



Quality Assurance Terms and Conditions of Exxelia DeYoung Inc.

(Exxelia DeYoung Inc. herein is referred to as "Buyer" Version 23/Nov/2017)

**This document applies to all Production Material Purchase Orders.
A separate document, Standard Terms and Conditions apply to all Purchase Orders.**

This first section of the General Quality Assurance Requirements applies to Catalog and Commercial off the Shelf (COTS) products purchased for production requirements. The Build to Print (BTP) section follows for custom fabricated products purchased for production requirements.

QA note Q1X shown on the Purchase Order indicates notes Q1 through Q14 apply
BTP QA note Q2X shown on the Purchase Order indicates notes Q20 through Q39 apply
Additional QA notes (Q40 through Q55) will be listed separately on the Purchase Order

Catalog and Commercial off the Shelf (COTS) products

Q1. ENGLISH LANGUAGE REQUIREMENTS: Seller shall submit all required documents in the English language.

Q2. QUALITY CONTROL SYSTEM (Catalog and COTS):

2.1 Seller agrees to provide and maintain a quality control system to an industry recognized Quality Standard and to provide access to Seller's facilities at all reasonable times by Buyer, authorized Customer representatives, and Regulatory Authorities. Seller agrees to include, and to require its subcontractors to include, the substance of this provision, including this sentence, in each of its subcontracts under this Purchase Order. Further, Seller shall be in compliance with any other specific quality requirements identified in this Purchase Order.

2.2 Records of all quality control inspection work by Seller shall be kept complete and available to Buyer and its Customers. (Ref. Q14)

2.3 Seller agrees to notify Buyer of product that does not meet the requirements of this order that cannot be reworked to compliance. Written approval will be required by Buyer prior to Seller's shipment of nonconforming material to Buyer. Additionally, Seller shall notify Buyer if Seller discovers that previously delivered product does not meet the requirements of this Purchase Order.

2.4 Seller agrees to notify Buyer of changes in product and/or process which affect compliance with applicable specifications, technical data sheets, or reliability of the product, changes of suppliers and changes of manufacturing facility locations.

2.5 All hardware, data, other documentation, tooling and equipment required by Seller during the performance of this order shall be maintained under configuration control.

2.6 No substitution of material or specification is allowed without prior written approval by Buyer including upgraded, alternate, or equivalent parts. Commercially available parts must be an exact match to the part number specified on the Purchase Order.

2.7 Seller shall provide and maintain suitable gauges, instruments and test equipment to measure and test all material conformance to the Buyer's requirements. Seller shall perform inspection and/or test on end items covered by the Purchase Order prior to submission to Buyer or prior to delivery. Inspection/test of material, which cannot be readily examined in the end items, shall be performed at the appropriate in-process stages of manufacturing.

Q3. PURCHASE ORDER SUBCONTRACTING: Purchase Order(s) cannot be subcontracted without the written authorization of the Buyer.

Q4. SUB-TIER REQUIREMENTS FLOW-DOWN:

4.1 Seller shall maintain a system to assure that Seller procured materials and/or services conform to Purchase Order drawings and specifications.

4.2 Seller's Quality Assurance system shall contain controls for assuring requirements are met by sub-tier suppliers including flow-down of the most current component revision level and quality requirements.

Q5. NOTICE OF CHANGES:

5.1 Seller is required to notify Buyer in writing if there are any changes in:

- a. Quality System
- b. Ownership or Key Personnel
- c. Workmanship Standards
- d. Calibration System
- e. Special Process Suppliers

- f. Manufacturing Processes (including outsourcing)
- g. Seller's manufacturing location

5.2 Seller is required to obtain prior approval from Buyer on changes that may affect form, fit, function, quality, reliability or safety of the products.

Q6. APPROVED SOURCES - Catalog and COTS: All materials and components purchased by, supplied to, or used in the manufacture or assembly of Buyer's products shall be acquired directly from an approved Original Component Manufacturer (OCM) / Original Equipment Manufacturer (OEM) or from an OCM/OEM authorized or franchised distributor. "Authorized" or "Franchised" distributors are defined as those distributors holding a formal distribution agreement with the OCM/OEM. (Use AS5553 as a guideline.)

Q7. OBSOLESCENCE: Seller shall notify Buyer of impending part obsolescence for all parts that are on open orders or which have been shipped over the past 12 months. The notification shall occur at the earliest point possible and at least 6 months prior to the "end of life" order date.

Q8. CERTIFICATION OF CONFORMANCE (CoC):

Unless otherwise noted on the Purchase Order, each shipment shall be accompanied by a legible documentation package which contains:

- a. A certificate of conformance that shall include signature, printed name, and date:
- b. Name of Seller
- c. Name of Manufacturer (if different from Seller)
- d. Buyer's Purchase Order (PO) number
- e. Buyer part number and Manufacturer's part number as listed on Buyer's PO / Specification.
- f. Drawing Revision (when applicable)
- g. Lot, run, batch, date code(s), or serial number(s). Listing of all serial number(s) on the CoC is required for serialized assemblies. When the certification has multiple lots or date codes, the quantity of each shall be noted.
- h. For raw materials listed on Purchase Order, include material test report as required to ensure material compliance to drawing specifications. (Example: heat treatment certification.)

Q9. PACKAGING REQUIREMENTS: Packaging shall conform to all requirements specified on drawings, specifications, and Purchase Order and to the following:

- a. All materials shall be wrapped and/or bagged and enclosed in cartons, boxes, or other containers which will provide protection from contamination, moisture and physical damage.
- b. If noted on Purchase Order, unit level packaging materials shall minimize static generation.
- c. COTS electronic components with differing lot, batch, or date code shall be packaged, quantified, and identified separately.
- d. Un-serialized parts with differing date code markings (required by the drawing) shall be packaged, quantified, and identified separately.

Q10. SHELF LIFE CONTROL: Seller shall maintain a documented system for shelf life control items where acceptability is limited by maximum age. The system shall include a method of identifying and controlling such items. Seller shall provide documentation with the shipment against this order defining when useful shelf life was initiated by the manufacturer or converter and when the useful shelf life will expire. Documentation shall include batch or lot code information. Seller shall ensure that a minimum of 75% useful shelf life remains at time of shipment to Buyer unless otherwise stated in the Buyer's Purchase Order.

Q11. MATERIAL REVIEW BOARD (MRB): Material Review Board authority is not delegated to Seller - dispositions of "use as is" or "repair" are not authorized. Seller may request consideration for nonconforming material that cannot be reworked to fully conform to the specification or purchase order requirements. Requests for MRB action shall be submitted in writing. Nonconforming material shall be retained by Seller until Buyer confirms the disposition in writing and modifies the Purchase Order to reflect the MRB process results.

The ensuing shipments shall include evidence of the approved disposition with each lot. Salvage of components from an assembly for use on another assembly shall be pre-authorized by Buyer and/or Buyer's design engineer in writing. Material disposition for scrap shall be segregated and controlled until rendered unusable.

Seller notice of discrepancies; Seller will notify Buyer in writing when discrepancies in Seller's process or product are discovered or suspected which may affect parts or assemblies Seller has delivered or will deliver under this contract.

Q12. CORRECTIVE ACTION:

12.1 Seller's Quality Management System shall provide a means for:

- a. Detection of non-conformances
- b. Containment of suspect product
- c. Thorough root cause investigation
- d. Prompt and effective corrective action
- e. Accurate supporting documentation

12.2 Corrective action records and information, such as pertinent data on defects and failures, shall be available upon request. Seller is responsible for initiation of prompt and complete replies to Buyer's Corrective Action Requests, and implementation of required corrective action.

Q13. CALIBRATION SYSTEM REQUIREMENTS:

13.1 Seller's tools and measuring equipment used for the acceptance of products which can be calibrated shall be calibrated. Calibration standards used shall be certified by or traceable to NIST, natural physical constraints, and consensus standards or derived by the ratio type calibrations.

13.2 When calibrated equipment used for acceptance testing or final inspection is found to be out of tolerance, Seller shall:

- a. Immediately notify Buyer
- b. Identify all products tested using out of tolerance equipment
- c. Bear the responsibility and the cost for retesting of all such products at Buyer's discretion

Q14. RECORD RETENTION: Seller quality, purchasing and manufacturing records that were used to produce the products shall be retained for a minimum of 12 years from the date of the last shipment. Seller shall maintain adequate records of inspections, tests, and other Quality Assurance activities. Records shall provide objective evidence of the Quality Assurance operations performed, the results obtained and corrective actions taken. Such records shall be available to Buyer. Where such records are traceable by serial or lot designation to material supplied to Buyer, they shall be retained for a period of at least 12 years from the date of shipment to Buyer. At the expiration of this period, Buyer reserves the right to request delivery of such records. In the event that Buyer chooses to exercise this right, Seller shall promptly deliver such records to Buyer at no additional cost on media agreed to by both parties.

BUILD-TO-PRINT

(Includes custom fabrication, molding, etc.)

Specific Quality Assurance requirements apply only to suppliers providing product built to Buyer provided design documents listed on Purchase Order. These Quality Assurance Terms and Conditions apply when noted on Purchase Orders issued of Seller unless exceptions and modifications have been specifically agreed to in writing and signed by authorized representatives of Seller and Buyer.

BTP QA note Q2X shown on Purchase Order indicates notes Q20 through Q39 apply
Additional QA notes (Q40 through Q55) will be listed separately

Q20. BTP QUALITY MANAGEMENT SYSTEM REQUIREMENTS: Seller's Quality Assurance system shall be implemented by written procedures which adequately provide compliance with the requirements herein. Quality Assurance responsibility shall be clearly designated within Seller's organization. Personnel having this responsibility shall have sufficient authority to assure that quality is not compromised.

Seller is required to maintain a Quality System that complies with one of the following:

- a. Registered ISO 9001
- b. Registered AS9100 Rev C (Upon Buyer's request Seller will provide access to OASIS)
- c. Buyer Approved Quality System

Q21. CONFIGURATION MANAGEMENT AND CHANGES:

21.1 Seller may not vary from the Buyer's or its customer's drawing or parts list/BOM specified on Purchase Order without prior written approval from Buyer.

Buyer's approval of the specifications, technical data sheets or drawing package shall constitute a baseline release for hardware fabrication. Buyer's approval of other such documentation shall likewise constitute a baseline release for applicable activities. Upon receipt of such approval, Seller shall not implement any change in design, processes, controls, parts or proprietary data released to Buyer thereafter to internal functions or second-tier suppliers without Buyer's prior written approval.

No substitution of material or specification is allowed without prior written approval by Buyer including upgraded, alternate, or equivalent parts. Commercially available parts must be an exact match to the part number specified on Purchase Order.

21.2 Seller shall establish, document, and implement a configuration management process to ensure:

- a. Manufacture of product per contract or purchase order
- b. Clear documentation of the configuration of the product
- c. Maintenance of all products configuration history

Seller shall submit Engineering Change Order (ECO) requests to Buyer for written approval prior to implementing any such changes. Buyer's approval shall in no way relieve Seller from complying with the requirements of Purchase Order, nor shall approval relieve Seller's technical responsibility for the design.

Q22. COUNTERFEIT PART RISK MITIGATION: Supplier must maintain a counterfeit part risk mitigation and avoidance process. Buyer recommends using AS5553 as a guideline. Only new and authentic materials are to be used in products delivered to Buyer. No counterfeit or suspected counterfeit parts are to be contained in the delivered product. Parts shall be purchased directly from the OCM/OEM or the OCM/OEM franchised distributors. Documentation must be available that authenticates traceability to the applicable OCM/OEM. Independent distributors/brokers shall not be used without written consent from Buyer.

Q23. SOLDERABILITY AND PWB FABRICATION: Solderable components shall be soldered per J-STD-001 Rev. (latest), unless otherwise specified on the drawing or the Purchase Order. Printed Wiring Boards (PWBs) shall meet the J-STD-001 Revision (latest), Class 3, and acceptance criteria based on IPC-A-610 Revision (latest) unless otherwise specified on the drawing or Purchase Order.

Q24. ACCEPTANCE SAMPLING INSPECTION:

24.1 Final acceptance inspection of Buyer build-to-print parts shall be by one of the following:

- a. 100% final inspection, or
- b. Buyer approved sampling plan

24.2 Inspection requirements of the drawing take precedence over the inspection requirements defined herein.

Q25. FOREIGN OBJECT DEBRIS (FOD) ELIMINATION PROGRAM:

Seller shall maintain a Foreign Object Debris/Damage (FOD) prevention program. When applicable, Seller's FOD prevention program shall include:

1. The review of design and manufacturing processes to identify and eliminate foreign object entrapment areas and paths through which foreign objects can migrate.
2. Seller shall employ appropriate housekeeping practices to ensure timely removal of residue/debris, if any, generated during manufacturing operations or tasks.
3. Seller shall determine if sensitive areas that may have a high probability for introduction of foreign objects should have special emphasis controls in place appropriate for the manufacturing environment.
4. By delivering items to Buyer, Seller shall be deemed to have certified to Buyer that such items are free from any foreign material that could result in FOD.

Q26. PROCESS QUALITY ASSURANCE:

- a. Seller shall establish a system to assure that all processes will conform to the governing specification requirements. When critical or special processes are performed outside Seller's facility, it shall be Seller's responsibility to assure proper performance of all such processes. Those processes to which Government specifications apply are subject to the applicable requirements regarding certifications or approval by Government agencies. Seller shall provide adequate controls within the quality system to ensure that characteristics not verifiable upon receipt are adequately controlled.
- b. Seller is not authorized to deviate from any process without Buyer approval. Seller shall have process controls in place which monitor and provide continuous improvement of all manufacturing processes. Seller shall provide process quality data upon request.

Q27. SOURCES FOR SPECIAL PROCESSES: Buyer reserves the right to approve/disapprove sources for special processing. Buyer may require an AS9102 FAI per QA notes 34, 55A, or 55B.

Q28. ADDITIONAL CERTIFICATE OF CONFORMANCE REQUIREMENTS: Certificates of Conformance (CoC) shall be available upon request for lower level components, raw materials, and applicable contracted services procured by Seller and its sub-tier build-to-print suppliers when applicable.

Q29. TRACEABILITY - TURNKEY ASSEMBLY SUPPLIERS: In addition to the general quality requirements, Certification of Compliances (CoC's) for raw material and components shall be obtained and shall be traceable to each end item lot or serial number delivery and shall be made available for Buyer or its customers review upon request.

Q30. BUYER PROVIDED EQUIPMENT: All equipment owned by Buyer or its customers provided to the Seller shall be stored and maintained in an as received or better condition and shall be tracked such that all equipment may be easily located.

Q31. BUYER SUPPLIED EQUIPMENT AND TOOLS: If Buyer furnishes Seller tools, dies, jigs, fixtures, patterns or other equipment for Seller's use in filling this Purchase Order, the same shall be and remain the property of Buyer. All such property while in Seller's care, custody and control shall be held at Seller's risk and shall be insured at Seller's expense in an amount equal to replacement costs with loss payable to Buyer. Such property shall be returned to Buyer in the same condition as received, ordinary wear and tear excepted, upon completion of this order, unless otherwise agreed upon.

Q32. INJECTION MOLDED PLASTICS: Unless otherwise specified, the use of regrind material is restricted to a maximum of 20%.

Q33. LEAD FREE CONTROL PLAN: When a lead free requirement (including RoHS) is noted on the drawing, Seller shall have a lead free control plan.

Q34. FIRST ARTICLE INSPECTION (FAI): All FAI requirements shall be flowed down to all subcontractors who manufacture Buyer build-to-print subassemblies or detail parts. All first article inspection reports (FAIRs) shall be completed and recorded per AS9102 Rev B. The FAIR may be submitted on AS9102 forms or any other forms which are compliant to the requirements of AS9102. FAI shall be performed on a completed production part. All parameters and notes shown on the drawing(s) shall be inspected or tested and reported. Actual measurement and recording are required for all parameters per AS9102.

A FAIR shall include submission of:

- a. Completed AS9102 Forms 1, 2, and 3
- b. All raw material certificates of conformance (listed on form 2)
- c. All special process certificates of conformance (listed on form 2)
- d. All x-ray examination reports (listed on form 2)
- e. All test reports (listed on form 2)

- f. A drawing/parts list/BOM package which contains the documents which define the configuration of the FAI part (ballooned characteristics preferred)
- g. Seller shall retain current subassembly FAIR documents and submit them with full FAIR submittals or upon Buyer request.
- h. The FAI part shall be clearly identified as the "First Article" part.

Q35. FAI Part Families: A part family occurs when there are multiple configurations that can be produced from the same base drawing. FAIRs shall be performed in accordance with AS9102 for the first produced piece of each unique configuration, partial FAIRs should be completed for part families for which a full FAI has been completed. Lapse in production per AS9102 shall only apply with respect to an entire part family.

Q36. CONTROL of MANUFACTURING WORK INSTRUCTIONS: Seller's manufacturing work instructions shall be a controlled document. Buyer Quality Assurance shall approve the work instructions and/or any changes to the work instructions or processes referenced therein.

Q37. EXPORT LAWS and REGULATIONS: This Purchase Order may involve controlled technical data covered under regulations that include without limitation the International Traffic in Arms Regulation (ITAR), Export Administration Regulations (EAR), and regulations and orders administered by the Treasury Department's Office of Foreign Assets Control (collectively, Export Control Laws).

Prior to any export or release to any non-US person of controlled data you must obtain export approval from the US Dept. of State, Office of Defense Trade Controls. Seller shall be responsible for obtaining the required authorizations prior to an export or re-export of any items as defined in such laws and regulations.

To the extent that any items, and the parts and components thereof, were specifically designed or modified for a military end use or end user, Seller shall notify Buyer of this fact and shall also provide Buyer with written confirmation from the United States Department of State that such items, and all such parts or components thereof, are dual-use items subject to the jurisdiction of the Department of Commerce.

Q38. Spare:

Q39. Spare:

SPECIFIC QUALITY ASSURANCE REQUIREMENTS FROM BUYER'S CUSTOMERS (APPLY ONLY WHEN NOTED ON PURCHASE ORDER)

Q40. APPROVED SOURCES, BUILD-TO-PRINT (BTP): All Build-to-Print (BTP) materials and components shall be purchased from sources on the Buyer's Approved Supplier List (ASL). If the specification does not list approved suppliers please contact Buyer. Requests to add a Special Process supplier to the ASL shall be submitted in writing to Buyer. Buyer will approve/disapprove sources for BTP.

Q41. SPECIAL PROCESSING: In addition to the general requirements above, Seller and its sub-tier suppliers shall utilize only special process sources approved by Nacap for Buyer build-to-print parts.

Q42. RECORDS RETENTION (20 YEARS): Seller records (as noted in Records Retention Section above) shall be retained by Seller a minimum of 20 years from the date of the last shipment. If Seller is unable to retain the documents for this time period they shall be submitted to Buyer for safekeeping.

Q43. RECORDS RETENTION (25 YEARS): Seller records (as noted in Records Retention Section above) shall be retained by Seller a minimum of 25 years from the date of the last shipment. If Seller is unable to retain the documents for this time period they shall be submitted to Buyer for safekeeping.

Q44. RECORDS RETENTION (Rockwell Collins): Rockwell Collins may request records be retained for 99 years.

Q45. X-RAY DATA SUBMITTAL (1): A copy of one x-ray report shall be submitted with each first article lot as specified by drawing. The x-ray report shall provide objective inspection evidence that drawing requirements not verifiable in the end item have been met.

Q46. X-RAY DATA SUBMITTAL (2): A copy of one x-ray report shall be submitted with each lot as specified by drawing. The x-ray report shall provide objective inspection evidence that drawing requirements not verifiable in the end item have been met.

Q47. LOCKHEED HARDWARE - SPECIAL PROCESSING: Seller shall utilize only special process sources approved by Lockheed Martin and listed on their QCS-001 Approved Processor Sources List document. Seller shall flow down this requirement to applicable subcontractors. Seller shall retain documented evidence of compliance to this requirement for review by Buyer or its customer's request.

Q48. SPECIALTY METALS CLAUSE: Seller shall comply with the "Berry Amendment", Defense Federal Acquisition Regulation Supplement (DFARS) 252.225.7014, Alt. 1, Preference for Domestic Specialty Metals. Specialty metals incorporated into articles delivered to Buyer must comply with the requirements of this clause.

Q49. SOURCE INSPECTION (FINAL INSPECTION): This item requires source inspection at Seller's facility by a Buyer quality representative. Seller is required to provide five working days advance notice to Buyer. Evidence of Buyer source inspection shall be shown on the shipping document and CoC.

Q50. SOURCE INSPECTION – GOVERNMENT: Government source inspection is required prior to shipment from your plant. Upon receipt of this Purchase Order, promptly notify and furnish a copy to the government representative who normally services your plant so that appropriate planning for government source inspection can be accomplished. The

government representative shall also be notified 2 days in advance of the time material(s) are ready for inspection or test. If the representative is an itinerant, 7 days advance notification is required. Government source inspection shall not constitute acceptance, nor shall it in any way replace Seller inspection or otherwise relieve Seller of responsibility to furnish an acceptable product. In the event that the representative cannot be located, Buyer should be informed immediately. Evidence of government source inspection shall be shown on the shipping document. Furnish the assigned government source inspection representative copies of all reports of nonconformance received and obtain their coordination (signature) on your replies of corrective action taken.

Q51. BUYER/BUYER'S CUSTOMER/GOVERNMENT SURVEILLANCE AT SELLER'S FACILITY: Buyer reserves the right for it or its representatives, such as its customer or the US Government (collectively) to conduct surveillance for the purpose of validation of processes, products and quality system at Seller's facility or at lower-tier suppliers. Seller is required to provide Buyer's representatives with reasonable facilities and equipment and access to support those activities. Seller also agrees to accept this requirement without additional charge to Buyer. Verification of such processes, products, and/or quality systems shall not constitute acceptance of any items to be delivered by Seller, nor relieve Seller of its obligation to furnish items meeting the applicable drawings and specifications.

Q52. U.S. Government FAR, DFARs, and other contract flow-downs: All required flow-down regulatory and quality clauses applicable to each Purchase Order are incorporated therein either by attachment or by other means of reference and availability to Seller as though fully set forth in the Purchase Order.

Q53. Spare:

Q54. Spare:

55A FIRST ARTICLE INSPECTION AT SOURCE: When required, FAI shall be accomplished at Seller's plant during the first production run. Notification to Buyer is required 72 hours in advance. Seller shall witness the First Article Inspection and verify results by authenticating the appropriate documents. Verification of such results shall not constitute acceptance of any items required to be delivered hereunder, nor relieve Seller's obligation to furnish items meeting the applicable drawing and specification.

55B FIRST ARTICLE INSPECTION (FULL CERTIFICATE OF CONFORMANCE PACKAGE):

In addition to all FAI requirements referenced herein; Seller shall submit objective evidence as follows:

- a. All standard catalog hardware certificates of conformance (listed on form 2)
- b. All component certificates of conformance including bin stock items (listed on form 1)
- c. FAI Report formatting guidelines shall be per "Williams FAI additional requirements guideline (REV. -)" in addition to the requirements per ES43201 and ES33219.

NOTE: Buyer may revise these Quality Assurance Terms and Conditions and/or any of the Buyer documents referenced herein from time to time by written notice to Seller. If any such revision causes an increase or decrease in the cost of, or time required for performance of any part of Seller's work, Buyer and Seller shall negotiate an equitable adjustment in the price or schedule, or both, to reflect the increase or decrease in accordance with the provision of clause entitled "Changes" in Buyer's Standard Purchase Order Terms and Conditions.