

DATA ITEM DESCRIPTION

Title: TEST REPORT FOR MISSION CRITICAL SUBSYSTEM IMMUNITY TEST

Number: DI-EMCS-81854

Approval Date: 20111128

AMSC Number: 9234

Limitation: N/A

DTIC Applicable: Yes

GIDEP Applicable: N/A

Defense Technical Information Center

Attn: DTIC-OMI

8725 John J. Kingman Road, Ste 0944

Fort Belvoir VA 22060-6218

Office of Primary Responsibility: DS

Applicable Forms: None

Use/Relationship: The HEMP Protection Subsystem's Mission Critical Subsystem (MCS) Immunity Test Report (MITR) describes the tests, analyses and inspections used by the contractor and documents the results verifying compliance with MIL-STD-461 CS116 testing (or equivalent) of each MCS to be installed in the aircraft during the engineering development phase. The MITR provides the means for the government to evaluate HEMP protection performance results.

- a. This DID contains the format and content preparation instructions described by sections C.4.8 and C.4.9 of MIL-STD-3023
- b. This DID is related to DI-EMCS-81850 and DI-EMCS-81853.

Requirements:

1. Reference documents. The applicable issue of the documents cited herein, including their approval dates and any applicable amendments, notices, or revisions shall be as cited in the ASSIST Online (<https://assist.daps.dla.mil/online/start/>) at the time of the solicitation or, for non-ASSIST documents, as stated herein. The MITR classification shall be determined using DNA-EMP-1, Electromagnetic Pulse (EMP) Security Classification Guide (U) available by mail request to ATTN: RD-NTSA/Rooney M., Defense Threat Reduction Agency, 8725 John J. Kingman Road, MSC 6201 Fort Belvoir, Virginia, 22060-6201, and any relevant system specific classification guides.
2. Format. The MITR shall be in contractor format.
3. Content. The MITR shall describe the overall test results for the MCS immunity tests for each requirement specified in the contract for the aircraft being developed.
 - 3.1 Summary information. This report shall summarize the following:
 - 3.1.1 Introduction.
 - a. MCS description including any pertinent test issues.

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- b. Statement of any assumptions and limitations associated with MCS immunity tests.

3.1.2 A general description of the results shall be provided for immunity testing each MCS and performance requirement area listed in section 3.2 below.

- a. Synopsis of MCS test procedures and references to detailed procedures.
- b. Successes and failures.
- c. Impacts of failures.
- d. Recommendations to resolve failures.
- e. Lessons learned.

3.2 Detailed information. For each MCS being immunity tested, a single test report shall be prepared. The test report shall contain the following information:

- a. MCS identification and a reference to applicable test plan and procedures.
- b. When and where test was conducted.
- c. Who conducted the test.
- d. A discussion of any deviations from the test plan or requirements of MIL-STD-3023 Appendix C.
- e. Copies of measured test results including all raw and processed test oscillographic waveform test data in engineering units. The electronic data format will be described in the written test report and delivered to the government.
- f. Summary tables of measured quantities shall be provided including comparisons to pass/fail criteria in MIL-STD-461 CS116 or equivalent based on NORM attributes of each oscillographic waveform.
- g. Test chronology including sequence of events; findings from investigations into causes of failures, if any; and corrective actions and retest results.

3.2.1 Analysis section. Post-test analysis of MCS test data will include analysis of test adequacy.

3.2.2 Post-test analysis will include development of a corrective plan and, if applicable, the Hardness Allocation Report (DI-EMCS-81850) will be updated.

4. End of DI-EMCS-81854.