

SUPPLIER QUALITY ASSURANCE REQUIREMENTS

I. The following clauses are applicable to all purchase orders:

1. Quality Program Requirements

The supplier shall provide and maintain a quality system that is certified by an accredited registrar to the requirements of ISO 9001 or equivalent.

2. Control of Inspection, Measuring & Test Equipment

The supplier shall provide and maintain a quality system for measuring equipment that complies with the requirements of, either:

- A. ISO 10012-1
- B. ISO 17025
- C. ANSI/NCSL Z540-1

3. Right Of Access

Smiths Interconnect and its customers reserve the right of access to supplier's facility for review of quality systems, records, equipment and inspect any or all work on this order.

4. Nonconforming Material

The supplier is not authorized to disposition nonconforming material as "repair" or "use as is" for product under Smiths Interconnect's design authority. Nonconforming material shall be segregated and withheld from shipment unless written concession is negotiated in advance. When authorized to ship non-conforming material, the supplier shall clearly identify product (i.e. tag or label) and include a copy of the authorization with the shipment.

5. Quality Records

Quality records including raw material certifications, work instructions, travelers/routers inspection and test data shall be retained at the supplier's facility for the life of the program as defined by Smiths Interconnect, but not less than 10 years after shipment or as specified by relevant regulatory requirements.

6. Handling And Delivery

Handling, storage, packaging, preservation and delivery of product shall be in accordance with best commercial practice to prevent damage and ensure product integrity.

7. No Changes Without Smiths Interconnect Approval

Written authorization shall be obtained from Smiths Interconnect buyer for any changes that will impact the contract or drawing/specification.

In addition, the supplier shall notify Smiths Interconnect buyer before any change in ownership, major plant facility relocation or rearrangement.

8. Quality Flow Down to Sub-Tiers

The supplier shall ensure that all relevant requirements specified in the purchase order is communicated to their sub-tiers and that the sub-tier complies with the flowed down specifications/requirements.

9. Foreign Object Debris / Damage (FOD)

The supplier shall establish and implement a FOD prevention, detection, and removal program.

10. Corrective Action

The supplier shall ensure a corrective action response is submitted to Smiths Interconnect within the defined due date when it is determined that they are responsible for a nonconformity and a request for corrective action has been issued to the supplier.

11. Certification Of Compliance (CoC)

The supplier shall certify that all material and processes supplied meet quality and specification requirements. Certifications must include:

- Authorized signature and title
- Smiths Interconnect purchase order, the part number and revision
- Special process specification and revision. At the time of contract acceptance, special process is to be performed to the latest revision or latest equivalent (if cancelled or superseded), unless otherwise specified in the work order. The supplier is to state on the certificate of compliance when a specification has been superseded.
- Lot, batch, date code or serial number(s)
- Quantity
- Must be in English unless otherwise specified

12. Traceability

The supplier shall identify material traceability data with serial numbers, lot/batch number or date code as defined by the controlling document. Identification shall be via labeled bag and tag unless otherwise specified on the drawing or purchase order.

13. Inspection Data Package

The supplier is required to provide the following items as specified on the purchase order or commodity matrix; Inspection data/report provided by supplier shall be defined as seen on Smiths drawing/PO (i.e. plating thickness and dimensional values (metric vs. imperial), etc.)

II. The following clauses are applicable only as noted on the purchase order or on the commodity matrix when none are specified on the purchase order:**14. Source Inspection**

The supplier shall notify Smiths Interconnect purchasing at least 72 hours prior to inspection/test of product to facilitate inspection/test witnessing by a Smiths Interconnect quality assurance representative. Smiths Interconnect will provide an inspection plan to the supplier with the purchase order. Verification of source inspection activities will be indicated by the stamp or signature of the individual performing the inspection. Evidence of source inspection shall be indicated on the shipping documentation.

15. Government Source Inspection

Government source inspection is required prior to shipment. Upon receipt of this order promptly notify the government representative who services your facility so that inspection tasks may be scheduled.

16. Smiths Interconnect Approved Sources

The supplier is required to use Smiths Interconnect's approved suppliers for all special processes/testing and/or required bill of material components. The use of NADCAP (SAE AS 7003) accredited sources is acceptable.

17. 100% Inspection Requirement

The supplier is required to perform 100% inspection of this item to ensure compliance to drawing and specification requirements. Objective evidence of this inspection must be maintained on file and available for Smiths Interconnect review. Certification of 100% requirement to be included on CoC.

18. Process Control Plan

The supplier shall submit a process control plan, detailing how critical/key characteristics and/or parameters will be evaluated and controlled. Relevant data shall be retained per the retention requirements specified herein and available for Smiths Interconnect review.

19. Material Test Report

The supplier shall provide legible test reports identifiable with purchase order number/material heat or lot number and the applicable specification and revision with each shipment. The report must contain chemical/physical analysis (as applicable).

20. Certification Of Calibration

The supplier shall certify that the item(s) is calibrated and traceable to nationally recognized standards. Certifications must include the National Institute of Standards & Technology (NIST) test number and accuracy of the calibration standard(s) used. Significantly out of tolerance conditions (150% of total allowed accuracy) shall be clearly identified.

21. Certification Of Nondestructive Testing (NDT)

The supplier shall certify that NDT was performed in accordance with the applicable specification(s). Where appropriate, the supplier is to retain records reflecting certification of personnel, equipment, and process. Certification shall include as applicable:

- Authorized signature and title
- Smiths Interconnect part number and revision
- Process specification and revision
- Lot, batch, date code or serial number(s)
- Quantity
- Results

22. First Article Inspection

The supplier shall submit two parts chosen at random from product manufactured during the first production run with a documented First Article Inspection Report (FAIR) performed in accordance with AS9102. The parts chosen shall be manufactured using the same processes and equipment planned for future production. Prototype or setup parts are not to be used. Shipping documents and product shall be clearly identified as – "First Article".

NOTE: Follow AS9102 paragraph 4.6 for resubmittal guidelines.

23. Shelf-Life Identification

The seller shall identify each age sensitive item on its package or container with the cure date and shelf life or expiration date and special storage or handling conditions. This information shall

also be provided on the CoC. The supplier shall not furnish any shelf life controlled item exceeding 40% of the specified shelf life.

24. Acceptance Data Package

Suppliers must maintain records for a minimum of 5 years or per ISO standards, whichever is greater. Suppliers' data package must be provided in English unless otherwise specified by Smiths.

- A. Test data/report showing empirical data as defined in the drawing notes (i.e. capacitance values, breakdown voltage, reverse leakage current, etc.)
- B. Process Control data/chart (i.e. time and temperature charts)

25. ROHS

The supplier shall certify that materials/chemicals supplied to Smiths Interconnect are ROHS compliant.

26. REACH

The supplier shall certify that materials/chemicals supplied to Smiths Interconnect are REACH compliant.

27. ITAR Control

When a drawing is identified with the ITAR mark, Smiths Interconnect considers the drawings and any technical data related to the design ITAR controlled. The supplier shall not divulge information and material to a foreign person (including organizations) unless authorization from the Department of State is received or a special exemption is used. If the supplier is not ITAR registered, immediately notify Smiths Interconnect and return all drawings, specifications and PO.

28. Counterfeit Parts

Supplier shall ensure parts are purchased only from the Original Component Manufacture (OCM) or directly from an authorized distributor with part traceability directly from the OCM. Assemblies shall only be purchased from the Original Equipment Manufacturer (OEM) or an authorized distributor with traceability directly from the OEM. Shipping documentation shall contain at a minimum the manufacturer, distributor, distributor purchase order number, part number, quantity, and date code of each quantity supplied. A copy of the manufacturer's certification shall accompany shipment of parts, or, for parts procured through authorized distributors, shipment shall be accompanied by a CoC showing proper supply chain traceability. (Reference AS5553)

29. Specialty Metals Restrictions (DFARS 252.225.7009)

The supplier shall ensure that all specialty metals procured/provided in support of the contract meet the requirements as set forth in the Federal Acquisition Regulations System section 252.225.7009 Preference for Domestic Specialty Metals (as applicable).

30. Defense Priorities and Allocations System (DPAS)

When this clause is specified within the purchase order, the order is identified as a rated order certified for national defense use, the supplier is required to follow all the provisions of the Defense Priorities and Allocations System (DPAS) regulation (15 CFR PART 700).



Smiths Interconnect Americas SQAR's by Commodity Matrix F673 Appendix A

COMMODITY	SQAR's	Quality Program Requirements	Control Of I, M & T Equipment	Right Of Access	Nonconforming Material	Quality Records	Handling And Delivery	No Changes Allowed	Quality Flow Down to Sub-Tiers	FOD	Corrective Action Response	Certification Of Compliance	Traceability	Inspection Data Package	Source Inspection	Government Source Inspection	Use Of Approved Source	Require 100 % Inspection	Process Control Plan	Material Test Report	Certification Of Calibration	Cert Of Nondestructive Testing	First Article Inspection	Shelf-Life Identification	Acceptance Data Package	ROHS	REACH	ITAR	Counterfeit Electronic Parts	Specialty Metals Restrictions	Defense Priorities and Allocations System (DPAS)
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24 A	24 B	25	26	27	28	29
Limited Life Items: chemicals, adhesives, o-rings	1 - 13, 19, 23	X	X	X	X	X	X	X	X	X	X	X	X	X						X			X								
Machining, Stamping, Molding	1 - 13, 19, 22, 24B	X	X	X	X	X	X	X	X	X	X	X	X	X						X			X			X					
Connectors / Cable Assemblies	1 - 13, 22, 24A, 28	X	X	X	X	X	X	X	X	X	X	X	X	X			X						X		X				X		
Diodes / PCB's	1 - 13, 19, 24A, 28	X	X	X	X	X	X	X	X	X	X	X	X	X											X				X		
Standard Hardware	1 - 13, 19	X	X	X	X	X	X	X	X	X	X	X	X	X							X										
Outside processing (Special processes)	1 - 13, 16, 24B	X	X	X	X	X	X	X	X	X	X	X	X	X			X									X					
Raw Material	1 - 13, 16	X	X	X	X	X	X	X	X	X	X	X	X	X			X														
Ceramic Capacitors	1 - 13, 22, 24A, 28	X	X	X	X	X	X	X	X	X	X	X	X	X									X		X				X		
Ceramic - Alumina/BEO/Aluminum-Nitride/Beryllia/CVD Diamond	1-13, 19	X	X	X	X	X	X	X	X	X	X	X	X	X							X										
Ceramic - OSP Machine/Scribe/Trim/Marking	1-13, 19	X	X	X	X	X	X	X	X	X	X	X	X	X							X										

Required For All Inventory Commodity Purchase Orders