NOTICE OF CHANGE

NOT MEASUREMENT SENSITIVE

MIL-STD-790F
NOTICE 2
20 September 2002

DEPARTMENT OF DEFENSE
STANDARD PRACTICE

STANDARD PRACTICE FOR ESTABLISHED RELIABLITY AND HIGH RELIABILITY QUALIFIED PRODUCTS LIST (QPL) SYSTEMS FOR ELECTRICAL, ELECTRONIC, AND FIBER OPTIC PARTS SPECIFICATION

TO ALL HOLDERS OF MIL-STD-790F:

1. THE FOLLOWING PAGES OF MIL-STD-790F HAVE BEEN REVISED AND SUPERSEDE THE PAGES LISTED:

NEW PAGE	DATE	SUPERSEDED PAGE	DATE
3a	17 August 2001	3a	Reprinted without change
4	20 September 2002	4	1 August 1995

2. RETAIN THIS NOTICE AND INSERT BEFORE TABLE OF CONTENTS.

3. Holders of MIL-STD-790F will verify that page changes and additions indicated above have been entered. This notice page will be retained as a check sheet. This issuance, together with appended pages, is a separate publication. Each notice is to be retained by stocking points until the standard is completely revised or canceled.

Custodians:
Army – CR
Navy – EC
Air Force – 11
NASA – NA

Preparing activity:
DLA – CC

(Project 59GP-0189)

AMSC N/A

AREA 59GP

dd. Technology Review Board (TRB): A board established by the manufacturer that is given authority and responsibility to oversee the MIL-STDS-790 qualified product system as described herein. The TRB consists of designated manufacturers representatives that have the knowledge and expertise to administer the system.

ee. Time: The universal measure of duration. The general word "time" will be modified by an additional term when used in reference to operating time, mission time, and test time.

ff. Traveler: The production and raw material process routing sheet.

4. GENERAL REQUIREMENTS

4.1 General. Manufacturers of established reliability and high reliability electrical, electronic, and fiber optic components shall demonstrate to the qualifying activity that a system is in place to integrate all design, planning, manufacturing, inspection, and test functions as described herein.

4.2 Validation. The qualifying activity is responsible for determining if the manufacturer meets the requirements of this standard. Validation is required as part of the qualification and retention of qualification to the individual product specification. The qualifying activity shall perform a review of the manufacturing facility as part of the validation effort. Revalidations are required to maintain qualification and shall be performed within 24 months of the last review. This validation period may be extended by the qualifying activity if the manufacturer can demonstrate adequate controls of the system through Statistical Process Control (SPC), self-assessment, or Technology Review Boards (TRBs).

4.3 Elements. The manufacturer shall demonstrate a system for established reliability and high reliability parts that includes the specific elements as defined in the detailed requirements of this standard (see section 5).

5. DETAILED REQUIREMENTS

5.1 General. The detailed requirements for meeting this standard are described in this section. It is not intended that the manufacturer create a military unique system in order to meet these requirements. Manufacturers may use existing internal systems as defined in meeting these requirements provided they are validated by the qualifying activity.

5.1.1 Key personnel and organizations. The responsibility and authority of key personnel and organizations associated with the qualified products shall be identified. The manufacturer shall identify changes affecting key organizations and personnel. The qualifying activity shall be informed of any changes within 30 days after such an occurrence.

5.1.2 Test facilities. The manufacturer shall identify the test facilities and equipment used for qualification and conformance inspection of the electrical, electronic, and fiber optic parts.

5.1.3 GIDEP alerts. The manufacturer shall notify the qualifying activity of all pending GIDEP alerts prior to issuance.

5.1.4 Sub-assembly facilities. Manufacturers validated to this standard may utilize sub-assembly facilities to perform specific manufacturing steps in accordance with the authorized qualification system.

REPRINTED WITHOUT CHANGE.

5.1.5 Distributors. Manufacturers validated to this standard may authorize distributors to perform additional functions and operations on the qualified products. The manufacturer is responsible for validation of these distributors to the requirements of this standard as applicable. In case of dispute or quality related problems, the qualifying activity reserves the right to perform a validation of the distributor. The controls and requirements shall be such as to assure the product sold by the distributor is the same quality and performance as parts supplied directly from the manufacturer. The manufacturer is responsible for ensuring that all products sold through these distributors meet the requirements of the applicable product specifications. The manufacturer shall identify each distributor and the functions that they are authorized to perform according to the following categories:

a. Category A distributor. This category of distributor is authorized to store, pack, handle, and distribute qualified products.

b. Category B distributor. This category of distributor is authorized to perform additional operations, tests, and inspections in addition to responsibilities of a category A distributor. When the distributor is authorized to mark the part, a code symbol is to be added to the modified part. This shall be developed in conjunction with the original part manufacturer's identification so that the organization making the modification can be identified. The original part manufacturer's identification shall be included to indicate the manufacturer responsible for product failure analysis, corrective action, and lot identification.

c. Category C distributor. This category is authorized to perform assembly of the qualified products in addition to the responsibilities of a category B distributor including part-marking requirements.

5.2 QPL system elements. The manufacturer's system shall address, as a minimum, the elements described herein. This system shall be maintained by the manufacturer such that the qualifying activity can verify and validate these elements (e.g., internal documentation and control system).

5.2.1 Training. The manufacturer shall maintain a training program to cover all phases of their activity involved in producing electrical, electronic, and fiber optic parts. The type and extent of training shall be determined by the manufacturer.

5.2.2 Calibration. Each instrument used to measure or control production process or to measure the acceptability of parts under test shall be calibrated in accordance with ANSI/NCSL Z540-1, ISO 10012-1, or equivalent system as approved by the qualifying activity.

5.2.3 Proprietary processes and procedures. The qualifying activity shall have access to all areas of the manufacturer's plant for the purpose of verifying implantation of this standard.

5.2.4 Failure and defect analysis system. The manufacturer shall maintain a failure and defect analysis system. Failure analysis of parts, are required when failures exceed the number allowed by the specification in qualification and conformance inspections or which have failed during field use (either at equipment contractor or military field activities).

5.2.4.1 Failure reporting. The manufacturer shall maintain a failure recording and reporting system for parts that have failed during qualification or conformance inspections or while in use in equipment. The system shall provide for at least the following:

a. The operating or test conditions under which the part failed, including environmental exposure levels, if known.

b. The source from which the failed part was received.

c. Verification of the reported condition of the failed part by the manufacturer's personnel responsible for production, inspection, quality, or engineering.

d. The length of time the part has been operating if it failed in life testing. Compliance with failure rate levels shall be calculated in accordance with the governing applicable product specification.

e. For field failures, review and corrective action (as applicable) shall be within 30 days after receipt of parts and supporting information.