



Quality Flow-Down Requirements to Suppliers

1.0 Calibration System:

Seller's (herein referred to as Supplier) calibration system shall meet the requirements or standards of; ISO 9001, ISO 10012-1, or AS9100, and ANSI-Z540-1, or MIL-STD-45662.

2.0 Quality / Inspection System:

The Supplier shall maintain a quality / inspection system that is in conformance with the requirements of ISO or AS9100 to include:

Qualification of personnel; Receiving, First Article, In-Process and Final Inspection including Inspection and Test Records supplied to QuinStar Technology, Inc., at the point of First Article Inspection (if requested per QuinStar Technology Inc.'s Purchase Order) and upon completion and shipment of said order, as required.

3.0 Certification of Conformance (C of C):

The supplier shall provide a C of C attesting to the conformance of all material, (which shall include chemical and/or physical reports with "actual" or "typical" as contractually required results of tests conducted on all materials shipped, verifying conformance to any specifications referenced on drawings and/or purchase orders) outside services performed, hardware, machining/manufacturing, etc, to the purchase order requirements.

The C of C shall also include QuinStar part number, part revision, purchase order, quantity of parts being shipped, and manufacturer's lot number, heat lot number, date codes, and/or serial numbers as applicable. The C of C shall be signed by an authorized representative of the company and accompany every shipment to QuinStar. A certificate of Analysis is acceptable in lieu of a Certificate of Conformance.

4.0 Control of Special Processes:

In addition to the requirements of Clause 3.0, both the Supplier and any subcontractor(s) used shall be a QuinStar Technology, Inc. and/or Customer approved source for said Processes. These include operations subject to process controls such as: Coating, joining, heat treating, cleaning, non-destructive test, etc. The Supplier shall be approved as per above to perform specific required Special Processes or use Special Process suppliers/subcontractors acceptable to QuinStar Technology, Inc.'s Customer. A list of such suppliers will be provided upon request.

Unless otherwise specified on the purchase order, the Seller shall supply product conforming to the latest industry revision or the latest revision of the on file print or specification.

5.0 First Article Inspection:

This clause requires the supplier to perform a First Article Inspection (FAI) in accordance with AS9102 on the product described by the Purchase Order. The FAI is a complete and documented physical and functional inspection process to verify that prescribed production methods have produced a fully conforming item as specified. The supplier is required to submit the First Article inspection report with the segregated First Article unit. Supplier shall not submit items from a production run for Buyer inspection prior to Buyer's acceptance of the FAI report. If the supplier elects to ship product, prior to Buyer's acceptance of the FAI report, it is at their sole risk.

The supplier shall perform a first article inspection for this part number if any of the following conditions occur:

- (1) First time product is manufactured for production
- (2) A change in the design affecting fit, form, function and/or interchangeability of the part.
- (3) A significant change in manufacturing processes.
- (4) A lapse in production for two years.
- (5) A change in manufacturing location.

Any change in configuration will require a delta FAI. The supplier shall notify the Buyer in advance of any changes in manufacturing locations or processes so that Buyer's QA organization can determine whether a delta FAI is required.

When documenting the FAI, seller may use the forms contained within AS9102 or their equivalent, so long as the forms contain all of the information required by AS9102.

If the item is being built to a QuinStar drawing and parts list, the supplier shall provide the C of Cs from their suppliers for all the material and if the material is purchased from a distributor, the OEM C of C must also be provided.

The FAI report shall also include certifications for all raw materials and for all special processes performed. All required electrical test acceptance data shall be provided with the FAI report.

The FAI report shall also consist of a ballooned drawing with a completed Form 3 indicating all drawing dimensions, characteristics and notes that have been inspected with the actual measured value for all dimensions on the drawing.

6.0 Right to Verify:

QuinStar Technology, Inc.'s Customer shall be afforded the right to verify at the Supplier's premises that the subcontracted product conforms to specified requirements.

7.0 Right of Entry:

The Supplier shall include provisions in the subcontracts to allow the Supplier, Customer, and Regulatory Agencies right-of-entry to any area necessary to determine and verify the quality of contracted work, records and material.

Note: Delegation of supplier verification to subcontractor is not practiced at QuinStar Technology, Inc.



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8.0 Report of Non-Conformities or Inconsistencies with Product and/or Purchase Orders:

The Supplier shall review the Purchase Order and product manufacturing, processing, and/or testing requirements prior to its initiation. If errors or inconsistencies are noted with the P.O., Part and or other document referenced by the Purchase Order the Supplier must immediately notify QuinStar Technology or its acting delegation. Supplier proceeding with work without written concurrence does so at his own risk. Product will not be accepted by QuinStar Technology's Quality Assurance Department until the Purchase Order and all documentation referenced thereon properly describe the product delivered.

9.0 Corrective Action Request:

When a Quality problem exists, QuinStar Technology, Inc. shall request Corrective Action from the Supplier requiring timely responses and should include the following information: Description of the Non-Conformance, Root Cause (analysis of the cause of the discrepancy) and the Corrective Action Taken to prevent recurrence including the effective date.

10.0 Prohibited Practices:

The supplier shall not make any unauthorized repairs by any means without QuinStar Technology, Inc.'s approval.

11.0 Prohibited Material Uses:

Parts supplied on this Purchase Order shall not be exposed to functional mercury or mercury compounds.

12.0 Employment:

All suppliers are required to comply with the Equal Employment Opportunity requirements of FAR 52.222-22.

13.0 Process Change Notification:

All suppliers are required to notify QuinStar Technology, Inc. of changes in product and/or process definition and, where required, obtain the organization's approval.

14.0 Supplier Flow Requirements:

All suppliers are required to flow-down to sub-tier suppliers the applicable requirements in the purchasing documents, including key characteristics where required.

15.0 Documentation Retention:

The Supplier/sub-contractor will ensure that documents they have created and/or retained to substantiate, as applicable; procurement, production, calibration, certifications, chemical and physical properties, inspection, acceptance and other traceable information pertaining to the product fabricated and/or delivered must be retained for the period check below or that stipulated by the customer/regulating authority requirements.

Documents shall be retained for a minimum of 3 years unless otherwise specified by the purchase order.

16.0 Test Data:

Certification test data shall be traceable to the organization performing the testing, special processing and/or inspection(s) requested via QuinStar Technology's Purchase Order. All factual information shall be included to demonstrate conformance of specification and/or Purchase Order requirements.

17.0 Domestic Specialty Metals:

All purchase orders require compliance to DFAR 252.225-7014. Suppliers shall provide evidence of compliance, including flow-down to all sub-tier suppliers, with all shipments. Material Certification of traceability from direct and intermediate sources and a Certificate of Analysis from the original raw material supplier must be provided.

18.0 Raw Material Certification:

If the raw material is not supplied by QuinStar, the supplier shall provide a Certificate of Analysis or C of C for the raw material supplied or used in the parts supplied. The C of C shall be from the original raw material supplier and include the original supplier, heat or lot number, material specification, chemical and physical tests conducted, and any other relevant information needed to identify the raw material. Acceptable examples include foundry report, mill report, etc.

19.0 Counterfeit Parts

Seller shall only produce products or purchase components/hardware direct from the original component manufacturer (OCM)/original equipment manufacturer (OEM), through an authorized (franchised) distributor or through an authorized broker. Work shall not be acquired from independent distributors or brokers without approval from the buyer in writing. The seller will comply with the requirements in AS 5553 for electronic components.

Buyer must be notified immediately if the seller suspects they may have been supplied counterfeit parts. Work that is delivered that contains or includes counterfeit parts will be replaced, at the seller's expense, with certified genuine parts.

Seller will flow down the above requirements to all suppliers/subcontractors to ensure they are buying hardware and electronic components from the OCM/OEM or an authorized distributor. Seller will include a certification that states traceability to the OEM.

In addition, supplier shall participate in the appropriate interchange of the Government-Industry Data Exchange Program (GIDEP) in accordance with the GIDEP Requirements Guide S0300-BU-GYD-010 latest revision. Data entered is retained by the program and provided to qualified participants. The Supplier shall respond in a timely manner to relevant GIDEP (Government Industry Data Exchange) alerts that are provided by QuinStar or another



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source. Supplier shall as soon as practicable report any known, or suspect, counterfeit electronic part or end item, component, part, or assembly containing electronic parts to the Government Industry Data Exchange Program (GIDEP).

20.0 ITAR Notification

Seller shall send notification of all parts, material, or any article controlled under ITAR regulations with the quote. A written notification will also be shipped with the item/s for every shipment. Any documentation controlled by ITAR regulations must be clearly marked on the document itself.

21.0 Obsolescence

When Supplier has knowledge that any material or hardware item to be provided in performance of this purchase order is obsolete, is marked for impending obsolescence, or has an established end of production date, Supplier shall immediately give initial notice thereof, including all relevant information with respect thereto, to Buyer. Such notice shall include, but not be limited to (1) complete details of which parts are affected; (2) date of obsolescence; (3) end of production date; (4) reason for obsolescence; (5) pricing and availability of last-time buy; and (6) Supplier's recommendation for replacement parts inclusive of known impacts to performance, pricing, availability, and lead time.

22.0 Conflict Minerals

If seller is providing goods to buyer under this purchase order, seller agrees to comply with the conflict mineral policy outlined in section 1502 of the Dodd-Frank Act and to use commercially reasonable efforts to:

- a) Identify whether such goods contain Tantalum, Tin, Tungsten or Gold
- b) Conduct a reasonable country of origin inquiry regarding the origin of such minerals in such goods to determine whether the minerals originated in the covered countries, as defined in section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act: and
- c) If such minerals originated in covered countries, conduct due diligence on the chain of custody of the source of such mineral for the purpose of identifying the smelter of the minerals and
- d) Assist buyer in conducting reasonable due diligence concerning the smelters of such minerals. Seller shall include the substance of this section in any agreement between seller and its lower tier suppliers. Seller shall provide buyer with reasonable documentation of seller's and its lower tier suppliers' due diligence efforts.

23.0 Foreign Object Debris/Damage (FOD) Prevention Program

A FOD prevention program shall be maintained. The supplier's FOD prevention program shall include the review of design and manufacturing processes to identify and eliminate foreign object entrapment areas and paths through which foreign objects can migrate. The supplier shall ensure work is accomplished in a manner preventing foreign objects or material in deliverable Items. The supplier shall maintain work areas and control tools, parts and materials in a manner sufficient to preclude the risk of FOD incidents. Please include a certification that states traceability to the OEM.

24.0 ESD Packaging

Electrostatic Sensitive Devices and assemblies shall be packaged in accordance with MIL-STD-1686 and labeled in accordance with MIL-STD-129.

25.0 PP&M (Packing, Preservation, and Marking) Requirements

Supplier shall deliver items meeting the requirements of best commercial practices. In addition, all parts shall be provided with the adequate protection from damage, including corrosion, and/or contamination, as applicable. Bare metal-to-metal contact is not allowed except for commercial off-the-shelf (COTS) and "Bag and Tag" items.

26.0 Workmanship

The product purchased must meet the soldering and workmanship requirements contained in the latest issue of IPC/ANSI J-STD-001, Class 3 unless otherwise specified on the purchase order or drawing.

27.0 Identification - Limited Shelf Life:

Materials with limited shelf life (epoxy, paint, adhesives, etc.) shall indicate the date of manufacture, lot number and applicable specification on the container. Time lapse between cure or manufacturing date and date of scheduled receipt shall be consistent with applicable specification or Purchase Order requirements.

Note: Materials must have at least 75% usable shelf life remaining at time of receipt. All materials with less than the minimum required shelf life is not to be shipped unless approved by QuinStar.

28.0 FAR 52.223-3 Hazardous Material Identification and Material Safety Data (JAN 1997) (Applies if this Contract involves hazardous material. Notes 2 and 3 apply, except for paragraph (f) where Note 4 applies.)

29.0 QuinStar Expectations for Machined Parts:

The mechanical parts must be handled with special care when dealing with burrs and rounded corners. Per our drawings, the waveguide areas must be sharp without any burrs. Tumbling is not acceptable as a deburring tool; it must be done by hand.



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30.0 Certification of Calibration

Certification of Calibration attesting to the accuracy of the items procured on this purchase order shall (if specifically requested) be supplied with each shipment. This certification must contain all the test parameters necessary to demonstrate conformance to the manufacturers' specifications and shall be traceable to NIST.

31.0 RoHS Compliance

Deliverables supplied under this purchase order must be RoHS compliant to the latest RoHS directive. Certificate of RoHS Compliance is required with each shipment.

32.0 NADCAP Compliance

Special processes as noted on Clause 4 must be performed by a NADCAP approved facility for the required process.



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Overview of Supplier Quality Requirements (✓ indicates Quality Clause number is applicable).

CR = Conditionally Required. Applicable only when mandated by Purchase Order.

#	Quality Clause	Product Category						
		Mechanical	Electrical	Calibration	Finishing	Distributors	Limited Life	Raw Materials
1.0	Calibration System	✓	✓	✓	✓	-	✓	-
2.0	Quality/Inspection System	✓	✓	✓	✓	-	✓	✓
3.0	Certification of Conformance (C of C)	✓	✓	✓	✓	✓	✓	-
4.0	Control of Special Processes	✓	-	-	✓	-	-	-
5.0	First Article Inspection	✓	✓	✓	-	-	-	-
6.0	Right to Verify	✓	✓	✓	✓	✓	✓	✓
7.0	Right of Entry	✓	✓	✓	✓	✓	✓	✓
8.0	Report of Non-Conformities or Inconsistencies with Product and/or Purchase Orders	✓	✓	✓	✓	-	✓	✓
9.0	Corrective Action Request	✓	✓	✓	✓	-	✓	✓
10.0	Prohibited Practices	✓	✓	✓	✓	-	✓	✓
11.0	Prohibited Material Uses	✓	✓	✓	✓	-	✓	✓
12.0	Employment	✓	✓	✓	✓	-	✓	✓
13.0	Process Change Notification	✓	✓	✓	✓	-	✓	✓
14.0	Supplier Flow Requirements	✓	✓	✓	✓	-	✓	✓
15.0	Documentation Retention	✓	✓	✓	✓	-	✓	✓
16.0	Test Data	-	✓	-	✓	-	✓	-
17.0	Domestic Specialty Metals	✓	✓	-	-	-	-	✓
18.0	Raw Material Certification	✓	-	-	-	-	-	✓
19.0	Counterfeit Parts	-	✓	-	-	✓	-	-
20.0	ITAR Notification	✓	✓	-	✓	-	-	-
21.0	Obsolescence	✓	✓	✓	✓	-	✓	-
22.0	Conflict Minerals	✓	✓	-	✓	-	-	-
23.0	Foreign Object Debris/Damage (FOD) Prevention Program	-	✓	-	-	-	-	-
24.0	ESD Packaging	-	✓	-	-	-	-	-
25.0	PP&M (Packing, Preservation, and Marking) Requirements	✓	✓	-	✓	-	-	-
26.0	Workmanship	-	✓	-	-	-	-	-
27.0	Identification - Limited Shelf Life	-	-	-	-	-	✓	-
28.0	FAR 52.223-3 Hazardous Material Identification and Material Safety Data	-	-	-	-	-	✓	-
29.0	QuinStar Expectations for Machined Parts	✓	-	-	-	-	-	-
30.0	Certification of Calibration	-	-	✓	-	-	-	-
31.0	RoHS Compliance	-	CR	-	CR	-	CR	-
32.0	NADCAP Compliance	CR	CR	-	CR	-	-	-