

DATA ITEM DESCRIPTION

Title: Recurring Hardware Requirements Verification Documentation

Number: DI-NDTI-81942

Approval Date: 20130827

AMSC Number: N9427

Limitation: N/A

DTIC Applicable: N/A

GIDEP Applicable: N/A

Office of Primary Responsibility: SH/PEOSUB/PMS404

Applicable Forms: N/A

Use/Relationship: The Hardware Requirements Verification Documentation will be used to obtain detailed information on plans and procedures used to meet the specific requirements of the product in order to demonstrate traceability to each applicable Performance Specification and Drawing Requirement.

This Data Item Description (DID) contains format and content preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.

Requirements:

1. Format. The Hardware Verification Documentation shall be in the contractor's format.
2. Content. The Verification Documentation shall contain a title page specifying the following:
 - a. CDRL number
 - b. Contract number
 - c. Contractor's name and address
 - d. Date of issue
 - e. Distribution statement
 - f. Security classification (if applicable)
 - g. Revision date (if applicable)
 - h. Record of changes (if applicable)
3. The documentation shall include in detail, the Contractor's plans for conducting all recurrent tests and how he plans to analyze the test results to show how the hardware items satisfy the requirements of the applicable design and performance specification(s).
4. The documentation shall include the following information for each hardware item:
 - a. Requirements traceability matrix
 - b. Details how each design and performance specification requirement will be verified.
 - c. Identity of the assembly level at which verification will take place.
 - d. A list of the test and inspection procedure reference(s) that will be used for verification.
5. The documentation shall contain a flow diagram that reflects the functional description and location of the manufacturing test program, including Highly Accelerated Stress Screening (HASS), within the prime Contractor's and suppliers' facilities. A block diagram portrayal of the

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functions that must be met to satisfy the design and performance specifications and specifies the order of testing to be performed and any dependencies on earlier testing. Identify which tests and inspections will comprise Pre-FAT or FAT category performed within the prime Contractor's facility.

6. The documentation shall contain a list of pass-thru items that describes the inspections, tests, or criteria implemented by the prime Contractor to verify satisfactory hardware design and performance to specifications.

7. The documentation shall include the factory acceptance test (FAT) performed and shall identify inspections, tests, and acceptance criteria performed within the prime Contractor's facility for each item listed.

8. Government test facilities shall be identified and shall include a reference to the appropriate private party work agreement and the test availability plan, if applicable.

9. The documentation shall include step-by-step testing operations to be performed to show how the hardware item will satisfy the requirements of the applicable design and performance specifications. All procedures shall be listed in the order in which they were performed and shall also include:

- a. Procedure description
- b. Name
- c. Number
- d. Revision
- e. Nomenclature
- f. Model
- g. Part number of the assembly level item to be tested.

10. The documentation shall include a summary of the each tests objective and shall identify:

- a. Duration.
- b. Number of Cycles.
- c. Parameters Monitored.
- d. Data analysis.
- e. A description of all the data analysis tools and techniques that will be used to interpret the data.
- f. Success/failure criteria.
- g. Retest criteria and process.

11. The documentation shall include a list of all equipment to be used, including the instrumentation and recording devices, used during the test.

12. The step-by-step operator instructions and approached used to perform each test shall be specified.

3. End of DI-NDTI-81942.