Supplier Quality Assurance Requirements

This is document is a supplement to document GP07-001 Supplier Quality Assurance Requirements Manual. Specific SQAR's are applicable per the SQAR Matrix within the SQAR Manual and/or specific SQAR's identified on the Smiths Interconnect Purchase Order.

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SQAR 100 – Notification, Containment, and Corrective Action of Material Found Nonconforming to Smiths Interconnect Purchase Order Requirements

100.1 Scope

Material that departs from drawing, specification or maintenance requirements shall be identified and controlled to prevent unauthorized use or delivery to Smiths Interconnect or other designated destinations. The Supplier shall provide prompt, (within 24 hours), written notification on supplier letterhead to the Smiths Interconnect Buyer of nonconforming product or process escapes are identified after shipment to Smiths Interconnect has taken place.

100.2 Material Review Authority

The Supplier shall not exercise Material Review authority without written approval by Smiths Interconnect's Quality Organization. This applies to material that is Smiths Interconnect designed and/or designs controlled to Smiths Interconnect specifications or other OEM designed hardware.

Action shall not be taken on any nonconformance which could affect safety of personnel; adversely affect performance, durability, interchangeability or reliability; affect weight; or otherwise result in failure of the end article to perform its intended function. All doubtful cases shall be submitted to Smiths Interconnect Material Review Engineering on the appropriate form.

Important: Smiths Interconnect reserves the right to reject the decision of the Supplier Material Review Board (MRB).

100.3 Request for Deviation

The Supplier may request consideration for nonconforming material that cannot be reworked to fully conform to drawing specifications, aftermarket maintenance technical data, or purchase order requirements. Requests for deviation shall be submitted to the Buyer using form F678, with copy to the Supplier Quality Engineer and site Quality Manager. The forms and instructions can be communicated by contacting the Smiths Interconnect buyer.

Nonconforming articles shall be retained by the Supplier until disposition of ACCEPT by Smiths Interconnect site MRB.

Note: Smiths Interconnect reserves the right to subtract monies from the purchase order or debit the supplier, for Smiths Interconnect incurred costs related to supplier responsible deviation requests.

100.4 Material Discovered Nonconforming after Shipment

The Supplier shall promptly notify Smiths Interconnect when nonconforming product has been shipped. The notification shall include part numbers, design activity, CAGE code or Current Design Activity (CDA) code, traceability (lot, serial, and manufacturer numbers), ship dates, quantities, and a description of the nonconformance. This applies to any nonconformance that departs from drawing, specifications, aftermarket maintenance technical data or purchase order requirements.

The Supplier shall send written notification, referencing the site-assigned supplier code, to the attention of

- the Smiths Interconnect Buyer, and
- Site Quality Manager at the issuing PO Smiths Interconnect site

The supplier shall promptly perform internal Root Cause Corrective Action (RCCA) to assure full containment is in effect, and document all nonconformance causes and actions to prevent recurrence. Records of these actions shall be retained in accordance with Section 1.11 in this Manual and be available to Smiths Interconnect on demand.

For confirmed supplier disclosure escapes, a formal corrective action request will be made to the supplier.

100.5 Containment of Nonconforming Material

When a nonconformance is discovered, or the Supplier is notified of a discrepancy, the Supplier must take immediate action to determine if the condition exists on any other work-in-process, in all inventory locations at the Supplier's facility, or in prior shipments. Containment action must be taken and documented prior to the next shipment of the part number involved.

Containment activities taken and/or planned shall be communicated to the Smiths Interconnect site within 48 hours when formally requested through or other documented notification/discovery of nonconforming shipment. The supplier shall perform internal RCCA when any nonconformance has been positively identified as a result of one or more of these actions. Records of these actions shall be retained in accordance with Section 1.11 in this Manual and be available to Smiths Interconnect on demand. Smiths Interconnect may not decide to issue a corrective action request through our system, this does not preclude the supplier from documenting their corrective actions. The Supplier shall not wait for the discrepant hardware to be returned to begin an investigation.

100.6 Corrective Action

The supplier shall respond to all requests for corrective action on or before the requested response due

date.

Supplier shall initiate containment actions immediately to ensure no escapes of repeat issues occur during the investigation stages. These containment steps shall be noted in the CAPA response.

Supplier shall maintain a documented system for determining root causes of documented defects and obtaining corrective action both internally and from its suppliers.

Requests for corrective and preventive action will be issued to the supplier's representative in the form of an electronic (i.e. emailed) CAPA report. The supplier may use their own form, but the form must be equivalent to the Smiths Interconnect 8D form (GF07-012).

Smiths Interconnect may grant the supplier an extension for their corrective action response on a case-by-case basis. Suppliers may formally request a time extension at least forty-eight (48) hours prior to the assigned (original) due date. Requests must be in writing with adequate justification.

See procedure GP07-006 for SCAR requirements.

100.7 Request for Reversals

Rejects identified as supplier's responsibility are documented on the supplier scorecard. If the supplier's investigation of the reject concludes that the nonconformance should not be charged to the supplier's responsibility, then a request to reverse the responsibility must be submitted by the supplier.

Reversal requests should be submitted within 30 days of notification of nonconformance. Any reject listing on a supplier's scorecard constitutes notification whether or not the part is returned. All reversal requests submitted shall provide detailed justification information.

Requests for reversal submitted later than 90 days after nonconformance notification may not receive consideration from the Smiths Interconnect site.

100.8 Return Purchase Orders for Replacement, Reworked or Repaired Parts

Any part being supplied to Smiths Interconnect on a return purchase order must conform to drawing, specifications, aftermarket maintenance technical data or purchase order or have Smiths Interconnect MRB disposition for any repairs. Under no circumstances are parts known to be used or overhauled to be sent as a replacement for an OEM part.

For parts that cannot be reworked to full drawing compliance economically or where repair authorization will not be granted, parts are to be scrapped at the suppliers' facility. Supplier shall contact the Smiths Interconnect Buyer prior to scrapping these parts, and Smiths Interconnect reserved the right to witness the scrapping activity.

100.9 Failure Reporting

Smiths Interconnect reserves the right to request failure analysis on nonconforming hardware submitted from the Supplier. Failure analysis reports may contain:

- A process map identifying key inputs and outputs of each affected manufacturing step.
- A product/process Failure Mode Effects Analysis (FMEA) tied to the process map identifying the failures or risks associated to the known nonconformance.
- A control plan developed from process map and FMEA identifying how the Supplier shall monitor those known nonconforming characteristics on future lots to prevent re-submittal of nonconforming product.

100.9.1 Failure Reporting Applicability

Upon request, the Supplier shall submit failure analysis, a short term customer escape prevention plan, and a permanent corrective action plan, focusing on the root cause of the discrepancy. Reports shall be submitted within 30 calendar days of request unless otherwise specified.

Smiths Interconnect reserves the right to issue a Supplier Corrective Action Request (SCAR) requiring completion of a part number specific Smiths Interconnect project with the on-site assistance of Supplier Development Engineering.

SQAR 105 – Certification of Nondestructive Testing (NDT)

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

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

SQAR 110 – Certification of Conformance / Shipping Declaration Document / Packing Slip Requirements

110.1 Scope

The Supplier is responsible for maintaining and supplying accurate and legible certification documentation as objective evidence of meeting drawing, specification, technical data, or purchase order requirements.

110.2 Certification of Conformance / Shipping Declaration Document / Packing Slip Requirements

The exact format of the Certificate of Conformance may vary by supplier. Requirements can be identified within the Certificate of Conformance, Packing Slip, and/or material packing but shall contain the following minimum information:

- Supplier's Name
- Manufacturer's name (when different from the supplier)
- Smiths Interconnect part number as specified on the purchase order
- Smiths Interconnect purchase order number
- When a Smiths Interconnect part number is not specified on the purchase order the supplier's part number shall be used
- When a supplier's part number is not specified on the purchase order the material's descriptor shall be used
- Smiths Interconnect's drawing revision as specified on the purchase order
- Change notices shall be included if they are not part of the revision level
- When a Smiths Interconnect drawing revision is not specified on the purchase order no drawing revision is required
- Serial Number (as applicable)
- Date code (as applicable)
- Lot/batch/heat number (as applicable)

110.3 Bulk Raw Materials

Unless otherwise specified, purchased bulk raw material (sheet, strip, plate, wire, rod, bar, tubing, solder, powder, paint, oil, fluids, etc.) shall be supplied to the latest procurement specification issue. Material certified to a previous specification issue and of the proper type, grade, or class called for by the

engineering drawing or technical data, may be used until depleted, unless restricted by the superseding specification revision. Certifications for material shall include specification number and revision letter applicable to each lot of material.

110.4 Evidence of Source Approval

A Source Acceptance Stamp (or facsimile) shall be placed on the shipping documentation (packing slip and/or C of C) for Purchase orders requiring SQAR 149. A Source Acceptance stamp is independent of the Certificate of Conformance signature requirements. C of C required signature and date should not be placed in the Source Acceptance Stamp area.

The individual performing the Source Inspection is responsible for providing the Stamp Impression and Date. This may be a Smiths Interconnect approved Source Inspector or it may be a Self Release Approved Supplier representative, whichever is appropriate.

A signature is acceptable in lieu of a stamp impression for an Approved Self Release Supplier representative in organizations that do not issue internal employee acceptance stamps and control electronic approval within their Quality Management System.

110.5 Certificates of Conformance for Kits

For materials supplied as a kit, a top level certification of conformance, subject to the documentation requirements above, will be accepted for the entire lot or receipt of kit(s) as long as:

- Manufacturing and procurement traceability and configuration management for every component part in the kit is maintained
- Associated data such as procurement certificates of conformance, test data, first article inspection reports, etc. are maintained and available upon request.

110.6 FAA / EASA Tags

Suppliers holding an FAA production approval shall ship parts with 8130-3 tags reflecting newly manufactured certification and not returned to service or repaired status to all Smiths Interconnect OEM sites. This requirement applies to both new shipments and parts that may have been rejected or returned by Smiths Interconnect or from a Smiths Interconnect customer location. Suppliers shall contact buyers if there are any questions in issuing new 8130-3 tags as Smiths Interconnect OEM sites can only return parts to suppliers requiring Part 21 type rework and have not been used in revenue flights.

SQAR 149 – Product Release Process

149.1 Scope

Smiths Interconnect product may only be released for shipment from the supplier by either of these methods:

- After Source Inspection by the supplier's approved Self Release (SR) supplier program and delegate.
- After (Smiths Interconnect) Source Inspection by a Smiths Interconnect Approved Source Inspection Agent.
- Before (Smiths Interconnect) Source Inspection services to be performed at the Smiths Interconnect site per the direction of Smiths Interconnect Sourcing Organization. This method requires the inclusion of a shipment-specific Smiths Interconnect Sourcing Organization authorization with the shipper/cert/pack slip.

Smiths Interconnect or Customer Source Inspection approval does not relieve the supplier of the responsibility and/or liability for full compliance with all purchase order/contract requirements.

149.2 Penalties / Fees

Failure to comply with Product Release requirements may result in a receiving inspection fee per shipment received (based on Smiths Interconnect incurred costs – minimum $500 U.S.), and may incur additional product rejection charges.

149.3 Source Inspection

Suppliers who are not approved to release product shall request source inspection services.

SQAR 160 – Delegation of Inspection (DOI) / Dock to Stock (DTS)

160.0 Scope

Dock to stock is a program by which product is received directly into the Smiths Interconnect inventory without inspections being performed by Quality. This program is granted to suppliers which meet the following criteria.

Option 1 - Supplier

All product from a supplier will be eligible for DTS given the following requirements are met. This does not apply to product with customer specific requirements for incoming inspection.

DTS is granted when the supplier has provided proof of its control over the process or processes at its site:

- On-site assessment results are satisfactory.
- Three month moving average VPR is ≥ 95.

For new products from a DTS approved supplier, DTS will be granted under the following conditions

- After three consecutive receipts without non-conformance
  Or
- If it demonstrates control of Key Characteristics per SQAR 200.

The supplier may request the suspension of the application of the procedure, if it considers that they can no longer provide the service required.

Smiths Interconnect shall withdraw DTS if:

- The supplier has had 2 major non-conformities (critical dimensions, visual appearance, etc.) during the Smiths fiscal year.
- The supplier informs Smiths Interconnect that it can no longer maintain the operating conditions validated during FAI.

Option 2 - Product

DTS may be granted for an item when Supplier Quality Performance for the item is ≥ Lot Acceptance Rate (LAR) for a period of 1 year, except in specific cases related to process criticality.

The acceptance of the order by the supplier means that it is committed to full compliance with the

requirements of the present document and the individual specifications for the products in question (specs, drawings, etc.).

Components on DTS shall not be subject to submission of the SQAR 127 measurement data, but this report shall be available within 48 hours upon request by Smiths Interconnect.

160.1 Loss of Dock to Stock

Following a non-conformity detected internally or by our customer regarding a DTS article, the DTS status of this article shall be rescinded by Smiths Interconnect.

The supplier shall agree to submit inspection reports to Smiths Interconnect for the next 3 shipments. Otherwise, Smiths Interconnect shall perform the inspection service itself and charge £100 per hour for that service.

Smiths Interconnect Supplier Quality shall validate the supplier's action plan based on the 8D report issued following the incident and shall decide on a return to DTS status as a function of the relevance of the proposed corrective actions as well as the supplier's past history.

SQAR 165 – Approved Sources for Special Processes

165.1 Scope

Special process specifications are listed on the Smiths Interconnect engineering drawing or within ISO 9001 requirements. Suppliers shall use only Smiths Interconnect approved sources except for suppliers with design responsibility for hardware supplied to Smiths Interconnect may use their own approved process suppliers provided the Smiths Interconnect supplier complies with the following:

- Design and Development must be an element in their Quality Management System (Ref AS9100)
- Supplier Control must be an element in their Quality Management System (Ref AS9100 7.4)

This SQAR does not apply to:

- Industry standard parts such as AN, NAS, MS etc.

165.2 Change in Location of Facilities

The Approval of Sources to Controlled Specifications is location specific. In the event of change in location, notification shall be made prior to the relocation and with substantial time (180 days) for hardware, system, and process re-qualification. Also, satellite sites shall be approved independently of a Source's primary location and must have a separate Smiths Interconnect Supplier ID.

Parts processed at the location that is not yet approved in the APSL are considered non-compliant hardware. Notify by e-mail to the buyer. Suppliers' notifications shall contain the following supplier information as a minimum:

- supplier ID/DUNS number
- old data and new data (i.e. if address change, list the prior address and the new address)
- name of supplier quality contact
- phone number of supplier quality contact
- e-mail address of supplier quality contact

165.3 Approved Vendor List (AVL)

The AVL is the list of Approved Vendors. Sourcing shall periodically review the AVL to ensure sources are not expired.

165.4 Approved Special Source List (ASSL)

The ASSL is the list of Special Process Specifications and Approved Sources to perform those processes. Sources performing Special Processes shall be approved by Smiths Interconnect or must possess the applicable NADCAP accreditation, including the appropriate audit scope/checklist, are accurate and up to date. Sources not approved per the ASSL or NADCAP must be approved by Smiths Interconnect Quality Department for the applicable special process to be performed.

The Supplier is responsible for the cost of NADCAP accreditation.

Category	NADCAP Commodity/Code
Chemical Processing	Chemical Processing/CP
Composites	Composites/COMP
	Conventional Machining as a Special
Elastomers	Elastomer Seals/SEAL
Electrical & Wiring, includes C&H, PB & PBA	Electronics/ETG
Heat Treat, includes Brazing	Heat Treating/HT
Material Testing	Materials Testing/MTL
Nonconventional Machining	Nonconventional Machining/NM
Nondestructive Testing	Nondestructive Testing/NDT
Surface Enhancement	Surface Enhancement/SE
Thermal Coatings	Coatings/CT
Welding, Includes Torch & Induction Brazing	Welding/WLD

SQAR 166 – Validation of Special Processes

166.1 Scope

This SQAR applies to any purchase order with item(s) which require special processes per the Smiths Interconnect drawing or Purchase Order requirements. Special process may include, but are not limited to, the following:

- Plating and Coating
- Bonding and Sealing
- Crimping
- Force fitting or Shrink fitting
- Forging
- Heat Treatment
- Laminating (composites, …)
- Measurement methods such as X-Ray
- Other manufacturing special processes could be provided by Customers

Special process shall be qualified based on the test protocol per the requirements of GF06-005 Special Process Protocol and Test form:

- General Characteristics
- Product Characteristics: Key Characteristics, Technical Specifications, Product Configuration
- Process Characteristics: Manufacturing Tools/Devices, Calibrated Equipment, Atmospheric Conditions
- Test Results and Survey: Samples, Phases, Inspections, Control Plan

Suppliers are responsible for compliance to special processing requirements, including process validation, process re-validation after major changes and product verification as specified by the controlling procedure and/or applicable workmanship standards. Special Process requirements are identified on the controlling engineering drawings and purchase orders.

Preferred Suppliers are those who are able to provide test protocol for new special process qualification and/or are certified to international and/or other applicable standards such as:

AS9100 ISO/TS 22163 NADCAP

If a Supplier is not certified to any aforementioned or other standard(s), it will be assessed per the following requirements (ref: GF06-003 Special Process Assessment form):

SQAR 179 – Government and Customer Directed Source Inspection

179.1 Scope

This SQAR applies to any purchase orders with items reflecting a Government Prime Contract Number. Government Source Inspection is required for these items. The inspection will be accomplished at the Supplier's facility unless otherwise specified on the Purchase Order. The supplier shall make available all necessary specifications, documents, facilities and assistance. Government end-use material subject to SQAR 179 shall not ship without evidence of Government Source Inspection approval unless the prime DCMA office provides alternate instructions in writing.

This SQAR may also be applied to Smiths Interconnect Customer Source inspection; however, Smiths Interconnect customer's quality representatives do not have the authority to approve quantities reflecting a Government Prime Contract Number noted on the Purchase Order unless granted by the Government Contract.

179.2 Government Notification Requirements

Upon receipt of the order containing quantities reflecting a Government Prime Contract Number, promptly notify the Government Source Inspection (GSI) Representative who normally services your facility and provide a copy of the order so that appropriate planning for Government Source Inspection can be accomplished. The GSI Representative shall be notified no more than 7 workdays before completion of the order. If unsure of the DCMA Representative, contact the Smiths Interconnect Buyer immediately.

GSI may request the supplier to furnish all work instructions down to the lowest level(s), including all mandatory government inspection points, prior to the initiation of any work.

179.3 Smiths Interconnect Customer Notification Requirements

Promptly notify the Customer Source Inspection Representative as directed on the Purchase order or by the buyer. Careful attention should be given to planning source inspection to meet Purchase Order schedules. If unsure of the Customer Quality Assurance Representative (QAR), notify the Smiths Interconnect Buyer immediately.

ance with federal and state

regulations.

300.4.1 Specific Cross Packaging Requirements

Supplier shall package material in qty ice to maintain -40 degrees Fahrenheit during s

use a 24 hour delivery service for this shipment.

300.4.2 Handling, Packaging, and Shipping of Moisture\Reflow Sensitive Surfac

(Electrical\Electronic Parts)*

For protection of moisture sensitive bags, handle, process, and package per the

IPC\JEDEC J - STD-033 unless specified in design document.

300.5 Handling, Packaging, and Shipping of Pin Contacts and Rear Tails

General Packaging Guidelines

- Select corresponding Ready-Made or Supplier-provided plastic tray (see sizing chart) based on the length of the pin or rear tail. Both Ready-Made trays are packaged similarly. Supplier provided trays do not require use of foam.
- All pins / rear tails should be evenly distributed within each pocket. Take care not to crisscross pins / rear tails inside pocket. Recommend less than 25% pocket fill for all other part numbers.
- After loading pins / tails into tray, place a pink (pre-cut) sponge inside each pocket. Cover tray with corresponding lid (3300-L) and shrink-wrap entire unit.
- Label each tray with a standard component label. Place label in upper left-hand corner. Multiple lot numbers should be packaged individually. Do not mix lots.
- After tray has been shrink-wrapped and labeled, choose corresponding box and add 2 layers of bubble-wrap, one in each direction (as shown in picture) to box.
- Carefully nest the trays within the bubble-wrap and seat them in the box. Add one additional layer of bubble-wrap and seal box.
- Close box and label each individual box using standard component label to identify the item.

Special Conditions: YSK165 and Larger Power Sockets & Y-Series 4.3mm and Larger with Threaded Tails.

- Use Elastic Polyethylene Mesh Sleeve
- Cut Mesh Sleeve approx. 1” longer than socket.
- Slide Mesh over socket
- Place into a bubble bag and seal with adhesive strip
- Label each individual bubble bag with a standard component label to identify the item.
- Place into P42 Box
- Label each individual box with a standard component label to identify the item.

Packaging Table			
Length	Parts	Tray	Box Size / Type
Range between .4mm – 24.8mm	Pins & Rear Tails	3270	
Range between 24.8mm – 49.9mm	Pins & Rear Tails	3550	
Range above 50.0mm	Pins & Rear Tails	Supplier Provided	Supplier Provided

Packaging Guideline for Ready-Made Trays

SQAR 305 – Part Marking Requirements

The material on this purchase order must be permanently identified with the part number and revision letter in accordance with MIL-STD-130. This provision will take precedence over drawing or specification requirements.

SQAR 310 – Control of Items with Limited Shelf-Life

310.1 Scope

This SQAR defines remaining life requirements and the communication of date control information on items that require shelf life control per their product specification. Typical commodities that require shelf life controls are:

- Uncured compounds (for example: paint, adhesives, curing agents, primers, film adhesive, varnishes, elastomeric molding compounds, pressure sensitive adhesives, Prepregs, sealants, inks etc.)
- NOTE: Items such as tapes and labels which have pressure sensitive adhesive (PSA) back are categorized under uncured compounds. This includes metal nameplates with PSA backing applied
- Cured Elastomers (for example: O-rings, gaskets, plate seals, molded shapes etc.)
- Electronic Components**
- Applied Bearing Lubricants, Grease**
- Applied Bearing Preservatives**

310.2 System for Shelf Life and Storage Life Control

The supplier shall maintain a documented system for using, storing and controlling items with limited shelf or storage life. The system shall include a method of identifying and controlling such items to ensure expired items were not used in products shipped to Smiths Interconnect and that items shipped met remaining life requirements.* Shelf life shall apply per manufacturer expiry date or "use-by" date but not supersede applicable specs.

310.3 Certification Requirements

When shipping shelf-life controlled compounds and storage-life controlled elastomers, the supplier shall include the following additional information on the Certification of Conformance:

- Date of manufacture for shelf-life controlled compounds
- Cure date (QQ/YY) for storage-life controlled elastomers
- Shelf-life expiration date (MMYY) for shelf-life controlled compounds
- Storage life expiration date (QQ/YY) for storage-life controlled elastomers
- Batch and or lot number as applicable

- Date of shipment
- Manufacturer's name

310.4 Shelf Life of Limited-Life Items Shipped to Smiths Interconnect

Items that have exceeded their expiration date shall be removed from the supplier's inventory and conspicuously identified as scrap to preclude inadvertent use. All lots must be segregated and identified to maintain batch and/or lot number and cure date.

Shelf life of any uncured material as certified to by the material manufacturer will not be extended unless authorized either by the material manufacturer, or by Smiths Interconnect.

In any case of conflict between documented expiration dates, the Smiths Interconnect receiving site reserves the right to return the material to the supplier or resolve the conflict internally.

On the shipment date, uncured items/compounds must have 75% or greater shelf life remaining, but not less than 6 months unless otherwise approved by the procuring site. Exceptions are noted below.

310.5 Shelf Life of Compounds Applied to Products

The supplier shall maintain a documented system for identification and control of limited shelf life compounds so that compounds that had expired shelf life were not used on product shipped to Smiths Interconnect. (Examples of limited shelf life compounds are adhesives and paints).

SQAR 325 – Electronics Solder Requirements

Product covered under this Purchase Order is to be assembled and soldered per ANSI/J-STD-001 Revision (latest), Class 3, (Standard Requirements for Soldered Electrical & Electronic Assemblies), and acceptance criteria based on IPC-A-610 Revision (latest) and applicable Smiths Interconnect "M" specification, to the class as specified on the PO. Workmanship and testing also shall conform to the class of IPC-A-610 specified on the purchase order. Any exceptions or deviations must be delineated on the Smiths Interconnect drawing and / or Smiths Interconnect specification.

If solder testing is required per the drawing/specification then the parts must meet the applicable soldering requirements of the specification listed below:

PRODUCT TYPE	SPECIFICATION	METHOD
SEMICONDUCTORS	MIL-STD-750	2026
MICROELECTRONICS	MIL-STD-883	2003
RIGID PRINTED WIRING BOARDS	MIL-P-55110	PARA 3.7.4.5
RIGID FLEX PRINTED WIRING BOARDS	MIL-P-50884	PARA 3.4.6
FLEXIBLE PRINTED	MIL-P-50884	PARA 3.4.6
ALL OTHER PARTS	MIL-STD-202	208
WHEN REQUIRED BY PURCHASE ORDER	MIL-STD-2000	PARA 5.4.4

Components shall have been tested to the requirements listed in the above table within 18 months of the date Smiths Interconnect receives the components. The soldering test date (month and year) shall be noted on the Certificate of Conformance supplied with each shipment.

SQAR 326 – Electronics Marking Requirements

If marking permanency is required per the drawing/specification then the parts must meet the applicable marking permanency (resistance to solvents) requirements of the respective specifications:

PRODUCT TYPE	SPECIFICATION	METHOD
Semi-Conductors	MIL-STD-750	1022
Micro-Electronics	MIL-STD-883	2015
Rigid Printed Wiring Boards	MIL-P-55110	PARA 3.5.4
Rigid Flex Printed Wiring Boards	MIL-P-50884	PARA 3.4.4
Flexible Printed	MIL-P-50884	PARA 3.4.4
All Other Parts	MIL-STD-202	215

SQAR 329 – Hardness Critical Item

The parts contain Critical Characteristics shown as Hardness Critical Item / Hardness Critical Process (HCI/HCP). No substitutions or deviations are permitted.

SQAR 335 – Tape and Reeled Components

Surface mount or axial lead components shall be tape and reeled in accordance with table below. For order quantities less than 1000; bulk, ammo or rail packaging is acceptable.

Number	Carrier Type	Standard	Requirement
1	Embossed Carrier Taping	EIA 481	Surface mount components shall be supplied on tape and reel in accordance with EIA 481.
2	Axial Lead Taping	EIA 296	Axial lead through hole components shall be supplied on tape and reel in accordance with EIA 296.
3	Radial Lead Taping	EIA 468	Radial lead through hole components shall be supplied on tape and reel in accordance with EIA 468.
4	JEDEC Trays	JEDEC CO-029, etc	Integrated Circuits shall be supplied on JEDEC antistatic trays

Product shall be supplied on Tape and Reel with a minimum 6" leader and 6" tail unless otherwise instructed by the Smiths Interconnect procuring agent for modified packaging requirements.

SQAR 354 – Electrostatic Discharge Requirements

For ESDS (Electrostatic Discharge Sensitive) items, the Supplier shall establish and maintain a written electrostatic discharge control program for the control of Electro-Static Discharge (ESD) during fabrication, handling, and packaging of electrical and electronic parts, assemblies, and equipment. The program shall be based on and meet the intent of ANSI/ESD S20.20 (or equivalent), or JESD625, or MIL-STD-1686.

Material shall be packaged using electrostatic protective material. Outer packages shall be plainly marked with an ESD warning notice. Connectors shall be fitted with ESD protective caps and external terminals shall be shorted together or protected with ESD foam.

SQAR 385 – Printed Circuit Board (PCB) Testing

The Supplier shall perform continuity and circuit short testing on all double-sided and multi-layer Printed Circuit Boards (PCBs) before shipping to Smiths Interconnect.

SQAR 407 – Military Customer First Article Inspection

Verification of First Article by the Military customer (military quality assurance and/or Defense Contract Management Agency) is required. The Smiths Interconnect Quality Assurance Point of Contact will coordinate First Article inspection by the Military customer at the supplier.

If FAR 52.209-03 is required, coordinate with your Smiths Interconnect Quality Assurance point of contact or your Smiths Interconnect Buyer for the required First Article Testing (FAT) and Inspections. Requirements are documented in the Customer Purchase Order.

SQAR 410 – Outsourcing Approval Required

The Supplier shall notify Smiths Interconnect, and request written approval prior to outsourcing a process, part, assembly or end item.

SQAR 419 – Supplier Counterfeit Parts Prevention Requirements

419.1 Purpose

This SQAR 419 is intended to prevent suspect and confirmed counterfeit Electrical, Electronic and Electromechanical (EEE) and Materiel commodities from entering Smiths Interconnect's supply chain and to standardize practices to:

a) Specify the flow down of these requirements to applicable suppliers/contractors and their sub-tier suppliers/contractors who are performing work on behalf of Smiths Interconnect;
b) Maximize availability of authenticated EEE and Materiel;
c) Procure EEE and Materiel from authorized sources where available;
d) Clear risks with Smiths Interconnect when EEE and Materiel are not available from authorized sources;
e) Assure authenticity and conformance of procured EEE and Materiel;
f) Control EEE and Materiel identified as suspect or confirmed counterfeit within the Smiths Interconnect supply chain and in the Supplier/Contract Manufacturers' supply chain;
g) Report suspect counterfeit and confirmed counterfeit EEE and Materiel, to other potential users and to Government investigative authorities as required by contract or by law;
h) This SQAR is specific to counterfeit prevention and detection, and not fraudulence beyond counterfeiting.

The provisions of this SQAR 419 are in addition to Supplier's responsibility to meet all contractual / purchase order requirements. The requirements of this SQAR 419 supplement the requirements of a higher level quality standard (e.g. AS9100), the Smiths Interconnect Counterfeit Parts Prevention control plan and other quality management system requirements. The requirements of SQAR 419 support both counterfeit prevention SAE Aerospace Standards: AS5553A and AS6174. SQAR 419 is not intended to stand alone or to supersede or cancel requirements found in other quality management system documents, requirements imposed by contract, or applicable laws and regulations unless an exemption and variance has been granted in writing by the Smiths Interconnect Director of Supplier Quality.

419.2 Applicability

a) The requirements defined in SQAR 419 apply to all commodity and assembly (EEE and Materiel purchase orders issued to Smiths Interconnect suppliers as defined in the applicability tables.
    1. Smiths Interconnect suppliers shall flow these requirements down to their lowest level sub-tier suppliers on behalf of Smiths Interconnect no later than the effective date of this SQAR Manual.

2. Periodic audits
    i. May be performed to assess compliance to SQAR419 requirements.
    ii. Will be determined by Smiths Interconnect and Smiths Interconnect sites.
    iii. Will assess SQAR419 flow down requirements for compliance.
    iv. Will be conducted by Smiths Interconnect and Smiths Interconnect sites as applicable.

b) EEE and Materiel delivered by a supplier after the effective date of this SQAR Manual shall comply with the requirements set forth in the current SQAR 419 revision.

c) The Counterfeit Avoidance (EEE or Materiel) Inspection and Testing Statement of Work (SOW) are applicable for commodity and assembly risk mitigation for Smiths Interconnect Design Authority

d) Smiths Interconnect EEE and Materiel commodity Furnished Material will have Authorizing Documentation providing traceability to the authorized source, or material verification testing and inspection, or inventory (receipt history) documentation. The supplier may use Smiths Interconnect EEE and Materiel commodity Furnished Material with Authorizing Documentation (Smiths Interconnect CofC) without needing to comply with further requirements of SQAR 419.

e) EEE and Materiel inventory is applicable to SQAR419. However Non-Pedigree inventory is applicable per Para's 419.3.5.1 and 3.5.2.

f) Supplier will indemnify, defend, and hold Smiths Interconnect harmless from and against any and all loss or expense incurred by Smiths Interconnect as a result of the delivery by Supplier to or on behalf of Smiths Interconnect of suspect, fraudulent, or counterfeit EEE and Materiel Parts or Assemblies, with the exception of parts included in assemblies acquired in accordance with paragraph (d) above.

g) This SQAR419 supports SAE Aerospace Standard AS5553A, "Fraudulent/Counterfeit EEE Parts; Avoidance, Detection, Mitigation, and Disposition", and SAE Aerospace Standard AS6174 "Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel", with exceptions noted below.*

h) All goods to be delivered will consist of new and unused materials (i.e. No used, refurbished, reclaimed) unless otherwise specified as "used" and no returned parts unless specified on the Smiths Interconnect purchase order or contract.**

i) Suppliers Providing Product under Design Authority of Smiths Interconnect.

Companies that supply product for which Smiths Interconnect is the design authority (build to print) shall certify in accordance with SQAR 140 that all sources of part supply have been verified as Authorized, utilizing the guidance provided in SQAR 419 Table 1. In the event that a source cannot be verified as Authorized, a Counterfeit Avoidance Workflow System (CAWS) request shall be initiated to clear the risk of counterfeiting. CAWS is accessible to suppliers through the following link: https://cpp.Smiths Interconnect.com/CounterfeitPartsPrevention/. Training for CAWS is available through the "Help" tab on the CAWS portal. Suppliers shall maintain objective evidence that sources of supply for material being incorporated into assemblies is from

Authorized Sources, and shall make that objective evidence available upon Smiths Interconnect and U.S. DoD Contracting Officer (when applicable) request for review and audit.

When a First Article Inspection Report (FAIR) is initiated, Suppliers shall have a FAIR in Net-Inspect for EEE or Materiel commodities incorporated into sub-assemblies for which Smiths Interconnect has design authority that certifies:

- Compliance to SQAR 419 Supplier Counterfeit Parts Prevention Requirements and the drawing requirements;
- That all sources have been verified as authorized in accordance with SQAR 419 Table 1 or a Counterfeit Avoidance Workflow System (CAWS) request has been initiated to clear the risk of counterfeiting.

j) Suppliers Providing Product under the Supplier's Design Control.

For companies that supply product to Smiths Interconnect under their own design authority, SQAR 419 requirements to obtain parts from Authorized Sources still apply. However, Suppliers should utilize their own counterfeit parts control plan in accordance with applicable regulations to verify parts acquisition from Authorized Sources and to mitigate any related risk of counterfeiting instead of using the aforementioned CAWS request. Industry specifications such as SAE AS5553 – "Counterfeit Electrical, Electronic, and Electromechanical (EEE) Parts; Avoidance, Detection, Mitigation, and Disposition" and AS6174 – "Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel" provide the framework to create a counterfeit parts control plan. Additional information and industry specifications on counterfeit avoidance and detection are available through the SAE Website: https://www.sae.org/news/3558/. Suppliers shall maintain objective evidence that sources of supply for material being incorporated into assemblies is from Authorized Sources, and shall make that objective evidence available upon Smiths Interconnect and U.S. DoD Contracting Officer (when applicable) request for review and audit.

The SQAR 419 takes exception to the following elements from both SAE Aerospace Standards:

- AS5553 - 4.1.4.c Purchasing Information, and consistent with the standard, Smiths Interconnect considers the appendices as guidance.
- AS6174 - 3.1.6 Materiel Control, and consistent with the standard, Smiths Interconnect considers the appendices as guidance.

419.3 Reference Documents

The following documents are directly associated with the application of SQAR 419.

- For dated references, only the edition cited applies.
- For updated references, the latest edition of the document, including all amendments, applies unless otherwise specified by contract.

In the event of conflict between the provisions of this SQAR 419 and references cited herein, the provisions of SQAR 419 take precedence.

419.4 SAE Publications

- SAE Aerospace Standard AS5553 (current release) - Fraudulent/Counterfeit Electronic
- Parts; Avoidance, Detection, Mitigation, and Disposition
- SAE Aerospace Standard AS6174 (current release) - Counterfeit Materiel; Assuring
- Acquisition of Authentic and Conforming Materiel
- SAE Aerospace AS9100 (current release) - Quality Management Systems - Requirements for Aviation, Space and Defense Organizations

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

419.5 Commercial Publications

- DEA-STD-1010 Acceptability of Electronic Components Distributed in the Open Market

Available from Independent Distributors of Electronics Association (IDEA), 6312 Darlington Avenue, Buena Park, CA 90621, Tel: 714-670-0200, www.idofea.org.

SQAR 420 – Provisions for Export-Control Regulation

When Smiths Interconnect drawings and/or specifications are identified as “Export Controlled” (which may include but not limited to: ITAR, EAR), the supplier shall not divulge information and material to a foreign person (including organizations), unless written authorization from the Department of State is received or a special exception is used.

SQAR 430 – Provisions for ReaCH and RoHS Requirements

Product should meet ReaCH / RoHS regulations based on the dash number of the SQAR, as shown in the chart below:

SQAR dash	Description	Details
430-1	Fully RoHS Compliant 2002	Items, materials, or processes shall be fully RoHS compliant per European Parliament Directive 2002/95/EC. The supplier shall provide a signed Certificate of Conformance (CoC) stating compliance to RoHS 2002; the CoC shall reference the packing slip or order number. Supplier shall provide Smiths Interconnect with a description of any materials or processes used that are not RoHS compliant as related to the product or process being supplied.
430-2	RoHS Compliant, Except Lead In Solders	Items, materials, or processes shall be RoHS compliant per European Parliament Directive, with the exception of lead (Pb) in solders. The supplier shall provide a signed Certificate of Conformance (CoC) stating compliance to RoHS with the exception of Lead (Pb) in solders, the CoC shall reference the packing slip or order number. Supplier shall provide Smiths Interconnect with a description of any other materials or processes used that are not RoHS compliant as related to the product or process being supplied.
430-3	RoHS Compliant, Contains Lead >85% Weight in High Temp Solder	Items, materials, or processes shall be fully RoHS compliant per European Parliament Directive, and contains lead (Pb) > 85% by weight in high melting temperature solders. The supplier shall provide a signed Certificate of Conformance (CoC) stating compliance to RoHS allowing Lead (Pb) > 85% by weight in high melting temperature solders, the CoC shall reference the packing slip or order number. Supplier shall provide Smiths Interconnect with a description of any other materials or processes used that are not RoHS compliant as related to the product or process being supplied.
430-4	Fully RoHS Compliant 2011	Items, materials, or processes shall be fully RoHS compliant per European Parliament Directive 2011/65/EU. The supplier shall provide a signed Certificate of Conformance (CoC) stating compliance to RoHS 2011; the CoC shall reference the packing slip or order number.

430-5	RoHS /ReaCH	The supplier shall certify that materials / chemicals supplier to Smiths Interconnect are RoHS/ReaCH compliant. In case of NOT compliance, this status shall be declared in the CoC as NOT RoHS/ReaCH compliant.

NOTE: Certifications provided should be in addition to any other documentation required per SQAR 140.

SQAR 440 – Process Control Plan

440.1 Requirement

The supplier shall maintain a Process Control Plan (PCP) detailing how Key Characteristics and processes will be controlled. The PCP must be maintained by the supplier and on file for review upon request.

SQAR 450 – Measurement System Analysis (MSA)

450.1 Requirement

The supplier shall perform Gage R&R studies in accordance with AIAG MSA (Current Revision) for gauges used to perform acceptance or rejection of features identified as Key Characteristics (per SQAR 200).

Acceptability shall be determined by the following table.

Gage R&R Percentage	Decision	Comments
Under 10%	Acceptable	Gauge is suitable for use.
Between 10% to 30%	May be acceptable for some applications	Requires approval by Smiths Interconnect prior to use.
Over 30%	Not Acceptable	Gauge system is not suitable for measurement strategy.

SQAR 509 – Manufacturing Readiness Review

509.1 Requirement

A joint Smiths Interconnect and Supplier Manufacturing Readiness Review (MRR) shall be conducted at the supplier's facility prior to the start of manufacturing when required by the Purchase Order (PO) or Statement of Work (SOW). The supplier shall submit the MRR data package to the Smiths Interconnect Buyer a minimum of 10 days in advance of the scheduled MRR.

509.2 MRR Objective

The MRR objective is for the supplier to demonstrate the overall production readiness prior to manufacturing, and to ensure that items to be manufactured will meet the requirements of the PO, SOW, engineering drawings and engineering specifications. The supplier shall demonstrate that all necessary manufacturing plans, inspection plans, travelers (build documentation), tooling, facilities, and other resources are in place and available to ensure meeting all quality and design requirements within the negotiated program budget and schedule.

509.3 MRR Team

The supplier MRR team shall consist of representatives from the management and the technical functions. The management functions shall include the contract administrator and responsible project engineer as a minimum. The technical representatives shall include design engineer/representative, manufacturing engineer/representative, and quality engineer/representative as a minimum.

509.4 MRR Presentation

The MRR presentation shall address the following items as a minimum:

- Supplier Project Team Organization with key personnel identified
- Overall Program Schedule including current status
- Procurement status including all sub-tier suppliers, and if applicable, Qualification status
- Manufacturing milestone schedule
- Action Item Status/Review
- Design Status (as applicable) including current status, trade-offs, producability studies, lessons learned, etc.

- Detailed Manufacturing Flow Diagram including supplier inspection points and Buyer Mandatory
- Inspection Points (MIP).
- Manufacturing Documentation Status
- Inspection Documentation Status
- Test Documentation Status
- Tooling needs and statuses including drawing status, build status, calibration status, etc.
- Facilities Readiness including layout and capacity (including plant tour during MRR)
- Operators and Inspectors training
- Overall Project Risk Assessment; technical, cost, schedule. Should include any plans to mitigate risks identified.
- Any additional requirements to be part of the presentation as defined in the PO/SOW

509.5 MRR Data Package

The MRR data package shall include the following as a minimum:

- Copy of MRR presentation
- Any Subcontractor (Supplier) Data Requirements List (SDRL) items as defined in the PO/SOW

509.6 MRR Supporting Documentation

The following documentation, as a minimum, shall be available for review at the MRR:

- Supplier Drawings and Specifications (as applicable)
- Traveler(s)/Build Documentation
- Test Procedures (as applicable)
- Inspection Procedures
- Tooling Drawings

SQAR 528 – Homogeneous Material Requirement

All material supplied under this specification number shall be homogeneous. Homogeneous supplies are defined as material that is produced:

- To the same design as defined by the buyer and seller's documentation;
- From the same material as defined by the applicable material specification.

When alternate materials are allowed by the purchase order and associated documents, the supplier must certify to a specific alternate.

After material has been submitted to Smiths Interconnect, the supplier may not change alternates without prior written approval from Smiths Interconnect.

The supplier is not restricted to any source of supply of raw material as long as the material meets the applicable specifications; by the same manufacturing process as defined by the seller's manufacturing plan. Changes in manufacturing location or production discontinuities of one month or more violate this requirement.

All manufacturing process sheets shall have a revision date not later than the date of the initial shipment of supplies to Smiths Interconnect, and the process used to manufacture the initial product shipment and all shipments thereafter.

Departure from these requirements, including changes suggested by Smiths Interconnect, must be approved in writing by Smiths Interconnect's Quality Engineering department prior to such departure.

SQAR 529 – Delegation of MRB Authority

The supplier is hereby granted authority to perform Material Review Board (MRB) actions on material not in conformance. Results of the MRB action shall be submitted to the Buyer with each shipment of the affected material.

- Supplier shall furnish one copy of all Material Review reports to Buyer's Supplier Quality Engineering Department via Buyer's Purchasing Department. One copy of each Material Review action shall be included with the shipment of affected material. These reports shall list in detail the salvage methods utilized, if applicable.
- Final review authority over Supplier's Material Review decisions is retained by Smiths Interconnect.
- The Supplier shall not make substitution of Material Review members or delegate Material Review authority to subcontractors performing work on Buyer parts without advance written authorization from Buyer.
- Supplier Material Review action is not allowed when interchangeability, external configuration, function, service life, safety, reliability, or point of attachment to Buyer assemblies are affected.

SQAR 532 – Cosmetic Part – Visual Inspection Requirement

Obvious blemishes (e.g., digs, pits, scratches, etc.) are not permitted. Parts should be packaged individually or in containers using dividers. Suppliers shall ensure that inspection practices include a thorough visual examination of product and shall refer to site specific workmanship specifications where available.

SQAR 534 – Paint / Plating Thickness Test Required

Painting or plating thickness tests shall be conducted on the item(s) on this order by the painting or plating supplier. Painting or plating thickness test data shall be provided with the shipment.

SQAR 535 – 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).

SQAR 536 – TSO / PMA Tags

If the supplier holds certification (TSO/PMA/TC), the supplier is responsible for assigning and maintaining serial number control. If Smiths Interconnect holds the certification (TSO/PMA/TC), the supplier shall assign serial numbers sequentially beginning with serial number 1001, or as otherwise directed in the Purchase Order.

For product with supplier held TSO/PMA, the supplier shall provide an FAA Form 8130-3 or equivalent Airworthiness Approval Tag with each product, or for large shipments a single FAA Form 8130-3 or equivalent covering the range of serial numbers shipped. If the Smiths Interconnect part number differs from the TSO/PMA/TC approved part number, the Smiths Interconnect part number shall be referenced on the 8130-3 or equivalent form (it is acceptable to use Remarks Section 13). For individual products, the original certification shall be attached to the exterior of each product container in a protective envelope or inside the box provided that a stamp/label on the box exterior indicates the enclosure. For products covered under a range certification, a copy of the certificate shall be attached to the exterior of each product container in a protective envelope or inside the box provided that a stamp/label on the box exterior indicates the enclosure.

Smiths Interconnect will specifically request suppliers to provide 8130-3 tags to each country to which the products are shipped if they are not shipped to domestic customers. In case of products that are to be shipped to any of EU customers and if those products require TSO certification and/or supplier holding TSO approvals for the products, such suppliers shall provide a FAA Form 8130-3 containing a reference to the FAA TSO. Authorization number in remarks block. This is per EASA regulation 5.1.6b (2) which states that each new appliance exported to the EU with FAA Authorized Release Certificate shall have an FAA Form 8130-3 containing a reference to the FAA TSO Authorization number in the remark block.

SQAR 542 – Diodes – Metallurgical Bond

During performance on this order, your control of device lot traceability documentation and your inventory control for MIL-S-19500F JAN branded devices are subject to review, validation and verification by an authorized Government representative. Government release of shipment is not required unless you are otherwise notified.

MIL-S-19500 diodes shall be constructed using only a metallurgical bond between the die and the header.

SQAR 557 – X-Ray Film Required

Radiographic film, (uncut sheets), digitized film or digital radiograph, with penetrometers intact, is required. The media and marking shall include:

- device manufacturer
- device type
- production lot code or date code
- radiographic film / digitized film / digital radiograph view number and date
- device serial number or cross reference list, and
- X-ray/digitizer laboratory identification (if other than manufacturer).

SQAR 601 – Compliance with DFAR regulations

601.1 Scope

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).

When specialty metals indicated, items on this order shall comply with DFAR 252.225.7008 for specialty metals listed and shall be made in the US or qualifying countries listed in DFAR 252.225.872.1.

601.2 Specialty Metals Definition

Steels with a maximum alloy content exceeding one or more of the following limits:

1) Magnesium 1.65%, Silicon 0.60%, or Copper 0.60% or containing more than 0.25% of any of the following elements -- Aluminum, Chromium, Cobalt, Columbium, Molybdenum, Nickel,

Titanium, Tungsten or Vanadium.

2) Metal alloys consisting of Nickel, Iron-Nickel, and Cobalt base alloys containing a total of other alloying metals (except Iron) in excess of 10%

3) Titanium and Titanium alloys, and Zirconium and Zirconium alloys.

601.3 Verification

When specialty metals (per 601.2) are applicable to the purchase order, the supplier shall include the following wording (or equivalent) on the CoC accompanying the material: "*This material is compliant with specialty metals regulation, as defined in DFARS 252.225.7008*"

When no specialty metals (per 601.2) are applicable to the purchase order, the supplier shall include the following wording (or equivalent) on the CoC accompanying the material: "*This material does NOT contain specialty metals, as defined in DFARS 252.225.7008*".

SQAR 604 – Provisions for 100% inspection required

Supplier is required to perform 100% inspection to ensure compliance to drawing and specification requirements. Objective evidence of this inspection must be maintained on file and available for Smiths Interconnect review, and traceable to the individual doing the inspection operation.

Reference to 100% inspection to be included in CoC and package labeling.

SQAR 605 – Provisions for Handling and Packaging of Precious Metals

605.1 Handling

Items on this order are precious metal parts or stock and shall be handled and stored in accordance with PTM-25. When items from the order are removed from the original manufacturers or suppliers packaging, the intermediate packaging shall be of equivalent protection as the original packaging and shall be marked to indicate handling and storage per PTM-25.

605.2 Packaging

Items on this order are considered precious metal parts and/or stock and shall be packaged to prevent environmental contamination. Outer packages shall be marked to indicate precious metal parts and/or stock.

SQAR 606 – Internal Source Inspection Required

606.1 Scope

Product requires a Smiths Interconnect Source Inspection, as shown in the chart below:

SQAR dash	Description
606-1	Precap Source Inspection
606-2	In-process Source Inspection
606-3	Final Source Inspection

Note: More than one dash number may apply.

606.2 Process

The supplier shall notify the Buyer a minimum of 5 days in advance of when the material will be ready for Smiths Interconnect Source inspection. If the material will not be ready for Smiths Interconnect source inspection on the scheduled date the supplier shall notify the Smiths Interconnect Buyer at the earliest possible date and as a minimum 24 hours before he scheduled inspection.

SQAR 607 – Sulfur Content

Sulfur content of sponges shall be less than 100 parts per million. Certifications to this requirement shall be provided with each shipment

SQAR 610 – Smoke and Fire Requirements EN 45545 (molded plastic parts) Materials

The supplier shall:

- Provide a Material Certification (chemical composition) or a Certificate of Conformance (per SQAR) compliant according to the technical data sheet from the manufacturer.
- Inform Smiths Interconnect about technical, or description, or of manufacturing location changes with an UNIFE declaration (www.unife.com) or EN 45545-2 test report compliant to R22 R23 requirements dated less than 5 years. www.certifer.fr

If the standard parts are not accompanied upon delivery by all of the requested documents, and if the supplier cannot transmit the requested documents for production parts, Smiths Interconnect shall return the articles as a non-conformity.

Copies of the documents are requested with the parts and shall be send by E-mail or fax to the Purchasing / QA Departments.

Repeated cases of missing documents may cause the supplier to be placed on a 'Not Approved' status and not eligible for new business.

Change History

Revision	Initiated by	Date	Description of Change / Reason
A	W. Stull	23-MAY-2019	Initial Release
B	W. Stull	22-JUN-2019	Revised SQAR's 200, 220, 300, 509
C	W. Stull	15-JAN-2020	Clarified SQAR 165., SQAR 200.3,
C	Luis R.	15-Jan-2020	Update release date per GCMS 2020-2301 – No rev change needed
D	B. McCourt W. Stull	12-Aug-2020	Added US Government FAR DFAR Provisions Rewrite of SQAR 230 (FAIR) to provide clarity of requirements.
E	W. Stull	29-Apr-2021	General review. No significant changes made.
F	Luis R.	12-Jul-2023	Modify SQAR 601 – Add section 601.3 to detail verification activities to Specialty Metals flow-down to suppliers
G	W. Stull	11-OCT-2023	Added special packaging instructions for pin contacts and rear tails.
H	W. Stull	27-OCT-2023	Added packaging table to section 300.5.