DATA ITEM DESCRIPTION

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1. TITLE	2. IDENTIFICATION NUMBER
ELECTROMAGNETIC INTERFERENCE TEST PROCEDURES (EMITP)	DI-EMCS-80201A

3. DESCRIPTION / PURPOSE

3.1 This EMITP describes the measurement procedures that will be employed to demonstrate that an equipment or subsystem complies with its contractual electromagnetic interference (EMI) requirements based on MIL-STD-461. The procedure also describes how the general test methods in MIL-STD-462 will be applied to the specific equipment or subsystem.

4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
930111	EC		

7. APPLICATION / INTERRELATIONSHIP

7.1 This Data Item Description (DID) contains the format and content preparation instructions for the EMITP required by 5.1 of MIL-STD-461.

7.2 This DID is applicable when an electronic, electrical, or electromechanical equipment or subsystem requires EMI testing in accordance with MIL-STD-462 to demonstrate compliance with contractual EMI requirements based on MIL-STD-461.

7.3 This DID supersedes DI-EMCS-80201.

8. APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER
		N6855

10. PREPARATION INSTRUCTIONS

10.1 Reference documents. The applicable issue of the documents cited herein, including their approval dates and dates of any applicable amendments, notices, and revisions, shall be as specified in the contract.

10.2 Format. The EMITP format shall be contractor selected. Unless effective presentation would be degraded, the initially used format arrangement shall be used for all subsequent submissions.

10.3 Content. The EMITP shall contain the following:

10.3.1 Introduction. The introduction of the EMITP shall include the following:

a. A table describing all the tests to be performed, the paragraph number within the EMITP, and the corresponding test method of MIL-STD-462.
b. Description of the Equipment Under Test (EUT), including operating frequency, line current, and so forth.
c. Approved exceptions or deviations from contractual test requirements, if any.

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11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

Block 10, Preparation Instructions (Continued)

10.3.2 Applicable documents. Applicable documents shall be listed as follows:

a. Military (e.g., standards and specifications).
b. Company (any in-house documents for calibration or quality assurance).
c. Other Government or industry standards, specifications, or documents.

10.3.3 Test site. A description of the test site, covering the following:

a. Description of test facility and shielded enclosure or anechoic chamber, including size, characteristics, and placement of radio frequency (RF) absorbers.
b. Description of the ground plane (size and type) and methods of grounding or bonding the EUT to the ground plane in order to simulate actual equipment installation.
c. Description of how test precautions required by 4.7 of MIL-STD-462 shall be implemented.

10.3.4 Test instrumentation. Test instrumentation to be used shall be described as follows:

a. Equipment nomenclature and calibration due date.
b. Bandwidth (resolution and video) and scanning speeds of measurement receivers.
c. The characteristics of coupling transformers and band-reject filters.
d. Antenna factors of specified antennas, transfer impedances of current probes, and impedance of Line Impedance Stabilization Networks (LISN).
e. Description of the operations being directed by software for computer-controlled receivers, and of the verification techniques used to demonstrate proper performance of the software; also, identify the specific version of the software to be used.

10.3.5 EUT setup. A description of the EUT test setup for each test shall cover the actual physical layout of the cables and EUT, cable types or characteristics and construction details (see 4.8.5 of MIL-STD-462), the position of the line impedance stabilization networks on the ground plane, and the location of bond straps, loads, and test sets.

10.3.6 EUT operation. A description of the EUT operation shall cover the following:

a. Modes of operation for each test and operating frequency.
b. Control settings on the EUT.
c. Control settings on any test sets employed or characteristics of input signals.
d. Test frequencies (e.g., oscillator and clock frequencies) which may be expected to approach requirements and limits.
e. Performance checks initiated to designate the equipment as meeting minimal working standard requirements.
f. Circuits, outputs, or displays to be monitored during susceptibility testing shall be enumerated, as well as the criteria for monitoring degradation of performance.

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Block 10, Preparation Instructions (Continued)

10.3.7 Measurements. The measurements to be employed to demonstrate compliance with contractual requirements shall be described. The following shall be indicated for each test.

a. Block diagram depicting test setup, including all pertinent dimensions.
b. Step-by-step procedures.
c. Test equipment used in performance of the test and the methods of grounding, bonding, or achieving isolation for the measurement instrumentation.
d. Selection of measurement frequencies.
e. Information to be recorded during the test, including frequency and units of recorded information. Sample data sheets, test logs and graphs, including test limits, may be shown.
f. Modulation characteristics and scan rates of the susceptibility test signals.