

P01	This quality note requires compliance with the RESCO Defense Purchase Order "Note" section and Terms and Conditions document on the RESCO Defense website.
P02	If the supplier of this item is the original manufacturer, please provide a packing slip. If the supplier of this item is an authorized/franchised distributor, please provide the packing slip from the original manufacturer with your company packing slip and certificate of compliance. The traceability documentation is not required if the component is not an electronic, electrical or electromechanical component.
P03	If the supplier of this item is the original manufacturer, please provide a packing slip and certificate of compliance. If the supplier of this item is an authorized/franchised distributor, please provide the packing slip from the original manufacturer with your company packing slip and certificate of compliance.
P04	Package in tape and reel per EIA-481. RESCO requests that the supplier place labels on the reel such that there is an empty space for RESCO to place a 2" x 4" label upon receipt.
P05	Vendor drawing, catalog sheet, or specification sheet required supplier must furnish detailed information sufficient to permit a thorough mechanical/electrical inspection at RESCO. Failure to submit this information shall result in the rejection of the material.
P06	All constructions containing pure cadmium or pure zinc are prohibited. In addition, constructions made of tin and tin finishes are prohibited unless they contain a minimum of 3 weight percent lead. Items furnished under this purchase order shall not contain functional mercury or mercury contamination. The presence of functional mercury or mercury contamination such as metallic mercury or mercury compounds shall be cause for rejection.
P07	If the item is an EEE part (Electrical, Electronic, Electromechanical), parts must be from a single lot date code less than 36 months old. In addition, if the supplier of this item is the original manufacturer, please provide a packing slip and certificate of compliance. If the supplier of this item is an authorized/franchised distributor, please provide the packing slip from the original manufacturer with your company packing slip and certificate of compliance. If the item is a mechanical parts (raw materials, hardware, fasteners, terminals, etc.), parts must be traceable to the original manufacturer and the original manufacturer lot number. Provide a manufacturer packing slip or certificate of compliance that provides this information.
P08	This item has been identified as shelf life and age sensitive. Please provide product per the age requirement on the PO. Please provide a packing slip that includes the date of manufacture or cure date.
P09	Parts designated for waffle packs shall use black 2"x2" or 4"x4" ESD waffle packs. 1. Parts shall be packaged in black 2"x2" or 4"x4" conductive waffle packs. 2. The first die shall be oriented face up in the waffle pack in the upper left cell with the notched corner on the upper right. Filling shall go left to right, top to bottom. 3. The pocket size of the waffle pack shall be at most 30% larger than the die size and shall be sized to prevent the die from rotating in the pocket. 4. The pocket depth of the waffle pack shall be at least 5 mils greater than the height of the die, but not allow the die to flip/rotate during shipping. 5. The waffle pack part number is the choice of the supplier, unless otherwise specified within purchase order notes, but shall remain the same unless approved by Northrop Grumman. *Note: Goods procured under this purchase order may or may not be considered ESD sensitive, but may be stocked or manufactured with ESD sensitive material. Therefore, all Microelectronic Component Packaging (such as Waffle Packs, Covers, Clips, Gel-packs, enclosures, etc.) shall be manufactured using only ESD safe (Static-Dissipative/ESD Protective) material. It is preferred Microelectronic Component Packaging be visually identifiable as ESD safe by molded writing or ESD safe symbol. Microelectronic Component Packaging visually identifiable with Stat Pro® or Chip Sentry® will not need additional labeling as they are by default manufactured with ESD safe material from the manufacturer.

P10	Package in tubes
P11	Moisture sensitive parts. Package per appropriate MSL level in accordance with J-Std-033.
P12	<p>First Article Inspection (FAI) 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.</p> <p>A) FAI applies to one piece from the first production run, unless otherwise set forth in this purchase order or through written waiver by quality assurance.</p> <p>B) 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.</p> <p>C) 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.)</p> <ol style="list-style-type: none"> 1. A change in the design affecting form, fit, or function of the part. 2. A change in manufacturing source(s), processes, assembly line, inspection method(s), location, tooling, or materials. 3. A change in numerical control program or translation to another media. 4. A natural or man-made occurrence which may adversely affect the manufacturing process. 5. 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. 6. When required as part of corrective action for a part number with repetitive rejection history. <p>D) Supplier shall segregate and identify the FAI unit in a separate container when delivering to Northrop Grumman. The FAI report is to accompany the FAI unit.</p> <p>E) 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) actions. (Supplier's MRB for supplier designed and Northrop Grumman MRB for Northrop Grumman design). Supplier rejection documentation, supplier's/Northrop Grumman dispositions, and supplier corrective action shall be part of the FAI package. The supplier shall re-do an FAI for those affected characteristics.</p> <p>F) 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.</p>

P13	<p>Hazardous Materials The seller shall comply with applicable federal, state and/or local environmental laws and also have an ongoing safety program which meets or exceeds the requirements specified by applicable federal, state and/or local regulations. The seller's programs shall be subject to audit by Northrop Grumman and/or government representatives. A) prior to start of production the seller shall provide Northrop Grumman with a material safety data sheet (MSDS), in accordance with 29 CFR section 1910.1200, for each hazardous material used in the item(s) covered by this purchase order or used to manufacture the item(s). A material safety data sheet must also be furnished with each shipment. (forward to MSDS coordinator) Hazardous material includes any material defined under the latest version of federal standard 313 (FED-STD-313). See FAR 52.223-3. The subcontractor shall package all material IAW OSHA standards in order to prevent accidental exposure. All packages shall be identified as to its contents and labeled accordingly. For items procured under this order that are considered as explosives. The supplier is responsible to ensure that proper packaging, identification, marking, and shipment: A. Surface Shipment: I.C.C.T.C George Tariff (latest revision with supplements). Motor Carriers Explosive And Dangerous Articles Tariff (latest revision with supplements). B. Air Shipments: C.A.B. 82 Official Air-Transport Restricted Articles Tariff 6D Revisions. C. DTA Cars: are required inside each separate container identifying manufacturer's name, address, product, or item identity, lot control number, loading date, quantity and purchase order number. For a minimum of four (4) years after the completion of this purchase order, the seller shall keep on file at his facility, all the inspection and test records relative to material, processes, services, and parts shown on this purchase order.</p>
P14	<p>ESD Sensitive Products This product is considered to be susceptible to electrostatic discharge. The supplier is responsible for ensuring that the product is manufactured, tested, identified and handled in accordance with MIL-STD-1686, EIA JESD625-A, ESDS20.20 or equivalent. The Supplier shall maintain an ESDS program in accordance with MIL-STD-1686, MIL-HDBK-263, EIA -JESD-625-A, ESDS20.20 or equivalent and shall include procedures, personnel training records and calibration of ESDS testing equipment. The Supplier's ESDS program, including the procedures, is subject to Northrop Grumman's review throughout the period of this Contract.</p>
P15	<p>Export compliance requirements: *Country of Origin *HTS Code (Harmonized Tariff Schedule) *ECCN (Export Control Classification Number)</p>
P16	<p>SOURCE INSPECTION REQUIRED Contact RESCO Buyer prior to shipping parts.</p>
P17	<p>Material certification as to exclusion of Mercury must be included with shipment. The Certificate of Compliance must include the signature of the person authorized to certify compliance that materials furnished on this PO contain no evidence of mercury. Failure to comply shall result in the rejection of the material.</p>

P18	<p>Prior to starting welding the supplier must submit to Northrop Grumman Corporation and obtain approval of the following:</p> <ul style="list-style-type: none">. A weld procedure, or procedures, for the appropriate material and material thickness per the requirements called out on the drawing.. A PQR, Procedure Qualification Report, for the above procedure.. A copy of the welder's certification to the procedure. <p>The supplier may not proceed with welding until approval has been granted. The procedure and qualifications must be to the government specification or commercial code that is dictated by the drawing. Failure to submit this procedure shall result in rejection of the material.</p> <p>Supplier must provide a welder certification document proving welder process acceptance by Northrop.</p> <p>Alternatively, supplier must provide certification that no welding was performed.</p>
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P19	<p>SUPPLIER SHALL FURNISH TO PCS A TEST DATA PACKAGE CONSISTING OF THE FOLLOWING:</p> <ol style="list-style-type: none">1. COPIES OF ALL DATA FOR TESTS PERFORMED. THE COMPLETED DATA SHEETS SHALL BE COPIES OF THE ACTUAL DATA RECORDED ON THE TEST FLOOR AND NOT RETYPED DATA.2. Each page of the test data package shall be signed and dated by the person recording the data. A stamp, unique to each employee, may be used as long as the vendor maintains a log showing which stamp relates to which employee. Initials may not be used in place of a signature.3. EVIDENCE OF ACCEPTANCE OF THE TEST(S) BY SUPPLIERS QUALITY ASSURANCE.4. NORTHROP GRUMMAN PURCHASE ORDER NUMBER.5. NORTHROP GRUMMAN OR SUPPLIER'S PART NUMBER AS ORDERED.6. SERIAL NUMBERS AND/OR QUANTITY WHEN APPLICABLE.7. APPLICABLE DRAWING/SPECIFICATION REVISION LEVEL.8. SIGNATURE/STAMP OF SUPPLIER'S RESPONSIBLE AGENT.9. SUPPLIER'S NAME OR TRADEMARK AND/OR ID NO. ONE (1) COPY OF THE TEST DATA PACKAGE MUST BE provided to Northrop Grumman. Send a copy with your product shipment, packaged in an envelope secured to the outside of the packing carton or container (whenever possible), and clearly mark the envelope "Certs Enclosed." WHEN A VENDOR COMPLIANCE REPORT IS REQUESTED IN LIEU OF ACTUAL TEST DATA, THE ACTUAL DATA MUST BE RETAINED BY THE VENDOR FOR AT LEAST SEVEN (7) YEARS AND MUST BE AVAILABLE (SUPPLIED) TO NORTHROP GRUMMAN ON REQUEST. <p>The recording of numerical data shall follow per below:</p> <ul style="list-style-type: none">* Record data to the precision (number of decimal places) indicated by the limits.* If the digit beyond the last place to be recorded is less than five, do not change the last place to be recorded.* If the digit beyond the last place to be recorded is greater than five, add one to the last place to be recorded.* If the digit beyond the last place to be recorded is a five with either no more digits beyond the five, or all digits beyond the five are zeros, add one to the last place to be recorded if it is an odd number. If the last place to be recorded is an even number, do not change the last place to be recorded.* If there are digits beyond the five, and they are not zeros, add one to the last place to be recorded. <p>Ex: A value of 1.45 with limits of 1.3 to 1.6 would be recorded as 1.4, while a value of 1.35 with limits of 1.3 to 1.6 would be recorded as 1.4.</p> <p>* When the recorded value would equate to the lower control or upper control limit, record data to the precision of the limit plus one digit. Thus if the limits are 1.3 to 1.6 you would record two places for 1.3 and 1.6 or 1.31 and 1.60 which could never be recorded as 1.6 or anything other than 1.60. If the limits are 1.3 to 1.6 and the measured value was 1.61, you cannot round to 1.6 since 1.61 is out of tolerance. Do not round down to the upper control limit. Conversely, do not round up to the lower control limit.</p>
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P20	<p>The supplier is responsible to ensure that all special processes, performed either by the supplier or their subcontractor on Northrop Grumman designed machined/fabricated parts including mechanical parts mounted on printed wiring board assemblies, be approved by Northrop Grumman Corporation and/or accredited by the National Aerospace and Defense Contractors Accreditation Program (NADCAP). Any detailed information regarding NADCAP accreditation process including the audit schedule can be obtained from Performance Review Institute (PRI) at http://www.pri.sae.org.</p> <p>Applicable special processes include:</p> <p>Chemical Processing: Anodize, Cadmium Plating, Chromate Conversion, Copper Plating, Gold Plating, Nickel Plating, Electroless Nickel Plating, Silver Plating, Tin Plating, Tin, Hot Dipped, Tin-Lead Plating, Zinc Phosphorous Plating, Zinc Plating</p> <p>Non-Destructive Testing: Dye Penetrant Testing, Radiography Examination, Magnetic Particle Examination, Ultrasonic Testing</p> <p>Heat Treatment: Heat Treat of 6061 Aluminum Assy's Using Forced Hot Air, Heat Treat of Mumetal, Heat Treat of Stainless, Heat Treat of Aluminum, Heat Treat of Aluminum Castings, Heat Treat of Steel, Heat Treat Titanium</p> <p>Welding: Fusion Welding of Aluminum, Fusion Welding of Aluminum Castings, Fusion Welding of Steel, Electron Beam Welding, Spot Welding Group 1, Class A, B & C, Spot Welding Group 2, Class A, B & C</p> <p>Brazing: Dip Brazing, Vacuum Brazing, Torch Brazing</p> <p>Painting: Metal Spray:</p> <p>Vendor must include with part shipment a certificate of conformance from the special process vendor stating that the process was NADCAP certified or approved by Northrop Grumman.</p> <p>If the item procured on this purchase order does not require any of the processes listed above then they do not apply. However if the vendor is subcontracting any of these processes they must then be flowed down to the subcontractor and do apply as written. Certification and process records shall be available for examination by Northrop Grumman. Records must be maintained for 10 years.</p>
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P21	<p>Parts designated for waffle packs (as of 11/24/2015)</p> <p>1. Parts shall be packaged in contrasting color, Black or Tan, as appropriate, 2"x2" or 4"x4" conductive waffle packs. Large Parts, Substrates, not fitting 2"X2" ESD Safe Waffle Pack in quantity dictated by PO shall be in 4"x4" ESD Safe Waffle Pack. 2. The first die shall be oriented face up in the waffle pack in the upper left cell with the notched corner on the upper left. Filling shall go left to right, top to bottom. 3. The pocket size of individual cavities in the Waffle Pack is dependent upon the size of the part contained. The cavity shall be large enough such that there is no pressure on the part preventing removal using a vacuum type pick-up tool. The cavity size with lid shall not allow the part to rotate more than 15 degrees, flip over face down or migrate to another cavity. All die shall be face up and in the same orientation. 4. The pocket depth of the waffle pack shall be at least 5 mils greater than the height of the die, but not allow the die to flip/rotate during shipping.</p> <p>5. The waffle pack part number is the choice of the supplier, unless otherwise specified within purchase order notes, but shall remain the same as the most recent previously delivered order from the supplier unless approved by Northrop Grumman. 6. Goods procured under this purchase order may or may not be considered ESD sensitive, but may be stocked or manufactured with ESD sensitive material. Therefore, all Microelectronic Component Packaging (such as Waffle Packs, Covers, Clips, Gel-packs, enclosures, etc.) shall be manufactured / supplied using only ESD safe (Static-Dissipative/ESD Protective) material. 7. Microelectronic Component Packaging shall be visually identifiable as ESD safe by molded writing or ESD safe symbol. Microelectronic Component Packaging visually identifiable with Stat Pro® or Chip Sentry® will not need additional labeling as they are by default manufactured with ESD safe material from the manufacturer.</p>
P22	Bulk packaging not allowed. Parts can not be loose in a bag or box. Parts need to be in a tray, reel or other individual packaging method that prevents damage.
P23	Part number supplied must match part number ordered. We can not accept "better than" parts. Marking on the part must match the label on the reel.
P24	Parts must be from a single lot date code less than 24 months old. In addition, if the supplier of this item is the original manufacturer, please provide a packing slip and certificate of compliance. If the supplier of this item is an authorized/franchised distributor, please provide the packing slip or CofC from the original manufacturer with your company packing slip and certificate of compliance.
P25	A C of C stating compliance to DFARS 252.225-7009 Restriction on Acquisition of Certain Articles Containing Specialty Metals is required
P26	Supplier shall notify RESCO Defense in writing of all Process, Design, Fabrication, Testing, Facilities and Material changes affecting the form, fit, function, reliability or interchangeability of end item specification or drawing requirements. These changes must be evaluated by RESCO Defense prior to implementation by the supplier.
P27	<p>Whenever and/or wherever FOD entrapment or foreign objects can migrate, Seller shall maintain a FOD prevention program.</p> <p>Supplier shall assure that product is handled in accordance with ESD policies (if applicable) prior to packaging. Electronic/optical devices are required to be packaged in ESD protective material only.</p> <p>Packaging peanuts of any type are not allowed inside any of the packaging containers.</p>
P28	<p>Package in appropriate Waffle/Gel Pack based on the following:</p> <p>Total Order Quantity:</p> <p><50/ea = 10pcs per pack</p> <p>51-100/ea = 25pcs per pack</p> <p>101-500/ea = 50pcs per pack</p> <p>>500/ea = 100pcs per pack</p>

P29	Individually Unit package. Mark each package with label. "Warning: Fiber Optic Sensitive Component requires special handling". If component size prohibits use of label, apply label to outer packaging.
P30	Material furnished on this purchase order shall not contain functional mercury in any form and shall be free from contamination by the presence of mercury. Material furnished on this purchase order shall also not contain any hazardous material or PVC (polyvinyl chloride).
P31	* All Electrical and Electronic Parts must have a date code, the format for the date code shall be marked per the latest revision of MIL-STD-1285 (currently, YYWW where YY is the year and WW is the week of manufacture). * CFC Free Products: The use of Ozone Depleting Chemicals (ODC's) in the processing of materials or products delivered on this order is not allowed. If the product requires the use of ODC's, this must be brought to the attention of the RESCO buyer prior to any such processing. The notification to RESCO must include the reason that alternative chemicals or processing cannot be substituted for ODC usage. Written authorization from RESCO is required prior to processing products for this order with ODC's. This requirement must be imposed on any sub-tier supplier or processor utilized in the production of this order.
P32	N/A
P33	Parts must be packaged in a JEDEC tray
P34	Outer packaging shall be marked with label "Warning: Highly Electrostatically Sensitive Device" or "Warning: Class 0 Electrostatically Sensitive Device." If unit packaging size permits labeling, it shall be labeled as "Warning: Highly Electrostatically Sensitive Device", "Warning: Class 0 Electrostatically Sensitive Device", "HESD" or "Class 0".
P35	THIS MATERIAL IS CONSIDERED HAZARDOUS and must be labeled properly. These requirements do not apply to an "article", as defined by the OSHA Hazard Communication Standard.
P36	Supplier must provide a lot date code for each item supplied
P37	Glass must be free of all scratches, chips or irregularities. Package this part to ensure damage does not occur during transport. Bulk packaging of loose parts is not acceptable.
P38	Marking and Labels from the Manufacturer shall be the only marking and labels allowed on Inner Packaging and product. No distributor or 3rd party marking/labels to be attached or written on the Inner packaging/container or product in anyway. Defacing or modifying the Manufactures "Like New Quality" Inner packaging labels or product labels is cause for rejection upon receipt. Inner packaging shall not be damaged. Damage to include but not limited to, (Major Dents (Large Baseball sized Dents), Leaks, chemical attacks, crushed sides, broken handles, smeared labels).
P39	Each part must have a label on the unit package that contains the information as required by the engineering specification, drawing, or purchase order along with the PO number and revision and Country of Origin. Can not use waffle packs for shipment.
P40	A Certification of Compliance is required to assure items supplied have been painted to the specifications required by the drawing and P.O. The certificate shall include the signature of the individual authorized to certify compliance. Data used to support this certification shall be maintained and made available upon request. Certain drawings require Northrop Grumman Corporation qualification prior to implementation, if uncertain, contact the purchasing representative for clarification. Certain drawings require a data sheet be provided listing all the preparation steps, painting data and measurements performed (e.g. 7392A82, 5793186). Failure to comply with any of these requirements shall result in the rejection of the material.

P41	<p>Supplier shall furnish to RESCO Defense actual test data, or certified dimensional data for each unit supplied consisting of the following:</p> <ol style="list-style-type: none"> 1. Copies of all data for inspections or tests performed, final test or qualification, when qualification is required. 2. Evidence of acceptance of the test(s) by suppliers quality assurance. 3. RESCO Defense purchase order number. 4. RESCO Defense or supplier's part number as ordered. 5. Serial numbers and/or quantity when applicable. 6. Applicable drawing/specification revision level. 7. Signature/stamp of supplier's responsible agent. 8. Supplier's name or trademark and/or id no. One (1) copy of the test data package must be sent with the material, packed in an envelope secured to the outside of the packing carton or container (whenever practicable), and clearly marked "CERTS ENCLOSED". 9. Actual test / Dimensional data for each unit per all drawing requirements. Each shipment shall include Acceptance Test Data specified by the drawing. 10. A list of all equipment used, shall be recorded with calibration date and due date. Test results must be traceable to requirement document. The data must be organized to correspond to the requirement document and paragraph. In the event the drawing requires shipment of the data to the "buyer", "buyer" shall be interpreted as RESCO Defense and the data shall be shipped with the parts. When a supplier compliance report is requested in lieu of actual test data, the actual data must be retained by the supplier for at least seven (7) years and must be available (supplied) to RESCO Defense on request.
P42	Supplier to supply raw material certifications with shipment.
P43	The Supplier does not have Material Review under this Purchase Order/Subcontract. The Supplier shall take no action to repair the discrepancy, or ship the item "As Is" to RESCO until the Suppliers proposed disposition of the discrepancy and corrective action in the design or process has been approved by the Northrop Grumman Material Review Board.
P44	Component and part leads, pins, terminations, wires, lugs and tabs shall be solderable in accordance with IPC J-STD-002, Class 1.
P45	Component and part leads, pins, terminations, wires, lugs and tabs shall be solderable in accordance with IPC J-STD-002, Class 2.
P46	Component and part leads, pins, terminations, wires, lugs and tabs shall be solderable in accordance with IPC J-STD-002, Class 3.
P47	All deliverable material supplied with this provision, unless otherwise specified, shall be capable of passing the Solderability test in accordance with these referenced standards: Mil-Std-202, Mil-Std-883 and/or ANSI/J-001/002.

P48	<p>There shall be no changes in the part or assembly design affecting schematics, construction, material, travelers, test procedures, process or configuration after a manufacturer has qualified the design without written approval from Northrop Grumman (NGC). It is the responsibility of the supplier, before accepting any new or follow-on order to submit all changes, regardless of class, that have been made since and not previously submitted to NGC. In the event the supplier elects to subcontract an item which includes design responsibility, the supplier shall include the provisions of this requirement in his subcontract. A class I change is defined as a change that affects the form, fit, or function of a design, application at the next higher assembly, reliability or the interchangeability of the part. It typically involves a change to the parts list, traveler or manufacturing process and/or affects the ability of the supplier to rework product using the previously established processes or parts lists. Design improvements can be considered class i or ii depending on their impact to the parts list and processes. Class II changes are all other changes, except for documentary, that are not considered to be class I. Product that contains class ii changes may be shipped after concurrence with class II classification has been received from NGC. To request Northrop Grumman approval of a class I or notification and concurrence of a class II configuration change, a supplier shall submit a Vendor Engineering Change Request (VECR) to the buyer. The request shall state the intended change reason and effect(s). All changes to a qualified baseline design are subject to approval by Northrop Grumman. After submittal of engineering change, a supplier may, at their own risk, incorporate said changes into product in-process but may not ship until written approval is obtained from Northrop Grumman.</p>
P49	<p>Supplier must provide a CofC stating that each lot of material being supplied contains neither metallic mercury, cadmium, hexavalent chromium nor any compounds of these elements. A ROHS/ROHS2 certification is acceptable for this requirement.</p>
P50	<p>Serial number control is required. All parts, shipping documents, and unit containers shall be identified with the serial number. Serial numbers should be assigned in the supplier's format unless otherwise stated in the drawing, or purchase order.</p>
P51	<p>Product shall be manufactured and inspected to the requirements of IPC J-STD-001 or IPC-A-610, Class 3 unless otherwise specified on the drawing. When IPC J-STD-001 is required, supplier shall utilize assemblers, solderers and inspectors who are certified to IPC J-STD-001 and shall provide evidence of compliance upon request.</p>
P53	<p>Every Finished Goods Assembly shall be identified on the part, with its Part Number, Unique Serial Number, and Revision, in both Alpha / Numeric Characters and 128 Bar Code.</p> <p>Every Programmed Device shall be identified on the part, with its Part Number, Revision/Version, Check Sum, and Reference Location, in both Alpha Numeric Characters and 128 Bar Code.</p> <p>Materials and parts used shall be traceable by lot number, material type, specification applicable change letter or numbers, heat number, etc., and traceable to records of acceptance. Assemblies and parts fabricated by the seller shall be traceable to the lot of materials used. For raw materials, this clause applies to traceability of materials to heat or lot number, manufacturing and inspection processes, test results, and records of acceptance. The supplier shall deliver a data package containing the traceability information with the material that certifies the pedigree of the parts & materials. This program requires microcircuit traceability to the wafer lot. (When possible, it is preferred that the procured parts are from one wafer lot.) Wafer lot traceability is to be included with the traceability records. The parts are to be segregated and individually packaged by the wafer lot(s). This requirement is in addition to any other traceability notes that show up on the purchase order or the drawing.</p> <p>Any Part, Component, Assembly, or Programmed device, which due to physical limitations cannot be identified on the part, shall be bagged and tagged with the Part Number, Revision or Lot/Batch Code or Manufactured Date Code and the Manufactures Identification.</p>

P54	All required electrical, functional, environmental, mechanical, nondestructive (NDT) or other tests shall be performed as applicable per procurement documentation. Each shipment shall be accompanied by a legible and reproducible copy of test reports identifiable with specification test requirements and materials submitted. Each shipment shall be accompanied by a legible and reproducible copy of dimensional inspection reports referencing all notes. These reports shall be authenticated by a representative of the agency performing the test.
P55	Supplier must identify all primary packaging with a caution label and use of keyword ***CAUTION - OPTIC*** Optical products shipped under this Contract shall be individually packaged to protect the component from contamination, damage, or mishandling per the engineering drawing specification or with use of alternate packaging. The preferred packaging method shall be lens tissue in sufficient layers to prevent damage; other methods may include membrane boxes of a suitable size and shape, cotton bags, individual plastic boxes with molded inserts, etc. The use of bulk packaging such as "egg cartons" or "waffle trays" is not permitted.
P56	Substitutions for the items listed in this purchase order are not acceptable. Substitution includes items produced by a manufacturer different from that identified.
P57	Seller shall maintain a program for the prevention and control of FOD (Foreign Object Debris / Damage). The program shall define processes incorporated into production/manufacturing activities to prevent the introduction of foreign objects into any deliverable item. As a minimum, the program shall provide for identification of FOD sensitive areas, deployment of FOD collection containers, where deemed appropriate by local manufacturing policy/management and training for all personnel working in production/manufacturing areas. Buyer reserves the right to perform an evaluation on the effectiveness of this program.
P58	Supplier will furnish a Certificate of Compliance for the raw materials purchased. The certificate shall contain the following information: 1. The suppliers name , contact information, date of certification, printed name and signature of individual authorized to certify compliance. 2. RESCO Defense P.O./ line item number, item nomenclature, quantity, material dimensions and material heat or lot number. 3. Material specification per the drawing or PO requirements
P59	This item is a Lead Free Assembly. Ensure part is manufactured to drawing specifications.
P60	SOURCE INSPECTION REQUIRED Source Inspection required for Precap and Final Inspections.
P61	Commercially available parts (COTS) supplied to this order must be an EXACT MATCH to the part number ordered. Parts and sub-tier parts supplied to this order shall be of the same revision/version for like parts, with each revision/version identical in form, fit, function, appearance, reliability, and interchangeability. Embedded software or firmware supplied under this order shall be of the same revision/version for like parts. For those parts previously supplied to the Buyer, the Seller shall, before accepting any follow-on order, notify the Buyer of any changes that have been made to the COTS product, since the last shipment, that would impact identity.
P62	The Supplier shall have an established, active safety program designed to protect the Suppliers employees from injury(s). The program shall address all aspects of safety, such as fire, chemical spills, protective clothing, eye protection, etc. The program shall have a safety committee, composed of personnel who represent multiple departments of the Supplier and who meet regularly to discuss and resolve safety issues.
P63	Supplier must provide Group A test data.
P64	Supplier must provide Group B test data.

P65	<p>In-process inspection of article(s) to be delivered under this subcontract/purchase order is required. In-process inspection shall verify acceptability of quality characteristics which cannot be readily inspected in completed article(s) and shall be conducted at or before the last point at which acceptability of the quality characteristic can be verified. The supplier shall promptly notify quality assurance of receipt of this subcontract/ purchase order, to facilitate mutual and concurrent planning for in-process inspection. The supplier shall notify quality assurance at least 2 working days in advance of article(s) being ready for In-process Inspection. At the time of In-process Inspection, the supplier shall furnish:</p> <ol style="list-style-type: none"> 1. Latest revision of subcontract/purchase order 2. Records of completed manufacturing, inspection and test for the article(s) 3. All applicable drawings, specifications and standards 4. Necessary facilities, equipment and personnel qualified to demonstrate conformance of the article(s) to all subcontract/ purchase order requirements <p>RESCO Defense reserves the right to waive in-process source inspection without prior notice to the supplier. Supplier will provide evidence of In-Process Inspection with each shipment of hardware. This evidence can be an acceptance stamp on the shipping documents or a copy of the source inspection form.</p>
P66	<p>All construction and finishes containing pure zinc, pure cadmium or unplated brass are prohibited. Pure tin is also prohibited unless a minimum of 3% weight percent lead (Pb) is present. The use of Prohibited Materials in the processing of materials or products delivered on this order is not allowed.</p>
P67	<p>The supplier shall demonstrate conformance of the items produced to this purchase order. The supplier shall demonstrate by an inspection process (CMM or equivalent) that all design features contained in the electronic solid model database files are present in the product presented to RESCO for acceptance. The supplier shall create a "road map" from the solid model file that identifies feature and critical dimensions, drawing notes and default tolerance values as measured from #datums# referenced on minimally dimensioned prints and recorded in the CMM output report. This will be verified by RESCO inspection.</p>
P68	<p>Effective immediately and until further notice, this item cannot be procured and/or manufactured through\with ITT Cannon connector content.</p>
P69	<p>Pre-cap inspection/witnessing is required. Supplier shall provide sufficient advance notice to RESCO procurement to permit scheduling of source inspection. A legible and reproducible copy of the completed material acceptance report or source inspection waiver letter must be submitted with each shipment. Pre-cap source inspection is not required for non-custom, standard 'off the shelf' parts procured from fully qualified part manufacturers of QPL/MIL/DSCC products.</p>
P70	<p>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: - solders & 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 Verification of solder ball composition on area array packages and component termination composition on fine pitch components identified in 499-001854 is required. Verification is required on one (1) piece from each date code and/or lot code and shall be performed using x-ray fluorescence (XRF) equipment or Northrop Grumman-approved equivalent. The entire date code and/or lot code under verification shall be rejected if the one (1) item under verification does not meet the material composition identified in 499-001854 and shall be accepted if the one (1) item under verification meets the material composition identified in 499-001854. Materials which fail these tests/inspections shall not be delivered under this purchase order. Verification results shall be delivered with the part. The seller shall notify the buyer of any planned material changes to lead (Pb)-free finishes, platings, or solders associated with the part number. These changes must be evaluated and approved by Northrop Grumman prior to completion of order.</p>

P71	<p>When equipment is delivered, a Certificate of Calibration must be included listing equipment (traceable to NIST) used for calibration. Out of tolerance data must be supplied if equipment supplied was out of tolerance before calibration.</p> <p>The following represent priority order for calibration accuracy:</p> <ol style="list-style-type: none"> 1. Manufacturer's instructions 2. MIL-STD-45662A, ANSI Z540-1, ISO 10012 or ANSI/ISO 17025 3. If none of these are applicable, use at least a 4:1 accuracy ratio
P72	<p>Supplier shall provide a copy of the Die Topography with every shipment. Copy must be legible, include pin outs and shall be representative of parts shipped.</p>
P74	<p>NSD-106 Supplier Failure Analysis and Repair Report</p> <p>The level of Failure Analysis Corrective Action and Reporting (FRACAS) required shall be based on the specific designators as called out on the purchase order. As indicated below these designators require varying reporting requirements and are dependent on the design cognizance and capability of the supplier. The supplier shall provide a failure analysis of each item returned for rework or replacement as indicated below and shall report the results of each analysis in the supplier's format, or in NSD supplied format when required. The completed legible and reproducible report form shall accompany each item returned to NSD when practical. When unable to complete the analysis report at the time of item return to NSD, an estimated date of completion of the report shall be transmitted to the NSD buyer/subcontract administrator. If the failure mode/location cannot be verified, the supplier shall write 'unable to verify' in the failure symptom block. In addition, the test methods used which were unable to verify the failure will be summarized in the report. The supplier shall provide a complete failure analysis for each verified failure indicated by the table below. This analysis must include: the actual cause of the failure including the failure mechanism, corrective action(s) taken to preclude a recurrence of the failure, and the date code or serial number effectivity of the corrective action(s). Where NSD has design cognizance and/or the supplier has no diagnostic test capability, it is recognized that the supplier's ability to determine the actual failure mechanism may be limited. The supplier shall provide a description of the rework/repair required to return the assembly to the operational requirements of the procurement specification with the returned unit. A list of all replaced electronic components including: part number, date code, manufacturer and probable cause of the failure mode is required.</p> <p>FRACAS LEVEL REQUIRED</p> <p>A</p> <p>WHERE NSD HAS DESIGN COGNIZANCE NSD returned units, Failure Analysis for Workmanship, when requested by NSD on the return documentation.</p> <p>WHERE SUPPLIER HAS DESIGN COGNIZANCE NSD returned units, Failure Analysis for Workmanship, when requested by NSD on the return documentation.</p> <p>B</p> <p>WHERE NSD HAS DESIGN COGNIZANCE NSD returned units, Failure Analysis for Workmanship, all units returned.</p> <p>WHERE SUPPLIER HAS DESIGN COGNIZANCE NSD returned units, Failure Analysis for Workmanship, all units returned.</p> <p>C</p> <p>WHERE NSD HAS DESIGN COGNIZANCE Supplier Manufacturing Acceptance Test Failures, Failure Analysis for Workmanship, when there is a failure trend.</p> <p>WHERE SUPPLIER HAS DESIGN COGNIZANCE Supplier Manufacturing Acceptance Test Failures, Failure Analysis for Workmanship, when there is a failure trend.</p>
P75	<p>Independent testing is required prior to shipping the printed wiring boards. All test results and test specimens shall accompany this shipment. One set of Quality Conformance Test Coupons from each date code along with copy of the master drawing shall be submitted to a DESC approved test laboratory for "as is and thermal stress" testing per Mil-PRF-31032, Mil P 55110, LPS 990555 and/or LPS 990955 as applicable, and the master drawing requirements.</p>

P76	<p>Printed Wiring Boards Lot Acceptance Quality Conformance Test Labs Quality conformance test tabs representing boards that have passed Group A testing shall be submitted with each date code. When 50% or more of the tabs and boards are rejected the entire lot shall be rejected. When 20 to 50% of the lot is rejected, all remaining boards are suspect and shall be submitted to a one time lot jeopardy testing. This test shall be of one bare board per panel thermally stressed and microsectioned.</p> <p>Electrical Testing Net list electrical testing shall be in accordance with the master Drawing and IPC 9252A. Electrical test certifications shall accompany each shipment and for all boards built. As a minimum the certification shall as a minimum include, test parameters, date code and serial number and accept and reject data.</p> <p>Packaging and Preservation Each board shall be individually packaged in a static shielded zip lock bag. Each bag shall have a moisture indicator. Desiccant can be with 3 M brand oxidation paper or desiccants to reduce tarnish and preserve solderability. Rigid, rigid flex and micro strip boards shall be packaged in a manner to help prevent damage during shipping by using rigid material on the top and bottom. Metal staples and tape should not be used on the board. The materials utilized for packaging shall not be of out gassing materials.</p> <p>Identification Each bag shall have a identification label consisting as a minimum, supplier name or logo, NGC part number, purchase order, lot / date code and serial number.</p> <p>Modifications Etch cuts as specified on the master drawing maybe accomplished electronically provide enough clearance is maintained through the hole.</p>
P77	Furnish Test Reports showing actual test results for the test and/or inspections required by the Purchase Order. Reports must identify the testing organization, the tests performed and procedures used, the test date, and include the names of the person(s) conducting the tests (and qualification level(s), if applicable).
P78	Furnish reports of the chemical analysis obtained from the actual pouring of the furnace, crucible, or ladle. Reports must show the heat lot number (as marked on the raw material) and RESCO Purchase Order number.
P79	The supplier shall submit a copy of the top and bottom master pattern, solder mask (if required) and silkscreen (if required) artwork with this shipment. These copies shall be one up images and will remain the property of Northrop Grumman. Once copies are delivered, all subsequent hardware deliveries where no changes have been made shall have the following (or equivalent) statement on the supplier's packing slip and/or certification: "Master pattern, solder mask and silk screen were submitted on (date) _____ against Purchase Order _____." All PWB fabrication shall be accomplished using Northrop Grumman released/approved Gerber Data.
P80	Parts shall be packaged within a heat-sealed bag with a Desiccant and Indicator.
P81	Critical characteristics (key characteristics), as designated by the drawing or purchase order, shall be measured and recorded. Critical characteristics data shall be provided to the buyer for review and acceptance. Data should be sent with the product being delivered.

P82	<p>Seller shall submit a certificate with each shipment stating that the deliverable product does not contain the following prohibited materials</p> <p>Pure cadmium Pure zinc Pure tin</p> <p>This clause only applies to EEE (Electrical, Electronic & Electromechanical) parts. If the item is not EEE, then this clause is self-deleting.</p> <p>In addition, if the product does contain tin or tin finishes, the Seller shall submit a certificate with each shipment stating that the deliverable product contains a minimum of 3 weight percent alloying element(s), i.e., lead, silver, etc.</p>
P83	<p>All material delivered under the RESCO Purchase Order shall be authentic and traceable to the original manufacturer or mill/plant for raw materials. If documented acquisition traceability is not available, Supplier shall not accept the Buyer's Purchase Order or Agreement unless Supplier requests and receives Buyer authorization. If the supplier of this item is the original manufacturer, please provide a packing slip or certificate of compliance. If the supplier of this item is an authorized/franchised distributor, please provide the packing slip from the original manufacturer with your company packing slip and certificate of compliance.</p>
P84	<p>Supplier shall obtain RESCO Defense consent to deliver a product configuration other than what is specified on the drawing. Products/systems have been designed to function with the supplier's catalog no., part no., revision level, or date code specified on this drawing. To ensure the continued performance and reliability of the end product, it is essential that the supplier notify and provide documentation to RESCO Defense of any process/hardware/software/firmware configuration changes to their product so they may be evaluated for potential impact to our application. Requests for review of configuration changes and consent to ship shall be made to the address shown on this PO.</p>
P85	<p>Product requires manufacturing by a government qualified products list (qpl) supplier this product must be manufactured by a qpl supplier. The name of the manufacturer must be furnished with the shipping documents, or be identifiable with the product.</p>
P86	<p>Each container of hazardous material must be labeled in accordance with the Federal OSHA Hazard Communication Standard, 29CFR1910.1200, to include: (1) identity of the hazardous chemical(s), (2) hazard warnings, and (3) name and address of the chemical manufacturer, importer, or other responsible party.</p>
P87	<p>This is limited life material. Material shall be marked in accordance with the requirements specified in the purchase order.</p>
P88	<p>Verification of solder ball composition on area array packages and component termination composition on fine pitch devices is required on one (1) piece from each date code and/or lot code and shall be performed at the procurement receiving site using X-ray fluorescence (XRF) equipment. The entire date code and/or lot code under verification shall be rejected if the one (1) item under verification does not meet one of the following material compositions: tin-lead with at least three percent lead by weight or gold; otherwise, the entire date code and/or lot code under verification shall be accepted. Materials which fail these tests/inspections shall not be delivered under this Purchase Order. Verification results shall be shipped with the parts.</p>
P89	<p>A manufacturer Certificate of Conformance must be included with the shipment.</p>
P90	<p>Supplier shall provide material, physical and chemical certifications with actual physical and/or chemical results with each shipment as required by the specification. If the shipment contains multiple processed lots within each manufactured lot, each processed lot must be segregated and identified to maintain complete traceability in each shipment. Certifications may be on same page as Manufacturer's C of C if appropriate for the Manufacturer's procedures.</p>

P91	<p>O-RINGS MUST BE PACKED INDIVIDUALLY IN THEIR OWN BAG. BULK PACKAGING IS NOT ACCEPTABLE.</p> <p>Individual unit packaging per MIL-STD-2073-1, Standard Practice for Military Packaging, Method 33 is required. Any packaging displaying evidence of being stapled shall result in the O-ring being scrapped at the supplier's expense.</p> <p>Each unit package shall be marked per MIL-STD-129, Military Marking, and include the following information as a minimum:</p> <ul style="list-style-type: none"> Manufacturer's Part Number Specification number and revision level Customer's part number and /or contract number Manufacturers name or CAGE code Cure Date Material Batch Identity Rubber class designation per ASTM D1418 <p>Unless otherwise specified, the requirements of MIL-STD-413, Visual Inspection Guide for Elastomeric O-Rings, apply. O-rings and seals must meet the requirements of SAE ARP5316, Storage of Elastomeric Seals and Seal Assemblies, except that the maximum storage life for most components is 10 years or 40 quarters (Exception: fluorocarbon, fluorsilicone, ethylene propylene, and silicone O-rings and seals, prepackaged and stored per SAE ARP5316 shall be permitted a maximum storage life of 20 years or 80 quarters). Material delivered under this purchase order shall have at least 70% of the shelf life remaining at the time of delivery, unless approved in advance by buyer. Failure to comply with any of the above may result in the rejection of the material.</p>
P92	Supplier must provide Group C test data.
P93	Supplier shall ensure RLB1 Rolls are supplied to RESCO in a continuous 3'X30' (3Foot X 30Foot) roll, splices or several sheets taped together shall not be allowed. Any splices found upon receipt shall be cause for rejection. Supplier shall also attain and provide evidence of the Manufacturing date of material from the Manufacturer.
P94	<p>Calibration System Requirements</p> <p>A. Seller shall be responsible for the calibration, accuracy, validation, and maintenance of any equipment, tooling, or gauges utilized by Seller to produce, inspect, or test articles to be delivered under this Purchase Order / Subcontract.</p> <p>B. Seller's equipment calibration system shall be in accordance with one of the four requirements listed below:</p> <ol style="list-style-type: none"> 1. MIL-STD-45662A or 2. ANSI/NCSS Z540 or 3. ISO 10012-1 4. ISO 17025
P95	<p>Buyer shall approve special processes performed by Seller, or any of its sub-tier suppliers, including the system/procedures used to control special processes. Processes requiring Buyer approval include:</p> <ol style="list-style-type: none"> 1. Welding, destructive physical analysis, brazing, dye penetrate inspection, painting, radiographic inspection, plating, heat treating of metals, casting, chemical surface treatments, forging, contamination control, bonding, magnetic particle inspections, conformal coat, composites, soldering, pressure test, and ultrasonic inspection 2. Any other processes defined in the Purchase Order / Subcontract
P96	B. Buyer approval of special processes shall not relieve Seller of responsibility for exercising the control measures necessary to ensure delivered items conform to the requirements of the Purchase Order / Subcontract.

P97	<p>End Item Data Package</p> <p>A. An End Item Data Package (EIDP) shall be developed, maintained, provided and/or delivered at or before final acceptance of product by the Buyer, which incorporates the following information:</p> <ol style="list-style-type: none"> 1. Seller Certificate of Conformance 2. Specification/drawing number and revision 3. As-built configuration (Indentured Parts List – may not be required for software) 3. Proof of traceability requirements compliance (serial numbers, lot numbers, batch number, software version, etc.) 4. Documented non-conformances 5. Documented open action items 6. Incorporated Change Orders (Engineering Change Proposals (ECPs)) 7. Certificate of Conformances from sub-tier suppliers with objective evidence to validate the certificates 8. Type of inspection performed and recorded results 9. Type of test performed and recorded results 10. Total quantity of items tested, quantity of items accepted, and quantity of items rejected 11. Applicable Government Industry Data Exchange Program (GIDEP) alerts, waivers, deviations, and incident reports 12. Verification of compliance with useful life requirements, e.g., total operating time, thermal cycles, vibration time 13. Certificate of Traceability if required on the Purchase Order / Subcontract
P98	Buyer shall refuse to accept item if Seller fails to submit certifications, documentation, test data, or reports specified in the procurement document. Documentation shall include Buyer's source inspection if such source inspection is performed.
P99	Written approval shall be obtained from Buyer for any deviations to the EIDP.
P100	Workmanship shall be in accordance with IPC/WHMA-A-620 "Requirements and Acceptance for Cable and Wire Harness Assemblies".
P101	<p>A. Material submitted with each shipment shall have had solderability testing performed in accordance with one or more of the following specifications:</p> <ol style="list-style-type: none"> 1. MIL-STD-750, Method 2026 2. MIL-STD-883, Method 2003 3. MIL-STD-202, Method 208 4. MIL-P-55110 5. MIL-P-50884 6. J-STD-001 7. J-STD-002 8. J-STD-003 <p>B. Seller shall supply a copy of the certification by an accredited agency to one or more of the specifications listed in article A with each order.</p> <p>C. If, during the life of that Procurement Document, the certification is revoked or the certification expires, all efforts against this Procurement Document shall be stopped.</p> <ol style="list-style-type: none"> 1. Buyer shall be notified in writing within twenty four hours.
P102	<p>A. Printed Wiring Boards fabricated under this Purchase Order / Subcontract shall comply with the requirements of IPC-A-600 "Acceptability of Printed Boards", IPC-6011 "Generic Performance of Printed Boards", and IPC-6012 "Qualification and Performance Specification for Rigid Printed Boards".</p> <p>B. Coupons shall be included if defined on the drawing with each shipment.</p>
P103	Supplier shall submit test plan to RESCO for approval by Northrop Grumman - Mission Assurance Group Sykesville prior to testing of the initial item built by the supplier.

P104	The supplier shall furnish the date of battery manufacture or the date on which the battery was recharged. The preferred method is by noting this information on a label affixed to the battery or the device containing the battery. In the alternative, the information may be supplied in a certificate of conformance or similar document.
P105	N/A
P106	If the supplier of this item is the original manufacturer, please provide a packing slip and certificate of compliance. If the supplier of this item is an authorized/franchised distributor, please provide the packing slip or C of C from the original manufacturer with your company packing slip and certificate of compliance. The traceability documentation is not required if the component is not an electronic, electrical or electromechanical component.
P107	Parts must be less than 24 months old at the time of receipt at RESCO. The part or the unit packaging must have the manufacturer date code on it. In addition, if the supplier of this item is the original manufacturer, please provide a packing slip and certificate of compliance. If the supplier of this item is an authorized/franchised distributor, please provide the packing slip or CofC from the original manufacturer with your company packing slip and certificate of compliance.
P108	All constructions and finishes containing pure cadmium or pure zinc shall be prohibited. This clause only applies to EEE (Electrical, Electronic & Electromechanical) parts. If the item is not EEE, then this clause is self-deleting.
P109	Constructions and finishes containing pure tin shall be prohibited unless they contain a minimum of 3 weight percent alloying element(s), i.e., lead, silver, etc. This clause only applies to EEE (Electrical, Electronic & Electromechanical) parts. If the item is not EEE, then this clause is self-deleting.
P110	Supplier will furnish actual chemical/physical test reports for the raw materials specified in the drawings & specifications. Test reports are to be actual attribute data. When parts are serialized or lot numbered, the serial or lot numbers shall be included in the reports.
P111	Supplier shall package in Static Dissipative Cover and Waffle Pack H20-026-15-74D10 or H20-026-12-74D10
P112	Each spool of wire must be labeled with the following info: <ol style="list-style-type: none"> 1. Description 2. Size 3. Part # 4. Length 5. P.O. # 6. MFG'S Lot #, Date MFG.
P113	For quantities greater than 1,000 pieces Tape & Reel Packaging per EIA-481 is required. For quantities of 1,000 pieces or less, Tape & Reel is not required but parts cannot be bulk packaged.
P114	If the supplier of this item is the original manufacturer, please provide a packing slip or certificate of compliance. If the supplier of this item is an authorized/franchised distributor, please provide the packing slip or C of C from the original manufacturer with your company packing slip or certificate of compliance.
P115	A completed QCM-229 Form must be include with the shipment. For serialized items, one QCM-229 form must be completed for each item.
P116	Parts need to be packaged in a waffle pack or tray.
P117	Mark a serial number on each part in accordance with the drawing or purchase order using the assigned numbers provided on the PO. IF no serial number is provided, please contact the RESCO buyer.
P118	This item must be manufactured by TE Connectivity (AMP).
P119	Prior to the start of manufacture of the first article unit, the manufacturer shall present design information to RESCO Defense in sufficient detail to verify that the proposed design will comply with all requirements in the drawing.

P120	<p>* Test Data Requirements. Test data must accompany each shipment and must be in accordance with supplier's standard test practices and/or drawing or as specified by Buyer on supplied Drawing, Specification, Contract or other instrument of communication.</p> <p>* Serial Numbers. When required by Purchase Order items will be identified with unique serial numbers.</p> <p>* Packaging for Shipment - Unless otherwise specified by drawing or part specification requirements, all items require protection from physical, environmental, and mechanical damage. Protection shall be by wrapping, cushioning, part compartmentalization, packing, or other means to mitigate shock and vibration during handling and shipment. Part surfaces must be protected. In addition, each package shall be clearly and legibly marked with at least the Buyer's Purchase Order number and Item number. Standard practice for commercial packaging, ASTM D3951, is strongly recommended.</p>
P121	<p>SPCHDG009 (as of 03/01/2012)</p> <p>Workmanship to NASA Std's:</p> <p>NASA-STD-8739.1 Staking and Coating.</p> <p>NASA-STD-8739.2 Surface Mount Technology.</p> <p>NASA-STD-8739.3 Soldering Electrical connections.</p> <p>NASA-STD-8739.4 Crimp/Cables/Harness/Wiring.</p> <p>NASA-STD-8739.5 Fiber Optics processing.</p> <p>NASA-STD-8739.7 ESD controls.</p>
P122	<p>Regardless of other packaging instructions contained herein, Supplier shall package in Static Dissipative Cover and Waffle Pack H20-067080-66C02 or H20-067080-62C02</p>
P123	<ol style="list-style-type: none"> 1. All materials shall be identified by a part number and revision, permanently and legibly affixed directly to the surface of each article, 2. In the event this is not possible due to physical size or nature of material, an identification tag shall be securely affixed to each article, or 3. If articles are supplied in individual or multi-unit containers the container shall reveal the appropriate identification.
P124	<p>Supplier shall package in Static Dissipative Cover and Waffle Pack H20-015-66C02, H20-018-12-66C02, and H20-015-66C02. Waffle Pack with suffix 62C02 is acceptable.</p>

P125	<p>A. Unauthorized Material Substitution (General)Unauthorized material substitutions are not permitted on Buyer's Goods. Unauthorized material substitution includes any deviation from the engineering definition of a raw material. Engineering definition includes Buyer design drawing and applicable specifications, product specification, form, size, shape, chemistry, melt method, origin, temper/condition, product testing or surface finish. Alternate materials specified in the engineering definition (and often described as approved material substitutions therein) do not constitute unauthorized material substitution. Terms and definitions for metallic materials and processing used herein are clarified in ARP1917. Contact Buyer's Authorized Procurement Representative for details regarding deviations to authorized materials. Seller agrees and understands that such deviations only apply to this purchase contract, and only as indicated in the Buyer's authorized document.</p> <p>B. Metallic Materials (Specific) Temper or Condition Conversion Unless specifically authorized by the engineering definition, conversion of a raw material (i.e. heat treat to change the temper or condition of the material) constitutes material substitution of the condition provided by the manufacturer. Metallic Raw Materials # Buyer's engineering drawings may refer to obsolete or superseded specifications covering several forms, thicknesses, widths, etc. of the alloy or alloys. The required characteristics of these materials are defined not only by the objective test standards of the specification, but by the processes/methods by which this final form is achieved. These requirements are often captured in the definitions of the required material forms, and may not be explicitly called out in the detailed requirements. The raw material certification results from both the process used to make it and the tests to verify basic properties. Seller shall ensure that metallic materials covered by current or obsolete/superseded specifications are produced using the standard industry practices designed strictly for the production of stock to the specified thickness, diameter, width or cross sectional area, achieved by thermo-mechanical processing or casting process. Chemical, electrochemical and mechanical methods used for the removal of surface scale or contamination, or the production of the required surface finish, in accordance with the material specification are acceptable. Raw material must not be re-certified with respect to thickness, diameter, width or cross sectional area or product form. Machining or cutting of thicker product or other product forms shall not be supplied in lieu of specified product unless specifically authorized by Buyer. Raw material certifications for material or parts shall reflect the form and size of the raw material as originally manufactured by the raw material producer.</p> <p>C. Specification Supersession: For government specifications and standards canceled after June 1994, Seller and subcontractors at all tiers shall use the last active revision of the canceled specification and standard until an acceptable replacement is included in the requirements of this Contract. Contact the Buyer's Authorized Procurement Representative in the event of any inconsistency in applicable specification or standard.</p> <p>D. Reports (Full Pedigree from melt to final product) Raw material certifications shall show clear traceability to the manufacturer(s) of the raw material including ingot source, all thermo-mechanical processing (i.e. forging, rolling, drawing, etc), heat treatment, chemical processing and inspections as required by applicable raw material specification requirements.</p> <p>E. Chain of Custody (Disguising intermediate ownership) Suppliers shall not disguise the pedigree of material or chain of ownership by removal of a previous supplier's name, nomenclature or identification.</p> <p>F. Source of Additional Information Addition information and guidance may be found through Buyer's Supplier Portal or Buyer's Authorized Procurement Representative.</p> <p>G. The substance of this Article shall be flowed in all subcontracts at every tier</p>
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P126	<p>The supplier shall perform the FAI per the Instructions below, prepare the complete documentation package to substantiate compliance, and then ship the product and the documentation package to RESCO.</p> <p>The supplier's First Article Inspection format shall include, as a minimum, the supplier name, PO number, date, product number, product name, revision level, drawing requirements (including tolerance), methods used to inspect each requirement, actual measured values (group ranges not allowed), pass or fail status when required, and any applicable notes or restrictions. Compliance with all other Quality Codes required by the PO shall be included as part of the FAI data. It is recommended that the supplier use the AS9102 format for clarity and consistency but this is not a requirement.</p> <p>Occurrence of any of the following conditions shall require a delta or full FAI:</p> <p>a) Any change on material, design, tooling, process or revision.</p> <p>b) Product has not been produced for a period of 24 months or longer. [FULL FAI]. This 24 month period applies globally to the whole of Northrop Grumman. This means that to have a gap, a particular part must have not been produced for any campus within Northrop Grumman for 24 months. As an example, if a part has a 26 month gap in production for PT&P; but the same part has been produced for another Northrop Grumman campus within the last 24 months, then, there is no gap and, therefore, no new FAI is required. When this rule is invoked, however, the C of C must include the campus where the parts were delivered as well as the date when the parts were produced and the PO number.</p> <p>c) A change in facilities has taken place (such as production machinery moved and reset, new machinery placed in the production process, a move to a new facility, as examples). [FULL FAI].</p> <p>d) Damage and subsequent repairs to tooling, fixtures, dies, or support equipment used in the manufacturing process affects the specification parameters or attributes. [DELTA FAI].</p> <p>Suppliers may have residual material left over from previous orders which is now desired to be provided. In order to submit such, the suppliers shall provide traceability to the original deliveries and manufacturing lots. This allowance does not absolve the supplier from complying with current revision requirements and residual material deliveries do not count as "production" when determining production gaps.</p> <p>First Article sampling quantities shall be in accordance with the table below. The lot size shall be the initial total purchase order quantity. The FAI sample shall be samples which fully represent the manufacturing processes for the product.</p> <p>TOTAL PO QTY FROM 2 to 25 - MIN FAI LOT SIZE = 2 TOTAL PO QTY FROM 26 to 150 - MIN FAI LOT SIZE = 3 TOTAL PO QTY = 151 or greater - MIN FAI LOT SIZE = 5</p>
P127	<p>Lot acceptance data shall reflect actual readings taken during test, or a check-off sheet when Go/No-Go type test equipment is used. Acceptance data sheets shall list the actual parameters tested in each case and shall accompany each First Article lot shipped as required by P126. The data shall reference the product number, the PO number and lot date code(s), if applicable.</p>
P128	<p>Environmental test or qualification test results shall list all parameters tested and actual readings taken during these tests, or a check-off sheet when Go/No-Go type test equipment is used. Group B test data shall accompany each First Article lot shipped as required by P126. The data shall reference the product number, the PO number and lot date code(s), if applicable.</p>
P129	<p>Supplier shall package in waffle pack H20-045BLACK</p>
P130	

P131	<p>A FIRST ARTICLE INSPECTION (FAI), in accordance with the requirements of PDS 23951, must be performed and documented on one item of the first lot manufactured for this order, unless it has been completed on an earlier order and none of the following events had occurred:</p> <ol style="list-style-type: none"> 1. There are drawing revision changes. 2. A change in design. 3. A change in manufacturing source(s), process(es), inspection method(s), location of manufacture, tooling or materials. 4. A change in numerical control program or translation to another media. 5. A natural or man-made event, which may adversely affect the manufacturing process. 6. A lapse in production for two years or as specified by the Customer. 7. Or other events as identified in PDS 23951 Section 3.6. <p>After completion of the initial FAI or a prior Delta FAI, any changes made to the manufacturing process or any other change listed above require notifying RESCO Defense of the changes to determine if a formal approval of the resulting Delta FAI is required.</p>
P132	<p>When RESCO's specifications or procurement document require test data to be recorded during the performance of acceptance testing, a paper copy of the recorded data showing evidence of Seller's inspection and verification of performance shall accompany each shipment. Data shall meet the requirements of RESCO's specifications or procurement document and, at a minimum, be identified with:</p> <ol style="list-style-type: none"> 1. RESCO Purchase Order 2. Part number 3. Lot numbers, serial numbers, or date codes of items tested 4. Drawing/specification and revision used 5. Type of test performed 6. Identification number of test equipment used 7. Total quantity of items tested, quantity of items accepted, and quantity of items rejected 8. Any codes, keys, or other information necessary to interpret Seller data
P133	<p>The following provides detailed requirements for preparation and submission of certification documents when they are identified in the Purchase Order Supplier Quality Codes. All documents must:</p> <ol style="list-style-type: none"> a. Include PO and line item number. b. Include applicable part number or specific assembly component when part of an assembly. c. Include identical traceability data that is marked on the material, i.e., heat No., Lot No., or Serial No. d. Include name, and signature of the company representative attesting to the accuracy of the data contained in the certificate or test report. The signature of the company representative should be handwritten. In cases where handwritten is impractical, a mechanically reproduced signature (e.g., printed, stamped, typewritten, engraved, photographed/lithographed, or generated by computer) is acceptable where there is present an intent to authenticate the document. Provision of test reports and certificates so signed shall be considered evidence of your intent to authenticate the documents. Signed Mill Test Heat Reports, Physical and Chemical Test Reports performed by the original producer of the material are not mandatory unless specifically stipulated by a Purchase Order Supplier Quality Code. e. Be completed in non-erasable ink. Corrections shall be single line through, initialed and dated. f. Be packaged in an envelope attached to, or enclosed within a shipping container marked "Certs Enclosed". g. Be maintained as records to support the certification for a minimum of seven (7) years from the date of issuance.
P134	
P135	
P136	<p>Seller shall implement a Variation Management program in accordance with AS9103, Variation Management of Key Characteristics.</p>

P137	Cable Assembly Testing - 100% of all multiconductor assemblies including all shielded assemblies shall be tested for continuity, shorts, Dielectric Withstanding Voltage (DWV) and Insulation resistance (IR) per IPC/WHMA-A-620 Class 2 (Class 3 when specified on DWG) except that continuity shall be class 3 (2 ohms or 1 ohm plus the resistance of wire whichever is greater).
P138	Cable and Wiring Harness Requirements and Acceptance - Cable and Wiring Harness requirements and acceptance shall be in accordance with IPC/WHMA-A-620 Class 2 (Class 3 when specified DWG) except testing shall be in accordance with P137.
P139	Component lead finish shall be hot solder dip. When hot solder dip is not practical, application by soldering iron or tin/lead electroplating (fused) may utilized. Solder shall be in accordance with IPC J-STD-006 (SN60A, SN60C, PB40A, PB36A, PB36B, PB36C, SN63C or PB37A).
P140	A copy of all manufacturing inspection data and certifications including lot traveler/routing documents are required to be sent with each lot delivery.
P141	<p>All heat treat providers must be approved by Northrop Grumman Corporation or be accredited by the national aerospace and defense contractor's accreditation program (NADCAP).</p> <p>* Supplier shall supply furnace charts that provide traceability to the material heat treat lot and the applicable RESCO Defense PO.</p> <p>* Certification: charts shall be traceable to the material heat treat lot, signed and supported by a certificate of conformance that shall contain the following information:</p> <ul style="list-style-type: none"> ▣ RESCO PO and item nomenclature. ▣ Drawing number or raw material heat number ▣ Quantity and serialization (when required) ▣ Heat treatment specification or final heat treat condition obtained. ▣ Signature of individual authorized to certify compliance. <p>* Failure to comply with these requirements shall result in the rejection of the material.</p> <p>* Machined components that receive heat treatment after machining shall be inspected by receiving inspection for dimensional compliance after heat treat.</p>
P142	Product shall be manufactured and inspected to the requirements of IPC J-STD-001 and IPC-A-610, Class 1. Supplier shall utilize assemblers, solderers and inspectors who are certified to IPC J-STD-001 and shall provide evidence of compliance upon request.
P143	N/A
P144	<p>* If the supplier of this item is the original manufacturer, please provide a packing slip and certificate of compliance.</p> <p>* If the supplier of this item is an authorized/franchised distributor, parts MUST be purchased directly from the manufacturer. Parts supplied to RESCO that were procured from a source other than the manufacturer will be rejected. Please provide the packing slip from the original manufacturer with your company packing slip and certificate of compliance. In addition, supplier must provide a Certificate of Compliance for each shipment against this Purchase Order Line Item. The C of C must contain, as a minimum; PO number, name of manufacturer, specification or part number, specification or drawing revision, serial number, lot number or date of manufacture, and signature of the QA representative. Certificates of Compliance that include the phrase "to the best of our knowledge and belief" and similar expressions will not be accepted.</p>
P145	<p>1) Supplier must provide a Certificate of Conformance specifically and clearly certifying conformance to drawing notes 6 (Electrical) and 8 (MIL-PRF-27, GRADE 5, CLASS S, LEVEL M; AND WEIGHT).</p> <p>2) A QCM-416 form must be completed prior to beginning work. If supplier answers any questions as "YES", RESCO must get NGC approval prior to beginning any work.</p>
P146	Supplier must provide a legible and reproducible laboratory test report with each shipment that verifies the material supplier is in complete compliance with the applicable specification. This report shall identify the NG part number and any traceability data, i.e. batch numbers, etc.

P147	<p>This material has been identified as having a limited shelf life. Material shall have, at the time of receipt at RESCO, a minimum of sixty (60) percent of the shelf life remaining. The supplier shall be responsible for legibly and permanently identifying each part/container with the part number and the:</p> <ol style="list-style-type: none">1. Rubber cure date - supplier's shipper and/or packing list must specify a cure date. Packages and containers (and parts when required by the drawing) must be marked with cure date per MIL-HDBK-695, SAE-AS1933 or SAE-ARP5316 and referenced Military Specifications therein, as applicable. Example: If cure date is June 1992, identify as 2Q92. For "Bag and Tag" items (items too small for part number application), the part number with appropriate cure date shall be applied to the individual bag/container using suitable stick-on labels.2. Organic material shelf life - Materials with a limited shelf life shall reflect the manufacturing storage life, the date of manufacture and expiration date on the container (i.e. epoxies, adhesives, paint, etc.), as applicable. Additionally, any specific storage environmental restrictions shall also be marked on the container. Supplier's shipper/packing list must specify date code of manufacture.
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When this clause is cited on the purchase order, the following materials and processes are prohibited from use in the manufacture of parts on this order. If for any reason the supplier or sub-tier suppliers can not meet this requirement or any other requirement below the buyer shall be notified immediately for direction.

* Pure Tin

* Cadmium-plated tools used in the manufacture of flight hardware.

* Silver-plated copper wire with the exception that the following requirements must be met if used:

- No suppliers of this type wire will be added to the approved supplier list without their first demonstrating their controls for maintaining wire quality and their specific controls for preventing red plague corrosion.

- Wire stock shall be handled with extreme care during storage and use to prevent mechanical damage to the plating.

- Silver-plated copper wire shall be stored in an environment which minimizes exposure to humidity. Wire shall not be stored in outdoor environments.

- Wire that is over two years old must be recertified if stored in an environment with more than 40% humidity. Recertification does not necessarily require a sodium polysulfide test.

- The sodium polysulfide test (ASTM.B.298) must be performed on every lot of silver-plated copper conductors used to fabricate insulated wire. Certification of this test shall accompany each lot of insulated wire received.

* Hydrochloric acid, chlorinated solvents, chlorinated cutting fluids, fluorinated hydrocarbons, and anhydrous methyl alcohol in contact with titanium and its alloys.

* Mercury, cadmium, silver, or gold in contact with titanium and its alloys at any temperature.

* Chromate conversion coating on aluminum (both bare and painted) which fails 168 hours salt spray exposure per ASTM B117.

* Solder flux Type Rosin Activated (RA) (M1 in accordance with J-STD-001, Requirements for Soldered Electrical and Electronic Assemblies) or water-soluble flux containing organic acid. RA flux is approved only for controlled processes or to remove heavy oxide from part leads or solid wire.

* EPA 17, DOD Top Ten, Class I Ozone Depleting Compounds (ODC), Class II ODC, Formaldehyde, 4,4'-Methylene dianiline (MDA), Polychlorinated biphenyls (PCB), Toluene diisocyanate (TDI), Asbestos.

* Bare (uninsulated) wire (Metal-bodied components or bare wires mounted over circuit paths without insulation)

Packing Material - Pink polyethylene antistatic material (pink poly) shall not be used as a packing material.

Part Re-Dipping Process # shall be in accordance with ANSI-GEIA-STD-006 and must be approved by the NGC buyer prior to implementation on this product.

Foreign Object Debris (FOD) and cleanliness of the deliverable item # as part of the ISO 9001 / AS9100 quality Management System the contractor shall assess their risk of FOD and document the preventive requirements commensurate with the product being produced. Special consideration shall be taken in the review of the following areas; product assembly, test, inspection, storage, the HVAC system to ensure no contamination is being induced, human contact to assess if protective measures are needed to prevent bodily fluids from contaminating the product, and when clean rooms are required the requirements are properly documented and the facility properly certified.

Final product delivery # in all cases the supplier shall visually verify the cleanliness of the product being delivered - The product shall be visually clean meaning the absence of all contamination, both particulate and non-particulate, when examined with the normal, unaided (except corrected vision) eye, when inspected at a distance of 6-18 inches with an incident illumination of 50 foot candles or greater.

Reuse of Parts and Materials - EEE parts and accessories are considered to be installed once the terminals have been attached to the Printed Circuit Boards/Printed Wiring Boards (PCB/PWB), or other assembly, via heat, chemical or material process regardless of the application of power. If removed these parts shall not be reused. If re-use is desired prior approval by the NGC buyer is required. Parts designed to be removed and reused, such as connectors, reusable fasteners, removable covers, cables,

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When this clause is cited on the purchase order, the following materials are either limited use as defined below or prohibited as cited below.

Parts and materials that have been determined to create a risk to reliability are discouraged from use unless trade-off studies demonstrate that no acceptable alternative exists. Review of these parts and materials are on a case-by-case basis. As a minimum, the parts and materials identified below are considered limited use parts:

--Silicon-controlled rectifiers and triacs

--Semiconductors in hot-weld cap-to-header hermetically sealed metal cases, particularly power transistors of the stud mount case styles including TO-3, TO-11, TO-59, TO-61, and TO-66.

--Non-metallurgical bonded diodes. Non-locking microcircuit and semiconductor sockets except for test or ground support equipment not subject to vibration. Electrical crystals mounted at less than four (4) locations around the crystal periphery.

--Non-solid aluminum electrolytic capacitors (prohibited for infrequent use or long term storage applications; do not use excessive ripple current or reverse voltage; and not recommended for airborne applications; (especially high altitude).

--Non-solid electrolytic (wet slug) capacitors other than MIL-C-39006/22 or MIL-C-39006/25 tantalum case capacitors (greater concern for high altitude applications).

--Non-hermetic plastic dielectric capacitors, especially in high moisture environments.

--Non-trip free circuit breakers.

--Non-sealed miniature switches on circuit boards (concern for board cleaning processes).

--Open type construction or grades of transformers and inductors - use only in hermetically sealed or encapsulated assemblies.

--Variable resistors, capacitors, transformers, and other mechanically adjusted components (designs requiring variations due to manufacturing or interface differences should use fixed value parts when the needed parameter is determined).

--Slide-on or snap-on BNC connectors (coupling integrity during severe environments; (concerns for moisture and mechanical wear).

--Tin or tin alloy plated connector contacts (use gold plating).

--Gold connector contacts with less than 50 microinches of gold outer plating.

--Silver underplate on gold connector contacts.

--Silver plated terminals and contacts.

--Wire and cable having polyvinyl chloride (PVC) or polyamide (Kapton) (SAE AS22759) insulating material for airborne applications (not first choice due to restrictions and disadvantages).

--Aluminum electrical aircraft wire.

--Gold wire for fly leads in hybrids subject to radiation environments.

--Silver plated wire and braid and cables containing silver plated wire or braid in high humidity or corrosive environments.

--Wire insulation with cotton or linen in the insulation material, unless the material is cut off from the atmosphere.

--Cotton and linen as filler material in electrical insulator.

--Microcircuits with thin small outline packages that are susceptible to thermal coefficient of expansion problems.

--Type GE woven glass base epoxy glass Printed Wiring Board (PWB).

--Plastic sheets for PWB's that are laminated thermosetting, cotton-base, phenolic resin.

--Sheet spring nuts.

--MIL-A-46106 room temperature vulcanising materials (corrosive; prohibited for spacecraft).

--Threaded fasteners with graphite based anti-seize threads.

--Carbon or graphite marking inks used on EEE parts. Lead (graphite) pencils used to mark metal parts.

--Lubricants with silicone compound (concern with silicone particles migrating to other surfaces and forming nonremovable coating).

--Graphite based lubricants (corrosion concern).

--Anti-seize compounds that are white lead based (for threaded fittings) (corrosion concern).

--Regulated materials such as carcinogens.

--Polyurethane foam material (flammability and toxicity hazards must be eliminated).

--Zinc or selenium, except internal to hermetically sealed parts with leak rates less than 1×10^{-4} atm-cm/sec² (prohibited for space applications).

P150	Seller must be approved by Buyer to perform the Hot Solder Coating applicable to this procurement document or shall use a Hot Solder Coating facility approved by Buyer. Buyer shall provide a list of approved Hot Solder Coating facilities upon request. Lead material requirements of Buyer's document D11048, "Hot Solder Coating (Tinning) of Electronic Parts by Outside Supplier," applies to this procurement. Seller shall submit a certificate describing the lead material and finish with each shipment of items, including a statement of compliance with the provisions of Buyer document D11048.
P151	All constructions and finishes containing pure cadmium or pure zinc are prohibited. In addition, constructions and finishes containing pure tin are prohibited unless they contain a minimum of 3 weight percent lead. The use of lead free solder alloys is not acceptable unless approved by the Buyer. (Note: Sn96/Ag4, Sn95/Sb5, and Au80/Sn20 are acceptable when indicated in Buyer specifications, or Buyer approved Process Identification Documents [PID].) The requirement of this Q-Clause shall be flowed down to any sub tiers utilized in fulfilling the requirements of this PO. If the final deliverable item is a motor/resolver (i.e., 2BXXX), harmonic drive (i.e., 5ZXXX), or heat pipe assembly (i.e., CXXXXXX) that contains metallic components which are encapsulated and cannot be tested for Prohibited Material in the final deliverable configuration of the item, the Seller shall ensure Buyer approved Elemental Composition Testing (i.e., XRF or EDS), capable of providing quantitative accuracy sufficient to preclude prohibited material, is performed on the individual metallic components prior to assembly. The test results and the Prohibited Material Certificate of conformance shall be included with the final deliverable item for shipment to the Buyer. Seller shall certify that the above noted prohibited materials are not present in supplied hardware. The requirement of this Q-Clause shall be flowed down to any sub tiers utilized in fulfilling the requirements of this PO.
P152	Parts must be from a single lot date code less than 36 months old. In addition, if the supplier of this item is the original manufacturer, please provide a packing slip and certificate of compliance. If the supplier of this item is an authorized/franchised distributor, please provide the packing slip from the original manufacturer with your company packing slip and certificate of compliance.
P153	N/A
P154	The supplier shall furnish a copy of the certificate of analysis for each lot within the shipment meeting all specified test requirements. This certificate is required in addition to the implied Certification of Compliance. Certificate of Analysis (C of A) shall be supplied with each individual shipment. The C of A must contain, as a minimum; PO number, name of manufacturer, material name, specification or part number, specification or drawing revision, batch or lot number, date of manufacture, date of expiration, date of analysis testing, test description, test limits and test results with pass/fail designations. C of A shall have the signature of the QA manager. A C of A is required to assure items supplied have been processed to the specification required by the drawing and PO. If the supplier is a distributor, the supplier is required to provide acquisition traceability (packing slip from OEM with date of receipt).
P155	Supplier is to perform the following tests and provide test report with each shipment: * Insulation Resistance Test in accordance with MIL-C-22249B, 4.7.1. * Dielectric Withstanding Test in accordance with MIL-C-22249B, 4.7.2. * Perform Contact resistance Test in accordance with MIL-C-22249B, 4.7.3. * Perform Hydrostatic Pressure Test in accordance with MIL-C-22249B, 4.7.4. Except for M22249/34 * Perform Air leakage/ Hermetic Seal Test in accordance with MIL-STD-1344, method 1008.

<p>P156</p>	<p>Supplier shall furnish to RESCO Defense, a certified dimensional report consisting of the following requirements:</p> <ol style="list-style-type: none"> 1. Part number as ordered. 2. RESCO Defense purchase order number. 3. Order quantity and inspected quantity. 4. Applicable drawing/specification number and revision level. 5. Suppliers name or trademark and/or id number. 6. Dimensional report shall include drawing locations, and pass/fail criteria. 7. Actual dimensional data for each unit covering all drawing requirements shall be recorded on the dimensional report. When more than one part with the same part number is being manufactured/inspected, a range of actual dimensions for all quantities listed may be substituted in place of recording an actual dimension for each part, however 100% inspection of each part is required (No Sampling Allowed). 8. Printed name/stamp of quality person performing the inspection and their acceptance. 9. A list of all equipment used, shall be recorded with date of calibration and date due. 10. A copy of the dimensional report in its entirety shall be shipped with the product to RESCO Defense, unless otherwise noted in the purchase order. <p>Please contact the applicable RESCO Defense quality representative for any questions related to the above. If supplier does not know the applicable RESCO Defense quality representative please contact the buyer referenced on this purchase order for the quality contact information.</p>
<p>P157</p>	<p>Parts must be packaged in waffle pack H20-037-15-74D10</p>
<p>P158</p>	<p>Parts must be packaged in waffle pack H20-405.</p>
<p>P159</p>	<p>Each shipment must include a Certificate of Conformance and Certificate of Analysis indicating compliance with the Material ordered and Purchase Order requirements.</p>
<p>P160</p>	<p>The seller shall ensure compliance with ISO 10012 or equivalent, by maintaining certification and NIST traceability for all equipment, tools, standards, and sources used to provide calibration for items used for inspection or test conformance.</p>
<p>P161</p>	<p>As a minimum, the following documentation shall be provided to the RESCO buyer, for review and written approval prior to shipment of any raw material or finished product. Unless otherwise specified, the documentation shall conform to the following minimum requirements:</p> <ul style="list-style-type: none"> - Quantitative results of chemical analysis - Quantitative results of mechanical tests - Quantitative data and results of any material processes (e.g., heat treat, plating, etc.) - Statement of compliance on certifications - Other data pertinent to the identification, traceability and/or condition of the material - Typed/printed name, title, and hand-signature of authorized Supplier representative. <p>NOTE: When the mechanical properties of a material is altered, the material shall be re-certified and either new documentation provided or the original data over-stamped or annotated to reflect the altering process, date, traceability number, heat number, typed/printed name, title, and hand-signature of authorized company representative, etc.</p> <p>The only acceptable alternative to the mill certification, heat treat facility certification, etc., is certification from an independent testing laboratory, who is acceptable to the Government and Maritime Systems, and who actually performed the tests. The certification shall consist of the quantitative data required in paragraph 1.1, taken from 100% item sampling.</p> <p>The documentation provided to RESCO shall be the original or exact reproducible copies. Transcription of data from other documentation is prohibited.</p>

P162	<p>* The Supplier shall submit a copy of their applicable PT NDT procedure to the RESCO buyer, for review and written approval by RESCO and/or the customer. Submission shall be within thirty (30) days after receipt of the order, and approved prior to shipment of any material to RESCO.</p> <p>* Unless otherwise specified, the PT procedure shall be in compliance with the requirements of NAVSEA Technical Publication T9074-AS-GIB-010/271, current revision (Supersedes MIL-STD-271, cancelled 27-May-1998).</p> <p>* Unless otherwise specified, personnel performing PT shall be certified in accordance with the requirements of NAVSEA Technical Publication T9074-AS-GIB-010/271, current revision (Supersedes MIL-STD-271, cancelled 27-May-1998). A copy of the personal certification shall accompany each shipment of material.</p> <p>* Unless otherwise specified, the accept/reject criteria shall be in accordance with the requirements of Mil-Std-2035, Nondestructive Testing Acceptance Criteria, current revision.</p> <p>* PT data, test results, interpretation sheets, etc., shall be provided to the Maritime Systems Quality department prior to shipment of any material, for review/approval, via the cognizant buyer.</p>
P163	<p>* The Supplier is required to maintain traceability on all material/finished product/documentation supplied on this purchase order. The traceability extends from cradle-to-grave, beginning with the procurement of raw material and extending through machining, storage, special processes, sub-tier contract processing, etc., and subsequent shipment of the material to RESCO.</p> <p>* All raw material and finished product shall be permanently and legibly marked with the applicable unique traceability number (e.g., heat number, heat code, laboratory test report number, etc.). The unique number shall be used throughout the life of the material and shall appear on all pertinent documents.</p> <p>NOTE: When the traceability number is machined/removed from raw material, the remaining portion of the material shall immediately be permanently and legibly identified with the traceability number.</p> <p>When the traceability number is removed and/or it is not practical to maintain the traceability number on the material (e.g., during the machining process), identification tags for each part with the traceability number and other pertinent data shall be attached and flow with the material through the applicable processes. The identification tag shall be apart from the individual part (only one (1) part at a time) only during the performance of an operation as required. The material shall be re-marked/identified per applicable specifications as soon as possible.</p> <p>* Unless otherwise specified on the purchase order, the Supplier shall inspect all characteristics (100%) of the completed parts in accordance with the applicable drawings, specifications, etc., and record the actual measurements as applicable; features such as threaded diameters, etc., may be checked with Go/No-Go gages and designated "accept", or as applicable. All inspected parts shall be identified and traceable to the applicable inspection report, material certification, etc. via the unique traceability number, part number/revision, heat number, purchase order number, etc. A copy of the applicable Inspection Report shall be provided with each part shipped to RESCO, signed by the authorized company representative.</p>
P164	<p>Mark or retain heat number(s) or Northrop Grumman assigned material traceability ("s") numbers on the finished part. The marking method is specified on the PO. Tagging is permitted when the part is too small or when marking would harm the part. This marking requirement is in addition to any requirement for marking of an assigned serial number on the part.</p>
P165	<p>Shipment of materials, whether raw, semi-finished, or finished, shall be accompanied by a Certificate of Conformance/ from Seller, stating at a minimum:</p> <ol style="list-style-type: none"> 1. Material identification by specification number and material conditions, where applicable. 2. The raw material manufacturers or mill's lot or batch number. 3. A statement of raw material conformance to applicable requirements. 4. The name and location of the raw material manufacturer or mill <p>Actual chemical/physical test results that substantiate compliance with the applicable raw material and/or specification requirements shall be provided.</p>

P166	<p>PCS-645 Special Process Requirements for AMDR, EASR Mechanical Parts (*denotes 4/18/20 updates)</p> <p>*Contracted supplier shall ensure that their special process supplier is approved by Raytheon or NADCAP for the process being performed. Prior Northrop Grumman (NG) special process approval DOES NOT apply for this procurement. The list of Raytheon approved suppliers is located on the Raytheon Quality Notes website (http://qnotes.raytheon.com), adjacent to the applicable quality note. Contracted supplier shall notify and obtain NG approval (through NG Procurement Agent) of their prospective special process supplier, prior to placing purchase order with them.</p> <p>A. The following Quality Notes apply to parts and product procured through this purchase order if the item uses any of these processes. These quality notes can be obtained by going o http://qnotes.raytheon.com and entering the appropriate two letter code.</p> <p>HK Welding and Brazing Requirements</p> <p>*Special process supplier shall be approved by Raytheon for the process being performed.</p> <p>CT Raytheon Hardware Painting Requirements</p> <p>*Special process supplier shall be approved by Raytheon for the process being performed.</p> <p>JY Plating, Surface Finishes, and Conditioning Requirements</p> <p>*Special process suppliers shall be approved by Raytheon or NADCAP for the process being performed. The list of NADCAP approved suppliers can be found at www.eauditnet.com by creating an account. Select "Online QML" from the Resources list. Enter the appropriate supplier name and commodity(s) and select "Search".</p> <p>Note: Passivation is included in the processes that require the use of a NADCAP or Raytheon approved supplier.</p> <p>B. Contracted supplier shall include with part shipment a certificate of conformance that the special process supplier was NADCAP or Raytheon approved for the process that was performed.</p> <p>C. If the item procured on this purchase order does not require any of the processes listed above then they do not apply. However, if the vendor is subcontracting any of these processes they must then be flowed down to the subcontractor and do apply as written.</p> <p>D. Any additional quality notes, referenced in the above quality notes, also apply if applicable to the type of product being supplied by the vendor.</p> <p>E. When using these quality note documents the word "Raytheon" should be substituted with "Northrop Grumman." Thus Northrop Grumman is the contact for all issues and questions.</p>
P167	<p>Homogeneous Requirements (as of 04/23/2008) All parts supplied under the purchase order shall be homogeneous and identical. There shall be no change in process, design, or method of manufacturing of parts supplied under this purchase order unless such change is approved by buyer.</p>
P168	<p>Section 21 of RESCO Defense Purchase Order Terms and Conditions and Note 6b on the RESCO Defense Purchase Order regarding compliance with DFARS 252.225-7009, Alternate I, Preference for Domestic Specialty Metals does not apply to this order UNLESS the part delivered by Seller contains high performance magnets containing samarium cobalt. Seller shall contact the Buyer if high performance magnets containing samarium cobalt are included under this line item.</p>
P169	<p>CRITICAL SAFETY PROCESS - Not conforming to the design data or quality requirements would result in an unsafe condition. Unsafe conditions related to the hazard severity categories I and II of MIL-STD-882, System Safety Program Requirements.</p>
P170	<p>A manufacturer Certificate of Compliance is required.</p>

<p>P171</p>	<p>The Supplier shall furnish a copy of a Certificate of Conformance for Special Processes. Special Processes are identified as the following but not limited to: -Heat Treatment -Liquid Oxygen Cleaning -Metal Finish: Anodic Coating, Conversion Coating, Dry Lube, Passivation, Pickling -Non-Destructive Test: Dye/Liquid Penetrant, Eddy Current, Magnetic Particle, Radiography/X-Ray, Ultrasonic -Plating: Cadmium, Copper, Gold, Nickel, Silver, Tin, Tin Lead, Zinc and Zinc Phosphorus -Welding: Fusion, Electron Beam, Spot Brazing, Vacuum & Dip Braze, Torch & Nickel, TIG, Arc, Gas, MIG Seller shall certify process equipment, procedures and personnel as indicated in the applicable specifications and standards. Special processes that are subcontracted by the seller shall be approved and certified by the seller for process specification compliance, subject to buyer review and approval. RESCO and/or Northrop Grumman reserves the right to perform periodic assessments for any special processes identified in the purchase order or specification. These reviews are intended to ensure suppliers are performing processes to their internal procedures and requirements.</p>
<p>P172</p>	<p>Oxygen cleaning certification per MIL-STD-1330 precision cleaning and testing of shipboard oxygen, helium, helium-oxygen, and nitrogen systems. Supplier shall submit certification of oxygen cleaning per MIL-STD-1330. Failure to comply shall result in the rejection of the material.</p>
<p>P173</p>	<p>Record inspection results in accordance with Northrop Grumman Quality Assurance Specification QSR-3 and furnish with shipment.</p>
<p>P174</p>	<p>This order requires that the vendor record certain dimensions or attributes during the inspection of the product. These dimensions or attributes will be identified either on the drawing or in the vendor documentation. The sample size is given in the table below. These dimensions shall be recorded on a data sheet created by the vendor. The data sheet shall be traceable to the applicable unit. A copy of these recorded dimensions shall be shipped in with the parts and included with the packing list.</p> <p>If the number of nonconforming units is equal to or greater than the rejection number, the entire lot shall be rejected.</p> <p>Lot Size / Sample Size / Rejection Number</p> <p>25 and under / 100% / 1 26 to 50 / 8 / 1 51 to 90 / 13 / 1 91 to 150 / 20 / 1 151 to 280 / 32 / 2 281 to 500 / 50 / 2 501 to 1200 / 80 / 2 1201 to 3200 / 125 / 3</p>
<p>P175</p>	<p>Packing of item quantities must correspond to the line item quantities on the PO line (No bundling of material on separate line items permitted in this shipment). If multiple line items exist for the same material on a purchase order, each line shall be packaged separately. Any shipments that are not packaged in discrete packaging that correspond to the PO Line Item quantity, will be rejected back to the supplier for repackaging.</p>

P176	<p>The supplier is responsible to ensure that all special processes performed either by the supplier or their subcontractor on Northrop Grumman Corporation designed machined/fabricated parts, including mechanical parts mounted on printed wiring board assemblies, be approved by Northrop Grumman Corporation and/or accredited by the National Aerospace and Defense Contractors Accreditation Program (NADCAP). This requirement does not absolve the supplier of the responsibility to ensure that all purchase order requirements are being met. Any detailed information regarding the NADCAP accreditation process including the audit schedule can be obtained from Performance Review Institute (PRI) at http://p-r-i.org/nadcap/. All relevant drawing and purchase order specifications must be included within the flow down requirements to the processing subcontractors. Where specifications require dimensional results for validation, objective evidence must be reviewed and maintained to assure process requirements are being met. No attribute PASS/FAIL results or general certificates of conformance will be acceptable. Retain all Nondestructive Testing (NDT) records and results including x-ray film for a minimum of four (4) years from product shipment or in accordance with the data retention requirements in the purchase order or quality note flowdown whichever is longer. Casting x-ray film is to be retained by the foundry.</p> <p>A list of approved Northrop Grumman Corporation Special Process suppliers may be obtained through the buyer. Special Processes are specifically identified as the following. Unless otherwise specified within the PO or drawing the latest revision of the current specification must be used.</p> <p>Chromate Conversion Coating - MIL-DTL-5541, Type 1, Class 3, Clear Dip Brazing - AWS C3.7, Grade B Solution Annealed Heat Treat - AMS 2770 Aged Heat Treated - AMS 2770 Condition T6 Passivation - AMS 2700 Method 1, Type 2 or ASTM A967 Nitric 3. Passivation - AMS 2700 Heat Treat - Hydrogen with a dew point of no greater than -60 F for one hour, minimum at a temperature of 2050 F, 25 F Nickel Plate - ASTM B689, Type 1 Class 5, QQ-N-290, Class 1" Copper Underplate - AMS 2418, 0.0002 inches thick min Stress Relieve - 1100 F 25 F in a vacuum furnace or inert atmosphere using Argon for 2 hours minimum Cleaning, Pickle - 35% volume nitric acid and 5% volume hydrofluoric acid at room temperature Hot Solder Dip - MIL-DTL-14072, M258 Hot Solder Dip, 60% Tin, 40% Lead .000050 inches Nickel Plate - AMS 2404 Sulfamate Nickel - QQ-N-290, Class 2 Copper Plate - MIL-C-14550 Gold Plate - MIL-G-45204 type II grade C Class 1 Gold Plate - AMS 2422 ENIG - 6B06913 6B06935 Electrodeposited Plate - QQ-N-290</p> <p>Other processes not identified herein are defined as Standard Processes and are not subject to the NADCAP and/or Northrop Grumman Corporation approval requirement, unless otherwise specified. Seller shall certify process equipment, procedures and personnel as indicated in the applicable specifications and standards. Special Processes that are subcontracted by the seller shall be approved and certified by the seller for process specification compliance, subject to buyer review and approval. RESCO Defense and Northrop Grumman Corporation reserves the right to perform periodic assessments for any special processes identified in the purchase order, drawing or specification. These reviews are intended to ensure suppliers are performing processes to their internal procedures and requirements. Seller shall provide NADCAP certification from all their NADCAP certified suppliers, and all certificates shall be included in data package delivered with each shipment.</p>
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<p>P177</p>	<p>The item on the face of the purchase order must be an FAA or JAA/EASA approved item. The following conditions apply: # * If the supplier holds PMA on the item, the item must have appropriate markings per the applicable FAA requirements and the statement "FAA-PMA" must appear on the Certificate of Conformance (C of C) or test reports. The C of C must also include a direct shipment authorization statement if the supplier holds direct shipment authorization from the Production Approval Holder (PAH). # * If the supplier holds TSOA on the item, the item must have appropriate markings per the applicable FAA requirements and the statement "FAA-TSOA" and the TSO number must appear on the certificate of conformance or test reports. The C of C must also include a direct shipment authorization statement if the supplier holds direct shipment authorization from the Production Approval Holder (PAH). # * In addition to all documents requested with other clauses, the supplier may provide an FAA 8130-3 or EASA "Form One".</p> <p>SUPPLIER MUST CLEARLY IDENTIFY EACH CERTIFIED PART THAT IS TSO AND/OR PMA APPROVED.</p> <p>If the supplier is the PAH, a production certificate statement of conformity with the production certificate number is acceptable in lieu of the documents requested in clauses A, D, E, F and G and fulfill the requirements of clause N, product must still be marked in accordance with FAA/JAA/EASA requirements.</p> <p>If the supplier is not the PAH and does not hold PMA or TSOA for the item being ordered, and the supplier cannot produce an 8130-3 tag, the supplier must take exception to this clause and request authorization to remove this clause from the purchase order. Failure to do so will result in the product being rejected.</p> <p>If the item is not currently FAA or JAA/EASA approved, quality code P177 should be removed from the face of the purchase order prior to acceptance by the supplier.</p>
<p>P178</p>	<p>The supplier shall provide traceability to original manufacturer, including the original manufacturer's name and manufacturing lot, date code or batch number, for all parts, material, and applicable documents. Where marking of individual parts is not practical due to size or shape, the supplier shall identify the manufacturing lot, date code or batch number on the unit package.</p> <p>When the delivered item is a Northrop Grumman Assembly or Kit, assembled/kitted to a Northrop Grumman supplied parts list, the supplier shall provide traceability to original manufacturer, including the original manufacturer's name and manufacturing lot, date code or batch number, for supplier procured parts, materials, and components assembled or partially assembled in the delivered item(s).</p> <p>When the Supplier is a Machine Shop providing a product produced from metallurgical raw material stock, the Supplier shall provide material analysis reports verifying raw material requirements. Copies of actual traceable chemical/physical material analysis reports for metallurgical raw material specified by Northrop Grumman supplied drawings, that is utilized in the Machine Shop fabrication/machining/processing of deliverable parts and hardware shall be furnished.</p> <p>Traceability documentation for incorporated parts shall be included as part of the procured item deliver.</p>
<p>P179</p>	<p>No zinc or cadmium plating is allowed. Tin plating must have at least 5% lead. This requirement supersedes any drawing or specification included in the purchase order. In case of conflict, please contact the buyer.</p>
<p>P180</p>	<p>Solder coating shall be in accordance with IPC J-STD-006 (SN60A, SN60C, PB40A, PB36A, PB36B, PB36C, SN63C or PB37A) and, if applicable, may be used in place of tin/lead electroplating, fused.</p>

P181	Supplier shall mark all raw materials with a stamp, permanent marker, or identification tags for material too small to be marked. Actual marking shall consist of the entire RESCO PO number and item nomenclature. Heat number shall be marked on exotic metal raw materials. Failure to comply with this requirement shall result in rejection of the material.
P182	This item has been identified as MSL Level 1. If the supplier shows this item is anything other than MSL Level 1, notify the RESCO buyer before proceeding with the order.
P183	This item has been identified as MSL Level 6. If the supplier shows this item is anything other than MSL Level 6, notify the RESCO buyer before proceeding with the order.
P184	MSDS Material Safety Data Sheets required. Failure to submit these MSDS sheets shall result in the rejection of the material
P185	The material associated herein is deemed to require special controls to ensure its usability throughout the manufacturing cycle and beyond. Therefore all product certifications must include, as applicable: date of manufacturing (DOM), shelf life start date, expiration date or shelf life length, storage conditions, handling requirements, and lot/batch identification. When storage temperature conditions other than ambient $77^{\circ} \pm 9^{\circ} \text{ F}$ ($25^{\circ} \pm 5^{\circ} \text{ C}$) are required, they shall be clearly marked on the outermost shipping container. Items shall have a minimum shelf life remaining of 80% at time of receipt at RESCO facilities. O-Rings, seals, and gaskets must meet the requirements of SAE ARP 5316, "Storage of Elastomeric Seals and Seal Assemblies". The information above shall be included in the documentation package provided with each shipment.
P186	FURNISH HEAT REPORTS SHOWING THE ACTUAL CHEMICAL, PHYSICAL/MECHANICAL, OR OTHER TEST RESULTS, AS REQUIRED BY THE SPECIFICATION CALLED OUT ON THE PURCHASE ORDER (PO). REPORTS MUST INCLUDE THE MILL SOURCE NAME AND HEAT/LOT NUMBER(AS MARKED ON THE MATERIAL).
P187	<p>FURNISH TEST BARS/COUPONS/PIECES AS REQUIRED BY THE MATERIAL SPECIFICATIONS, DRAWINGS, QUALITY NOTES OR AS SPECIFIED BELOW. TEST MATERIAL MUST BE FURNISHED FOR EACH HEAT LOT, ACCOMPANY THE SHIPMENT TO RESCO, AND BE TRACEABLE TO THE HEAT LOT NUMBER AND PART NUMBER WHEN REQUIRED BY DWG. TEST MATERIAL MUST BE FURNISHED AS AN UNATTACHED ITEM UNLESS OTHERWISE SPECIFIED IN THE QUALITY NOTES OF THE PURCHASE ORDER.</p> <p>SPECIFIC REQUIREMENTS FOR MATERIAL TYPES ARE AS FOLLOWS:</p> <p>FASTENERS - ACTUAL PIECE PARTS (SEE QUALITY NOTES) CASTINGS - STANDARD CAST BARS. FORGINGS - PART OF REMNANT FROM FORGE SHOP TEST PIECE.</p> <p>UNLESS OTHERWISE SPECIFIED IN THE QUALITY NOTES, WHEN THE HARDWARE FROM THE SAME HEAT LOT OF MATERIAL IS DELIVERED IN PARTIAL SHIPMENT, THE TEST BAR(S) MUST ACCOMPANY THE FIRST SHIPMENT. SUBSEQUENT SHIPMENTS MUST CONTAIN A STATEMENT INDICATING THE TEST BAR(S) WERE PROVIDED WITH THE FIRST DELIVERY. THE PURCHASE ORDER NUMBER AND DATE OF THE FIRST DELIVERY MUST BE REFERENCED IN THE STATEMENT.</p> <p>TEST PIECES ARE NOT REQUIRED FOR BAR, PIPE, TUBING, VAIN, OR PLATE STOCK. TEST PIECES FOR THESE ITEMS WILL BE CUT FROM CONTINGENCY ORDERED.</p>
P188	ACCEPTABILITY OF SCREW THREADS SHALL BE IN ACCORDANCE WITH FED-STD-H28/20, SYSTEM 21. FOR MIL-S-1222 FASTENERS, ACCEPTABILITY OF SCREW THREADS SHALL BE IN ACCORDANCE WITH FED-STD-H28/20, SYSTEM 22.

P189	Each part must have a label on the unit package that contains the information as required by the engineering specification, drawing, or purchase order along with the PO number and revision and Country of Origin. All optical products shipped under this PO shall be individually packaged to protect the component from contamination, damage, or mishandling per the engineering drawing specification or with use of alternate packaging. The preferred packaging method shall be lens tissue in sufficient layers to prevent contact damage; other methods may include membrane boxes of a suitable size and shape, cotton bags, individual plastic boxes with molded inserts, etc.
P190	This part number consists of a set of unique or matched individual parts. Each set supplied shall be individually packaged as a single set as defined by the set part number with sufficient packaging to prevent damage during shipping and handling. Separate bulk packaging of discrete components, hardware items or fasteners belonging to the set part number is prohibited. Sets that include EEE components identified as ESD sensitive shall be packaged in ESD shielding packaging. Each set unit container shall be legibly marked with a minimum of the set part number and any additional marking required by the drawing and/or purchase order.
P191	Entegris waffle pack part number, H20-021-12, shall be used to package these components. Waffle packs may be made of ChipSentry or STAT-PRO materials.
P192	Note: This requirement does not apply to COTS (Off the Shelf End Items), Mil Spec Hardware or chemicals such as Loctite's and thread locker, alcohol. This requirement only applies to Plastic, Ceramic, Glass, Crystal and Metal Raw Materials. Manufacturer shall be approved as identified on the applicable Material Card M# document. Raw Material on drawing has been identified as critical, Manufacturer of raw material shall certify material to exact parameters specified on the applicable drawing. Certification shall include traceability information (Lot #, Serial #) be made by personnel from the Quality Department. Subcontractors shall flow this requirement down to the manufacturer of the raw material specified on the drawing. Subcontractors making final product shall also include traceability of the raw material on final product certification of conformance.
P193	Supplier to supply raw material certifications with shipment. This includes certs for raw material that is machined, welded or photo-etched (ID plates). It does not include certs for COT parts, wire, cables, electronics parts, of CCA's.

P194	<p>The following processes are deemed critical to Undersea Systems and therefore are required to be performed by a NADCAP certified supplier or Northrop Grumman approved supplier, approved for the process being performed. The Supplier should contact the Buyer to verify Northrop Grumman approved suppliers, if unsure. If the supplier is not NADCAP certified or Northrop Grumman approved for the process required please submit a request for review/ approval by Undersea Systems Quality to the Buyer and the Quality department at Undersea.SMA@ngc.com.</p> <p>Special Processes are considered:</p> <ul style="list-style-type: none"> . All Non-Destructive Testing (NDT) . All Heat Treating, not performed by the original melter/mill . All Material Testing after heat treating, not performed by the original melter/mill . All Plating . All Chemical Conversion Coatings . All Titanium and Aluminum Anodize . All Welding . All Brazing . All Metallic Coatings . Oxygen Cleaning <p>Shipping product containing special processes performed by a supplier that is not NADCAP certified or Northrop Grumman approved will result in a Supplier Corrective Action Request (SCAR) and will affect the Suppliers quality rating. Supplier shall contact the Buyer with any questions regarding this requirement. This requirement shall be flowed down by the Supplier to all Supplier subcontractors, as required. Note: NADCAP Approved Suppliers can be found using EAUDITNet.com and searching the Qualified Manufacturers List (QML) for the special process needed.</p>
P195	N/A
P196	<p>IMC will permit Northrop Grumman, applicable regulatory authority and Northrop Grumman customers limited access to its facility, processes and documents related to the items on the purchase order. Except to the extent required by FAR or DFARS provisions applicable to this Purchase Order: 1) such permission will be at mutual agreement of the Buyer and the Seller, and 2) access will be limited to prevent exposure to IMC's intellectual property and trade secrets. Generally, limited access will be granted for Northrop Grumman Source Inspection (fee-based service) and technical meetings, as well as audits of certain areas. IMC's facility is secured and access is on a need-to-know basis for qualifying individuals in accordance with the IMC Technology Control Plan, and applicable Defense Security Service regulations. Only persons who are U.S. Citizens or U.S. Persons will be considered for access. IMC may require Northrop Grumman to sign a non-disclosure agreement on behalf of its employees prior to such employees being given access. IMC may also require Northrop Grumman's customers to sign a non-disclosure agreement, prior to said customers being given access.</p>
P197	Provide a certification that hardware is in accordance with MS16228.
P198	If the supplier of this item is the original manufacturer, please provide a packing slip. If the supplier of this item is an authorized/ franchised distributor, please provide the packing slip from the original manufacturer with your company packing slip. The traceability documentation is not required if the component is not electronic, electrical or electromechanical.
P199	100% Inspection Required
P200	Printed Wiring Boards shall be electrically tested in accordance with IPC-9252 Class 3.

<p>P201</p>	<p>All constructions and finishes containing pure cadmium or pure zinc are prohibited. In addition, constructions and finishes containing pure tin are prohibited unless they contain a minimum of 3 weight percent lead. This requirement shall be flowed down to any sub tiers utilized in fulfilling the requirements of this contract. If the final deliverable item that contains metallic components which are encapsulated and cannot be tested for Prohibited Material in the final deliverable configuration of the item, the Seller shall conduct NGSC approved Elemental Composition Testing (i.e., XRF or EDS), capable of providing quantitative accuracy sufficient to preclude prohibited material, is performed on the individual metallic components prior to assembly. The test results and the Prohibited Material Certificate of Conformance shall be included with the final deliverable item for shipment to NGSC. Seller shall certify that the above noted prohibited materials are not present in supplied hardware.</p> <p>This certification is acceptable to be supplied in one of the following manners:</p> <ol style="list-style-type: none"> 1. An on-line certification to be completed for each applicable line item by using SDMS (Seller Delivery Management System) 2. A hard copy certificate of conformance may be submitted on Seller's letter head, with the following statement as shown in APPENDIX D <p>APPENDIX D. PROHIBITED MATERIAL CERTIFICATE OF CONFORMANCE</p> <p>" Northrop Grumman Systems Corporation (NGSC) defines Prohibited Material as any item containing pure cadmium, pure zinc, and pure tin (less than 3 weight percent lead).</p> <p>" I (print name), , (Title, Quality Manager or greater), am authorized on behalf of (company name) to execute and deliver this certification to NGSC.</p> <p>" Herein I and the company I represent shall be referred to as the Seller.</p> <p>" As the Seller, I certify that all material and/or finishes used to construct the deliverable item and part number described below for NGSC is free from Prohibited Material.</p> <p>" For the items that are encapsulated in the deliverable item, the Elemental Composition Testing has been performed by the Seller or Seller's delegate, and the data has been attached to this certification as objective evidence.</p> <p>" NGSC Subcontract/PO Number NGSC Item Description</p> <p>" NGSC Part Number</p> <p>" (Seller Signature - same person from above) (Date)</p>
<p>P202</p>	<p>Supplier shall furnish to RESCO Defense, a certified dimensional report consisting of the following requirements:</p> <ol style="list-style-type: none"> 1. Northrop Grumman or vendor part number as ordered. 2. Northrop Grumman Assigned Serial Number. 3. RESCO Defense purchase order number. 4. Order quantity and inspected quantity. 5. Applicable drawing/specification number and revision level. 6. Suppliers name or trademark and/or id number. 7. Dimensional report shall include drawing locations, and pass/fail criteria. 8. Actual dimensional data for each unit covering all drawing requirements shall be recorded on the dimensional report. 100% inspection of each unit is required (No Sampling Allowed). 9. Printed name/stamp of quality person performing the inspection and their acceptance. 10. A list of all equipment used, shall be recorded with date of calibration and date due. 11. A copy of the dimensional report in its entirety shall be shipped with the product to RESCO Defense, unless otherwise noted in the purchase order. <p>Failure to meet the above requirements is cause for rejection. Please contact the applicable RESCO Defense quality representative for any questions related to the above. If supplier does not know the applicable RESCO Defense quality representative please contact the buyer referenced on this purchase order for the quality contact information.</p>

P203	INSPECTION PROGRAM SHALL CONFORM WITH EITHER MIL-I-45208A, INSPECTION SYSTEM REQUIREMENTS" OR ISO 9001(EXCLUDING DESIGN) AND BE APPROVED BY RESCO DEFENSE OR NORTHROP GRUMMAN. THE SUPPLIER'S CONFORMANCE WITH THE REQUIREMENTS OF MIL-I-45208A OR ISO 9001(EXCLUDING DESIGN) WILL BE SUBJECT TO MONITORING BY EITHER PERIODIC QUALITY PROGRAM AUDITS AT THE SUPPLIER'S FACILITY OR DESKTOP PAPERWORK REVIEWS.
P204	Unless a Lead (Pb)-free material is specified in the applicable drawing or explicitly specified in writing, only Tin-Lead (Sn/Pb) solder with 3% or greater lead content by weight is allowed on: - Ball Grid Array (BGA) - Column Grid Array (CGA) - Fine Pitch (FP) Components (with 20 mil or less lead pitch termination or 10 mil or less pad spacing)
P205	Seller shall comply with the requirements of MIL-PRF-38535 in the manufacture of microcircuits. Seller shall comply with the requirements of MIL-PRF-38534 in the manufacture of hybrid devices. Non-QML manufacturers shall be subject to audit by the Buyer and/or Government representatives. QML certified suppliers shall submit a copy of their QM plan upon receipt of this order to RESCO Defense.
P206	This item must be manufactured by Burndy.
P207	This purchase order contains hardware/parts that are made from exotic materials/specialty metals. Supplier will furnish actual chemical/physical test reports for the raw materials specified in the drawings & specifications. Test reports are to be actual attribute data. When parts are serialized or lot numbered, the serial or lot numbers shall be included in the reports. If Quality Code P110 is invoked on the Purchase Order, test reports are only required for hardware items identified on the parts list that are made from metals other than Carbon steel or aluminum.
P208	Group D test data, in accordance with NGC specifications, shall be provided to RESCO with the shipment. Vendor generic data is acceptable.
P209	CONTRONIC DEVICES PART NUMBER TO BE 7141. THIS MATERIAL TO HAVE A VISCOSITY OF 10,000 TO 12,000 CPS.
P210	Supplier shall mark each container with the specification to which the material is procured. Supplier shall mark all shelf life rubber or elastomer items (Natural or Synthetic) with cure date (quarter and year). To be acceptable, material shall be received within 6 months from the date of manufacture or cure.
P211	Pink polyethylene antistatic material (pink poly) shall not be used as a packing or packaging material.
P212	Supplier shall supply with each cable/connector actual certified data of insertion loss, and return loss of the connectors and cable. At a minimum data to include company letterhead, part number, serial number (If Applicable) and Authorized Signature. Failure to supply will result in rejection of the product.
P213	The specification(s) governing the parts being ordered by this Purchase Order / Subcontract require the item to be marked in accordance with MIL-STD-130 or MIL-STD-883C. All parts ordered by this Purchase Order / Subcontract must meet the Marking Permanency and Legibility requirements of MIL-STD-130. All LRU ordered by this Purchase Order / Subcontract (only applicable if a drawing note requires marking information) shall have the Part Number, Serial Number, and Revision Level marked with both Alpha Numeric Characters and BAR Code information in accordance with Code 128 Type A. Supplier shall comply with MIL-STD-130, with change 1 paragraph 3.35, Unique Identification (UID). All items on this purchase order must have a 2D data matrix label affixed to each deliverable item with encoded data elements that conform to ISO/IEC 15435 as well as meet all other requirements of MIL-STD 130. Supplier is to apply the UID Label on the surface identified as the marking surface on the Northrop Grumman Drawing.
P214	Seller shall label or clearly mark one end and one side of each shipping container or package with the notation "CAUTION" and with the special handling or environmental requirements for the item. Packing slips, Shipping Documents, etc. shall be enclosed in an envelope attached to the outside of container.

P215	<p>Seller Inspection Reporting Requirements</p> <p>A. Seller shall submit, with each shipment of items, one copy of an inspection report reflecting 100 percent inspection verification of all drawing characteristics, including notes, for all products.</p> <p>B. The report shall delineate each drawing characteristic and specify the corresponding actual measurement results.</p> <p>C. Inspection record traceability shall be maintained by either serializing each item, if allowed, or tag identification. The item identification is then matched with the corresponding inspection report.</p> <p>D. The only exception to the above procedure applies to items machined under tape-controlled or automatic conditions. In that case, the 100 percent inspection report shall be limited to the first and last item procured from one continuous set-up.</p> <p>1. The inspection report shall state that the items were machined under tape-controlled or automatic conditions.</p>
P216	Model Based Product Defined designs and CTF drawings shall require recorded data for all defined critical dimensions per ASME Y14.41.
P217	This is a manufacturer's serialized assembly (MSN). The part shall be marked in accordance with the drawing. The vendor shall control their serial numbers and numbers must have a minimum of 3 digits, so long as no serial number is duplicate.

P218

When this clause is cited on the purchase order the following applies:

Prohibited Items

- a.) Hardware shall not contain pure Cadmium, Zinc or Selenium (high vapor pressure materials). The actual acceptable percentages of zinc and cadmium in alloys or brazes and the extent of over-plating, when required, shall be technically substantiated with data for the intended applications and shall require NGSC approval prior to use.
- b.) Constructions and finishes containing pure tin, unless alloyed with a minimum of 3 weight percent lead (Note: Sn96Ag4, Sn95Sb5, Au80Sn20, are examples of alloys containing tin that are not alloyed with lead, but are considered acceptable when applied in certain applications). Tin-plated wire is exempt from this prohibition if the tin coating is applied prior to the extrusion or drawing process. Usage of tin-plated wire requires NGSC approval.
Solder coating over pure tin-plated surfaces is not acceptable without NGSC approval.
- c.) Zinc chromate as a finish coat (acceptable if sealed or not on an exposed surface).
- d.) Mercury and compounds of mercury.
- e.) Materials that exhibit or are known to exhibit natural radioactivity (such as uranium, potassium, radium, thorium, and/or any alloys thereof).
- f.) Corrosive silicone sealants, adhesives, or coatings (acetic acid evolving silicone).
- g.) Asbestos-containing adhesives, sealants, coatings, and encapsulants.
- h.) Any non-vented honeycomb core structures within hardware exposed to hard vacuum.
- i.) Non-hermetically sealed crystals.
- j.) Crimping solder-dipped, solder plated or tin plated stranded wire, or crimping solid conductors. Crimping of solid conductors using MIL-DTL-83513 microminiature and MILDTL- 32139 nanominiature contacts by QPL manufacturers may be acceptable, but shall be reviewed as a reliability suspect item.
- k.) Alloy steel fasteners (as defined in FF-S-86; typically require an applied finish for corrosion protection).
- l.) Ultrasonic cleaning of packaged parts with internal wire bonds (examples include, but are not limited to, MIL-PRF-38534, MIL-PRF-38535, etc. type parts)
- m.) Silicone grease used as a thermal couplant
- n.) Silicone compounds shall not be used as lubricants.
- o.) Fluoropolymers shall not be used in radiation environments
- p.) Hardware graphite based lubricants shall not be used.
- q.) Materials which can undergo reversion in their intended application including manufacturing, test, storage and transportation
- r.) Hazardous Materials in accordance with NAS411, and those in the prohibited category of NAS411-1 Target List
- s.) Prohibited materials shall include the requirements of MIL-STD-11991.
- t.) Beryllium and beryllia. Caution is required during handling of beryllium and its oxides based on potential health hazards during grinding.
- u.) Swelling of silicones, polyurethanes, acrylics, or other bonding and coating materials may occur if exposed to certain cleaning solvents (i.e., vapor degassing, etc.). The swelling effect will degrade to the protective properties of the coating and induce unwanted stresses to parts on assemblies that the coating is intended to protect. Ensure cautionary notes are added to the drawings that detail the solvent sensitivity.
- v.) Titanium Contamination Prevention - Care shall be exercised to ensure that cleaning fluids and other chemicals used on titanium are not detrimental to performance. The following materials can induce stress corrosion, hydrogen embrittlement, or reduce fracture toughness and are prohibited from the manufacturing, assembly or contact with titanium or its alloys, except when specific applications have demonstrated performance of not reducing material properties:
- 1) Hydrochloric Acid
 - 2) Silver
 - 3) Halogenated solvents
 - 4) Methyl Alcohol
 - 5) Mercury and Mercuric Compounds

P219	<p>First Article Inspection (FAI) 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.</p> <p>A) FAI applies to one piece from the first production run, unless otherwise set forth in this purchase order or through written waiver by quality assurance.</p> <p>B) 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.</p> <p>C) 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.)</p> <ol style="list-style-type: none"> 1. A change in the design affecting form, fit, or function of the part. 2. A change in manufacturing source(s), processes, assembly line, inspection method(s), location, tooling, or materials. 3. A change in numerical control program or translation to another media. 4. A natural or man-made occurrence which may adversely affect the manufacturing process. 5. 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. 6. When required as part of corrective action for a part number with repetitive rejection history. <p>D) Supplier shall segregate and identify the FAI unit in a separate container when delivering to Northrop Grumman. The FAI report is to accompany the FAI unit.</p> <p>E) 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) actions. (Supplier's MRB for supplier designed and Northrop Grumman MRB for Northrop Grumman design). Supplier rejection documentation, supplier's/Northrop Grumman dispositions, and supplier corrective action shall be part of the FAI package. The supplier shall re-do an FAI for those affected characteristics.</p> <p>F) 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.</p> <p>Supplier shall notify NGSC of all FAI(s) with at least 5 days in advance for NGSC to participate during the FAI process.</p>
P220	<p>Unique serial number control is required. All parts shall be identified and controlled with a unique serial number, starting with 0001. (No duplicates are allowed on future Procurements) Serial numbers should be assigned in the supplier's format unless otherwise stated in the drawing, or purchase order.</p>
P221	<p>REUSE OF PARTS AND MATERIALS (Created 9/25/2020)</p> <p>All parts, and materials which have been installed in an assembly, and are then removed from the assembly for any reason, shall not be used again in any item of deliverable hardware without prior NGSC approval.</p> <p>Parts are considered used when installed and soldered into the using hardware.</p> <p>The lifting of a single lead for test purposes is not considered part removal.</p> <p>Procedures and processes shall be implemented to ensure that when parts or materials, once installed in an assembly and then removed from the assembly for any reason, are not reinstalled in any fielded, qualification, or proto-qualification hardware item.</p> <p>Documented procedures shall ensure that parts and materials that have been permanently installed in an assembly and are removed from the assembly for any reason shall not be reused without prior approval of NGSC.</p>

P222	<p>Handling and Storage (Created 9/25/2020)</p> <p>Handling and storage procedures shall be instituted to prevent part and material degradation. These procedures shall be retained through inspection, storage, transportation, kitting, and assembly. The following criteria shall be met as a minimum for establishing handling and storage procedures for parts and materials:</p> <ol style="list-style-type: none"> a. Control of environment; temperature, humidity, contamination, and pressure. b. Measures and facilities to segregate/protect parts and materials routed to different locations. c. Easily identifiable containers to identify high reliability quality parts. d. Control measures to limit personnel access during receiving inspection and storage. e. Facilities for internal storage. f. Provisions for protective cushioning, as required, on storage area shelves, and in storage and transportation containers. g. Protective features of transportation equipment design to prevent packages from being dropped or dislodged in transit. h. Protective bench surfaces on which parts and materials are handled during operations such as test, assembly, inspection, and organizing kits. i. Required use of gloves, finger cots, tweezers, or other means when handling parts to protect the parts from contact by bare hands. j. Provisions for protection of parts susceptible to damage by electrostatic discharge. k. Unique parts and materials criteria.
P223	<p>Buyer Mandatory Inspection Points (MIPs) (Created 9/28/2020)</p> <p>MIPs could take place at any phase of the manufacturing process. NGSC shall have the right to increase or decrease NGSC MIPs based on performance assessment. Such modification shall be communicated via contractual changes. Supplier shall provide advanced notification of MIP request to the NGSC. Notification of a minimum of three (3) business days is required. The Supplier shall not bypass (waive or delegate) NGSC MIPs without prior written authorization from NGSC. When required, the Supplier shall provide photographs at MIPs. Support should not be requested until the hardware is ready or pre-coordinated with NGSC. After NGSC's MIP, any rework or test of the item(s), including any unscheduled or unauthorized entry, such as removal of a panel, cover, or enclosure shall void the NGSC's MIP and Supplier shall request NGSC to repeat applicable MIP step(s).</p>
P224	<p>Supplier shall provide manufacturer standard pressure test reports with shipment of each part on this order. Failure to supply shall result in rejection of the order/shipment upon receipt.</p>
P225	<p>Material shall be non-nutrient and/or non-incubating to fungi (reference MIL#STD#11991).</p>
P226	<p>If material is non-NGSC designed, a detailed/outlined drawing or a page from a catalog must ship with each item on the purchase order.</p>

P227	<p>Seller shall submit, with each shipment of items, Form P0-F283, Detailed Data Sheet, reflecting 100 percent inspection verification of all drawing characteristics for each product type delivered.</p> <p>Seller shall use form P0-F283, Detailed Data Sheet, to document all Part Dimensions, Drawing Notes, Materials, Processes, Finishes and Source Control Requirements for the First and Last Parts, of each CNC Machined or Automated Processing Set up. P0-F283 shall be divided and organized into sections, listing Drawing Dimensions, Materials, Special Processes, Finishes and Installed Items (Inserts, Dowel Pins, Nut Plats, etc.).</p> <p>The report shall delineate each drawing characteristic with the corresponding actual measurement results for each First and Last part.</p> <p>The report shall include, by number, each General Note called out on the drawing. A check mark will be used to address each general note to indicate that the general note requirements are in compliance.</p> <p>All required certifications and/or test report traceability numbers shall be listed on the P0-F283, Detailed Data Sheet. Certification copies shall be included as part of the data package.</p> <p>The report shall include the type of measurement equipment and a unique identifying number of actual equipment used for the inspection.</p> <p>100% verification for 100% of the parts is required on all Threaded Features including Non-Locking Inserts.</p> <p>P0-F283, Detailed Data Sheet shall be used for all Electro Mechanical Components where controlled Dimensions are documented on a Drawing.</p> <p>Inspection record traceability shall be maintained by either serialization or tag identification of each inspected First and Last item. Facsimile/Replica versions of Form P0-F283 may be used to accommodate automated Inspection, provided that all the elements of Form P0-F283 are included.</p> <p>The only exception to the above procedure applies to items machined/manufactured under non-CNC or Operator dependent processing, where the processing can vary from unit to unit.</p> <p>If items are processed using non-CNC or Operator dependent processing, a documented, 100 percent inspection is required for all units in the order.</p>
P228	<p>Virtual source inspection is required, as opposed to being performed on-site.</p> <p>At completion of the inspection, acceptance documentation will be provided to the supplier and they will be allowed to ship.</p>
P229	<p>Prohibited Materials Mitigation and Control Procedures (Created 9/25/2020)</p> <p>Supplier shall include a statement in the certificate of conformance certifying verification was performed and Seller certifies there are no prohibited materials present in the deliverable product.</p>

P230	<p>Q-18 RADIOGRAPHIC INSPECTION</p> <p>Seller must be approved by Buyer to perform the radiographic inspection applicable to this procurement document or shall use a radiographic facility approved by Buyer. Buyer shall provide a list of approved radiographic facilities upon request. If Seller wishes to use an unapproved facility, prior authorization must be requested and received from Buyer. The facility performing the radiographic inspection, whether the Seller's or a sub-tier to the Seller, must be approved by Buyer at the time the actual radiographic inspection takes place. The Seller shall ensure prior to shipment to Buyer that the facility performing the radiographic inspection was approved by Buyer at the time of use.</p> <p>The Seller must have at their Facility the necessary equipment to review and evaluate the x-ray film, or electronically saved images from real time x-ray, per ASTM E 1742, "Standard Practice for Radiographic Examination."</p> <p>Equipment must be calibrated per ISO 10012-1, "Quality Assurance Requirements for Measuring Equipment" or ANSIZ540-1, "General Requirements for Calibration Laboratories and Measuring and test Equipment" or equivalent as approved by the Buyer. Unless otherwise specified by the parts specification, each radiograph shall comply with ASTM E 1742 "Standard Practice for Radiographic Examination, MIL-STD-883 "Test Method and Procedures for Microelectronics," MIL-STD-750 "Test Method for Semiconductor Devices."</p> <p>The radiographic film or electronically recorded real time image (jpg or tiff format only) shall accompany the shipment of the items to the Buyer (hard copy print out of electronically recorded real time images are not acceptable). Serial number location, x-ray orientation and electronic position must be recorded. A final report shall be provided in .pdf format.</p>
P231	Quality requirement notes: 85 - test certificate per drawing note 6.
P232	<p>If the supplier of this item is the original manufacturer, please provide a packing slip. If the supplier of this item is an authorized / franchised distributor, please provide a packing slip, if a packing slip is not available the order acknowledgement can be used.</p> <p>For authorized franchised distributors, traceability documentation back to the manufacturer will need to be provided upon request.</p>
P233	N/A
P234	Qualified Listed Supplier required for Mil-T-7928.
P235	Pasts must be packaged in waffle pack H20-037-15-74D10.
P236	Parts require a Passivation cert and Material cert.
P237	If the supplier of this item is the original manufacturer, a packing slip must be provided. If the supplier of this item is an authorized/ franchised distributor, the packing slip from the original manufacturer, along with your packing slip.
P238	N/A
P239	A material cert is required with the shipment.

P240	<p>POST ROUGH HOB SOURCE INSPECTION (HOLD POINT) REQUIRED</p> <p>Source inspection must be scheduled with procurement quality at least three days prior to the planned date of each source acceptance hold point.</p> <p>EMAIL: Source.inspections@ngc.com (PREFERRED) OR CALL (408) 735-2133 FOR SOURCE INSPECTION</p> <p>Supplier should provide the following information with source inspection request:</p> <ol style="list-style-type: none"> 1. PURCHASE ORDER, LINE ITEM NUMBER AND QTY 2. INSPECTION TYPE (IN-PROCESS OR FINAL) 3. SERIAL NUMBER(S) IF APPLICABLE 4. NONCONFORMANCES (REPORTED ON QN) 5. POINT OF CONTACT INFO AND LOCATION OF SOURCE INSPECTION <p>At the time of inspection, provide the necessary personnel, equipment and facilities to perform the inspection; the purchase order (and any change notices), drawings, specifications and procedures; and the documentation package. The documentation package must include all inspection records, certifications, test reports, dispositioned quality notification (QNs) and deviation requests, and prior source inspection reports required by the purchase order.</p> <p>Each PO line item which requires Northrop Grumman source inspection must have a completed QCM-179 (source surveillance report) to indicate acceptance and release for shipment. Supplier will ship evidence of acceptance (qcm-179) with product. The verified documentation package must accompany shipment of material.</p> <p>68 INSPECT THE FOLLOWING:</p> <ul style="list-style-type: none"> -VERIFY PART NUMBER AND S-NUMBER IS STAMPED IN THE GAP, REF RN U32E6 -VERIFY S-NUMBERS OF TEST PIECES ARE CORRECTLY IDENTIFIED FOR THE SHAFT AND RIM RESPECTIVELY. -VERIFY QTY AND IDENTIFICATION OF TEST BLOCKS: <p>3 EA 122E1002-2FH,, SHAFT, TEST BLOCK 3 EA 3057G25-002FH RIM, TEST BLOCKS</p> <p>72 MAINTAIN S-NUMBER TRACEABILITY ON NGMS SUPPLIED MATERIAL: Permanently identify each piece with the Northrop Grumman assigned material traceability ("S") number(s), and the part number when required by drawing.</p> <p>74B MEASURE AND RECORD: - RECORD TOOTH THICKNESS FOR BOTH HANDS Record and furnish with the shipment, results of inspection in compliance with the requirements.</p>
P241	<p>The requirements of document (093-014327 Assembly Process Requirements for Outsourced CCA's) apply to this order. The assembly drawing takes precedence over requirements contained within the 093-014327, conflicts should be resolved through drawing amendments.</p> <p>This document specifies the requirements for assembly of circuit card assemblies (CCA) and electronic components assemblies (ECA) for Northrop Grumman Electronic Systems-Rolling Meadows (ES-RM) designed hardware.</p>
P242	Heat Treat and Finish per notes on drawing.
P243	If the supplier of this item is the original manufacturer, please provide a packing slip and certificate of compliance. If the supplier of this item is an authorized/franchised distributor, please provide the packing slip or C of C from the original manufacturer with your company packing slip and certificate of compliance. The traceability documentation is not required if the component is not an electronic, electrical or electromechanical component.
P244	If the supplier of this item is the original manufacturer, please provide a packing slip. If the supplier of this item is an authorized/franchised distributor, please provide the packing slip from the original manufacturer with your company packing slip. The traceability documentation is not required if the component is not electronic, electrical or electromechanical.

<p>P245</p>	<p><H>A FIRST ARTICLE INSPECTION (FAI), in accordance with the requirements of AS9102</>, must be performed and documented on one item of the first lot manufactured for this order, unless it has been completed on an earlier order and none of the following events had occurred:</p> <ol style="list-style-type: none"> 1. There are drawing revision changes. 2. A change in design. 3. A change in manufacturing source(s), process(es), inspection method(s), location of manufacture, tooling or materials. 4. A change in numerical control program or translation to another media. 5. A natural or man-made event, which may adversely affect the manufacturing process. 6. A lapse in production for two years or as specified by the Customer. <p><H>Form AS9102 (use form revision level as established at the time of purchase order issuance) shall be used to document the First Article Inspection and/or delta FAI and the following optional fields in the AS9102 FAI Report Form 1 are considered mandatory on this procurement: 11, 12, 21, 22, 23 and 24. All Conditionally Required (CR) fields on the FAI Report Forms 2 and 3 shall be completed. In addition, any FAI report form generated shall not contain open fields. To ensure each field of the FAI has been reviewed, the supplier shall mark all open and unused fields "N/A".</></p> <p><H></></p> <p>After completion of the initial FAI or a prior Delta FAI, any changes made to the manufacturing process or any other change listed above require notifying Northrop Grumman Supplier Mission Assurance of the changes to determine if a formal approval of the resulting Delta FAI is required.</p> <p>.</p> <p><H>This requirement supersedes any drawing or spec requirement that imposes Northrop Grumman PDS 23951.</></p>
<p>P246</p>	<p>This procurement, per the drawing/specification, requires submittal of an Acceptance Test Procedure (ATP) and/or a Qualification Test Procedure (QTP -- when qualification testing is invoked by the purchase order). These procedure submittal(s) shall be approved by the Northrop Grumman buyer prior to starting the test(s). All subsequent changes shall also be approved.</p>

P247	<p>US-AA58 Special Source Control Drawing Requirements (9/07/2021)</p> <ol style="list-style-type: none">1) If dimensional reports are required per other requirements of this purchase order they shall only be required for dimensions shown on the NGC Source/Procurement Control Drawing.2) Prior to Production there shall be a Production Readiness Review with NGC.3) Seller shall provide ATP/QTP procedure and proposed data sheets to NGC for review and approval prior to start of any testing.4) If (Chemical and Mechanical Test Data for Raw Material) is required per this purchase order then it shall only be required for exotic materials (Titanium, Monel, Inconel, HY-80, HSLA80, HY-100, HSLA100, NP35N, A286) that are external/exposed or may be exposed to sea water during use.5) The following shall be supplied with each individual article:<ol style="list-style-type: none">A) If a "Verification Test Matrix Table" is present in source control drawing, traceable actual documentation evidence showing conformance and acceptance shall be provided for each of the Qualification, FAT, Analysis, Demonstration, Inspection, and Test points listed in the table. Note: Traceable means Traceable to the applicable NGC Serial Number and Part Number.B) If a "Verification Test Matrix Table" is not present in the source control drawing, a plan shall be submitted to NGC for review and approval prior to start of work. This plan shall identify each and every requirement in the source control drawing and how each requirement will be verified as being conforming to the requirement. <p>B-1: Traceable documentation evidence showing conformance and acceptance shall be provided for each of the requirements identified in the approved plan. Note: Traceable means Traceable to the applicable NGC Serial Number and Part Number.</p> <p>Failure to meet the above requirements is cause for rejection.</p>
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P248	<p>Order has been determined to require a first piece 100% inspection by the supplier and source inspection by Northrop Grumman Quality prior to start of full production run. The purpose of this first piece Inspection is to catch any potential issues before going to an entire lot run avoiding all parts from having same potential non-conformances.</p> <p>Prepping for First Piece Source Inspection Requirements:</p> <ol style="list-style-type: none">1) Supplier shall have performed all necessary Inspections, tests and recording of all required dimensions, test, drawing note results, documented and vetted all non-conformances prior to requesting NGC to Source Inspect (Vetting includes, reworked to meet the drawing, NGC provided a Signed MRB document for Use As Is, and Repair conditions no repair permitted with-out a signed MRB.2) Supplier shall have available at time of source inspection all dimensional reports, test documentation as applicable to purchase order, raw material certifications as applicable to purchase order.3) Supplier shall disclose any Non-Conformances and how they have been vetted.4) Supplier shall be able to measure parts using NIST traceable Calibrated Equipment) and allow source inspector to verify any dimension they deem as critical.5) If Supplier does not have Calibrated equipment to be able to measure First Piece or any of the production run of parts, supplier is required and expected to have parts inspected, reported by a reputable metrology company and to notify Northrop Grumman of this situation at time of acceptance for this purchase order for planning purposes. <p>Contact Northrop Grumman Quality using below contact information and be sure to include Northrop Grumman Buyer on all Correspondence.</p> <p>Undersea.SMA@ngc.com or Reach our Admin at(410)-260-5499</p>
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<p>P249</p>	<p>This order has been determined to be critical and requires a Full Data Package submittal for Review and acceptance prior to shipment. Note: No Shipment shall Take place without Approval from the Northrop Grumman Quality Department.</p> <p>Full Data Package shall include:</p> <p>1) All documentation and reports in relation to requirements on this purchase order such as, but not limited to Non-Destructive Testing, Dimensional Reports, Raw Material Certifications, Certificate of Conformance, Personnel Certifications, Test Reports, Procedure Acceptance Verification, General Paint System (Appendix A Data Sheets). (For more information please review all Quality Requirements of the Purchase Order.</p> <p>2) Detailed Photographs shall be provided for the following:</p> <ul style="list-style-type: none"> a. Zoomed out Image area showing each side in detail (Top, Bottom and Sides). b. Zoomed in areas that require 63 surface finish or better. C. Zoomed out image area that clearly shows any marking from a distance for each section (Top, Bottom and Sides). D. If Marking is anything other than Bag/Tag, take a Zoomed in image area of just the Part Number and Serial Number marking. Include enough detail in the image to discern orientation of part and marking. E. Image showing how part will be packaged and shipped. <p>All documentation shall be submitted to below contact and please be sure to include Northrop Grumman Buyer on all Correspondence:</p> <p>Undersea.SMA@ngc.com or Reach our Admin at (410)-260-5499</p> <p>Acceptance of Full data package shall be sent with shipment.</p>
<p>P250</p>	<p>If Supplier does not have the equipment or experience needed to accurately measure to the GD&T (ASME Y14.5) requirements of the applicable drawing then:</p> <p>Supplier shall enlist, qualified outside inspection services and metrology companies for GD&T measurements in order to ensure compliance to all required dimensional requirements. Inspection Reports shall be IAW US-AA1, US-AA2, US-AA3 and US-AA7, whichever is imposed on the Purchase Order.</p> <p>All Equipment used for inspection of measurements shall be calibrated and that calibration shall be traceable back to an NIST standard. A list of equipment used for measurements of applicable parts shall be provided with calibration due dates.</p> <p>Failure to enlist a qualified outside supplier for help with measurements if unable to perform them, will result in an unsatisfactory quality rating and will delay payment, shipment until the parts are measured IAW the drawing requirements and reports are made.</p>

<p>P251</p>	<p>Inspect to the Zero-Based Acceptance Sampling Plan</p> <p>Table 4-3. Zero-Based Acceptance Sampling Plan Acceptable Quality Level (AQL)</p> <p>Percentage(%)</p> <table border="1"> <tr> <td>Lot Size</td> <td>1.0</td> <td>4.0</td> </tr> <tr> <td>1-8</td> <td>A*</td> <td>3</td> </tr> <tr> <td>9-15</td> <td>13</td> <td>3</td> </tr> <tr> <td>16-25</td> <td>13</td> <td>3</td> </tr> <tr> <td>26-50</td> <td>13</td> <td>5</td> </tr> <tr> <td>91-150</td> <td>13</td> <td>7</td> </tr> <tr> <td>151-280</td> <td>20</td> <td>10</td> </tr> <tr> <td>281-500</td> <td>29</td> <td>11</td> </tr> <tr> <td>501-1,200</td> <td>34</td> <td>15</td> </tr> <tr> <td>1,201-3,200</td> <td>42</td> <td>18</td> </tr> <tr> <td>3,201-10,000</td> <td>50</td> <td>22</td> </tr> <tr> <td>10,001-35,000</td> <td>60</td> <td>29</td> </tr> <tr> <td>35,001-150,000</td> <td>74</td> <td>29</td> </tr> <tr> <td>150,001-500,000</td> <td>90</td> <td>29</td> </tr> <tr> <td>500,001 & over</td> <td>102</td> <td>29</td> </tr> </table> <p>"A" indicates the entire lot must be inspected</p> <p>A lot is defined as a group of parts made with a single setup without any major changes made throughout the run.</p>	Lot Size	1.0	4.0	1-8	A*	3	9-15	13	3	16-25	13	3	26-50	13	5	91-150	13	7	151-280	20	10	281-500	29	11	501-1,200	34	15	1,201-3,200	42	18	3,201-10,000	50	22	10,001-35,000	60	29	35,001-150,000	74	29	150,001-500,000	90	29	500,001 & over	102	29
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150,001-500,000	90	29																																												
500,001 & over	102	29																																												
<p>P252</p>	<p>MATERIAL FURNISHED UNDER THIS PO SHALL NOT CONTAIN MERCURY IN ANY FORM WITHOUT THE SPECIFIC WRITTEN APPROVAL OF NORTHROP GRUMMAN. MERCURY-BEARING INSTRUMENTS AND/OR EQUIPMENT WHICH MIGHT CAUSE CONTAMINATION SHALL NOT BE USED IN THE MANUFACTURE OR TESTING OF ANY MATERIAL ON THIS ORDER. THE MOST PROBABLE CAUSES OF CONTAMINATION ARE: DIRECTLY CONNECTED MANOMETERS, MERCURY VACUUM PUMPS; MERCURY SEALS; MERCURY-IN-GLASS THERMOMETERS; AND HANDLING OF MERCURY IN THE IMMEDIATE VICINITY OF SUBJECT MATERIAL. ACCIDENTS INVOLVING KNOWN OR SUSPECTED MERCURY CONTAMINATION DURING THIS ORDER MUST BE REPORTED TO NORTHROP GRUMMAN IMMEDIATELY. YOUR SUBCONTRACTORS MUST BE NOTIFIED OF AND COMPLY WITH THESE REQUIREMENTS. CONTACT THE COGNIZANT RESCO BUYER IF YOU HAVE ANY QUESTIONS OR INQUIRES CONCERNING THESE REQUIREMENTS.</p> <p>From Product Quality Engineer: "Please note, if the product data sheet and material safety data sheet (MSDS) (when applicable) does not state the inclusion of mercury, the item shall be considered 'mercury free'. Please note, this mercury code does not require a cert".</p>																																													

P253	<p>Calibration Services Requirements for Supplier Providing Calibration</p> <p>A. Seller shall be responsible for the calibration and applicable maintenance of any equipment, tooling, or gauges provided from the Buyer to the Seller under this procurement agreement.</p> <p>B. Seller's equipment calibration system shall be in accordance with one of the four requirements listed below:</p> <ol style="list-style-type: none"> 1. MIL-STD-45662A 2. ANSI/NCSS Z540 3. ISO 10012-1 4. ISO 17025 <p>C. Seller shall provide a data package for each service that meets the requirements of the above standards including as found and final results, acceptance criteria, and traceability to applicable national standards.</p>
P254	Parts must be packaged in waffle pack H20-026-15-74D10.
P255	Cable must comply with MIL-DTL-55021.
P256	<p>US-AA24 COTS Lifting Hardware Requirements</p> <p>Special Load Testing Requirements for COTS Lifting Hardware</p> <ol style="list-style-type: none"> 1) Vendor shall load test the Items on this purchase order to IAW applicable standards, procedures, and internal processes. 2) Vendor shall supply proof of acceptance via a load test certification document. 3) Certification document shall follow the vendors normal process except that the document shall be hand signed by an authorized signature and shall be dated. In addition the unique Identification such as (Batch Number, Lot Number etc.) shall also be added to the document for traceability. <p>Failure to supply will result in rejection of the product, upon receipt.</p>
P257	All required electrical, functional, environmental, mechanical, nondestructive (NDT) or other tests shall be performed as applicable per procurement documentation. Each shipment shall be accompanied by a legible and reproducible copy of test reports identifiable with specification test requirements and materials submitted. Each shipment shall be accompanied by a legible and reproducible copy of dimensional inspection reports referencing all notes. These reports shall be authenticated by a representative of the agency performing the test.
P258	Parts must be packaged in waffle pack H20-Y5148F7.
P259	<p>Scanning Electron-Microscope (Created 9/28/2020)</p> <p>NGSC approval of Scanning Electron Microscope (SEM) analysis shall be required for wafer lots incorporated in parts supplied to NGSC.</p> <p>The SEM analysis shall be performed by Seller and must be approved by NGSC prior to the incorporation of wafers in the next higher assembly.</p>
P260	Supplier shall package in Static Dissipative Cover and Waffle Pack. H20-067130-66C02 or H20-067130-62C02.

P261	<p>This clause allows bulk packaging if tape and reel is unavailable. This clause requires that you comply with the testing requirements of the drawing and purchase order, and be sure to select an approved manufacturer.</p> <p>BULK PACKAGING ALLOWABLE IF TAPE AND REEL UNAVAILABLE. SELECTED ITEM DRAWING. SEE 4.2 FOR SELECTION CRITERIA. SEE NOTE 6.1 FOR ALLOWED MANUFACTURER LIST.</p>
P262	<p>Finish must comply with Note 2 on drawing.</p>
P263	<p>Group A test data, legible and reproducible in accordance with NSD specifications with all variables (read and record) data, shall accompany each shipment.</p>
P264	<p>Parts must be packaged in waffle pack H20-070-45-66C02.</p>
P265	<p>Supplier shall provide original manufacturing/cure date, and lot number(s), and the shelf life expiration date (if indefinite or unlimited, so state).</p> <p>Elastomeric material with "No Shelf Life" requirement or "Unlimited Shelf Life" shall be marked as such.</p> <p>The Supplier shall physically identify the shelf life expiration date on the deliverable product or the unit packaging according to the applicable standard.</p> <p>In addition, forward any special storage/handling instructions.</p>

P266	<p>Control of Record - For Mil-Std parts built on Qualified Military Line (QML) ((Created 9/16/2021)</p> <p>The Supplier shall establish and maintain a system to positively control data generated during contract performance to prevent inadvertent loss or alteration.</p> <p>Unless otherwise directed by NGSC, records are to be maintained for 10 years utilizing the Supplier's documented procedure and provided without cost to NGSC upon request. Prior to expiration of the retention period, please contact RESCO before destroying/ disposing of anything required to be retained by this Quality provision.</p> <p>All data shall be identified with a unique number that associates the data with the contract.</p> <p>The Seller shall be responsible for their sub-tier suppliers' records.</p> <p>The quality records listed below shall be available for NGSC review upon request.</p> <p>The Quality Records shall include, but not be limited to:</p> <ol style="list-style-type: none"> 1. Test data records of all qualification and acceptance tests performed 2. Material Review Board Reports 3. Part procurement traceability data <p>If the Seller cannot maintain the applicable quality records for the required timeframe, the seller shall submit the Quality Records listed above to RESCO with the Purchase Order Line item shipment.</p> <p>Electronic records (i.e. CD, DVD) are preferred.</p> <p>Please contact your RESCO buyer for submittal instructions</p>
P267	<p>Documentation Delivered with Product</p> <p>Handling instructions/procedures and accompanying documentation may be inside the outer shipment package, but outside the sealed inner package.</p> <p>The documentation shall be accessible upon opening of the outer box, without having to remove the inner box.</p>
P268	<p>Materials shall be provided having at least 70% of original SL remaining.</p> <p>Documentation detailing the date of manufacture, recommended storage condition and SL expiration shall be provide.</p> <p>UBD labels shall be applied to each COTS part and to the most discrete package for items made to a PO listed DWG.</p> <p>Where OEMs seal COTS parts in packaging such that the label cannot be applied directly to the part, a suitable quantity of labels shall be provided with the shipment so that TDSI may label the parts once the package is opened (e.g. 50 units would require 50 labels).</p>
P269	<p>Entegris waffle pack part number, H20-045, shall be used to package these components. Waffle packs may be made of ChipSentry or STAT-PRO materials.</p>

P270	<p>All Special Process suppliers must be approved by Northrop Grumman Corporation or be accredited by the National Aerospace and Defense Contractors Accreditation Program (NADCAP). Supplier shall provide NADCAP certification from all their NADCAP certified suppliers, and all certificates shall be included in data package delivered with each shipment. Supplier must provide chemical and mechanical test data on raw materials used on this order.</p> <p>Processes such as: Welding, Nondestructive testing, Heat-treating, Cleaning, Plating, Painting, Anodizing, Etc. at Northrop Grumman Corporation's discretion shall be documented and satisfy the requirements of applicable drawings or specifications. Records must be maintained for 10 years.</p>
P271	<p>PWB: IPC-6012 / IPC-A-600, Rigid PWBs</p> <p>PWB001: Acceptability of Printed Wiring Boards (PWBs) (as of 10/28/2009)</p> <p>Printed Wiring Boards shall meet the requirements of IPC-6012 and IPC-A-600 as follows: Class 1 - Consumer Products Class 2 - General Industry Electronics Products Class 3 - High Reliability Electronic Products</p>
P272	<p>PWB002 PWB: IPC-6011 / IPC-A-600, Generic Spec PWBs</p> <p>PWB002: Acceptability of Printed Wiring Boards (PWBs) (as of 10/28/2009)</p> <p>Printed Wiring Boards shall meet the requirements of IPC-6011 and IPC-A-600 as follows: Class 1 - Consumer Products Class 2 - General Industry Electronics Products Class 3 - High Reliability Electronic Products</p>
P273	<p>US-AA25 Shelf Life for Assemblies 11/18/2020</p> <p>If Applicable, any material/products (Loctite, primer, paint, adhesive etc.) called out on the Northrop Grumman Parts List contain shelf life, seller shall verify shelf life is not expired prior to installation into an Northrop Grumman assembly or end item deliverable.</p>
P274	<p>US-AA65 CCA Special Requirements</p> <p>The purpose of this Requirement is to place emphasis on special drawing/Parts List Requirements.</p> <p>For CCA Requirements, Supplier shall follow all requirements of NGCTECH-PS00003 (Electronic Assemblies, Assembly of, NGC) when Drawing or Parts List invokes SP00003. All other Drawing and Parts List requirements shall also apply.</p> <p>For Conformal Coating, Supplier shall follow all requirements of NGCTECH-PS00004 (Conformal Coating, NGC) when Drawing or Parts List invokes SP00004. All other Drawing and Parts List requirements shall also apply.</p> <p>Supplier shall also ensure that all PWB requirements invoked on the PWB Drawing and Parts List are in compliance prior to CCA shipment.</p>
P275	<p>Supplier shall package in Static Dissipative Cover and Waffle Pack H20-099199-62C02, H20-179207-66C02, H20-179207-62C02 Black or H20-099199-74D10 Tan.</p>
P276	<p>Supplier shall package in Static Dissipative Cover and Waffle Pack H20-021-66C02 or H20-021-62C02.</p>

P277	<p>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.</p> <p>A) FAI applies to one piece from the first production run, unless otherwise set forth in this purchase order or through written waiver by quality assurance.</p> <p>B) Supplier shall use a form that contains all required information as specified in SAE AS9102. The supplier may request to use NGC's FAI form which satisfies this requirement. FAI must contain Forms 1, 2, and 3 fully filled out. CMM data can be used and referenced on Form 3. Each assembly item must be listed on Form 3 as a characteristic and noted as installed/verified.</p> <p>C) 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.)</p> <ol style="list-style-type: none"> 1. A change in the design affecting form, fit, or function of the part. 2. A change in manufacturing source(s), processes, assembly line, inspection method(s), location, tooling, or materials. 3. A change in numerical control program or translation to another media. 4. A natural or man-made occurrence which may adversely affect the manufacturing process. 5. * On repeat production builds when more than two years has elapsed since the last production a complete new FAI is required unless otherwise stated in PO/Contract. 6. When required as part of corrective action for a part number with repetitive rejection history. <p>D) Supplier shall segregate and identify the FAI unit in a separate container when delivering to Northrop Grumman. The FAI report is to accompany the FAI unit.</p> <p>E) Supplier shall assure that discrepancies and non-conformances, if any, discovered during the FAI are documented and dispositioned (if allowed) by the appropriate method through Northrop Grumman. Supplier rejection documentation, supplier's/ Northrop Grumman dispositions, and supplier corrective action shall be part of the FAI package. The supplier shall re-do an FAI for those affected characteristics.</p> <p>F) For Special Processes requirements the suppliers FAI documentation shall include objective evidence of compliance to Special Processes source approval (i.e. use of NADCAP qualified suppliers or Northrop Grumman specific process approval). For sub-contracted processes this would be a C of C, certificate of conformance, from the vendors sub-tier stating compliance to the standard or stating NADCAP compliance.</p>
P278	A Certificate of Conformance is required that states hardware meets all required specifications.
P279	PARTS SHALL BE IDENTIFIED IN ACCORDANCE WITH MIL-STD-130 AS FOLLOWS: 26916SOCN010-007765-XXXX (REPLACE XXXX WITH APPROPRIATE DASH NO. IN TABLE 1 OF DRAWING) BAG & TAG IS ACCEPTABLE - INCLUDE QTY PER BAG
P280	Supplier shall package in Static Dissipative Cover and Waffle Pack H20-021-12-66C02 or H20-021-12-62C02.