In case of any conflict with this document and any other requirements, the order of precedence is as follows:

1. QNA Purchase Order
2. Drawings, Specifications, and or Electronic Files
3. This document
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General Quality Clauses

The following clauses(A-G) are incorporated into all QinetiQ North America (QNA) Purchase Orders:

A1. DELETED

A2. QNA / Customer Access
The Supplier shall provide, if required, access to any of the Supplier’s facilities where any of the work is being performed. This access shall be granted to QNA and their customer(s) as appropriate for the specific contract. The representative(s) shall be afforded unrestricted opportunity to evaluate and verify Supplier’s compliance to this PO. The Supplier shall make available for reasonable use by the representative the equipment necessary for validation purposes. Supplier personnel shall be made available for operation of such equipment as required.

A3. ITAR Registration
Unless otherwise specified, QNA custom product, parts and components, and the related technical data and information or services related to QNA’s military programs are controlled for export purposes pursuant to the ITAR. It is a violation of the ITAR to export or re-export these products, any of their parts or components, or technical data related to them without first receiving authorization to do so from the U.S. Department of State.

B1. Quality Management System
Supplier certification to AS9100, ISO9001, or equivalent is preferred. At a minimum a Supplier is required to have an internal Quality Management System that they operate to. If the Supplier does not have a formal Quality Management system in place they must be approved for use by QNA’s Quality Assurance Group to verify that they have all necessary processes in place.

B2. DELETED

B3. Record Retention
The Supplier shall maintain records that provide objective evidence of compliance to the PO requirements. The records shall be maintained for a period of at least three (3) years from completion of purchase order. The Supplier may send records to QNA to be maintained but must communicate that need with QNA Quality and agree to supply all requested documents.

NOTE: Clause K1 takes precedence over this requirement if it is defined on the purchase order.

B4. Sub-tier Supplier Requirements
Supplier shall establish in its sub-tier supplier purchase order(s) requirements necessary to assure that QNA quality clauses or equivalent are flowed to sub-tier suppliers and that each item delivered has been controlled, manufactured, tested and inspected in compliance with the requirements of the Order by and between Supplier and Buyer. A copy (with redacted pricing) of each sub-tier purchase order (s) shall be available for review by Buyer upon its request.
B5. Employee Awareness
QNA requires its suppliers to promote a culture of employee awareness of their contribution to product and service quality, their contribution to product safety, and the importance of ethical behavior.

B6. Documentation Legibility
All documentation provided by the Supplier shall be legible, and at a resolution capable of being reproduced (by dry process) and scanned for electronic storage. Any corrections made to records shall have a single cross out through the original text and be accompanied by initials of the authorized person making the change and dated.

C1. In-process Nonconforming Material Items
All parts and material delivered against this order shall conform to the requirements of the order. Supplier shall not apply the following nonconforming material dispositions without Buyer approval;

- Repair
- Use-As-Is
- Any other Disposition that alters the released configuration baseline

Supplier Nonconformance Reports, or other design modification requests, are to be submitted to the Buyer for processing. Buyer approved deviations shall be included with Supplier submitted contract deliverables.

Any product that is nonconforming (approved by QNA deviation) when delivered must be segregated and marked separately from material that is fully compliant with PO requirements.

C2. Previously Delivered Non-Conforming Material
The Supplier shall report any nonconformance that may affect already delivered product.

- Notification shall include a clear description of the discrepancy, identification of suspect parts (mfg. dates, serial numbers, qty, etc.), and dates delivered.
- A containment plan and interim corrective action shall be provided to assure no further defective product will be received at QNA.

C3. Customer Furnished Material
If this PO includes the use of material provided by QNA as CFM, then the following are applicable:

- All CFM must be handled with care and appropriately identified as QNA material and stored in a safe and secure manner.
- Should CFM be determined to be non-conforming, follow your company’s normal procedure for handling nonconforming material. In addition, promptly notify QNA that the material is nonconforming. Send a copy of your non-conformance/defect report to the Buyer. When the material has shipped, send an e-mail to the Buyer contact with a copy of the Packing Slip and the Nonconformance Report advising of the date that the material shipped.

D1. Packaging
The Supplier shall:
1. Package all items in such a manner as to prevent damage during shipment and subsequent storage at QNA.
2. Assure that shipping containers intended to be carried by an individual must not exceed 35 pounds total.

D2. Lot Date Codes
Lot Date Codes shall not exceed three years from date of receipt at QNA. Lot Date Codes for individual piece parts used as part of an assembly for QNA shall not exceed three years from date of assembly. For shipment of products containing Manufacturers lot date code identification, parts shall be packaged to provide segregation of lot/date code to assure traceability can be maintained.

D3. Electrostatic Discharge
Appropriate handling and packaging is required for electrostatic sensitive material. The Supplier shall:
- Have an ESD program in accordance with MIL-STD-1686, MIL-HDBK-263, ANSI/ESD-S20-20, or QNA approved equivalent that provides protection of ESD sensitive devices during all phases of manufacture, test, storage and shipment.
- Package ESD sensitive items in packaging materials specifically designed for use with ESD sensitive materials.
- Label each package as “ESD SENSITIVE” (industry standard symbology is allowed).

D4. Hazardous Materials
For any hazardous material, an SDS must be provided to QNA upon request by the close of the next business day.

D5. Adhesives, Paints, Compounds, Raw Materials, Liquids, Thermal Insulating Fabrics
For adhesives, paint, compounds, raw materials, liquids, thermal insulating fabrics or any other type of material with a controlled shelf life, the following information is required with the deliverable material:
- date of manufacture
- shelf life / expiration date
- Certificate of Conformance
- Special storage and handling requirements, if applicable on package or container

CAUTION: Materials that have adhesive properties may have a shelf life, please verify prior to use and/or shipment to QNA.

D6. Foreign Object Control
A. The Supplier shall maintain a FOD Prevention Program: Whenever or wherever FOD (such as solder splashes, stripped insulation sleeving, metal shavings, paperclips, etc.) can be entrapped or migrate, sufficient FOD Controls shall be in place to prevent FOD from entering into the product.

B. Prior to closing inaccessible or obscured areas and compartments during assembly, the Supplier shall inspect for FOD/Materials and ensure no protective devices (e.g., bags, caps, covers and plugs) remain embedded.

C. Supplier shall ensure any tooling, jigs, fixtures and test or handling equipment are maintained in a state of cleanliness and repair sufficient to prevent FOD.
D. If FOD prevention includes the use of dust caps on cable assemblies or supplied connectors, do NOT use Yellow colored dust caps unless yellow is specifically required on the drawing.

D7. IPC Certification and Workmanship (Printed Circuit Boards, Electronic Assemblies, and Cable and Wire Harness assemblies), Class 2

- Printed circuit boards, Electronic Assemblies, and Cable and Wire Harness Assemblies shall be built using J-STD and IPC certified personnel.
- Unless otherwise stated on the drawing or purchase order:
  - Soldering shall be performed by personnel certified to J-STD-001.
  - Printed Circuit boards shall have workmanship in compliance with IPC-6011 or IPC-6012, IPC-A-600 as applicable, class 2 – Acceptability of Printed Boards
  - Electronic Assemblies shall have workmanship in compliance with IPC-A-610, class 2 – Acceptability of Electronic Assemblies
  - Cable Assemblies shall have workmanship in compliance with IPC/WHMA-A-620, class 2 – Requirements and Acceptance for Cable and Wire Harness Assemblies

NOTE: Clause J6 takes precedence over this requirement if it is defined on the purchase order.

D8. End of Life
The Supplier shall have a formal system for the identification of and mitigation of risk associated with components reaching their EOL. Supplier must notify QNA of a component reaching EOL as early as possible by forwarding email notification to Buyer.

D9. Counterfeit Part Mitigation
The Supplier shall have a formal program for the prevention of Counterfeit Parts being used in QNA product. Report Possible or Confirmed issues to QNA as soon as identified.

NOTE: Reference DFARS 252.246-7007 for requirements and guidance.

D10. Prohibited Materials (as applicable to material/product on the specific Purchase Order)
The following materials are prohibited:
- D10 B: Dodd-Frank Wall Street Reform and Consumer Protection Act- Section 1502 Conflict Minerals: Provided product shall not contain conflict minerals (tin, tantalum, gold, tungsten) from the Democratic Republic of Congo and adjoining countries which include; Angola, Burundi, Central African Republic, The republic of the Congo, Rwanda, South Sudan, Tanzania, Uganda, and Zambia.
- Supplier to provide current copy of CMRT at the latest approved revision template provided by the Responsible Business Alliance Foundation (RBAF).

D11. Mercury
Material furnished by seller under this order shall not contain functional mercury or mercury contamination unless specific written approval has been obtained.
E1. Receiving Inspection
Material shipped against this Purchase Order is subject to Receiving Inspection.

F1. Workmanship
Unless otherwise specified, material shall be free of pits, cracks, dents, scratches, burrs, sharp edges, foreign matter, or any other evidence of poor workmanship that shall render the unit unsuitable for its intended use.

G1. Purchase Order Changes
Once the PO is accepted, any supplier initiated change requests shall be initiated via e-mail to the buyer. QNA initiated changes shall be communicated to the Supplier via a purchase order revision. At no time should the Supplier implement changes communicated by anybody from QNA other than the buyer. Updated purchase orders are the only approved method for communicating changes to product. The Supplier shall not rely on verbal instructions, email or any other communication method to implement changes to QNA specified product. Any implementation without the updated Purchase Order is at the Supplier’s risk and QNA inspection will reject any changes that are not documented on the latest revision of the Purchase Order.

G2. DELETED
Special Quality Clauses
These apply when referenced and incorporated into the PO or PO line item as indicated by the clause number(s) located on the face of the Purchase Order. In case of conflict between Special and General Clauses, Special Clauses take precedence.

H1. QNA Source Inspection / Shipment Pre-Approval
QNA Source Inspection / Shipment Pre-Approval is required prior to shipment from your plant. This may be an on-site source inspection or may involve a review of all supporting quality documentation prior to shipment.
- QNA buyer shall be notified a minimum of one week in advance of the time the materials are ready for review.
- Supplier shall submit all supporting documentation, per the drawing and Purchase Order requirements. Documentation shall be electronically submitted to the Buyer. Documentation shall be submitted immediately after source inspection notification.
- Supplier shall have all inspection tools required for inspection available at time of source inspection.

H2. QNA Pre-Encapsulation Inspection
Materials must be inspected by QNA personnel before permanently closing a portion of an assembly that cannot be accessed after assembly. QNA shall be notified a minimum of one week in advance of the time materials are ready for review. Supplier shall submit all supporting documentation per the drawing and PO requirements. Documentation shall be electronically submitted to the Buyer or Source Inspector with the notification of pre-encapsulation inspection.

H3. Government Source Inspection
GSI is required prior to shipment from the Supplier’s plant. Upon receipt of this PO, promptly notify the government representative who normally services your plant. Where a representative is not currently defined, contact your QNA Buyer for assistance. Seven work days' notice must be provided to the government inspectors to facilitate source inspection.

H4. QNA - Authorization To Build
Supplier is required to obtain "Authorization to Build" from the Buyer before starting production. Supplier is authorized to procure material however production shall not start until authorized by the Buyer in writing. Supplier shall submit defined pre-production deliverables to the Buyer for ATB consideration. The Quality Department will review documents and, if acceptable, notify the buyer to provide authorization to the Supplier to begin production.

H5. DELETED

H6. Critical Safety Items/Critical Application Items
All attributes/characteristics identified on the design documents as a critical or major characteristic require 100% inspection, by Supplier with actual inspection results of each characteristic recorded, documented, and provided with the shipment. Inspection sampling quantity is per line item quantity, not PO quantity, unless the full PO is produced in the same production lot. Provide documentation supporting ‘same production’ lot justification upon determination of production plan.
H7. Critical Safety Items - Process and Operation Sheets
The Supplier shall submit Process and Operation Sheets to Buyer for approval prior to the start of manufacturing. The Process and Operations Sheets shall identify a detailed step-by-step account of the procedures necessary in the proper sequence to manufacture the CSI. The Process and Operation Sheets must indicate operation number, description, tolerance (specification), location, and sub tier Suppliers, etc., necessary to control manufacturing operations. After Buyer’s approval of the process and operations sheets, the Supplier shall complete the Process and Operations Sheets and have them be signed/stamped off by an in-process operator and/or inspector and delivered with the shipment of the item(s). Process and Operation Sheets may also include the Inspection Method Sheets noted in Clause H8.

H8. Critical Safety Items - Inspection Method Sheets
The Supplier shall submit Inspection Method Sheets to the Buyer for approval by Buyer prior to start of manufacturing. The Inspection Method Sheets shall identify the CSI characteristics to be inspected, special instructions, item, drawing zone, acceptability limits, inspection tooling/method, and frequency. The completed Inspection Method Sheets shall have the actual inspection results recorded with inspector’s stamp/signature and date. Inspection Method Sheets may be included as an integral part of the Process and Operation Sheets noted in Clause H7.

The Order is for the procurement of articles with CAI/CSI characteristics that require MIC Marking. The Supplier will submit all CSI documentation associated with the identified CSI feature to the Buyer for review and acceptance. The Buyer will review the applicable data package and upon acceptance issue the MIC Mark(s).

The MIC mark(s) will be in the form of QA-XX-XXXXX. The MIC mark(s) shall be located near, and in the method of part marking indicated on the applicable drawing (except when ink stamp and stencil are specified which for the purposes of traceability are not considered permanent). In these cases the MIC mark shall be metal stamp, laser etch, vibro-etch, or chemical etch (unless the use of such marking methods will cause damage to the functionality of the part). Deviation from any of these methods shall require prior Buyer approval. Application of the MIC marking will be verified by the designated Government representative.

NOTE: The MIC marking(s) applied to the individual parts must also be identified on all associated documentation.
H10. Critical Safety Items - Inspection for Critical Application Items including Critical Safety Items
All CAIs and CSIs shall undergo Critical/Major characteristics inspection, and as noted on design documents, non-destructive inspections to verify CAI or CSI items are within specifications. Actual inspection result for all Critical or Major characteristic’s will be recorded by serialized part number, and shall be included in each document package. The Supplier shall perform quality conformance and lot sampling inspections for all associated features and characteristics that are present in the drawings and specifications. The inspection results (actual readings and/or measurements) will be recorded on the Supplier’s CSI inspection and Material Certification reports. Features/attributes/requirements classified as Critical and Major on the drawing(s) or within the technical specification will be inspected 100%. Unless otherwise specified, attributes for plating, hardness, and NDT shall be inspected 100%. Class 3 threads, dimensions, and geometric feature controls with a tolerance range of .010 in. or less will be inspected using an AQL of 1.0 and the General Inspection Level II as defined by ANSI/ASQ Z1.4. All minor characteristics shall be inspected using an AQL of 4.0 and the General Inspection Level II as defined by ANSI/ASQ Z1.4.

J1. Certification of Conformance (CoC)
Supplier shall
- Furnish certification that product shipped complies with all requirements of the PO, drawings, and specifications.
- Include the following: QNA purchase order number, order part number and revision level, and quantity shipped.
- Serialized articles shall be identified by serial number (IDENTIFY SERIALIZED ITEMS ON CoC.)
- Lot controlled articles shall be identified by lot number.
- The words “Certification of Conformance” or “CoC” shall be clearly visible on the certificate.
- The CoC shall be signed and dated as verification of conformance.
- Applicable deviations and waivers shall be noted on the CoC.

J2. Certification of Calibration
For instruments, gauges and measuring standards, electronic or mechanical, a Certificate of Calibration to ANSI/ASQ Z540.1 or ISO 10012 is required.

J3. DELETED

J4. Limited Shelf Life Items – for ‘pass through material’
Materials furnished on this PO are age-sensitive. Age-sensitive material must have at least 80% of the shelf life remaining upon receipt at QNA. The Supplier shall submit the following documentation with the delivery of the material:
- Furnish certification identifying the material cure date/date of manufacture or method of determining start of shelf life.
- Provide Certification identifying expiration date or calculation of expiration date
- Note any special storage and handling requirements, if applicable on package or container

NOTE: This clause applies to bulk product only (e.g., paint, chemicals, adhesives, materials with adhesive backing) this does not apply to shelf life of items installed in delivered assemblies. For delivered assemblies that have shelf life controlled product in them refer to Standard Clause D5.
J5. Process and Special Process Certifications

- Processes that require certification include but are not limited to conformal coating, EMI coating, painting, and powder coating.
- Special processes include, but are not limited to plating, coating, passivation, and heat treating.
- With each shipment of line items that requires special processing has been performed, the Supplier shall include certification stating that the process performed complied with an identified industry specification.
- Heat treat certifications shall be accompanied by time/temperature charts and a summary description of the heat treat time and temperature data indicating the furnace and heat treat lot number. The Certification shall state the name of the processor, date of processing, and the printed or typed name and signature of the responsible representative of the processor.
- All Process Certifications verifying conformance to the drawing requirements shall be submitted with each Order line item shipment. At a minimum, the Process Certification shall include a traceable order number, the part/drawing number, the name and location of the processor, quantity of parts processed and the process being performed (must match drawing note including the specification, class, type and color where applicable).

J6. IPC Certification and Workmanship (Printed Circuit Boards, Electronic Assemblies, and Cable and Wire Harness Assemblies), Class 3

Printed circuit boards, assemblies, and cables shall be built using J-STD and IPC certified personnel and workmanship shall comply with all necessary requirements.

Unless otherwise stated on the drawing or purchase order:
- Soldering shall be performed by personnel certified to J-STD-001.
- Printed Circuit boards shall have workmanship in compliance with IPC-6011 or IPC-6012, IPC A-600 as applicable, class 3 – Acceptability of Printed Boards
- Electronic Assemblies shall have workmanship in compliance with IPC-A-610, class 3 – Acceptability of Electronic Assemblies
- Cable Assemblies shall have workmanship in compliance with IPC/WHMA-A- 620, class 3 – Requirements and Acceptance for Cable and Wire Harness Assemblies

J7. Material Test Reports/Certification – Chemical and Physical Properties

The Supplier shall provide to QNA MTRs along with a certification by the mill or testing house that performed the tests certifying compliance to specified standards. The MTRs shall provide both chemical and physical properties that include lot/heat/melt number and actual inspection and test values. Any subsequent heat treatment processes shall require test reports and certifications from the testing house which shall include physical properties for the as-delivered condition. All MTRs shall include the printed name, signature, authority or title and shall be dated Supplier. Complete material traceability shall be maintained throughout the manufacturing processes with appropriate records maintained. Traceability records shall be available for review by QNA, when requested. Part number shall be recorded on all MTRs. For Supplier proprietary materials, a CoC from the material supplier attesting the material meets its specification is acceptable.
J8. Certification of Fiber Cables

Workmanship for items delivered under the order shall comply with the requirements of IPC-D-640 Class 3 Requirements and Acceptance for Cable and Wire Harness Assemblies and/or MIL-STD-2042 Fiber Optic Topology Installation, unless otherwise specified on drawing, and shall meet the requirements specified on the assembly drawing.

A report shall be submitted for testing to each of the applicable requirements in the standard.

Unless otherwise stated on the drawing or purchase order: Fiber Cables shall be certified to Telcordia GR326 specification.

J9. DELETED


This product requires that the country of origin must be identified and readily apparent upon receipt by QNA. For example, a statement provided in the CoC, Packing Slip or other provided documentation.

K1. Record Retention

The Supplier shall maintain records in accordance with the applicable Quality System Standard. The records shall be maintained for a period of not less than ten (10) years from completion of purchase order. Supplier must check with QNA for authorization before disposal of records even after the ten (10) year period.

K2. Test Reports

Articles on this PO require electrical, mechanical, environmental, functional, or other tests in accordance with either Supplier, QNA, or Government specifications. Supplier shall furnish test reports containing at a minimum:

- QNA Purchase Order Number
- Drawing/part number and revision (if known)
- Test specification description, number and revision as applicable
- Number of units tested
- Serial numbers of units tested as applicable
- Test requirement including the criteria for pass/fail
- Quantitative test results shall be used whenever possible.
- Signature of person performing or approving test.

K3. Acceptance Test Procedures Approval

Where the Supplier has developed the test protocol, this protocol shall be submitted to QNA for review and approval. In situations where the protocol is classified as Supplier IP, QNA reserves the right to review the document at the Supplier’s facility. QNA approval of the test protocol shall occur, preferably before testing, but must occur prior to shipment.
K4. Armor Tile Ballistic Test Reports
Supplier shall provide Quality Assurance Ballistic Test Reports for each lot of armor tile used in the production of armor panels for each shipment.

K5. Textiles
Supplier shall:
- Identify defects in textiles and other yard-goods by use of a flagging system.
- In addition, a map of defects for each roll shipped shall provide information on the nature and location of defects.
- An estimate of the square footage of defects in each roll shall be provided and an adjustment to the invoiced quantity made to reflect unusable material. A statement shall be provided in the Certificate of Conformance, Packing Slip or other provided documentation.

K6. First Production Lot Qualification - Ballistic Testing Required
- Lot sampling and testing shall be in general philosophical accordance with QNA Quality Assurance Procedure Q-0013 for physical properties and Q-0003, 0024 or 0058, as appropriate to the end item for ballistics.
- Unless otherwise stated on the purchase documents, the tile supplier will provide the qualification sample parts and QNA will provide target preparation, transshipment to the test range, test services and will supply (or cause to be supplied) the test results back to the tile supplier on a timely basis (maximum 7 days for land vehicle tile or 14 days for aircraft panels).

- Lot sampling will consist of 1%, or 12 tiles, whichever is smaller. Whole tiles must meet the performance requirements of QNA Quality Assurance Procedure Q-0003

- Lot sampling will consist of 1%, or 12 tiles, whichever is smaller. Whole tiles must meet a minimum V50 of 3000 ft/sec when tested per LANL Ceramic Armor Specification.

K9. Welding Requirements for Procedures, Repairs, and Material Records

a) Weld Procedures

ONLY THE QMS LIBRARY ON THE INTRANET HAS THE CURRENT VERSION OF THIS DOCUMENT. VERIFY COPY PRIOR TO USE.
Weld procedures and personnel performing the welding shall be qualified in accordance with the requirements of the specification identified on the engineering drawing and/or Statement of Work, as applicable. Supplier shall provide, for review and approval by QNA, copies of all weld procedures, weld procedure qualification records, and welder performance qualification records to be used in performance of the Order as part of the quote. Where the above needs to be developed, the Supplier shall inform the Buyer in writing.

b) Weld Repairs
Weld repair procedures for the removal or repair of material defects or weld metal defects shall be reviewed and approved by QNA prior to making such repairs. Weld repair procedures shall be written as detailed instructions and as a minimum shall include:

- Method of removal of weld or base metal.
- Method used to ensure defect removal (MT or PT).
- Method for the re-welding, using qualified welders with an approved WPS (if different from the original).
- Extent, location and depth of the excavation shall be documented on an inspection report.

The re-welded area shall be re-examined and documented by the methods used for the examination of the original weld.

c) Weld Material Records
Weld filler materials shall be certified to the applicable specification and contain the manufactured certification or CoC with results of the chemical and mechanical tests identifiable to the specification or drawing and to the lot of material supplied.

K10. Non-destructive Examination Requirements (all sections applicable)
Supplier shall provide, for review and approval by QNA, copies of NDE procedures and qualification records to be used in performance of the Order as part of the quote. Where the above needs to be developed, the Supplier shall inform the Buyer in writing.

a) Procedures
All nondestructive examinations, LT, MPT, LPT, RT, Ultrasonic, and VT shall be performed in accordance with detailed written procedures that meet the requirements of the applicable specifications called out on the drawings:

1) An NDE procedure and for each NDE method utilized (including a blank report form)

2) A Part Specific Inspection Method/Technique Sheets for LT, MPT, LPT, RT, and UT shall be submitted to Buyer for review and approval for each part to be inspected. Technique Sheets are not required for Visual Inspection of Welds. Revisions to Technique Sheets are not required unless a revision to the drawing or ECN changes the NDT requirements. All documents shall be submitted for review and approval by QNA prior to use.

b) Personnel Qualifications

All nondestructive examination processes shall be performed and interpreted by personnel qualified/certified in accordance with a Written Practice developed by the Supplier to the requirements of SNT-TC-1A or equivalent. The recommended practices of SNT-TC-1A are mandatory as modified by specifications. The Supplier shall provide for review and approval by QNA:

1) The Supplier’s Written Practice

2) The NDE personnel certification and qualification records

c) Nondestructive Examination Reports

With each shipment of a line item(s), the Supplier shall submit nondestructive examination reports, which shall include:

- Company name
- The part/drawing numbers, revision (if known).
- Item serial numbers, quantity, lot number, heat number, or other appropriate identification (if applicable)
- NDE Procedure number and revision.
- The approved Part Specific Inspection Method/Technique number
- The method used
- Equipment and materials used
- Acceptance Criteria
- Date of Examination
- The test results
- Weld Map and/or Data Sheet (if used)
- The printed name, signature and NDE certification level of persons performing the test on each page
- The printed name, signature and NDE certification level of persons approving the test results
- Indication of acceptance by QNA, if applicable (If QNA witnessed the testing)
- All pages shall be numbered

d) Visual Inspection of Welds

All welds shall be visually inspected per drawing/specification requirements.

e) Low Halogen Penetrant Materials

Additional requirements; when liquid penetrant materials having low halogen content are required, the test report shall include the material manufacturer's lot/batch number used and a certification of chemical analysis showing the actual halogen content for the applicable lot/batch.
M1. First Article Inspection Report

The Supplier shall:

- Provide a FAIR in accordance with AS9102 Aerospace First Article Inspection Requirements.
  - QNA reserves the right to witness the FAI at the Supplier's facility
- Provide a delta FAIR on revisions to a QNA drawing or change in production process
- If the FAIR is on an assembly, include all parts in the assembly that are not COTS items
  - COTS items that are modified must have a FAIR
- Be aware that QNA recognizes that these FAIRs may occur on pre-production parts
- An FAI is not required for CFM components but they should be listed on Form 1 if included in the assembly.
- A FAIR is required to be performed if there has been a lapse in production of two years per AS9102 requirements.
- FAIRs shall be submitted to QNA on AS9102 report forms 1, 2 and 3
  - Use reports forms from current revision of AS9102
  - QNA will no longer accept Supplier generated documentation
  - Please contact QNA Quality department if you don't have access to the SAE standard forms.

NOTE: Once a FAIR is completed, any re-order of the part at the same configuration level by the same Supplier and per the same process does not require performing another FAIR, the original (or current approved) report shall be provided. The intent of this clause being called out on the PO is to serve as a reminder that the particular part number is controlled per AS9102 requirements, not a request for a new FAIR for every QNA PO.

M2. First Piece Inspection

The Supplier shall provide first piece dimensional and test inspection data. 100% of the dimensions shall be measured as part of the first piece inspection. First piece inspection data shall be provided for each production setup, reports shall be sent with each shipment to QNA. Any revision changes to a drawing or process, during the production run, that affect any dimensions shall necessitate additional first piece inspection data for an open purchase order.
M3. Critical / Key Dimensions, Characteristics or Requirements
The Supplier shall:
- Note that Critical / Key dimension, characteristic, requirement and/or components shall either be identified on the drawing or as part of the purchase order notes.
- Provide Critical / Key dimension, characteristic and/or requirement inspection/test results with each shipment.
  - Data shall be supplied on 100% of the identified dimension, characteristic and/or requirement
- Obtain written QNA approval for the sub tier supplier of Critical/Key Processes/Component(s) prior to production if supplied by a sub-tier supplier.

M4. Inspection and Test Plan
The Supplier shall
- Submit an inspection and test plan to QNA. The plan should include the following:
  - Flow chart or Control Plan that identifies, as a minimum, the manufacturing process steps, inspection performed at each operation, and the reaction plan should a non-conformance be identified

M5. DELETED

M6. DELETED
M7. Inspection & Test Data Submission
End-item products ordered through this PO shall be inspected to the statistically valid C=0 Sampling Plan below (see Table 1). The Index Value (Associated AQL) is 1.0. Inspection reports to include dimensional values not just pass fail and must be provided with each shipment.

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* Indicates entire lot must be inspected
NOTE: The Acceptance Number in all cases is ZERO

M8. Production Part Approval Process
- Product associated with this order requires conformance to the AIAG PPAP. The purpose of this process is to establish confidence in a Supplier and their production processes, by demonstrating that all QNA engineering design record and specification requirements are properly understood by the Supplier and that the process has the capability to produce moderate to high volume product consistently meeting requirements.
- When this code is invoked contact QNA to understand tailored PPAP requirements for the product.

M9. Quality Assurance Data Package Requirements
Supplier shall prepare a QADP for this order and shall submit to QNA for review and approval prior to shipping the product. One copy of data package to be presented electronically. One hard copy of data package to be shipped with the product. All documents within the QADP are to be marked with the applicable part number.
N1. Quality Program Plan
The Supplier shall submit a Quality Program Plan in accordance with requirements defined in purchase order and/or specification.

P1. Lot Control and Traceability
The Supplier shall assure traceability to the manufacturing process via date code, lot codes or unique job number.

P2. Serialization
The Supplier shall serialize the product in such a manner as to provide traceability to test reports and/or manufacturing lot.

R1. Baseline Control
QNA Approved Supplier manufacturing configuration baseline is required. This baseline will be presented to QNA for approval. A previously approved baseline will satisfy this requirement. QNA may allow shipment of product prior to formal approval of baseline package providing Supplier is working with QNA to establish one. Verify with QNA that you have permission to ship prior to approval and include that authorization documentation with other shipment documentation.

The baseline package requested of the Supplier shall be as follows:
   a. A single drawing under the Supplier’s engineering change control system listing Supplier’s assembly drawing(s), component piece part drawings, material drawings, critical processing specifications and critical manufacturing operations. Each document listed will include the document name, part number/specification number, and revision level and revision date. This baseline drawing shall have its own name, number, revision level, and revision date for future change control. This drawing can either be in the form of a manufacturing flow chart (preferred) or a simple listing.
   b. Acceptance (in writing) by QNA of the above specified documentation shall be considered as freezing the design and forming a configuration baseline of the part being purchased. The Supplier’s approved baseline identification, revision level and revision date will subsequently be reflected on the purchase order, and carried forward on future purchase orders by the QNA Purchasing Department.
   c. All changes to the QNA-approved baseline require QNA approval; changes must be submitted on the QNA Baseline change request form with a copy of the affected drawings. The request must be sent to the QNA Purchasing Department for disposition. A copy of the approved request will be sent to the Supplier, followed by an appropriate baseline revision level upgrade on the purchase order.

R2. DELETED

Z1. DELETED