

PURCHASE ORDER SUPPLEMENTAL REQUIREMENTS

HQ01 RAYTHEON ELCAN SOURCE INSPECTION 06DEC2022

Raytheon ELCAN Optical Technologies inspection is required prior to shipment from your plant. Notify the cognizant Raytheon ELCAN Purchasing Representative and Quality Department, five (5) days in advance of final inspection so that arrangements for source can be coordinated with your plant. Raytheon ELCAN Source Inspection shall not constitute product acceptance, nor shall it relieve the Supplier of any liability for full compliance with all requirements of the Purchase Order.

HQ02 GOVERNMENT SOURCE INSPECTION 06DEC2022

Government Quality Assurance is a requirement of this Order. Arrangements must be made promptly with the Quality Assurance Representative for your area or facility so that appropriate Government Quality Assurance can be accomplished prior to release authorization. In the event the representative cannot be located, the cognizant Raytheon ELCAN Purchasing Representative should be notified immediately. Evidence of GSI must accompany shipment. Government Source Inspection shall not constitute product acceptance, nor shall it relieve the Supplier of any liability for full compliance with all requirements of the Purchase Order.

HQ03 PREPRODUCTION SAMPLES 06DEC2022

For Raytheon ELCAN purchased tooling which will be used to produce custom parts the Supplier shall furnish pre-production samples. These samples shall be manufactured using that tooling and applicable processes in advance of serial production. Engineering and process baselines shall be frozen after qualification of those samples. This base line shall be documented through first articles submitted to Raytheon ELCAN (see HQ 13) and manufacturing process documentation maintained by the Supplier. Once approved no changes to tooling or process, beyond maintenance, shall be made without the approval of the Raytheon ELCAN Procurement Agent.

HQ04 SPECIAL PROCESS PROCEDURES 08DEC15

The Supplier must have a written process procedure for all processes used to fulfill this Purchase Order. This shall be available upon request during and after completion of the Purchase Order for a period of twelve (12) months. The procedure shall not relieve the Supplier of any liability for full compliance with all requirements of the Purchase Order.

HQ05 MATERIAL SPECIMENS 08DEC15

The Supplier shall furnish test sample(s) of each lot sufficient for conducting tests in accordance with Chemical and Physical Test Requirements per the specifications. Each test sample will be clearly identified with the material type and batch number. Furnishing test samples does not relieve the Supplier of the responsibility to conduct tests per the Material Specifications.

HQ06 ACCEPTANCE TEST PROCEDURE 06DEC2022

Prior to commencement of delivery, the Supplier shall configure and make available for review by Raytheon ELCAN, an acceptance test procedure. This document shall have as a minimum, the requirements of the characteristics to be verified, the procedures to perform the verifications, with clear accept/reject criteria, any specialized equipment needed, the sample lot size and an acceptance data sheet.

HQ07 CERTIFICATE OF CONFORMANCE 27SEPT2024

The supplier shall furnish, with each shipment, a Certificate of Conformance. A sample can be provided upon request (FRM0014). The Certificate of Conformance shall include statement(s) that the seller/supplier is providing the product(s)/service(s) conforming to all requirements of the purchase order. The certification shall be signed (electronic signature is acceptable) by the supplier's responsible quality representative as evidence that the deliverable product conforms to stated requirements. The Supplier's supporting documentation and data which provides evidence of product conformance in support of this certificate shall be maintained by the supplier for a minimum of 10 years after completion of the purchase order, or other period as directed by the purchase order.

Glass suppliers shall send a melt data sheet and heat treat suppliers may submit a Heat Treat Certificate in lieu of a Certificate of Conformance. COTS (commercial off-the-shelf) distributor/suppliers shall provide OEM Certificates of Compliance and/or Certificates of Analysis when specifically requested on

the purchase order. This HQ clause is not applicable for procurements between/within Raytheon business units.

HQ08 INSPECTION REPORT 27SEPT2024

The Supplier shall submit with each shipment a copy of their Final Inspection Report for the lot, including part number, characteristics/parameters, quantity accepted/rejected and the signature or stamp of the Supplier's Inspection Representative. Performance of the Purchase Order will not be complete, and payment may be delayed, until all reports are received.

HQ09 STATISTICAL PROCESS CONTROL 06DEC2022

The Supplier shall validate the quality of the product using Statistical Process Control (SPC) techniques. A plan for the implementation of SPC shall be submitted by the Supplier for review and approval by Raytheon ELCAN, prior to the initiation of production. The plan shall detail the process capability studies to be performed, the SPC method to be applied, the characteristics to which SPC will be applied, the sample size and frequency of measurements, the criteria to be used for modifying the sample size and frequency, the criteria to be used for determining an out of control condition and action to be taken for an out of control condition.

HQ12 MELT LOTS TRACEABILITY 27SEPT2024

Traceability of melt numbers is required on all items manufactured for this Purchase Order. Component parts and certifications must be traceable to the melt lot number. Actual test data for optical properties is required on each melt lot included in the shipment. Performance of the Purchase Order will not be complete, and payment may be delayed, until all reports are received.

HQ13 FIRST ARTICLE INSPECTION (FAI) 06DEC22

Applicable to custom items (non-catalogue items) only. The seller shall perform a First Article Inspection (FAI) of production representative items. The FAI shall conform to the most current requirements of SAE AS9102. One piece shall be measured/tested to verify compliance. On multi cavity tools one piece per cavity will be inspected. The seller shall supply ballooned drawings correlating the AS9102 Form 3 "Field 5 characteristic number". FAI packages may be required prior to the buyer authorizing production delivery. Raytheon ELCAN may request source inspection at the time of FAI. In all other cases FAI documentation shall be submitted with the first delivery of product. FAI shall be repeated if the seller is out of production longer than 24 months. FAI shall be repeated if the seller has made changes to process or product (see HQ 41) that may invalidate the original FAI. For Copies of AS9102 forms contact Raytheon ELCAN buyer.

HQ16 ENVIRONMENTAL CHARTS 08DEC15

The Supplier shall furnish environmental chart(s) with the shipment of goods referencing as a minimum, the part number, lot number and the equipment number. Performance of the Purchase Order will not be complete, and payment may be delayed, until all charts are received.

HQ18 ACTUAL TEST AND/OR DIMENSIONAL DATA 06DEC2022

Actual functional and/or dimensional test reports referencing, as a minimum, part number, test method, actual result, serial number(s), or lot number as required, and an authorized signature and title. These reports shall accompany each shipment. In the event the Supplier does not have sufficient equipment capability to functionally test the articles contracted for, they must be tested in a laboratory approved by Raytheon ELCAN. Performance of the Purchase Order will not be complete and payment may be delayed, until all reports are received.

HQ19 MILL TEST REPORT 27SEPT2024

The Supplier shall submit with shipment of goods, a mill test report verifying specification conformance. This report shall include as a minimum, a chemical analysis, a physical analysis, and a listing of any and all Federal or Military Specifications the material conforms to. This report shall be identifiable to each lot, or batch. This report shall be reviewed, signed, and dated by the Supplier's Representative. Performance of the Purchase Order will not be complete, and payment may be delayed, until all reports are received.

HQ20 CHEMICAL ANALYSIS 27SEPT2024

The Supplier shall submit with shipment of goods, a Chemical Analysis Test Report verifying specification conformance. The Test Report shall be

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identifiable to each lot, batch. Performance of the Purchase Order will not be complete, and payment may be delayed, until all reports are received.

HQ21 PHYSICAL ANALYSIS **27SEPT2024**

The Supplier shall submit with shipment of goods, a Physical Analysis Test Report verifying specification conformance. The Test Report shall be identifiable to each lot, batch or heat treat lot. Performance of the Purchase Order will not be complete, and payment may be delayed, until all reports are received.

HQ22 AGE CONTROL **07JUN2023**

Certifications accompany each shipment including part number, date of manufacture, quantity, shelf life and an authorized signature. Material must have >60% of the shelf life remaining upon arrival unless prior approval is given by Raytheon ELCAN Buyer. "Time and temperature sensitive material" must be identified on the shipping container including shelf life and temperature storage range in degrees.

HQ23 RADIOACTIVE MATERIAL ANALYSIS, MIL-G-174 **12DEC15**

Optical components manufactured for this Purchase Order shall, as required by MIL-G-174, be tested by x-ray spectrometer fluorescence techniques, or an approved alternative, for compliance with maximum radioactive material requirements. Results must not exceed 0.05% by weight as defined by the Title 10, Code of Federal Regulations, Paragraph 40. Actual test data must accompany each shipment along with the Certificate of Conformance. Performance of the Purchase Order will not be complete, and payment may be delayed, until all reports are received.

HQ24 COATING TEST DATA **27OCT25**

Actual spectral data and environmental test data as required by the drawing and specification must be supplied with each coating lot. Coating spectral data to be supplied in agreed upon digital file format (.csv, .txt...etc) to the buyer when available. Coating lot shall be identified and kept separate upon shipment to Raytheon ELCAN. Performance of the Purchase Order will not be complete, and payment may be delayed, until all reports are received.

HQ25 COATING LOTS TRACEABILITY **08DEC15**

Traceability of coating run number is required on all items manufactured for this Purchase Order. Components parts and Certifications must be identified with coating lot number.

HQ30 QUALIFIED PRODUCT LIST (QPL) **08DEC15**

Only products appearing on the appropriate Qualified Products List (QPL) are authorized for procurement and delivery.

HQ32 ESD **08DEC15**

Items on this Purchase Order are considered Electrostatic Discharge (ESD) sensitive, and require special handling, packaging and identification. In the absence of other requirements, MIL-STD-1686, Class I, shall be used.

HQ37 LEAD-FREE SOLDER CONTENT **06DEC2022**

Suppliers of electrical or electronic products, assemblies, components, or material containing lead-free solder, plating, or tinning material shall require written approval and shall notify Raytheon ELCAN within 7 days of receipt of this Purchase Order (PO). Included in the notification, suppliers shall specifically identify, to Raytheon ELCAN, the type of material and the application in which it is used. Raytheon ELCAN reserves the right to modify any or all terms or conditions of the PO deemed to be appropriate following notification.

HQ40 SOLDERING (IPC J-STD-001) **08DEC15**

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

HQ41 NO CHANGES WITHOUT RAYTHEON ELCAN APPROVAL **06DEC2022**

Custom Items (non-catalogue items) only. The seller shall notify the responsible Raytheon ELCAN Procurement Agent of any changes and/or proposed changes made during performance of this order or since previous first article or product qualification. These changes include but are not limited to changes in design, materials, parts, fabrication methods and critical processes, plant relocation or changes in subcontractors that may or may not impact form, fit and/or function of the supplied item when integrated into Raytheon ELCAN's products. Prior to fulfilling an Raytheon ELCAN purchase order, Raytheon ELCAN must approve any/all changes with notification provided to the seller by the responsible Procurement Agent.

HQ42 IPC WORKMANSHIP STANDARD **08DEC15**

The subcontractor shall comply with the applicable requirements of the most recent edition of the IPC listed below:

As the industry standard for the visual acceptance of mechanical and other requirements associated with completed electronic assemblies, IPC-A-610 Class 3 establishes a foundation for common performance expectations.

Cable and Wire Harness Assemblies: IPC/WHMA-A-620A is the certification for cable and wire harness assemblies; it pertains to wiring, wiring harnesses, and control panels, creating a common level of expectation for the functional assembly of electrical equipment. This standard addresses wire runs, crimping, and other attributes of the assembly process.

HQ43 Calibration **27SEPT2024**

The Supplier shall submit, unless otherwise specified, for each item on P.O. the following information:

- As Found condition statement (In or Out of Tolerance) along with the calibration data. If device is found to be out, As Left data is also required.
 - As Found and As Left calibration data when adjustments are required.
 - Minimum required Test Accuracy Ratio or Test Uncertainty Ratio of 4:1, if this can't be obtained, the actual TAR/TUR must be documented on the certificate.
 - A statement of traceability of the calibration data to the SI units (typically through NIST, or another national metrological institute).
 - Unique identification of the calibrated instrument (typically by make/model/serial number, or Raytheon ELCAN Calibration ID#).
 - The date the calibration was performed.
 - Identification and signature/seal of authorized representative of outside calibration service provider (e.g., calibration technician and/or calibration lab manager).
 - Calibration Certificate, signed, dated, and as a minimum referencing the Raytheon purchase order number and the above information.
 - A duplicate copy of the calibration certificate should be emailed to the Raytheon ELCAN Buyer
- It is incumbent upon the supplier to immediately notify Raytheon ELCAN if any of the above requirements cannot be complied to.

HQ44 Traceability **07MAR2016**

All products shipped on this purchase order shall have one-way traceability. The seller shall be able to trace backward from the final end deliverable item to all items used to produce it. Items include but are not limited to assemblies, sub-assemblies, electronic/electrical parts, raw materials, mechanical machined parts, and special processes.

A lot is defined as units of product that are of a single type, grade, class, size, and composition, manufactured under essentially the same conditions, and at essentially the same time.

A subassembly is defined as two or more parts which form a portion of the supplies replaceable as a whole, but having a part or parts which are individually replaceable.

HQ45 FOD (Foreign Object Damage) **06DEC2022**

The supplier shall establish and maintain an effective Foreign Object Damage (FOD) Prevention Program to reduce FOD using AS9146 as a guideline. 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 procedures or policies developed by the supplier shall be

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subject to review and audit by the Buyer and, disapproval when the Supplier's procedures or policies do not accomplish their objectives.

HQ47 Radioactive Material

14APR21

The material used in the manufacture of this optical part contains no Thorium or other source material defined by title 10, code of federal regulations, part 40 in excess of 0.05% by weight (500ppm) or other added radioactive material.

Radioactive material is defined as material requiring specific licensing under the regulations issue pursuant to the atomic energy act 1954, as amended, or any other radioactive material not requiring specific licensing in which the radioactivity per gram is greater than 0.002 micro curies