

QTSL-5961/5962 Rev B
January 13, 2022

Superseding
QTSL-5961/5962 Rev A
August 30, 2016



Criteria and Provisions for Qualified Testing Suppliers List (QTSL)

FSCs 5961 (Semiconductors)/5962 (Microcircuits)

PREAMBLE

This document is applicable to items in Federal Stock Classes (FSC) 5961 and 5962 for which there is no traceability documentation to an approved manufacturer. This publication has been developed to outline the elements needed to successfully qualify for listing on the Qualified Testing Suppliers List (QTSL).

The purpose of the QTSL Program is to mitigate the risk of nonconforming or counterfeit semiconductors and microcircuits entering the DLA Land and Maritime supply chain by testing and other quality assurance demonstrations prior to award. Under the QTSL Program, DLA Land and Maritime establishes and maintains a list of pre-qualified sources for the supply of obsolete semiconductors and microcircuits in FSCs 5961 and 5962, respectively. QTSL products are provided by suppliers that combine accepted counterfeit mitigation practices and quality assurance procedures that are consistent with industry and international quality standards. Suppliers in the QTSL Program will be relied upon to supply these electronic components when there are no offers with traceability to an approved manufacturer (i.e., when there are no offers in compliance with the Qualified Suppliers List of Distributors (QSLD) Program).

Any questions or clarifications regarding qualification for listing on the QTSL pursuant to the provisions and criteria set forth in this booklet should be directed to Defense Logistics Agency Land and Maritime -VQ:

U. S. Postal Service
Defense Logistics Agency Land and Maritime
ATTN: VQE Chief
P.O. Box 3990
Columbus, OH 43218-3990

Private Carriers (e.g., UPS, FED EX, etc.)
Defense Logistics Agency Land and Maritime
ATTN: VQE Chief
3990 East Broad Street
Columbus, OH 43213

email: landandmaritime.qtsl@dla.mil

QTSL Home Page

https://landandmaritimeapps.dla.mil/offices/sourcing_and_qualification/offices.aspx?Section=QTS

TABLE OF CONTENTS

<u>Preface</u>	4
1.0 <u>INTRODUCTION</u>	5
2.0 <u>SCOPE</u>	5
2.1 Objective	5
3.0 <u>CRITERIA</u>	6
3.1 Quality Management System (QMS)	6
4.0 <u>PROVISIONS</u>	7
4.1 Qualification	7
4.2 General Provisions	7
4.3 Obligations	8
4.4 Application for Qualification	9
4.5 Site-Survey	9
4.6 Qualification Results	9
4.7 QTSL Removal/Disapproval	10
4.8 Requalification	11
4.9 Solicitation and Award	12
5.0 <u>QTSL Testing</u>	12
5.1 Test Report Requirements	13
5.2 Pure Tin	13
5.3 Electrical Failures	13
5.4 Moisture Sensitivity	13
6.0 <u>DEFINITIONS</u>	14

PREFACE

The Defense Logistics Agency (DLA) Land and Maritime organization (hence forth referred to simply as DLA) has established the Qualified Testing Suppliers List (QTSL) Program for products in Federal Stock Classes (FSCs) 5961 and 5962 for which there is no traceability to an approved manufacturer. The criteria for qualification are tailored along the lines of best commercial testing practices when traceability no longer exists. This document contains the criteria and provisions for the program and for qualification. The Quality Management System (QMS) requirements of the program are contained in JEDEC standard JESD31, *General Requirements for Distributors of Commercial and Military Semiconductor Devices* and JESD625, *Requirements for Handling Electrostatic-Discharge Sensitive (ESDS) Devices*. The JESD31 and JESD625 documents may be obtained online at <http://www.jedec.org/standards-documents>. In addition, the distributor shall have a counterfeit mitigation program per the requirements of SAE AS6081 and AS6171, which can be found at www.sae.org. Additionally, see DFARS clause 252.246-7007 (Contractor Counterfeit Electronic Part Detection and Avoidance System) for the justification and concept of this program.

All distributors who wish to participate in this QTSL Program must have an assigned Commercial and Government Entity (CAGE) Code and become DLA qualified. CAGE Codes may be requested online from <http://www.sam.gov> or call the Central Contractor Registration (CCR) Help Desk at (866) 606-8220. To become qualified, a distributor must satisfy all sections of this document and referenced documents. Qualification is valid for 3 years unless terminated or revoked. There is no fee to apply or to become qualified.

Once qualified and listed as a source on the QTSL, the distributor will be required to maintain qualified QTSL status pursuant to the qualification requirements set forth in this booklet and to adhere to contract clauses and procurement provisions to remain on the QTSL and continue participation in this program.

The QTSL Program application forms, criteria and provisions are published and maintained by the qualifying activity at DLA. Requests for copies may be addressed to:

Defense Logistics Agency Land and Maritime
ATTN: VQE Chief
P.O. Box 3990
Columbus, OH 43218

1.0 INTRODUCTION

Qualification for placement on the Qualified Testing Suppliers List (QTSL), and the maintenance of QTSL status, requires the distributor to demonstrate that it has in place, and uses on a continuous basis: a Quality Management System (QMS) that meets the criteria set forth in JESD31; a counterfeit mitigation program per AS6081 and AS6171; and complies with the provisions and clauses of each solicitation and purchase order/contract for items in FSCs 5961 and 5962 and complies with all of the Criteria and Provisions of this document¹. The objective of the QTSL Program is to ensure that the distributor continuously controls its processes to provide consistent delivery of products that conform to the contract/purchase order specification requirements and mitigate the risk of nonconforming or counterfeit product from entering the supply chain. Three key elements are required of distributors who wish to be listed on the QTSL and to maintain QTSL status. These are:

- a. The distributor must have evidence of using a documented Quality Management System which meets the most recent revision of JESD31;
- b. The distributor shall have a counterfeit mitigation program that meets the most recent revision of SAE AS6081 and have product tested per the requirements of AS6171; and
- c. The distributor must have and maintain evidence that product has not commingled and lot identity has been maintained.

2.0 SCOPE

The products DLA procures which are included in this program are certain safety critical and high reliability items which fall into the Federal Supply Classes of 5961 (semiconductors) and 5962 (monolithic and hybrid microcircuits). See <https://landandmaritimeapps.dla.mil/programs/milspec/DocSearch.aspx> to obtain specifications and standards.

2.1 OBJECTIVE

2.1.1 To mitigate the risk of nonconforming or counterfeit semiconductors and microcircuits from entering the supply chain for the military. This is achieved by testing devices for which there is no traceability to an approved manufacturer and other quality assurance demonstrations pursuant to SAE AS6081, AS6171, and JESD31 prior to award. To accomplish this objective under the QTSL Program, DLA Land and Maritime will establish and maintain a list of pre-qualified distributors whose regular use of in place process controls is designed to ensure delivery of quality products that meet specified requirements. The participant distributors will also control all applicable value-added inventory services (per JESD31) associated with logistics for the electronic components. The ultimate goal is to ensure quality product through the use of in place quality system elements and standard quality/process control practices. This may reduce certain Government quality assurance provisions (e.g. source inspections and product verification testing (PVT)), and thus reduce product delivery lead times.

2.1.2 Approve candidate distributors for the QTSL Program that comply with the established set of quality management, process control and administrative requirements set forth in this QTSL Criteria and Provisions document, which are based upon the best commercial business practices for quality control and customer satisfaction.

2.1.3 To have distributors ultimately approved for listing under the DLA QTSL program agree, as a condition of continued Qualification, to continuously maintain their process controls at a level sufficient to meet the QTSL Criteria and Provisions requirements for all qualified electronic components and remain compliant with the key elements set forth under Section 1.0, Introduction, above. Evidence of

¹ Reference to “Criteria and Provisions” or “criteria and provisions” in this document, refers not only to the sections titled “Criteria” and “Provisions”, but to all of the requirements set forth in this “Criteria and Provisions for QTSL” booklet/document for listing on the QTSL and/or maintaining QTSL status.

non-compliance with any of the QTSL Criteria requirements or the key elements under Section 1.0 may be cause for immediate removal.

3.0 CRITERIA

3.1 Quality Management System (QMS)

3.1.1 The distributor's QMS shall continuously meet all the requirements set in JEDEC standard JESD31, or equivalent system as approved by DLA-VQ. The counterfeit mitigation requirement called out in paragraph 3.21 of JESD31 shall meet the requirements of AS6081 and the counterfeit inspections of AS6171. All testing shall be completed at a facility (e.g. distributor and/or commercial laboratory) with accreditation to ISO/IEC 17025 to the testing they will perform. See AS6171 General Requirements paragraph 3.A for additional information.

3.1.2 As a minimum, counterfeit mitigation testing shall be per the Moderate Risk Level Model 2 inspections plan in Table 6A of SAE AS6171. In addition, step 20 (Electrical Key at ambient temp) shall be performed. All referenced documents called out by each test shall be used by the distributor.

3.1.3 The electrical testing requirements called out by AS6171 shall be as follows:

a. For FSC 5961:

1. QML-19500 products shall have Group A2 electrical tests (DC static tests at 25°C) listed on the part number's performance specification sheet.
2. All non-QML-19500 products shall have DC parametric at 25°C tested per the part number's drawing (e.g. performance specification sheet, data sheet, manufacturer's drawing, alternate item description, etc.).

b. For FSC 5962:

1. QML-38535/38534 (or other product coded as AMSC of T) products shall have Groups A1, A4, A7, and A9 electrical tests listed on the part number's standard microcircuit drawing (SMD).
2. All non-QML-38535/38534 products shall have all parametric at 25°C tested per the part number's drawing (e.g. slash sheet, data sheet, manufacturer's drawing, alternate item description, SMD, etc.).

3.1.3.1 Electrical Testing Exceptions – The following electrical tests are not required:

- a. Minimum timing tests
- b. Tests guaranteed by the manufacturer when noted on the datasheet;
- c. All resistance, capacitance, and inductance test;
- d. All tests with only nominal limits (i.e. tests with no high or low limits defined)

3.1.4 All testing can be outsourced at an approved test lab. If testing is outsourced, all tests shall be performed at a laboratory that has been approved by DLA to perform the test method under the DLA Commercial Laboratory Suitability Program. Information on the Commercial Laboratory Suitability program can be found at:

https://landandmaritimeapps.dla.mil/Offices/Sourcing_and_Qualification/offices.aspx?Section=LAB and shall have ISO/IEC 17025 accreditation to the testing they perform. All results from test laboratories shall be reviewed by the distributor for acceptability. No editing or redaction of test documentation/results is permitted (See paragraph 5.1.f).

3.1.5 Value added (e.g. packaging) supplier audits are only required at those locations used to fulfill DLA contracts (see paragraph 3.16 of JESD31). For instance, a distributor is required to audit a packaging house if they outsource the packaging processes.

3.1.6 The QMS shall accurately inventory all products at the distributor's facility that meet the requirements of the QTSL program.

3.1.7 Onsite subcontractor quality audits are required, in accordance with JESD31 paragraph 3.16 at those locations used to fulfill DLA Land and Maritime contracts. Examples of locations include packaging, tape and reel facilities, etc. Onsite audits of Commercial Labs with DLA Commercial Lab Suitability (see paragraph 3.1.4) are not required since these locations have been approved by DLA Land and Maritime.

3.1.8 Government-Industry Data Exchange Program (GIDEP) participation is mandatory for this program. GIDEP program information can be found at <http://www.gidep.org>. GIDEP and other reporting systems shall be regularly researched to determine whether the distributor's suppliers / products have been reported. Any product found to be suspect or confirmed fraudulent/counterfeit shall be reported to GIDEP within 60 days.

4.0 PROVISIONS

4.1 Qualification

4.1.1 To obtain and maintain QTSL status, the distributor must comply with all requirements in this document.

4.1.2 Being listed as a QTSL distributor does not guarantee award of contracts.

4.2 General Provisions

4.2.1 The distributors shall:

- a. Have in-place, maintain, and use a QMS which satisfies all the criteria and provisions set forth in this document. A copy of the applicant's current Quality Manual, reflecting its compliance with the criteria and provisions for QTSL qualification, must be provided to DLA-VQ with the completed application for qualification. Manual revisions must be furnished to DLA-VQ within 15 days of the date of the revision;
- b. Maintain a single QMS; and use a single Quality Control Manual for both its Government business and commercial business;
- c. Possess a Commercial and Government Entity (CAGE) code at the location under quality control;
- d. Submit an application for QTSL Requalification to DLA-VQ upon expiration of its current qualification. Qualification term shall be three years;
- e. Have in-place a method to identify, inspect, and verify customer returns;
- f. When requested by DLA Land and Maritime, disclosure of source information when the product (QTSL or non- QTSL) is determined to be nonconforming;
- g. Comply with the established set of quality management, process control, and administrative requirements set forth in this QTSL Criteria and Provisions document, which are based upon the best commercial business practices for quality control and customer satisfaction; and
- h. Continuously maintain their process controls at a level sufficient to meet the QTSL Criteria and Provisions requirements for all qualified electronic components and remain compliant with the key elements set forth under Section 1.0, Introduction, above. Evidence of non-compliance with any of

the QTSL Criteria requirements or the key elements under Section 1.0 may be cause for immediate removal.

4.3 Obligations

4.3.1 Government - DLA will serve as the single Department of Defense (DOD) focal point to consolidate findings and recommend corrective actions for QTSL problems. DLA will:

- a. Process applications;
- b. Qualify and re-qualify distributors that comply with the QTSL Program Criteria and Provisions;
- c. Maintain the Qualified Testing Suppliers List;
- d. Conduct or coordinate site-surveys and audits;
- e. Remove distributors for non-compliance with any of the QTSL Program Criteria and Provisions as DLA deems appropriate;
- f. Disseminate information to end users about non-conforming products; and
- g. Make available the QTSL of distributors.

4.3.2 Distributor - The participating distributor shall:

- a. Meet all contractual specifications and requirements. There are no exceptions or waivers unless provided in writing by the Contracting Officer;
- b. Report any product discrepancies discovered related to DLA procurements and any corrective actions taken to DLA-VQ;
- c. Promptly report to the qualifying activity at DLA Land and Maritime-VQ when made aware of product seizure(s) by the Government (i.e. Customs and Border Protection)
- d. Maintain records and documents as indicated in the Introduction, Section 1, and in the QTSL Criteria, Section 3, of this booklet and make them available for examination by DLA or DLA's agent, upon survey or audit;
- e. Permit DLA or DLA's agent(s) to conduct site surveys and audits as discussed in QTSL Provisions 4.5 Site-Survey / Audits, herein;
- f. Notify the DLA Contracting Officer (KO) on any open contract actions immediately if you become disqualified from the QTSL prior to delivery;
- g. Continuously ensure company information is accurate on the Central Contractor Registration (<http://www.sam.gov>) website.
- h. Notify DLA Land and Maritime-VQ of major changes in QMS, processes, process controls, points of contact, its facility location or any other changes that may impact the criteria for being on the QTSL prior to implementation; and
- i. Perform internal audit once per year minimum to the specifications required by the program (e.g. AS6081, AS6171, JESD31, and JESD625 (or ANSI S20.20).

4.4 Application for Qualification

4.4.1 Application Request - Applications for qualification can be obtained by writing or calling DLA-VQ, or they can be downloaded from the QTSL Homepage (see preamble). Application packages sent to interested distributors will include the basic application form and a copy of this document. In order to participate in the QTSL Program, a distributor must have a CAGE code designation (see Preface for assistance).

4.4.2 Application Processing - The candidate shall submit the completed application to DLA-VQ (landandmaritime.qtsl@dla.mil). The documents requested by the application will be evaluated by DLA for compliance with the QTSL Criteria. The applicant is required to include the additional supporting documents listed on the application.

4.4.3 Application Revision - QTSL distributors are responsible for immediately notifying DLA-VQ when their product lines, quality system, processes, or facility locations have changed. QTSL distributors may be required to submit a revised signed application once changes have occurred. A QTSL company that has made such changes shall not quote/offer as a QTSL distributor until it has submitted and obtained approval of its revised application for listing on the QTSL.

4.5 Site-Survey / Audits

4.5.1 When a distributor applies to be qualified under the QTSL Program, DLA will require an audit of the facility. Audits may be performed by DLA or its approved third party representative. A company's failure to permit access for an audit will result in the immediate rejection of its application for admission to the QTSL or in the removal from the QTSL. Audits will include a review of the distributor's QMS and all of the systems and processes that the distributor is required to have in-place and in-use, under this document, JESD31, AS6081, AS6171, and JESD625/S20.20. The purpose of a facility audit is to ensure that the distributor has in-place and in daily use, a QMS and processes which conform to the requirements of the Criteria and Provisions of the QTSL Program, as reflected in this document. An audit will involve the examination of applicable documents (including test records), processes, and procedures, as well as the various systems required for qualification.

4.5.2 Industry or other third party surveys or audits may be considered by DLA in the review of the distributor's application for qualification. Such surveys or audits may be used by DLA in lieu of, or in addition to, QTSL site-survey requirements.

4.5.3 After qualification, DLA may conduct random announced or unannounced re-audits of a distributor's facility to confirm adherence to the QTSL Criteria. Initial audits and re-audits are performed at no charge to the distributor. During audits, random sample collection of the distributor's product shall be allowed for the purpose of independent laboratory testing. Thus, DLA may pull samples for later testing against specification or contract requirement. The Government will pay for the cost of such tests and the distributor's expense is limited only to the cost of a small quantity of samples selected. The distributor shall be provided with a copy of the test results when a non-conformance has been found.

4.6 Qualification Results

4.6.1 Upon completion of the evaluation process, DLA shall notify the distributor as to whether it has qualified for listing on the QTSL.

4.6.2 If the distributor qualifies for listing on the QTSL, a letter of Qualification shall be issued to the distributor and a copy will be forwarded to the DLA Land and Maritime-FM buying group(s) for FSCs 5961 and 5962 and will include the following:

- a. Designation of the stock classes under which the distributor has been qualified;
- b. The CAGE code and address of the distributor's facility that has been qualified; and
- c. The address for receipt by the distributor of correspondence if different from that in "b" above.

4.6.3 When a candidate distributor's application for qualification is denied, DLA will issue a Letter-Notice of Denial of Qualification to the applicant. The applicant may not reapply for qualification until a minimum of 180 days has elapsed from the date of the Letter-Notice. The Letter-Notice shall cite the specific reasons for such denial. Examples of reasons for denial of qualification include, but are not limited to the following:

- a. Deficiencies in the applicant's Quality Management System which are numerous or which indicate that action to correct those deficiencies will require an extended period of time;
- b. Site-survey has shown that the successful implementation of processes and procedures contained in the applicant's Quality Control Program Manual and required by the criteria and provisions of this document has not been accomplished;
- c. When DLA has provided the applicant with specific corrective actions to be taken for qualification and applicant has not sufficiently responded within the time specified in the Letter-Notice, the application for qualification will be considered withdrawn;
- d. Applicant is suspended, proposed for debarment, or debarred from Government contracting or otherwise determined to be ineligible for awards of Government contracts or has been found engaging in practices that indicate less than acceptable integrity or business ethics;
- e. Available company quality history shows a poor quality track record with valid complaints from DLA customers.

4.7 QTSL Removal/Disapproval

4.7.1 Reasons for Removal - The success of the DLA QTSL Program, in preventing the entry of nonconforming or counterfeit product into the supply chain, is dependent upon the integrity of those distributors who participate. Continued participation in the program is, therefore, contingent upon the distributor's continuing compliance with the program criteria and provisions upon which qualification is based. The distributor's failure to comply will be cause for removal. The following are examples of some reasons for removal from the QTSL:

- a. The product(s) furnished by the distributor under its purchase order(s)/contract(s) does not meet purchase order/contract or specification requirements;
- b. Bidding or business practices are inconsistent with the intent of the QTSL program. Examples include:
 1. Repeated requests to modify requirement after award;
 2. Inability to produce inspection reports and/or test data when requested;
 3. Redacting information on requested documents, traceability, or test inspection results.
- c. Failure to disclose source information on QTSL or non-QTSL product that is determined to be nonconforming.
- d. Distributor no longer supplies the products included in the DLA QTSL Program;
- e. Distributor changes its Quality Management System or its facility location without prior notification to DLA;
- f. Distributor fails an audit;
- g. Distributor denies access to DLA audit or survey personnel, or to other personnel authorized by DLA to conduct such audits or surveys;
- h. Distributor ships products from a location other than that for which it has been qualified or authorized;

- i. Qualification criteria and/or provisions are revised, and distributor fails or refuses to comply with revised criteria and/or provisions following opportunity to do so;
- j. Distributor misrepresents its quality control process(es) or manual regarding compliance with QTSL;
- k. Distributor is suspended, proposed for debarment or debarred from Government contracting or otherwise determined to be ineligible for awards of Government contracts; or has been found engaging in practices which indicate less than acceptable integrity or business ethics;
- l. Distributor requests that it be removed from the DLA QTSL;
- m. Available company quality history demonstrates a poor quality track record;
- n. The distributor fails to be awarded any contracts with QTSL product for greater than a one-year period while qualified.
- o. Distributor uses an unapproved subcontracted test facility (see 3.1.4)

4.7.2 Procedures for Removal - The following provisions apply to removal of a distributor from the QTSL Program:

- a. DLA-VQ shall notify the appropriate DLA buying office of any proposed removal actions. DLA-VQ shall then notify the distributor by certified mail, return receipt requested, and/or FAX, citing specific reasons for the proposed removal;
- b. A Distributor may be removed from the QTSL program for any of the reasons defined in 4.7.1. A letter will be sent detailing the reasons for removal and minimum removal period before the Distributor may reapply;
- c. Typically, there is no specific time duration for removal from the QTSL. The removal period will be based on the time necessary to document process control changes and to implement and test corrective actions associated with the disqualification. When the corrective action involves more than one deficiency, removal periods in excess of 180 days may be applied at the discretion of DLA Land and Maritime-VQ; and
- d. When DLA has removed a participant from its QTSL, notice of such removal, and the reasons for the removal, may be given to other interested Government activities. Also, if a participant is removed from one QTSL stock class, that participant may be removed from all Qualification Programs at DLA. The DLA QTSL Web Page will also reflect such removals to prevent DLA contracting officers from buying from an unauthorized source.

4.8 Requalification

4.8.1 Requalification by Renewal - Requalification is required upon the lapse of 3 years from the date of last qualification. - Requirements for requalification shall be those QTSL criteria and provisions in effect at the time of application for requalification. The Distributor shall complete the application found on our website (link is in the Preamble). The additional documentation listed on page 3 of the application is not required. Note: Failure to re-qualify shall result in removal of a distributor from the QTSL.

4.8.2 Requalification subsequent to Removal or Qualification after Disapproval - In the event that distributor's application for qualification is not approved, qualification will not occur until DLA-VQ has determined that satisfactory evidence has been submitted which establishes that all deficiencies have been adequately corrected.

4.8.3 Reapplication subsequent to Removal - Once corrective action has been taken to remedy the deficiency that resulted in removal, and compliance with QTSL criteria is evident, the distributor may

reapply for the QTSL program after 180 days from removal date. A new application must be submitted, along with a letter describing the deficiencies that have been corrected. If there have been any revisions or additions to the Quality Manual since the date of last application, revision sheets/additions must also be submitted. Reapplication letter should be sent to the address listed in the Preface.

4.9 Solicitation and Award

4.9.1 Eligibility - To be eligible for award under this program, a distributor must be listed on the QTSL at the time of award.

4.9.2 Quoting instructions for DLA Internet Bid Board System (DIBBS) –A QTSL supplier shall identify whether (1) it is quoting QTSL product, meaning it will supply product that has been processed pursuant to the QTSL Program requirements; or (2) whether it is quoting as a non-QTSL product, meaning it will supply product that has not been processed pursuant to the QTSL Program requirements.

- a. Quoting QTSL Product – Enter “QTSL” in the vendor quote number field. Also, at the “Manufacturer/Dealer” prompt, from the dropdown box next to the “Select the status of the “Quote for” CAGE code”, select “Dealer.”
- b. Quoting Non- QTSL Product - At the “Manufacturer/Dealer” prompt, from the dropdown box next to the “Select the status of the “Quote for” CAGE code”, select “Dealer”. Do not enter “QTSL” in the vendor quote number field.

4.9.3 Quoting by methods other than DIBBS – Whenever possible, quotes should be submitted in DIBBS. However, if quoting through means outside the DIBBS system, a QTSL supplier shall ensure the quote submitted clearly indicates whether quoting QTSL or Non-QTSL product.

4.9.4 Alternate Offers – Offering alternate product (i.e. part numbers not listed on the Contract) cannot be bid as QTSL since the devices are not listed as the Approved Manufacturer on the solicitation.

4.9.5 QTSL bids can only be quoted on finished product; no “up-screening” and/or remarking of devices are allowed even when called out by the device drawing.

4.9.6 Do not bid QTSL if you cannot meet the QTSL testing requirements (e.g. missing the test data sheet, full electrical testing cannot be performed, inability to decap materials due to volatile internals (battery), etc.)

4.9.7 Lot Size Reduction – Requests for lot size reductions or date code changes are not automatic and must be approved prior to award.

4.9.8 Product Source - Traceability is required to the source of material used in the QTSL test report at the time of the submission to the CDAP program. See form 918 for requirements.

4.9.9 County of Origin - QTSL Distributors shall ensure country of origin is known when whenever possible and compared with part marking and product traceability.

4.9.10 No product manufactured or procured from companies (i.e. manufacturers or distributors) in China will be accepted under this program. Furthermore, any product whose procurement history (e.g. shipping documentation, packing list, etc.) indicates the product was sourced through China will not be accepted under this program.

5.0 QTSL Testing

5.1 Test Report Requirements – The QTSL report shall meet the requirements of AS6171. The follow items are also required:

- a. Electrical and physical dimension test results shall be recorded one significant digit more than the limit. For example, a device with a limit of 2.5V shall have the recorded test results to the hundredths level;
- b. XRAY images shall have their exposure level (i.e. kV) and exposure time recorded. Also, only 3 photos that are representative of the entire lot need to be submitted with the report. However, all photos shall still be maintained by the distributor and shall be provided when requested;
- c. The full product datasheet that was used to test the devices against;
- d. Physical dimensions in electronic format (i.e. excel);
- e. Electrical test results in electronic format;
- f. If a commercial test lab was used to complete the required tests, their full unedited report shall be submitted with the QTSL distributors test results; and
- g. Photos should be clear and focused in the report. Compression of photos should be limited whenever possible

5.2 Pure Tin - Pure Tin test results are not allowed on QML devices produced in 1994 or later.

5.3 Electrical Failures - Lots with more than 10% electrical failures are not acceptable for DLA contracts.

5.4 Moisture Sensitivity - Moisture sensitive devices and devices with internal batteries cannot be offered as QTSL product since the storage conditions and full shelf life cannot be verified.

6.0 DEFINITIONS

CAGE (Commercial and Government Entity) – This designation is a unique five-digit alphanumeric sequence of characters; it is issued for a specific location. Visit www.sam.gov for more information.

DISTRIBUTOR – A source which owns, operates, or maintains a store, warehouse, or other establishment in which finished products of the relevant commodity are bought, kept in stock, or sold to the public in the usual course of business. The distributor stocks and resells only the completed product and may NOT alter, modify or produce that product.

DOCUMENTS – Printed, written, or electronically stored information which is retrievable and subject to being reduced to a printed form. These include, but are not limited to bills of material, calibration records, certifications, contracts, drawings, instructions, manuals, packing slips, procedures, purchase orders, standards, specifications, test plans and test reports, traceability documents and records of all kinds. Modifications or revisions to any of the foregoing constitute documents.

QTSL PRODUCT – Product that has been complies with all requirements of the QTSL program.

QUALIFIED MANUFACTURERS LIST (QML) – An electronic listing in the Qualified Products Database (QPD) of manufacturers' qualified processes and materials at each facility that have been successfully subjected to a defined set of qualification and periodic tests using processes, worst case designs or materials, to verify the end product's design, performance, quality, and reliability meet all the applicable specification requirements.

QUALIFIED PRODUCTS LIST (QPL) – An electronic listing in the QPD of products or families of products that have successfully completed the formal qualification process (including all specified periodic tests) that examines, tests, and verifies that a specific product design meets all the applicable specification requirements.

QUALITY MANAGEMENT SYSTEM (QMS) – The distributor's entire program of procedures, process controls, inspections, audits and systems which ensures that the distributor's products conform to the specified requirements.

PRODUCT QUALITY DEFICIENCY REPORT (PQDR) – A program used for reporting product quality deficiencies and sustaining mandatory procedures for reporting, processing, and investigating product quality deficiency data.

PRODUCT VERIFICATION TESTING (PVT) – Testing that is performed on source inspected post-award contracts prior to acceptance by the government (per DLAD clause 52.246-9004).

TRACEABILITY – The documented trail of the product covered by the DLA contract or order through all manufacturer distributors, and/or intermediate processors to the manufacturer or producer of the product.