



**Q10 QUALITY SYSTEM REQUIREMENTS**

- Q10A ISO 9001 – Seller’s quality system shall be in compliance with the requirements of ISO 9001, Quality Management Systems Requirements.
- Q10B AS9100 – Seller’s quality system shall be compliant with the requirements of AS9100, Quality Management System Requirements for Aviation, Space, and Defense Organizations.
- Q10C Quality and Delivery Rating – Seller is responsible for correcting any negative trends in product Quality or Delivery, that are identified by the Buyer’s Supplier Rating System. Sellers who fail to maintain these levels of product and service performance will be requested to take the necessary actions needed to resolve the root causes. Seller is encouraged to conduct an internal assessment and implement actions deemed appropriate to prevent further degradation in performance and possible formal corrective action.
- Q10E Seller’s Documented Inspection System – Seller shall maintain a documented inspection system. Seller shall perform or have performed the inspections and tests required to substantiate product conformance to drawing, specification and purchase order requirements. Records of all inspections shall be maintained. Seller shall use calibrated equipment to assure that products conform to requirements. Seller shall maintain a positive system for identifying the inspection status of product. If the Seller’s system is found to be deficient by the Buyer, the Seller will be responsible for bringing the system into compliance as a condition of this purchase order.
- Q10F Calibration – Seller shall maintain a calibration system in compliance with the requirements of ISO/IEC 17025, “General requirements for the competence of testing and calibration laboratories” or an equivalent. (Note: ANSI/NCSL Z540-1-1994 superseded by ISO/IEC 17025)
- Q10G SSOW – Seller shall comply with the Quality Assurance requirements specified in the Subcontractor Statement of Work (SSOW) or Task Description document for the product or service supplied on the purchase order.

**Q20 INSPECTION AND IDENTIFICATION REQUIREMENTS**

- Q20A Source Inspection at the Seller’s Facility – Buyer inspection/test is required prior to shipment from the Seller’s facility. Seller shall have performed all evaluations necessary to verify that the product being supplied meets the purchase order requirements prior to notifying the Buyer of readiness for source inspection. Seller shall notify Buyer a minimum of five (5) working days in advance of the date when the material will be ready for Buyer inspection/test. Seller shall withhold shipment pending necessary action by the Buyer’s Quality organization. Seller shall provide and supply all records, facilities, personnel and assistance for the Buyer’s Quality organization to perform the following: (1) Review of all records relating to items supplied on the purchase order, (2) Workmanship and dimensional evaluation of items supplied on the purchase order, (3) Witnessing of testing required on the purchase order.  
In the event, Buyer’s Source Inspection is Waived or Deferred to Buyer’s facility, Seller shall provide to Buyer’s Quality Assurance in advance of shipment for review, all inspection and test records, including FAI report when applicable.  
Final acceptance of all items furnished on this purchase order shall be at the Buyer’s facility. Inspection at source by the Buyer or Buyer’s Customer, including the Government, shall not constitute final acceptance, nor shall it relieve the Seller of the responsibility of furnishing acceptable products, documentation and/or services.
- Q20B First Article Inspection (FAI) – The first part fabricated shall receive a complete inspection (and test, if applicable) to verify that the Seller’s manufacturing processes (and design, if applicable) yield a product or service that complies with Buyer specifications, drawings and purchase order. The Seller’s FAI requirement shall not apply to subsequent purchase orders of the same product or service, providing there has been no change in the manufacturing processes, design (if applicable), materials, place of performance, change in external Seller, or there has not been a lapse in production of more than two years. Exceptions shall require Buyer approval unless Clause Q20R is applied. Similar to parts may also be exempt from FAI subject to Buyer review and approval. Seller shall complete inspection of every drawing or specification attribute, the actual measurement results, and the inspection media used. The FAI shall include verification of functional characteristics. A complete set of inspection/test records including material & process certifications in accordance with QA Clause Q20D or Q20Q, shall accompany the first article part when delivered.

- Q20C Quality Records – Seller shall maintain procedures for identification, collection, indexing, filing, storage, and retention of quality records. Quality records include reports, test data, inspection records, and process data for all operations, special processes, inspections and tests performed by the Seller to document the quality of the Seller's deliverable product(s) or services. Quality records shall be legible and identifiable (all pages) to the product involved. Inspection and test data records shall include pass/fail criteria and a description of any non-conformances found. All quality records shall be retained for a minimum of 5 years. Records shall be safely stored to ensure recovery in the event of a natural catastrophe. These requirements equally apply to Sellers sub-tier suppliers. DESTRUCTION NOTICE. For classified documents follow the procedures in DoD 5220.22 M, National Industrial Security Program Operating manual. For unclassified, limited documents, destroy by any method that will prevent disclosure or reconstruction of the documents.
- Q20D Seller Provided Data– Seller shall furnish with each shipment a complete data package for all analyses, inspections, examinations, demonstrations and tests performed that substantiate the deliverable product is fully compliant with the requirements of the Purchase Order and referenced documentation (i.e. specifications, drawings, Buyer / Seller commercial standards, etc.) The data package shall include actual measurements taken of quantifiable requirements, or pass/fail indications of examinations/demonstrations that are non-quantitative in nature. The person performing the verification shall sign the data record. The drawing or specification governing the product may be annotated to show the measurements taken or inspections/examinations performed where a data sheet or test procedure is not a requirement of the Purchase Order or Q20Q is applied. When a special process (such as passivation, chemical conversion, welding, brazing, heat treatment, etc.) is called out on the purchase order, drawing, or any other referenced document, the Seller shall include, in the Inspection Report, a statement of conformity certifying that the special process meets all the requirements including visual requirements of the referenced process. If the Seller subcontracts any of the processes, the Certificate of Conformance of the Seller performing the process shall be submitted with the Inspection Report.
- Q20E Certificate of Conformance – Each shipment shall contain a Certificate of Conformance by the Seller confirming that all applicable drawings, specifications and purchase order requirements have been met.
- (C1) **Manufactured Products – Certificate of Conformance (CoC):** The Seller's certificate of conformance shall include:
- Sellers Name & Address
  - OEM/OCM Name & Address or Cage Code
  - Part Number, Revision, Description, & Quantity
  - Purchase Order & Line, Serial Numbers / Lot Numbers if applicable
  - Authorized Signature & Date
  - The Seller may use the **Certificate of Conformance** attached to this Supplement or use their own form.<sup>n2</sup>
- (C2) **COTS – Certificate of Conformance/Packing List (CoC/PL):** The Seller's CoC/PL shall include:
- Sellers Name & Address
  - OEM/OCM Name & Address or Cage Code<sup>n1</sup>
  - Part Number, & Quantity
  - Purchase Order & Line, Lot Numbers if applicable
- The Seller may use the Certificate of Conformance attached to this Supplement, use their own form, or use the Packing List. Quality records shall be retained as defined by the OEM or Authorized Distributors Terms & Conditions.
- (C3) **Commercial Software** – Sellers that provide a license or original certificate of authenticity from the originator of the software are exempt from providing a Certificate of Conformance.

<sup>n1</sup> Internal Note (When required by Contract)

<sup>n2</sup> Internal Note (A combination of the information from CoC & PL is acceptable)

- Q20F Item Returned to Vendor for Rework or Repair – Supplier is requested to include with the returned item results of any failure analysis they elect to perform to determine cause. Please Note: 1) When the returned item failure is documented on an L3HARRIS Nonconformance Material Report that has been assigned by L3HARRIS as the Supplier’s responsibility, that failure will negatively affect the Supplier’s quality approval rating. Supplier failure analyses that identify the root cause of the failure was not caused by the Supplier will have the responsibility re-assigned, thereby improving the Supplier’s quality rating. 2) Part revisions stated in the PO are for reference only, unless otherwise specified. 3) Any rework or repair of the returned item that would change the as-built/received configuration shall be approved in advance by L3HARRIS.
- Q20G Items Containing Software or Firmware – When software or firmware is contained in a hardware deliverable line item of the PO, it shall clearly be identified on the packing list and Certificate of Conformance, including its version or revision.
- Q20H Identification of Parts – In the absence of specific drawing, specification, or purchase order identification instructions, Seller shall individually identify materials, parts, or products furnished on this purchase order in accordance with L3HARRIS Manufacturing Standard (LMS) 1-1. If the materials, parts, or products have no suitable or adequate marking surfaces, identification shall be by means of a tag or identification on the container.
1. Purchase order number
  2. Purchase order part number
  3. Quantity enclosed
- Q20I Failure Reports – Seller shall provide a failure report with each shipment. The report shall identify the cause of the failure, document the action taken to correct the problem and actual results of examinations and tests to verify that the failure was corrected. The report shall further include the signature of an authorized company representative.
- Q20J Government Furnished Equipment Repaired Parts – All parts removed as a result of rework/repair from the Government property supplied with this order shall be returned to this facility. Seller does not have the authority to scrap or otherwise use such parts. Seller shall place an identifying tag on each removed part and identify it with the purchase order number. This requirement is considered void if the item is exchanged instead of reworked/repared. Tags & Documentation provided by L3HARRIS Technologies with the Government Property shall be returned, regardless of exchange, rework, or repair.
- Q20K Buyer-Furnished Material – Seller shall inspect, upon receipt, all materials or parts furnished to Seller on this purchase order. Inspection, as a minimum, shall include quantity, damage, corrosion, deterioration and compliance to any applicable purchase order requirements. Seller shall provide written notification to Buyer through the Buyer’s Procurement Organization of any discrepancies pending written disposition by the Buyer’s Quality Organization.
- Q20L Inspection Results for Items with Key Characteristics – Seller shall furnish with each shipment a report of all measurements made during product acceptance. As a minimum, the report shall include actual recorded dimensional readings for all key characteristics specified on the drawing.
- Q20M Functional Test or Fit Check as part of Receiving Inspection (For internal use by L3HARRIS only) – The functional performance or fit of this item shall be verified prior to final receiving inspection acceptance. After verification of the item’s acceptability for marking, documentation, mechanical and dimensional conformance, and any other characteristic that can be verified by incoming inspection, the item shall be submitted to test or program engineering for functional performance or fit evaluation.
- Q20N Quality Engineer Notification (For internal use by L3HARRIS only) – Inspector shall notify the cognizant program Quality Engineer via e-mail when product has completed Receiving Inspection.
- Q20P Painting Requirements – If the material supplied in this purchase order requires painting in accordance with the paint specifications listed in the drawing and/or purchase order, it shall comply with the latest revision of the SAE-AMS-STD-595. It is strongly recommended to use the Color Chip referenced in the SAE-AMS-STD-595 for color matching and quality control inspection purposes. The Seller retains responsibility for monitoring performance and compliance of its Sub-tiers. Failure to conform may result in the rejection of the lot.

Q20Q Inspection Report – Seller shall furnish with each shipment an inspection report for all inspections, examinations, demonstrations and tests performed that substantiate the deliverable product is fully compliant with the requirements of the Purchase Order and referenced documentation (i.e. specifications, drawings, Buyer / Seller commercial standards, etc.) The data package shall include actual measurements taken of quantifiable requirements, or pass/fail indications of examinations/demonstrations that are non-quantitative in nature. The person performing the verification shall sign the data record.

When a special process (such as passivation, chemical conversion, welding, brazing, heat treatment, etc.) is called out on the purchase order, drawing, or any other referenced document, the Seller shall include, in the Inspection Report, a statement of conformity certifying that the special process meets all the requirements including visual requirements of the referenced process.

If the Seller subcontracts any of the processes, the Certificate of Conformance of the Seller performing the process shall be submitted with the Inspection Report

Q20R First Article Inspection Report & supporting Data (Q20B) is only required at the discretion of the Seller as supporting evidence to accompany the Certificate of Conformance.

Q20S Mean Time Between Failure (MTBF) – Seller shall furnish with each shipment a complete MTBF analysis that substantiates the instrument/equipment/components report.

Q20T Welding and/or Brazing Inspection Report Certification: Seller shall furnish with each shipment a certification of conformity statement certifying that all welds/braze passed visual inspection and meet the welding/brazing standard called out in the purchase order or drawing.

Q20U Hydrostatic Testing – Seller shall furnish with each shipment a record of hydrostatic testing.

The record shall include the following:

- Part number
- Description
- Purchase order number,
- Calibrated equipment used and date of calibration
  - Pressure gages shall be calibrated for accuracy within six months prior to test
- Duration of the test
- Pass/fail results
- Pressure required and the pressure at which the test was performed
- Non-conformances found and correction,
- Name of the person who tested the equipment and the name of the person who performed the verification, these two cannot be the same person.

Acceptance Criteria:

All joints and connections shall be examined for leakage and no permanent deformation of pressure containing parts as determined by visual examination.

Q20V Wet Cloth Test – A wet cloth free iron test shall be performed on corrosion resistant material to ensure that the material will not rust or be contaminated with material that will rust. Seller shall furnish with each shipment a record of wet cloth test as stated in the drawing and/or purchase order. The wet cloth test shall be performed as follows:

- Saturate a clean lint-free cloth with deionized water at ambient temperature.
- Place the saturated cloth in contact with all external critical surfaces and accessible internal critical surfaces.
- Maintain each wet cloth contacting a critical surface wet for a minimum of six hours.
- After the six-hour wet contact period, wipe each wetted surface with a clean dry cloth, clean absorbent paper, or clean cotton swabs.

The record shall include pass/failed results, name of who performed the test and name of who performed the verification.

Acceptance Criteria

Visual inspection of all hardware subjected to the wet cloth free iron test. Material external surfaces that are visibly rust free are acceptable.

**Q30 WORKMANSHIP REQUIREMENTS**

Q30A RESERVED

Q30B Electronic Workmanship - Seller shall implement and maintain IPC-A-610 and IPC-620 Class 3 compliant processes, or equivalent, and the following requirements, if not otherwise specified in the drawing, parts list, specification, or other requirements document:

- a. If crimped connections are necessary, they shall comply with LMS 11-9.
- b. If cables are necessary, they shall comply with LMS 11-6 for the assembly and identification of them.
- c. Non-adhesive based products shall be used to mechanically fasten cable lays (bundles). Cable routing shall be neat and orderly.
- d. Strain relief and chafing shields shall be provided for finished cable lays and associated discreet wiring at all bends and termination points.
- e. Continuous cables greater than 20 inches in length, which terminate in other than RJ-45 connectors shall be mechanically fastened at 8-inch minimum to 10-inch maximum intervals.
- f. All cable assemblies, conduits, and harness assemblies shall be packaged to prevent deformation of conductor insulation and damage to connectors and connector pins. Particular attention shall be given to routing of cables so that they do not block the natural air flow.
- g. Where part number and quantity are specified, no substitutions shall be made without written approval.
- h. All components shall be free of loose, spattered, or excess solder.

Seller may use their internal standards in lieu of the L3HARRIS LMSs' subject to L3HARRIS approval. In the event of conflicts in referenced Buyer documentation or interpretation of requirements, the Seller shall obtain clarification from the Buyer's Quality organization.



- Q30C Mechanical Workmanship - Seller shall comply with the following workmanship requirements, if not otherwise specified in the drawing, parts list, specification, or other requirements document:
- Neatness and thoroughness of wiring, welding, machining, and assembly of parts, subassemblies, and assemblies shall be maintained.
  - Surfaces shall be clean and free of smudges, scratches, rusting or other marks detracting from a new appearance. Touchup of minor imperfections shall be accomplished prior to hardware acceptance.
  - There shall be no foreign matter left inside the product that might detract from the intended operation, function or appearance of the item.
  - There shall be no sharp corners that could injure someone.
  - Screw assemblies and bolts shall be fastened using applicable American National Standards Institute (ANSI) or military standards (MS), without over tightening, based on their dimensions, material, and type of application.
  - Screws, nuts and bolts shall show no evidence of cross threading, rusting, mutilation or detrimental or hazardous burrs. There shall be a minimum of one and half screw threads protruding beyond the nut when tightened.
- Q30D Welding/Brazing – Seller shall comply with the welding/brazing requirements of the design documentation (drawing, specification, SOW...), specified in the purchase order, including the qualification of weld/braze operators and inspectors. The Seller shall perform visual inspection of all welds/braze without the aid of magnification. The Seller shall conduct periodic inspections to assure conformance to the acceptance criteria of required standards. The Buyer shall have the option to perform an inspection of components, subassemblies or any other part referenced on the purchase order prior to painting, at the Seller's facility, to assure conformance to the acceptance criteria. When Q50I is applied, the Seller shall submit welders/brazer qualification to Buyer for approval prior to commencement of work.
- Q30E Cleanliness – If the material supplied in this purchase order requires units to be clean using specific methods detailed in the drawing and/or PO, a visual verification shall be made and record the results shall be kept by the Seller or submitted to the Buyer when Q20D applies.

**Q40 L3, or L3HARRIS, CORPORATE APPROVED INDEPENDENT DISTRIBUTOR**

Q40A This clause is applied when an acquisition is made from an L3HARRIS Corporate Approved Independent Distributor for the purpose of Counterfeit Part Risk Mitigation. Seller shall perform and verify all tests identified by commodities in accordance with **Exhibits A, B, C, or D** below, and provide test results with the shipment. L3HARRIS Quality Manager or delegate shall review and approve required documentation upon receipt, prior to the product acceptance.

## **Exhibit A**

### **Independent Distributor Purchase Order Clause – Active Components**

Independent Distributor's procedures shall meet the requirements of IDEA-STD-1010 and AS6081.

Quality Management System shall be certified to AS9120 and/or AS9100.

Inspections and tests shall be conducted in accordance with IDEA-STD-1010 and AS6081. IDEA-STD-1010 and the inspection and tests defined below shall take precedence over AS6081 for conflicts in inspection methodology and defect criteria. Manufacturer specifications and parameters shall be used for part requirements as applicable. Recorded evidence of all testing performed shall be included with each shipment. When available, OEM/OCM and/or AD Certificates of Conformance (C of Cs) shall also accompany each shipment.

The following inspections and tests are required for active components as applicable based on device package type.

- 100% Visual Microscopy Inspection of all parts in the order is required to a magnification level capable of identifying nonconformities related to part size. This includes visual inspection requirements for packaging. Sampling for mechanical dimensions shall be as defined by Seller's internal procedures.
- X-Ray inspection (100% of the lot)
- XRF/RoHS (3 parts per lot date code)
- Solderability testing per IPC/EIA J-STD-002 (3 parts per lot date code)
- Scanning Electron Microscopy (1 part per lot date code)
- Solvent Testing for Remarking (3 parts per lot date code)
- Solvent Testing for Resurfacing w/acetone, (same 3 parts per lot date code)
- Scrape testing - only applicable to parts that cannot be heated solvent tested (same 3 parts per lot date code)
- Solvent Testing for Resurfacing (If pass acetone test) - Heated Solvent testing w/ Dynasolve 750, (same 3 parts per lot date code)
- De-lid and Die Verification (3 parts per lot date code)
- Flash and programmable memory devices shall be verified (100%) for clean memory, not pre-programmed

If suspect/counterfeit parts are furnished under this subcontract and are found in any of the goods delivered hereunder, such items will be impounded by Buyer. The Seller shall promptly replace such suspect/counterfeit parts with parts acceptable to the Buyer and the Seller shall be liable for all costs relating to the removal and replacement of said parts as specified in the subcontract requirements or Distributor's insurance policies. Buyer reserves all contractual rights and remedies to address grievances and detrimental impacts caused by suspect/counterfeit parts.

Seller shall report all occurrences of Counterfeit parts to GIDEP and ERAI.

## Exhibit B

### Independent Distributor Purchase Order Clause – Passive Components and Connectors

Independent Distributor procedures shall meet the requirements of IDEA-STD-1010 and AS6081.

Quality Management System shall be certified to AS9120 and/or AS9100.

Inspections and tests shall be conducted in accordance with IDEA-STD-1010 and AS6081. IDEA-STD-1010 and the inspection and tests defined below shall take precedence over AS6081 for conflicts in inspection methodology and defect criteria. Manufacturer specifications and parameters shall be used for part requirements as applicable. Recorded evidence of all testing performed shall be included with each shipment. When available, OEM/OCM and/or AD Certificates of Conformance (C of Cs) shall also accompany each shipment.

The following inspections and tests are required for passive components and connectors as applicable based on device package type:

- 100% Visual Microscopy Inspection of all parts in the order is required to a magnification level capable of identifying nonconformities related to part size. This includes visual inspection requirements for packaging. Sampling for mechanical dimensions shall be as defined by Seller's internal procedures.
- X-Ray inspection for non-glass diodes and tantalum capacitors (100% of the lot)
- XRF/RoHS (3 parts per lot date code)
- Solderability testing per IPC/EIA J-STD-002 (3 parts per lot date code)
- Scanning Electron Microscopy (1 part per lot date code)
- Solvent Testing for Remarking (3 parts per lot date code)
- Solvent Testing for Resurfacing w/acetone, (same 3 parts per lot date code)
- Scrape testing - only applicable to parts that cannot be heated solvent tested (same 3 parts per lot date code)
- Solvent Testing for Resurfacing (If pass acetone test) - Heated Solvent testing w/ Dynasolve 750, (same 3 parts per lot date code)

All electrical test reports shall contain a read/record data table showing the measured values of each device tested. Electrical test shall be performed after parts have passed the inspection and tests listed above.

Sample value measurements required per ANSI/ASQ Z1.4 at ambient temperature, 1% AQL level II.

Component value tests are defined in the following chart:

<u>COMPONENT</u>	<u>TEST</u>
Resistors	DC Resistance
Capacitors	Capacitance
Inductors	Inductance
Transformers (open framed/wiring)	Winding-to-winding isolation, winding continuity, winding inductance, turns or voltage ratio
Connectors	Continuity on a 1% AQL sample of pins/connections
Relays	Contact and coil resistance

If suspect/counterfeit parts are furnished under this subcontract and are found in any of the goods delivered hereunder, such items will be impounded by Buyer. The Seller shall promptly replace such suspect/counterfeit parts with parts acceptable to the Buyer and the Seller shall be liable for all costs relating to the removal and replacement of said parts as specified in the subcontract requirements or Distributor's insurance policies. Buyer reserves all contractual rights and remedies to address grievances and detrimental impacts caused by suspect/counterfeit parts.

Seller shall report all occurrences of Counterfeit parts to GIDEP and ERAI.



**Exhibit C****Independent Distributor Purchase Order Clause – COTS Assemblies (Including Electro-mechanical items, Hard Drives, Network Equipment, and Peripheral Cards)**

Independent Distributor procedures shall meet the requirements of IDEA-STD-1010 and AS6081.

Quality Management System shall be certified to AS9120 and/or AS9100.

Manufacturer specifications and parameters shall be used for part requirements as applicable.

Recorded evidence of all testing performed shall be included with each shipment. When available, OEM/OCM and/or AD Certificates of Conformance (C of Cs) shall accompany each shipment.

The following inspections and tests are required for general COTS assemblies, hard drives, network equipment and peripheral cards:

**General COTS Assemblies**

- Packaging inspection (part number, evidence of tampering, etc.)
- Mechanical dimensions (3 parts minimum per lot)
- Visual Inspection (100%) for indications of prior usage/refurbishment/counterfeiting including damage to:
  - Components visible on circuit cards when applicable
  - Interface connector(s)/contact(s)
  - Crimped, cut, spliced, pinched, and/or broken wire(s) where applicable
- Manufacturer label bar code information verification

**Hard Drives**

- Packaging inspection (part number, evidence of tampering, etc.)
- Mechanical dimensions (3 parts minimum per lot)
- Visual Inspection (100%) for indications of prior usage/refurbishment/counterfeiting including damage to:
  - Components visible on circuit cards when applicable
  - Interface connector(s)/contact(s)
  - Casing
- Manufacturer label bar code information verification
- 100% Power on test
- 100% Read/write benchmark
- 100% Self-Monitoring, Analysis, and Reporting Technology (S.M.A.R.T.) data pull (when applicable)
  - Verification of serial number
  - Total power on hours
- Serial numbers recorded

**Network Equipment**

- Packaging inspection (part number, evidence of tampering, etc.)
- Mechanical dimensions (3 parts minimum per lot)
- Visual Inspection (100%) for indications of prior usage/refurbishment/counterfeiting including damage to:
  - Components visible on circuit cards when applicable
  - Interface connector(s)/contact(s)
  - Casing
- Manufacturer label bar code information verification
- 100% Power on test
- 100% Test RJ-45 ports (when applicable)
- Serial numbers recorded

**Peripheral Cards**

- Packaging inspection (part number, evidence of tampering, etc.)
- Mechanical dimensions (3 parts minimum per lot)
- Visual Inspection (100%) for indications of prior usage/refurbishment/counterfeiting including damage to:
  - Components visible on circuit cards when applicable
  - Interface connector(s)/contact(s)
- Manufacturer label bar code information verification

If suspect/counterfeit parts are furnished under this subcontract and are found in any of the goods delivered hereunder, such items will be impounded by Buyer. The Seller shall promptly replace such suspect/counterfeit parts with parts acceptable to the Buyer and the Seller shall be liable for all costs relating to the removal and replacement of said parts as specified in the subcontract requirements or Distributor's insurance policies. Buyer reserves all contractual rights and remedies to address grievances and detrimental impacts caused by suspect/counterfeit parts.

Seller shall report all occurrences of Counterfeit parts to GIDEP and ERAI.



**Exhibit D**

**Test Lab Purchase Order Clause – Mechanical Parts and Materials**

*Manufacturer specifications and parameters shall be used as applicable for part and material requirements. Recorded evidence of all testing performed shall be included with each shipment.*

*The following inspections and tests are required for mechanical parts and materials by an accredited third party testing facility:*

- *Packaging inspection (part number, evidence of tampering, etc.)*
- *Part/Packaging marking inspection for evidence of remarking or alterations (part number, mfg. name, trademark or logo, lot or date code, grade, etc.) - sample of 3 pieces per lot for part markings.*
- *Mechanical parts external visual inspection (100%) for damage, wear, contamination, or use.*
- *Mechanical parts dimensional inspection – selected critical dimensions shall be verified per manufacturer specifications on a sample of 3 pieces per lot.*
- *Plating Verification (e.g. XRF) - sample of 3 pieces per lot.*
- *Base material verification (certification of composition/chemical analysis, heat treatment, hardness testing, tensile strength, torque testing, magnetic particle, etc. as applicable per material specification) - sample of 1 piece per lot.*
- *Mechanical Item Test Verification (if required by the item specification) - sample of 1 piece per lot.*

*Seller shall report all occurrences of Counterfeit parts to GIDEP and ERAI.*

**Q50 MATERIAL, TOOLING, CALIBRATION AND PROCESS CONTROLS**

Q50A Age Sensitive/Shelf Life Material – Material identified on this purchase order is considered to be age sensitive. Seller shall provide the following data upon delivery: (1) Manufacturing date, (2) Shelf life and/or expiration date and (3) Cure date for rubber products.

Material shall have at least 75% of its shelf life remaining at the time of shipment.

Q50B Material Safety Data Sheet – Material Safety Data Sheets (MSDS) are required for each shipment on this purchase order.

Q50C Chemical and Physical Test Reports – Seller shall have on file, at their facility or sub-tier supplier's facility, physical and chemical test reports of raw material used on this order. Records substantiating the foregoing shall be available for examination by Buyer Quality Assurance. When Q20D is applied, Seller shall submit results to Buyer.

Q50D Electrostatic Discharge Protection - Seller agrees that all static-sensitive electrical and electronic parts, assemblies and equipment shall be handled and protected to effectively prevent damage from electrostatic discharge using an Electrostatic Discharge (ESD) control system which encompasses protected areas, handling procedures, protective covering, quality precautions, audit and review, training of employees, and packing and packaging for delivery.

Q50E Component Solder-ability – All electronic components supplied on this purchase order shall meet the requirements of MIL-STD-202, Method 208, for component solder-ability.

Q50F Tool Control – Buyer-supplied inspection tooling and/or gages shall be periodically proved for accuracy. This action shall occur at the Buyer's plant or at a Buyer-approved facility. If an outside lab is used, a certified report of each tool and/or gage shall be sent to the Buyer's Procurement Organization. Any tooling or gage furnished to the Seller by the Buyer shall not be altered, reworked or modified without written approval of the Buyer. Buyer shall be immediately notified of damage or loss.

Q50G Calibration – A certificate, report, or data sheet attesting to the date, accuracy of the standards used, and the environmental condition under which the results furnished were obtained shall be supplied for each item calibrated under this purchase order. This report or certificate shall attest to the fact that the accuracy of the standards used in obtaining the results has been compared at planned intervals with the NIST, WWVB, has been derived from accepted valued of Natural Physical Constants, or has been derived by the ratio-type of self-calibration techniques. The accuracy of the standards shall be at least four times the accuracy of the equipment being calibrated.

Q50H Special Process Control Qualification/Records Maintained by Seller– Seller and any sub-tier supplier using special processes (heat treating, welding, painting, plating, nondestructive testing etc.) shall ensure that the facility performing the special process operation is both qualified to perform and that records of the special process operations are maintained.

Q50I Special Process Control Approval by Buyer – Seller and any sub-tier supplier using special processes (heat treating, welding, painting, plating, nondestructive testing etc.) shall have these special processes approved by the Buyer. Seller shall prepare and present special process procedures for Buyer's Quality Organization approval prior to performing any special processes on items to be supplied on this purchase order and no later than sixty (60) days after receipt of this purchase order. Special process procedures shall be in accordance with the appropriate specification as defined by the purchase order, drawing or specification. Seller shall maintain records verifying that special processes and personnel are certified, or if the Seller is purchasing special processes, subcontractor records are available to ensure that the subcontractor is certified to the applicable specification.

- Q50J Directed Approved Processor – Seller’s sub-tier supplier(s) shall be listed as an Approved Processor or shall use Approved Processors on the Buyer-provided Approved Processor List. Buyer approval of any processor shall not relieve Seller of their obligation and liabilities under this purchase order. Seller shall submit a Certificate of Conformance identifying the Buyer’s directed source used (refer to Q20E).
- Q50K Raw Material Samples – For a first time order, the Seller shall provide sufficient quantity of test samples of the material for independent testing by the Buyer of the material as required by the controlling material specification or standard. Samples shall also be provided, if this is a repeat order, where more than 12 months has elapsed since the last purchase order samples were provided.
- Q50L Material Authenticity - Only new and authentic materials are to be used in products delivered to Buyer. No counterfeit or suspect counterfeit parts are to be contained within the delivered product. Parts shall be purchased directly from the OCMs/OEMs, or through the OCM/OEMs Franchised Distributor. Documentation must be available that authenticates traceability to the applicable OCM/OEM. Independent Distributors (Brokers) shall not be used without written consent from Buyer.
- Q50M Seller Process Change Control - The Seller shall notify the Buyer and obtain approval prior to:
- Relocation of work to another production facility;
  - Changing the design, processes, products, materials or services that affect fit, form or function.
  - Changes of external providers or location of manufacturing

An analysis shall be performed, documented, and included with any request for change. A documented process shall be in place to review, identify and submit a request for change to the Buyer. This request shall be submitted 14 days prior to the planned implementation. The change will not be implemented unless approved by the Buyer.

#### **Q60 MATERIAL REVIEW AUTHORITY**

- Q60A Material Review Board (MRB) Authority – Only shipments of supplies and/or services that conform to all requirements will be accepted unless authorized in writing by the Buyer’s Quality Organization. Any nonconforming materials, parts or products that affect specific Buyer form, fit, or function requirements imposed by the purchase order, Buyer’s drawing, or any other applicable specification shall be submitted to the Buyer’s Quality Organization for MRB disposition and approval. This task shall be accomplished at the earliest possible time, but shall be prior to shipment. Seller shall include the description of the nonconformance, the root cause of the nonconformance and the corrective action taken to prevent its recurrence. If the Seller is uncertain as to the effect of the nonconformance on specific requirements, the concurrence of a representative of the Buyer’s Quality Organization shall be obtained.
- Q60B Sub-Tier Suppliers: The Seller is responsible for applying appropriate controls to their direct and sub-tier external providers, to ensure that all requirements are met, including the flow down of any L3HARRIS requirements.
- Q60C Pre-Paint or Weld Notification: Seller shall notify Buyer at least two weeks prior to painting or performing a special process to allow for optional Buyer Inspection.

#### **Q70 MILITARY STANDARD HARDWARE**

- Q70A Military Hardware and Components - Seller expressly warrants that parts furnished on this purchase order conform to the applicable military part specification. Seller shall provide copies of acceptance data from the original manufacturer with each shipment.
- Q70B Military Hardware and Components - Seller expressly warrants that parts furnished on this purchase order conform to the applicable military part specification. Seller shall maintain copies of acceptance data from the original manufacturer on file.

#### **Q80 PACKAGING REQUIREMENTS**

- Q80A Product Packaging – All products shall be packaged to ensure undamaged delivery at final destination when shipped by common carrier. Cable assemblies, conduits, and harness assemblies shall be packaged to prevent deformation of conductor insulation and damage to connectors and connector pins. All connectors shall be individually wrapped. Circuit card, printed wiring, multi-wire or wire wrap board assemblies furnished on this purchase order shall be individually packaged in an ESD shielded bag.



**CERTIFICATE OF CONFORMANCE  
(C1)**

SELLER NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

OCM/OEM or CAGE CODE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PO NUMBER: \_\_\_\_\_ PO LINES: \_\_\_\_\_

PART NUMBER: \_\_\_\_\_ REVISION: \_\_\_\_\_

DESCRIPTION: \_\_\_\_\_

QUANTITY: \_\_\_\_\_ SERIAL NUMBERS: \_\_\_\_\_

LOT NUMBER (If Applicable): \_\_\_\_\_

Seller hereby certifies that all items (material, components, parts, assemblies, and/or final product(s)) furnished in this shipment of the Purchase Order meet the following requirements:

1. Items shall be in full compliance with the requirements of the Purchase Order, drawing(s), specification(s).
2. Items shall use only new and authentic components, parts, and materials that have been procured from the original component/equipment manufacturer (OCM/OEM), or through an OCM/OEM Franchised distributor.
3. Items shall use no component, part, or material that has been procured from an Independent Distributor (Broker), unless approved in writing by the Buyer.
4. Items shall have applicable supporting inspection records, test data, and certificates of conformance on file and available for Buyer review upon request.

CERTIFIED BY (An Authorized Company Official)

SIGNATURE: \_\_\_\_\_

TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_