Document: Supplier Quality Systems Requirements (SQSR)

1. SUMMARY

1.1. The purpose of this document is to identify the Supplier's quality requirements and aid the Supplier in determining which quality level is required, relative to the complexity of the product/service that is being procured.

1.2. The Purchasing Manager (or designee) is responsible for implementation and management of this procedure.

2. SCOPE

2.1. This document defines quality systems that are required for those suppliers, vendors, and subcontractors (here after referred to as the "**Seller**") providing materials/products/services to Softronics Ltd (here after referred to as the "**Buyer**"). Any revision to this document shall be adhered to by Seller upon receipt thereof.

2.2. The provisions of Buyer's subcontract, purchase order or purchase agreement (hereafter referred to as Order) titled "Additional Provisions", "Inspection and Acceptance" or "Quality Requirements" are supplemented by this document which is hereby incorporated by reference into the Order. Seller shall comply with establishing and maintaining quality systems required by this document whether the Order is received by the Seller in paper form or by electronic data interchange. This document also defines additional supplier requirements and expectations.

2.3. Seller shall flow down applicable product specifications, descriptions and requirements to sub-tier suppliers, including key characteristics as required.

3. REVISION AND APPROVAL

Rev.	Date	Nature of Changes	Approved By
A	9-30-19	Switched to Revision letter control	Dean S.
B	11-4-19	Made changes to Table 2	Dean S.
C	10-5-20	Added section 19 (FOD) requirements	Dean S.

4. ACRONYMS AND DEFINITIONS

- **C of C –** Certificate of Conformance
- **COTS –** Commercial off-the-shelf
- **DOD –** Department of Defense
- **FAA –** Federal Aviation Administration
- **ISO –** International Organization for Standardization
- **NASA –** National Aeronautics and Space Administration
- **OEM –** Original Equipment Manufacturer
- **QPL –** Qualified Products List
- **TBD –** To Be Determined
- **SPC –** Statistical Process Control

- **MRB –** Material Review Board
- **Fit –** Physical size, interconnection, and mounting requirements of an item.
- **Function –** The attribute of an end item equipment or assembly pertaining to operation or performance (e.g. safety, accuracy, testability, compatibility, reliability, maintainability, etc.).
- **Form –** Internal structure (composition material) and the external outline (shape) within the limits set forth in the equipment specification.
- **Interchangeability –** Ability of a part to replace or be replaced in the existing end item equipment, irrespective of part number, wherever installed. The replacing part must meet all physical, functional, and structural requirements of the part it replaces and be installed by the application of normal means of attachment.
- **Performance –** The quantitative specification of an item's characteristics which may include the operating range, limits and values.
- **Repair –** The subjection of nonconforming material to an approved process designed to reduce but not completely eliminate the nonconformance.
- **Rework –** All work performed on articles with known deficiencies so as to cause such articles to fully comply with documented requirements.
- **Use as is –** Material with minor nonconformance's dispositioned by formal MRB where authorized, when the material is determined to be satisfactory for its intended use.
- **Inspected or Tested –** A product or component part which has been examined by means of visual inspection and/or functional testing.

REQUIREMENTS

5. GENERAL

5.1. During the performance of any Order, the Seller shall perform a self-assessment and determine the applicable Supplier Category (Refer to **Table 1**). The Seller shall maintain a quality system compliant with the applicable Quality System Requirements Matrix (Refer to **Table 2**). All requirements specified in the Quality System Requirements Matrix (identified with an "X" under the applicable Supplier Category) apply to any Order. The Buyer may assess a different Supplier Category and the Supplier shall meet the requirements of a new Supplier Category assessment. Softronics Ltd. uses various methods, which may include an on-site survey, to verify that these requirements are being met.

5.2. Subcontractors and suppliers are selected on the basis of their category rating and matrix selection as defined in the SQSR; availability; manufacturing methods; cost; product; compliance; on-time delivery performance; acceptance rate performance, and prior history on other projects. Subcontractors and suppliers shall be re-evaluated based on compliance with these selected criteria.

> **Notice:** *In the event that the Seller's quality system is non-compliant, or if the Seller's ISO registration is suspended, changed or expires during the performance of the Order, the Seller shall notify the Buyer in writing. Notification shall be within ten (10) working days of the revocation, suspension, change or expiration. The Seller must conform to the requirement defined in Quality System Compliance Matrix,* ***Table 2*** *of this document after selecting the appropriate Supplier Category from the Supply Category Definitions table which is* ***Table 1*** *of this document.*

6. MATERIAL REVIEW AUTHORITY

6.1. Material review authority shall not extend to “repair” or “use-as-is” for supplier specified or customer specified requirements without prior documented approval from the customer. Seller shall submit to Buyer all requests for variance from Contract, Purchase Order, specification or drawing requirements.

7. ELECTROSTATIC DEVICE PROTECTION

7.1. Devices identified as electrostatic discharge sensitive shall be handled, stored, packaged and shipped in such a manner as to preclude damage from electrostatic discharge. Electrostatic protection process shall be modeled after **ANSI/ESD S20.20-2014**.

8. BUYER DEFINED CRITICAL OR KEY CHARACTERISTICS

8.1. Devices having one or more characteristics identified as "Critical" or “Key” shall include 100% inspection and/or test. The Seller's may submit an alternate SPC plan to the Buyer for consideration and approval. Approval in writing must be received from the Buyer prior to product acceptance. Unless otherwise specified, inspection/test reports or SPC data shall be submitted with each lot for part numbers that contain key characteristics.

9. WORKMANSHIP

9.1. The Seller shall establish workmanship plans and acceptance standards in writing in accordance with the performance and reliability requirements of the Buyers specifications. For electrical parts, the plans and acceptance standards shall be modeled after **J-STD-001** "Requirements for Soldered Electrical and Electronic Assemblies" and **ANSI/IPC-A-610** “Acceptability of Printed Board Assemblies". Other types of parts shall have workmanship plans in accordance with the relevant drawings, specifications and the supplier’s quality system. Workmanship requirements specified on the component specification/drawing or elsewhere on any Purchase Order take precedence.

10. UNIQUE PART NUMBER CONTROL

10.1. The Seller shall maintain a documented process to assure published data and specifications maintain a unique part number. The Seller shall change the Seller's part number when introducing changes which affect the performance, form, fit, function, or interchangeability of the Seller's product. For any changes, please see paragraph 13.

11. RIGHT OF ACCESS

11.1. The Buyer, Buyer’s customer, and cognizant government agencies shall have access to all applicable areas of Seller’s facilities at any level of the supply chain involved in the order and to all applicable records. This right shall also extend to the Seller’s subcontractors. Seller shall be notified within a reasonable amount of time by the Buyer to host such events. Failure to meet schedule, quality or program requirements may cause long term visitation plans to be put in place.

12. BUYERS SOURCE INSPECTIONS AND PROCESS VERIFICATIONS

12.1. Buyer's source inspections or process verifications shall not absolve the Seller of the responsibility to provide acceptable product nor shall it preclude subsequent rejection. Use of a Buyer's subcontractor shall not be considered by the Seller as evidence of effective control of quality by the subcontractor.

13. CHANGES IN PRODUCT, FACILITIES OR QUALITY MANAGEMENT SYSTEM (QMS)

13.1. The Seller shall notify the Buyer and obtain written approval prior to shipping products with changes in product, processes, components, sub-suppliers/subcontractor, manufacturing facility location, packaging, shipping method or outside processor. The Seller shall also notify the Buyer in writing prior to any change in top management, ownership, quality management system, or a major change in the number of employees or resources used in a Softronics Ltd. Sub Contract.

13.2. If the Buyer deems any of these above changes significant, a full or partial part/product requalification will be necessary to validate the change. Since these changes are driven by the Seller, all cost of product or process requalification needed to validate products will be at the Sellers' expense.

13.3. To comply with Softronics Ltd. (changes in Facility, Product or Quality Management System), the supplier must notify Softronics in writing.

14. SUBCONTRACTING OF THE ORDER

14.1. The Seller shall not subcontract in whole, or substantially in whole, performance of any Order without prior written consent of the Buyer.

15. RECORDS

15.1. Records shall be established per **Table 2** of this document, providing evidence of conformity to requirements as well as the effective operation of the quality management system. Records shall be available for review by Buyer's representative, customers and regulatory authorities. Unless otherwise indicated, the Seller shall retain records in accordance with **Table 3**. All requested information shall be provided in the language required by the contract.

16. SHIPMENT CONFORMANCY

16.1. Seller's shipment of articles to Buyer shall constitute certification that the articles were manufactured, processed, and inspected to the requirements of the Buyer's Order. Specific certificates of conformance may be required.

17. NOTICE OF DISCREPANT MATERIAL OR REQUEST FOR CORRECTIVE ACTION

17.1. In the event of delivery of discrepant material, the Seller is subject to the receipt of a Supplier Corrective Action Request. Per requirements of the Supplier Corrective Action process, the Seller is required to provide a Containment Statement within three working days; a root cause corrective action response within ten working days; and be subject to an elevation of notification for delinquent response. An extension may be granted with agreed upon business case. Regardless of the products warranty status, when requested, the supplier is required to provide a root cause and corrective action for failures that occur on parts, the first time they are installed. These are sometimes referred to as out of box failures.

17.2. Failure to comply with the rules of this Supplier Corrective Action process requirement may jeopardize compliance to the contract requirements. In the event Seller fails to remedy discrepancies as required by the Supplier Corrective Action Request, or if Seller fails to make progress so as to endanger the performance of this agreement with its terms, Softronics Ltd may exercise its rights and remedies under the Cancellation/Termination Article of the agreement between Softronics Ltd. and the supplier.
When corrective action progress is insufficient, Softronics Ltd. may place a supplier on probation status. Suppliers on probation status will not be considered for new procurement activity.

17.3. The Supplier must promptly notify a Softronics Ltd. Buyer or Quality Manager in writing when a nonconformity is discovered in the supplier's processes or components/ assemblies for a product already delivered.

The notification must include at a minimum:

a) A clear description of the nonconformity
b) Affected programs, part numbers, serial numbers, date codes etc.
c) Quantity delivered, reference PO, ship date
d) Containment plan including replacement availability and recovery plan

Upon Buyer's determination that the non-conformity has been closed, the Seller must provide Softronics Ltd. with a root cause statement and "long term" corrective actions taken.

18. COUNTERFEIT PARTS; AVOIDANCE, DETECTION, MITIGATION, AND DISPOSITION

18.1. To assure customer satisfaction, Softronics Ltd. must produce, and continually improve, safe, reliable products that meet or exceed customer and regulatory authority requirements. To meet that challenge, we require that all suppliers provide proof (through internal processes) that counterfeit parts are not used. See attached **Table 1** (to determine supplier category) and **Table 2** (for ISO specific clauses and their applicable QMS processes).

19. FOREIGN OBJECT DEBRIS (FOD)

19.1. When potential for FOD entrapment or migration can occur during manufacturing or processing, FOD mitigation shall be implemented.

19.2. When the potential for FOD entrapment or migration can occur during manufacturing or processing by Supplier's subcontractor, Supplier shall ensure applicable flow down of FOD mitigation requirements.

20. CONFLICT MINERALS

20.1. *Conflict Free Mineral Statement:* Softronics Ltd. is committed to taking all reasonable steps to ensure that the products received from our suppliers are responsibility sourced. Softronics Ltd. believes in the responsible sourcing of materials and will continue to ensure a conflict-free supply chain.

20.2. Softronics Ltd. is committed to taking all reasonable steps to ensure that the products received from our suppliers are responsibility sourced. Softronics requires that our suppliers provide documentation that supports this process. Yearly or as required, suppliers shall submit completed form CFSI-CMRT-"current revision", or companies' equivalent.

21. TRAINING

21.1. Suppliers shall establish a method for training, assessing and documenting the proficiency of personnel performing activities that affect quality. Personnel shall be aware of:

- Their contribution to product or service conformity
- Their contribution to product safety
- The importance of ethical behavior

Recurrent training shall be conducted as needed for regulatory, technical skills and where applicable, special process personnel qualification. Training requirements shall be continually reviewed to ensure skills are upgraded to reflect changes in methods and technology advancements. Records relating to training shall be retained.

22. REFERENCES

Quality Management Systems - Requirements for Aviation	➔	[AS9100D]
Requirements for Handling Electrostatic	➔	[ANSIESD S20.20-2014]
Requirements for Soldered Electrical & Electronic Assemblies	➔	[J-STD-001]
Acceptability of Printed Circuit Boards	➔	[ANSI/IPC A-610]

Table 1 - Supply Category Definitions

Supplier Category	Category Title	Description	Part Categories that may be supplied
1	Build to Print Cellular Business System	Any Softronics Cellular Business System. Must build to the intent of ISO 9001/AS9100. Certification not required.	Any product manufactured or service offered for specified customers
2	Retail Commercial	A supplier of retail commercial product offered to the public	Retail commercial product
3	Raw Material	Supplier of basic, raw material	Basic raw material, retail commercial product
4	Build-to-print (non-Cellular)	A supplier of build to print component, assembly, minor system or subsystem for which the supplier has less than total design responsibility	Build to print product, basic material or standard services/processes/software
5	Off-the-shelf	A supplier of Off-the-shelf Industrial products for which the supplier has total design authority	Off-the-shelf product or standard services and software
6	Franchised Distributor	A distributor or OEM representative	Off-the-shelf product
7	Broker	A supplier of specific commodities which are not typically available because of OEM discontinuance or obsolescence (are not to be used in production at Softronics Ltd)	Obsolete or discontinued product

Table 2 – Conformity Requirements for Records

Clause	ISO 9001:2015 / AS9100D Paragragh	1	2	3	4	5	6	7
4.1	Understanding the Organization and Its Context	X		X	X	X	X	X
4.2	Understanding the Needs and Expectations of Interested Parties	X		X	X	X	X	X
4.3	Determining the Scope of the Quality Management System	X		X	X	X		X
4.4	Quality Management System and Its Processes	X		X	X	X		X
4.4.2	Documented Information	X		X	X	X		X
5.1	Leadership and Commitment	X		X	X	X		X
5.1.1	Leadership and Commitment (General)	X		X	X	X		X
5.1.2	Customer Focus	X		X	X	X	X	X
5.1.2.d	Measuring Product/Service Conformity & On-time Del. Performance	X		X	X	X		X
5.2.1	Establishing the Quality Policy	X		X	X	X		X
5.2.2	Communicating the Quality Policy	X		X	X	X		X
5.3	Organizational Roles, Responsibilities, and Authorities	X		X	X	X	X	X
6.1	Actions to Address Risks and Opportunities	X		X	X	X		X
6.2	Quality Objectives and Planning to Achieve Them	X		X	X	X	X	X
6.3	Planning of Changes	X		X	X	X	X	X
7.1	Resources	X		X	X	X		X
7.1.1	Support / Resources (General)	X		X	X	X		X
7.1.2	People	X		X	X	X	X	X
7.1.3	Infrastructure	X		X	X	X		X
7.1.4	Environment for the Operation of Processes	X		X	X	X		X
7.1.5	Monitoring and Measuring Resources	X		X	X	X		X
7.1.6	Organizational Knowledge	X		X	X	X		X
7.2	Competence	X		X	X	X		X
7.3	Awareness	X		X	X	X		X
7.3.e-h	Awareness of QMS Information, Contribution, and Ethical Behavior	X		X	X	X		X
7.4	Communication	X		X	X	X		X
7.5	Documented Information	X		X	X	X		X
7.5.1	Documented Information (General)	X		X	X	X	X	X
7.5.2	Creating and Updating	X		X	X	X		X
7.5.3	Control of Documented Information	X		X	X	X	X	X
7.5.3.2.e	Prevention of Unintended Use of Obsolete Documented Information	X		X	X	X		X

Note: Cells highlighted in 'blue' signify AS9100D specific requirements

Table 2 - Conformity Requirements for Records (continued)

Clause	ISO 9001:2015 / AS9100D Paragragh	1	2	3	4	5	6	7
8.1	Operational Planning and Control	X		X	X	X		X
8.1.1	Operational Risk Management	X		X	X	X		X
8.1.2	Configuration Management	X		X	X	X		X
8.1.3	Product Safety	X		X	X	X		X
8.1.4	Prevention of Counterfeit Parts	X		X	X	X		X
8.2	Requirements for Products and Services	X		X	X	X		X
8.2.1	Customer Communication	X		X	X	X	X	X
8.2.2	Determining the Requirements for Products and Services	X		X	X	X		X
8.2.2.c-d	Special Requirements and Operational Risks	X		X	X	X		X
8.2.3	Review of the Requirements for Products and Services	X		X	X	X		X
8.2.4	Changes to Requirements for Products and Services	X		X		X		X
8.3	Design and Development of Products and Services	X		X		X		X
8.3.1	General (Design and Development of Products and Services)	X		X		X		X
8.3.2	Design and Development Planning	X		X		X		X
8.3.3	Design and Development Inputs	X		X		X		X
8.3.3.f	Potential Consequence of Obsolescence	X		X		X		X
8.3.4	Design and Development Controls	X		X		X		X
8.3.4.g	Progression to the Next Design and Development Stage	X		X		X		X
8.3.4.1	Tests Necessary for Verification and Validation	X		X		X		X
8.3.5	Design and Development Outputs	X		X		X		X
8.3.5.e-f	Critical Items, Key Characteristics and Applicable Actions	X		X		X		X
8.3.6	Design and Development Changes	X		X		X		X
8.4	Control of Externally Provided (EP) Processes, Products, and Services	X		X	X	X		X
8.4.1	Control of (EP) Processes, Products & Services (General)	X		X	X	X		X
8.4.1.1	Register of (EP), Periodic (EP) Perf. Review, & Defining Actions/Req.	X		X	X	X		X
8.4.2	Type and Extent of Control	X		X	X	X		X
8.4.2.c (3)	Periodic Review of External Provider Performance	X		X	X	X		X
8.4.3	Information for External Providers	X		X	X	X		X
8.4.3.a	Identification of Relevant Technical Data	X		X	X	X		X
8.4.3.g-m	Verifiaction Activities Performed at External Providers Premises	X		X	X	X		X

Note: Cells highlighted in 'blue' signify AS9100D specific requirements

Table 2 - Conformity Requirements for Records (continued)

Clause	ISO 9001:2015 / AS9100D Paragragh	1	2	3	4	5	6	7
8.5	Production and Service Provision	X		X	X	X		X
8.5.1	Control of Production and Service Provision	X		X	X	X		X
8.5.2	Identification and Traceability	X		X	X	X	X	X
8.5.3	Property Belonging to Customers or External Providers	X		X	X	X		X
8.5.4	Preservation	X		X	X	X	X	X
8.5.5	Post-Delivery Activities	X		X	X	X	X	X
8.5.5.f-i	In-Service Data Analysis, Doc. Control, Off-Site Work, Customer Sup.	X		X	X	X	X	X
8.5.6	Control of Changes	X		X	X	X	X	X
8.6	Release of Products and Services	X		X	X	X	X	X
8.7	Control of Nonconforming (NC) Outputs	X		X	X	X	X	X
8.7.1	(NCs) are Identified / Controlled via Documented Process	X		X	X	X	X	X
9.1	Monitoring, Measurement, Analysis, and Evaluation	X		X	X	X		X
9.1.1	Monitoring, Measurement, Analysis, and Evaluation (General)	X		X	X	X		X
9.1.2	Customer Satisfaction	X		X	X	X	X	X
9.1.3	Analysis and Evaluation	X		X	X	X	X	X
9.2	Internal Audit	X		X	X	X	X	X
9.3	Management Review	X		X	X	X	X	X
9.3.1	Management Review (General)	X		X	X	X	X	X
9.3.2	Management Review Inputs	X		X	X	X	X	X
9.3.2.c (8)	On-Time Delivery Performance Trends	X		X	X	X	X	X
9.3.3	Risks Identified	X		X	X	X		X
10.1	Improvement (General)	X		X	X	X		X
10.2	Nonconformity and Corrective Action (CA)	X		X	X	X	X	X
10.2.1.g-h	Flow Down (CA) Req. to External Provider and Verify Effectivity	X		X	X	X	X	X
10.3	Continual Improvement	X		X	X	X	X	X

Table 3 - Retention Schedule

Document Type	Retention Period
Engineering	Life of product
Purchasing	10 years
Financial Records	10 years
Government	10 years
Quality	10 years
Product Acceptance	99+current year

APPENDICE (A1)

A1	CERTIFICATE OF CONFORMANCE - SPECIAL PROCESSOR A COMPLETED COPY OF THIS CERTIFICATE OR COPIES OF PROCESSOR CERTIFICATES MUST ACCOMPANY EACH SHIPMENT. When the drawing reflects the requirement for subjecting product(s) to a Buyer defined special process, Seller may utilize Buyer certified special processors, or opt to use a processor approved by the Seller. When requested, Seller shall provide Softronics with documented evidence and rationale for processor approval. The Buyer defined special processes are: 1) Welding/Brazing 2) Anodizing/coating 3) Plating/Electrodeposit 4) Encapsulating/Potting 5) Ultrasonic inspection 6) Dry film lube 7) Chemical Cleaning/Milling 8) Bonding/Lamination 9) Radiographic inspection 10) Impregnation/Passivation 11) Leak testing 12) Eddy current inspection 13) Heat Treatment/Annealing 14) Penetrant inspection 15) Vibration/Qualification test 16) Magnetic particle insp. CERTIFICATION Seller certifies that the special processes required by this order were performed by the processor listed below, and that the document(s) appended hereto in the form of processing certifications or listed below, is/are evidence of performance of Seller or processor in accordance with applicable specifications. Softronics purchase order number _____ Softronics part number _____ Number of items in shipment _____ Processor name _____ Processor address _____ Process specification and revision _____ Other _____ _____ Quality Manager _____ Seller's Name _____ Seller's street address _____ City, State, Zip Code. _____ Date

APPENDICES (A2, A3)

A2	PHYSICAL AND CHEMICAL TEST REPORTS IDENTIFIED TO SPECIFIC LOTS When the applicable specification(s) establishes requirements for chemical and/or physical properties, Seller shall include with the packing sheet for each lot in each shipment, test reports, or copies thereof, which provide quantitative evidence that the materials shipped possess the chemical and/or physical properties required by the applicable specifications. Reports must provide, at a minimum the manufacturer's name, manufacturer's part number and the Buyer's Order umber. Certification of compliance to base material requirement is sufficient evidence only when provided by the manufacturer of the material.

A3	CERTIFICATION OF CONFORMANCE TO SOURCE TRACEABILITY This Order provision requires Seller to submit a "Certificate of Conformance" attesting compliance as follows: MANUFACTURERS OR DISTRIBUTORS: QPL ITEM The Seller shall provide certification as required in the Buyer's procurement specification and/or military specification. DISTRIBUTORS ONLY: CONTROLLED SOURCE ITEM The Seller shall provide certification that the item(s) was manufactured by a source listed on the Buyer's procurement Specification. CONTROLLED SOURCE QPL ITEM The Seller shall provide certification as required in the Buyer's procurement specification and/or military specification, and certification the item was manufactured by a QPL source listed on the Buyer's specification.