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**SQRs**

**SUPPLIER QUALITY REQUIREMENTS**

**Revision B 03/18**



**When specified on an Transline Technology, Inc. Purchase Order, the requirements, as stated herein, become a part of the purchase order issued by**

**TRANSLINE TECHNOLOGY, INC.**

**Failure to comply with these SQR'S could result in the rejection of and/or delay in payment for material supplied under the purchase order issued.**

**1.0 Purpose**

This document defines the quality requirements for suppliers and sub-tier sources associated with a purchase order.

**2.0 Scope**

This document applies to all suppliers and purchase orders for purchased product or services associated with Transline Technology, Inc.

**3.0 Reference Materials**

SQR 1: Minimum Supplier Requirements

SQR 2: Material Safety Data Sheet (MSDS)

SQR 3: Chemical and Physical Analysis

SQR 4: Solder Analysis

SQR 5: Plating Test Data

SQR 6: Calibration Services

SQR 7: Tool Qualification

SQR 8: Outside Testing Accreditation Requirements

SQR 9: Restriction of Hazardous Substances (RoHS)

SQR 10: Regulatory Requirements

SQR 11: No Substitutions

SQR 12: Subcontract Assembly-Material Traceability of Components

SQR 13 Special Process Control Requirements

SQR 14: TTI Source Inspection

SQR 15: Lot Report / Control

SQR 16: ITAR: DFAR 252.204-7008 Safeguarding Covered Defense Information Controls

**4.0 Definitions/Acronyms**

- 4.1 SQR: A Supplier Quality Requirement (SQR) is a specific requirement for documentation or services which extends beyond the Purchase Specification (PS) and which the supplier is contractually bound to meet.
- 4.2 TTI: Transline Technology, Inc.
- 4.3 PO: Purchase Order
- 4.4 PS: Purchase Specification
- 4.5 SQR: Supplier Quality Requirement
- 4.6 MRB: Material Review Board

**SQR 1: Minimum Supplier Requirements**

**A. Certificate of Compliance (C of C):**

- \* Material supplied on this purchase order shall conform to requirements stated therein, and shall be accompanied by a C of C, which must contain the following information:
- \* TTI purchase order number, po revision, line item number
- \* Part number of item (as specified on the purchase order), revision, quantity
- \* Drawing or specification number and revision if different than the TTI part number and revision.
- \* All raw materials, etc. that are specified on the purchase specification must be listed on the C of C.

A lot is defined as a homogenous quantity of parts/material received and controlled as a single procurement transaction.

The supplier or service provider shall provide a certificate of conformance with each shipment of items delivered to TTI. The certificate shall state that the supplier and/or the original manufacturer has performed all inspections and required tests identified on the TTI Purchase Order and the delivered Items meet all of the requirements identified on the TTI Purchase Order.

**B. Configuration Management:**

The parts, materials, processes used to build the product on this PO are controlled by TTI. Suppliers must notify TTI of any changes to product, processes, suppliers, and facilities. No changes may be made unless approved in writing by authorized TTI personnel.

**C. Supplier Discovered Nonconforming Material:**

All material(s) provided are to be supplied in conformance with drawings, and specifications as required in the PO. Unless specified in the PO, the supplier and their subcontractors do not have authority to process “Use-As-Is”, “Repair”, “Standard Repair Procedures (SRP)” or “Non-SRP” via their MRB. These dispositions, as well as deviations and request for waivers, shall be submitted for approval prior to delivery of the product. If the TTI MRB authorizes the deviation, a written Deviation Request / Authorization shall be issued to the supplier. This must accompany the nonconforming material when shipped.

**D. Packaging:**

Material supplied under this PO must be packaged in accordance with specific direction provided on attached drawings or specifications. If not specified, the supplier is responsible for packaging the product in such a manner as to protect the material from the hazards of contamination or physical damage encountered in transport, general handling, storage, and issue. Parts are to be protected from corrosion, for example, packaged with desiccant when applicable

**E. Records:**

Records of manufacture, qualification, inspection and test, and traceability shall be maintained by the supplier and made available for review. Such records shall be maintained for at least **10** years, unless otherwise specified.

**F. Inspection and Testing:**

Material shall be subjected to inspection and/or testing after receipt, as necessary, to assure conformance to purchase order requirements.

When requested, inspection and/or tests required to prove full conformance of a line item to purchase order requirements must be recorded and provided. If the material requires TTI source inspection, the data must be made available for review by the TTI Quality Representative prior to delivery. The data submitted shall cover the lot of material being shipped.

**G. Calibration System Requirements:**

The Supplier shall provide and maintain gages and other measuring and testing devices necessary to assure that supplies conform to the technical requirements. Calibration of inspection and test equipment shall be performed with standards that have certifiable traceability to NIST.

**H. Quality System Requirements:**

The Supplier’s Quality Systems must comply with ISO 9001 Quality System Requirements or the supplier must show evidence of developing systems towards compliance.

**I. Right of Entry Provisions:**

These provisions shall allow TTI; it’s Customer, and Regulatory Agencies the right of entry to the applicable areas of all facilities, at any level of the supply chain involved with the order, to determine and verify the quality of work, records, and materials. This also applies to the supplier’s subcontractors.

**J. AS9102: First Article Inspection - Initial Sample Inspection Report (FAI/ISIR):**

A completed ISIR must accompany the first manufactured lot of a new product, if requested.

Supplier shall perform a complete first article inspection to applicable drawings, specifications, technical instructions, processing tooling, inspection and test equipment in accordance with the guidelines below to assure the product is compliant with the requirements of this purchase order.

FAI applies to one piece from the first production run, unless otherwise set forth in this purchase order through written waiver by quality assurance.

**K. Counterfeit Parts Prevention**

For purposes of this clause, “Genuine Work” consists of those parts delivered under this Contract that are the lowest level of separately identifiable items (e.g. articles, components, goods and assemblies). “Counterfeit Work” means Work that is or contains items misrepresented as having been designed and/or produced under an approved system or other acceptable method. The supplier shall have a counterfeit detection process that is similar to, and meets the intent of, SAE standard AS5553, Counterfeit Electronic Parts, Avoidance, Detection, Mitigation, and Disposition. Suppliers of higher level assemblies shall flow this requirement down to all their sub-tier suppliers to prevent the inadvertent use of counterfeit parts and materials.

**L. Requirement Flow Down:**

Suppliers are required to flow down all applicable requirements in the PO to sub-tier suppliers.

**M. Shelf Life:**

At time of TTI receipt, material must have a minimum of 50% of its original shelf life remaining, as defined by the manufacturers’ expiration date.

Suppliers must practice the "first in first out" principle of stock control

**N. Foreign Object Debris/Damage (FOD) Prevention:**

Whenever FOD entrapment or foreign objects can migrate, the Supplier shall maintain a FOD prevention program. The supplier’s quality program shall include FOD preventive practices and packaging.

**O. Customer Furnished Material**

When material is furnished by TTI/TTI’s Customer, the supplier’s procedures shall include, as a minimum:

- \* Examination upon receipt, consistent with practicability, to detect damage in transit
- \* Inspection for completeness and proper type
- \* Periodic inspection and precautions to assure adequate storage conditions and to safeguard against damage from handling and deterioration during storage

\* Verification of quantity

**P. Root Cause and Corrective Action.**

The Supplier shall take prompt action to correct assignable conditions which have resulted or could result in the submission of nonconforming material to TTI.

**Q. Process Controls**

The Supplier shall notify TTI of changes in product and/or process definition and where required, obtain TTI’s approval.

**R. End of Life notification (EOL) / Obsolescence**

It is the supplier’s responsibility to monitor the life cycle status and availability of parts and/or materials through the duration of the contract.

**S. Communication:**

Contact buyer if any questions arise with Purchase Order

- Suppliers are evaluated on a regular basis for delivery and quality. If there are any issues, supplier may be required to complete a Corrective Action
- If Source Inspection is required it will be indicated on the Purchase Order
- Supplier must have a process to address awareness for the following areas:  
-Contribution to product or service conformity, product safety

**T. Awareness:**

TTI ensure that persons doing this work are aware of all requirements as per 7.3

**SQR 2: Material Safety Data Sheet (MSDS)**

The supplier shall maintain MSDS and furnish, if requested by TTI

**SQR 3: Chemical and Physical Analysis**

The supplier shall furnish quantitative results of tests obtained from the point of manufacture, indicating that materials furnished meet all TTI and other requirements. Test reports from sub-tier suppliers are acceptable.

**SQR 4: Solder Analysis**

A copy of the supplier or manufacturer’s test report containing reflow temperature data and chemical analysis data must be maintained and furnished upon request.

**SQR 5: Plating Test Data**

A copy of the supplier’s test report containing quantitative results of plating thickness tests must be maintained and provided to TTI upon request.

**SQR 6: Calibration Services**

The calibration facility shall be accredited to ISO/IEC 17025 or national equivalent. All calibrations must be performed in accordance with ANSI Z 540 (latest revision).

At minimum, the certificate shall include the following:

- Verification of calibration in accordance with ISO 10012-1, ISO/IEC 17025 and ANSI Z 540 requirements
- Identification of all standards used with certifiable traceability to NIST
- Actual measurements of calibrated equipment vs. standards used
- Statements describing any adjustments made to the equipment

Condition as received, including any out of specification readings; TTI must be notified immediately if out of specification condition exists.

**SQR 7: Tool Qualification**

Tool suppliers must maintain and supply, if requested by TTI, objective evidence that a full dimensional inspection has been performed and that the manufactured tool/gage meets the requirements of the TTI.

**SQR 8: Outside Testing Accreditation Requirements**

The outside testing facility must be accredited to ISO/IEC 14025 or equivalent.

**SQR 9: Restriction of Hazardous Substances (RoHS)**

When required by the PS, product(s) supplied under this PO must be compliant to the Restriction of Hazardous Substance (RoHS) Directive

All products supplied must meet requirements of SQR 10 with the exception of lead (Pb) contained in solder (RoHS 5/6).

**SQR 10: Regulatory Requirements**

The supplier must comply with all local/state/federal regulations as applicable.

**SQR 11: No Substitutions**

If TTI supplied material is provided for this PO. No substitutions allowed.

**SQR 12: Subcontract Assembly Manufacturers Requirement for Material Traceability of Components**

The Supplier shall maintain a Material Authenticity program that aligns and is consistent with the intent of SAE AS5553, Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition.

Seller shall maintain objective evidence of supply chain traceability to the original component manufacture (OCM) / original equipment manufacturer (OEM), authorized aftermarket manufacturer (AAM), or manufacturer – authorized distributor that identifies the name and location of all of the supply chain intermediaries from the component manufacturer to the direct source of the component(s) for the seller for any components procured in support of this purchase order.

**SQR 13: Special Process Control Requirements**

A Special Manufacturing Process is a process where it is not possible to assure, by typical verification techniques, that product integrity is achieved by the process.

**SQR 14: TTI Source Inspection**

TTI Source Inspection is required, if specified on purchase Order for products and services supplied on this purchase order prior to any shipments.

**SQR 15: Lot Number Report / Control**

Seller shall provide the following lot documentation with each shipment (may be delivered via hardcopy with shipment or electronic media to buyer).

C of C shall be provided by the Seller for each supplier

The CoC shall list and contain:

- Sellers name and address
- Purchase order (PO) number
- Quantity of shipment
- Drawing number with drawing revision, specification number with revision
- Seller lot identification (e.g. lot number)

For any certifications on which the Seller was not the manufacturer of an item, certifications must be traceable to and contain a copy of a certification from the manufacturer.

Special Process Certification

Seller shall provide a C of C, for all special processes (e.g. plating, coatings, cleaning, chemical treatments, heat treatment, non-destructive testing) performed in accordance with listed drawings and specifications.

**SQR 16: ITAR**

DFAR 252.204-7008 Safeguarding Covered Defense Information Controls

The supplier shall adhere to the ITAR compliance requirements for performing work or service involving ITAR compliance. In accordance with ITAR 22 C.F.R. 120-130 International Traffic in Arms Regulation, all documents identified as ITAR controlled shall be identified, maintained in Document Control and segregated from non-ITAR documents. Documents identified as ITAR controlled shall be viewed only by a U.S. PERSON. A U.S. PERSON means an entity that is: a U.S. Citizen or a Legal Resident, or U.S. organization incorporated to do business in the United States.

