliers, material distributors, services other machining) specified limits **SHALL** be interpreted using round-off methods as defined in ASTM E29.

QC227 – Mercury Prohibition

The supplies furnished on this "Purchase Order" **SHALL** not contain functional mercury. Furthermore, external contamination by metallic mercury or mercury compounds **SHALL** be cause for rejection of items, parts, assemblies, equipment and alike. The supplier **SHALL** notify Kitron Defense Inc., prior to proceeding manufacturing or shipment if the presence of mercury and / or mercury contamination is suspected. The supplier **SHALL** perform a suitable test to verify the suspicion. The deliverable of items, parts, assemblies, and equipment and alike **SHALL** not come in direct contact with mercury-contaminating devices that only

employ a single boundary of containment. A single boundary of contamination is not backed by a secondary seal or a barrier to prevent contamination in the event of a rupture of the primary seal or barrier. This requirement does not preclude the use of fluorescent lighting fixtures or fixtures that employ mercury-vapor lamps containing no more mercury per lumen than a comparable florescent lamp. The supplier shall provide with each shipment certification that the product is compliant to this requirement.

QC228 – Exclusion of Hazardous Materials

Every effort should be made to exclude chemicals and compounds found on the EPA 17 and DOD top 10 lists of hazardous materials in the equipment or supplies furnished under this Purchase Order. In addition, every effort should be made to exclude hazardous materials found on said lists in the processes used to furnish equipment or supplies under this Purchase Order. Reasonable steps shall be taken to ensure that said equipment or supplies are not contaminated with any chemicals and compounds on EPA 17 and DoD Top 10 Lists. Should the Technical Data Package require hazardous materials contained on EPA 17 and DoD Top 10 lists, notify the Kitron Defense Inc. buyer.

QC229 – Materials Compliance

The subsequent material(s) **SHALL** (Certificate of Compliance shall accompany all orders) conform to one of the following “Joint Industrial Standards:

- **Q32 -4:** J-STD-004 Requirements for Soldering Fluxes
- **Q32 -5:** J-STD-005 Requirements for Soldering Paste
- **Q32- 6:** J-STD-006 Requirements for Electronic Grade Solder Alloys and Fluxed and Non-Fluxed Solid Solders For Electronic Solder Applications

QC230 – DFARS for Domestic Metals

- Specialty metals must be melted in the United States or a qualifying country, or they can be melted anywhere but must be "incorporated in an article manufactured in a qualifying country". The clause allows a qualifying country to manufacture parts from metal that was melted anywhere, provided it meets specifications, but a United States company can only use metal that was melted in the United States or a qualifying country.
- As of the date of this article, the qualifying countries are Australia, Belgium, Canada, Denmark, Egypt, Germany, France, Greece, Israel, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom and Northern Ireland (see DFARS 225.872-1 for current listing).

See the full provisions of the DFARS 252.225-7014 for further clarification.

QC231 – Export Controls

Seller agrees to comply with all U.S. export laws and regulations. Without limiting the foregoing, Seller agrees that it will not transfer any export control item, data or services, to include transfer to foreign persons employed by or associated with, or under contract to Seller or Seller’s lower-tier suppliers, without the authority of export authorization.

- Seller agrees to notify Buyer if any Articles or service to be delivered under this Purchase Order is restricted by export control laws or regulations.

- Seller **shall** immediately notify the Buyer's Purchasing Representative if Seller is listed in the Denied Parties List or if Seller's export privileges are otherwise denied, suspended or revoked in whole or in part by any U.S. Government entity or agency.

QC232 – NADCAP

NADCAP** Approved Process Source - When required by contract or PO, the requirement for processing by NADCAP approved suppliers shall be flowed down to the supplier.

**List of NADCAP approved can be found at www.eauditnet.com after creating an account.

QC233 - Solderability

The most recent revision of IPC J-STD-001 Class 3 (Requirements for Soldering Electrical and Electronic Assemblies) applies to this PO unless otherwise defined by drawing or SOW. Solder materials, component, processes, inspections, and workmanship for material procured under this PO shall satisfy the requirements defined by Product Class 3.

Components and components in completed subassemblies furnished under this Purchase Order shall be delivered with one of the approved termination finishes as listed below. The termination finish shall be capable of meeting the solderability requirements of ANSI/J-STD-002 or EIA/JESD22-B102 as a minimum. ANSI/J-STD-002 is the preferred test method. When required, a double tinning or dynamic solder wave process shall be used for any gold plating removal.

Approved Termination Finishes:

- Tin-Lead (Sn-Pb) with minimum 3% Pb
- Palladium plated
- Nickel palladium gold (gold flash)
- Electroless Nickel Immersion Gold (ENIG)
- Gold 0.4 µm [15.7 microinches] or less on a surface mount part
- Gold 2.5 µm [98.4 microinches] or less on a thru-hole part
- Pb-free tin that is either:
 - Matte finish over a nickel barrier
 - Matte finish that has been annealed
 - Hot dipped over nickel barrier
- Tin-Lead (Sn-Pb) with minimum 3% Pb
- Palladium plated
- Nickel palladium gold (gold flash)
- Electroless Nickel Immersion Gold (ENIG)
- Gold 0.4 µm [15.7 microinches] or less on a surface mount part
- Gold 2.5 µm [98.4 microinches] or less on a thru-hole part
- Pb-free tin that is either:
 - Matte finish over a nickel barrier
 - Matte finish that has been annealed
 - Hot dipped over nickel barrier

All other pure tin finishes are disallowed unless authorized by the procuring agency.

- Pb-free tin is defined as any finish containing tin which does not contain at least 3% Pb – this includes pure Sn, Sn/Ag/Cu, Sn/Ag and Sn/Bi (Bi content cannot exceed 5%).

Unless approved in writing by buyer or specifically required by the part drawing or assembly drawing and associated parts list, no material delivered under this order may utilize:

- Solder and finishes, (including, but not limited to, solder balls / columns for area arrays or components) containing less than three percent (3%) lead (Pb) by weight (Pb-free), except solder pre-forms used for die attach within a microcircuit.
- Bright tin (Sn) surface finishes as defined by ASTM B545-97.

The seller shall notify the buyer of any planned material changes to lead (Pb) – free finishes, plating, or solders associated with the part number. These changes must be evaluated and approved by Kitron prior to completion of this order.

QC234 – Non-Franchised Distribution (Broker Requirement)

Requirement for Material Traceability and Testing of Components from Non-Franchised Distribution.

The Supplier shall maintain a Material Authenticity program that aligns and is consistent with the intent of SAE AS5553, Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition.

Seller shall maintain objective evidence of supply chain traceability to the original component manufacture (OCM) / original equipment manufacturer (OEM), authorized aftermarket manufacturer (AAM), or manufacturer – authorized distributor that identifies the name and location of all of the supply chain intermediaries from the component manufacturer to the direct source of the component(s) for the seller for any components procured in support of this purchase order. Examples of traceability documents indicating proper component transfer from one company to another in the supply chain include but are not limited to: packing slips, receiving documents, purchase orders, and shipping documents. Certificates of Conformance from non- franchised distribution sources are not adequate to meet the supply chain traceability requirements. The seller shall request and obtained through the buyer’s authorized purchasing representative (the buyer), authorization prior to shipping product with acquisition history that includes distribution sources outside of the United States.

If Components are procured from an OCM/OEM – authorized distributor, the OCM / OEM –authorized distributor must obtain the component(s) to be delivered under this contract from the OCM/OEM. Seller shall maintain evidence of supply chain traceability, electronic or hard copy purchase records from these procurements.

If evidence of supply chain traceability to the OCM/OEM/AAM is not available, then the Seller shall have all components submitted to an inspection/ test service provider to verify for authenticity prior to shipment.

Verification shall include the following:

For all packaged active electronic components, verify that component and packaging labeling are consistent and that component marking meets permanency and black topping tests. Capture high magnification digital photographs of top and bottom of one component for each date code provided in the delivery and a photograph of the packaging. Component marking and packaging labeling must be clearly legible in the photographs. Component and package markings such as date/lot code shall be validated with the manufacturer or by comparison to other authentic components or images.

For all packaged components, inspect for manufacturer and Mil-Spec required markings and dimensions (e.g., external visual per Mil-Std-883, method 2009), and for external counterfeit criteria per IDEA-STD-1010.

For all packaged components, 100% of the components shall be tested to all specified limits of all group A static DC parameters at ambient temperature specified per applicable drawing or in accordance with the applicable industry / military requirements or manufacturers data sheet. The Seller shall hold the lot for Kitron review, if 100% (Group A) test failures exceed 10% of the lot quantity. Product containing these components may not be shipped unless authorized in writing by the buyer.

For packaged components with internal die cavities, unless the seller requests and obtains from the buyer approval of an exception, both De-cap and X-Ray is required as follows:

- De-Cap internal visual on at least one component for each date code performed in accordance with Mil-STD-883, Method 2014 and IDEA-STD-1010, with digital photograph(s). Seller shall verify die topology and markings are authentic with the OCM/OEM/AAM or by comparison to other authentic components or images.
- 100% X-Ray inspection per Mil-Std-883, Method 2012 (digital format preferred).
- Seller shall verify any mixed construction and / or construction anomalies within a single date code identified in the De-cap or X-Ray inspection to be authentic by the OCM/OEM/AAM or validated against a known authentic component prior to shipment.

For bare die products, inspect for consistent markings on the die and the wafer packaging and verify die size and geometry (visual inspection per Mil-Std-883, Method 2010). The seller shall verify die topology and markings are authentic with the OCM/OEM/AAM or by comparison to other authentic components or images. Mixed construction shall be cause for rejection.

- The seller shall maintain verification records and results, including a copy of X-Ray and digital photographs, for the components that pass the inspection and test above. The seller shall not ship components which fail these tests /inspections nor utilize such components in circuit card assemblies or other products delivered to Kitron.

Approved Test Houses:

Verification as required in this clause shall be completed by one of the following Kitron/ Customer approved test providers. Request for additional test providers can be made to Kitron but shall not be utilized without a purchase order amendment or a supplier deviation request.

- Integra Technologies -3450 N. Rock Road, Wichita, KS
- Velocity Electronics – 2208 Energy Dr, Austin, TX
- SMT Corporation – 14 high Bridge Road, Sandy Hook, CT
- Electro Product Management Inc -5 Daniel Rd East, Fairfield, NJ
- Electro-Comp Services, Inc – 3634 131st Avenue, Clearwater, FL
- Premier Semiconductor Services – 11701 28th St. N. St. Petersburg, FL
- Anloy Technologies – 1924 American Dr., Lago Vista TX

QC235 – ITAR

The supplier **shall** adhere to the ITAR **compliance** requirements for performing work or service involving ITAR compliance. In accordance with ITAR 22 C.F.R. 120-130 International Traffic in Arms Regulation, all documents identified as ITAR controlled shall be identified, maintained in Document Control and segregated from Non-ITAR documents. Documents identified as ITAR controlled shall be viewed only by a U.S. PERSON. A U.S. PERSON means an entity that is: a U.S. Citizen or a Legal Resident, or U.S. organization incorporated to do business in the United States.

QC236 – End of Life (EOL)/Obsolescence

The Supplier(s) / Vender(s) agree to monitor obsolescence (EOL) clause of electronic components as follows:

- Known obsolescence /EOL. Component(s) no longer in production by the manufacture.
- Potential obsolescence /EOL concern. Component(s) nearing the end of life cycle.
- **The End of Life Policy:** Only applies to End of Life and End of Sale announcements. The general policy guidelines are as a general rule, suppliers **MUST** provide 3 months' notification of the affected product's end-of-sale date and/or the last day when the affected product can be ordered.

QC237 – Foreign Object Detection (FOD)

The supplier shall develop and maintain a Foreign Object Detection (“FOD”) Prevention Program to prevent introduction of foreign objects into any item delivered under this purchase order. The supplier shall employ appropriate housekeeping practices to assure timely detection and removal of residue /debris generated, if any during manufacturing operations and/or normal daily tasks.

QC238 – Key Characteristics

Seller shall inspect all key characteristics referenced on purchase order or Drawing.

QC239 – PWB Conformance

Fiducials are required (three corners per board) to be placed on every PCB.

In addition to any drawing specified requirements, Kitron requires all test and inspection data be sent with PCB shipments, including inspection reports, cross sections per IPC-TM-650, methods 2.1.1 or 2.1.1.2. They should contain the smallest vias commonly used on the board, solder samples (2) solderability to be compliant with the requirements of ANSI/J-STD-003, electrical test data if required (all boards electrically tested must be stamped to indicate that they passed), and dimensional report including bow/twist per TM-650 2.4.22.1c (max=.007 inch per inch diagonal length).

All panelized data shall be provided to Kitron buyer to be approved prior to manufacturing.

QC240 – Product Change Notification

By acceptance of this order, supplier agrees to provide Kitron with PCN (**Product Change Notification**) describing any subsequent changes to any part listed on this Purchase Order, including (but not limited to)

component EOL (end of life) or LTB (last time buy) notification, changes in manufacturing facility, changes in fabrication processes, or changes in raw materials used in the fabrication process. PCN shall include Kitron internal part #, manufacturer and part number (if applicable), and a full summary of applicable changes.

Product Change Notice Policy:

As a general rule, ALL Suppliers MUST provide 3 months' notification of the affected product. Any major change that may impact form, quality, function, endurance or reliability must be reported. Prior to implement any noticeable changes, the guideline to issue PCN under certain circumstance with required information are defined as below.

Product Change Notice must contain below information:

- Affected product with Part Number
- Change description
- Reason for product change
- Recommended Replacement/Action
- Schedule includes effective date, Last-Buy-Order date and Last-Buy- Shipment date
- Change of manufacturing location
- Changes in fabrication processes
- Changes in raw materials used in fabrication process

QC241 – Calibration Services

The calibration facility shall be accredited to ISO/IEC 17025 or national equivalent. All calibrations must be performed in accordance with ANSI Z 540 (latest revision). The calibration service supplier must provide a certificate of calibration for each service performed.

At minimum, the certificate shall include the following:

- Verification of calibration in accordance with ISO/IEC 17025 and ANSI Z 540 requirements
- Identification of all standards used with certifiable traceability to NIST
- Actual measurements of calibrated equipment vs. standards used
- Statements describing any adjustments made to the equipment
- A statement of the environmental conditions at the time of calibration, including both temperature and humidity readings
- Unless otherwise specified on the PO, accuracy shall be in accordance with the manufacturer's recommendations
- Statement of conformance to specification after calibration
- Condition as received, including any out of specification readings; Kitron must be notified immediately if out of specification condition exists.

QC242 – RoHS Compliance

A RoHS Declaration of conformance must accompany every shipment.

QC243 – Kongsberg P10098

The supplier shall conform to all requirements of Kongsberg P10098 Document. Contact your Kitron Buyer if the Document is needed.

QC244 – NDAA items

The supplier **shall** adhere to the following FAR requirements for any items with this clause called out. The clauses are FAR 52.204-23 through FAR 52.204-27. Any item with this QC note called out must also follow the guidelines laid out in Section 889 of the John S. McCain National Defense Authorization Act (NDAA). SAM.gov website shows various NDAA-mandated federal contracting rules.