

**Qualification Requirements**  
**Cable, Power, Electrical and Cable Special Purpose, Electrical**

NSN: 6150-01-112-9818  
P/N: 58313-90765

Engineer: DUC TRAN

**1. Form, Fit, and Function Requirements**

Performance and other characteristics criteria which the qualification and production cables must meet are contained in MIL-C-5756B, Section 4 and in the contractor generated detailed drawings and specifications.

**2. Contractor Testing Procedures/Reports**

<b>DD Form 1423</b>	<b>Title</b>	<b>Data Item Description</b>
A001	Qualification Test Procedures & Acceptance Test Procedures	DI-RELI-80322
A002	Qualification Test Report	DI-NDTI-80809B

The Test Procedures/Reports shall be submitted to OC-ALC/LGBEC for review and acceptance.

**3. Qualification Articles**

Contractor shall not start testing of qualification articles prior to approval of the Qualification Test Procedures A001 by OC-ALC/LGBEC. Contractor shall perform qualification testing in accordance with MIL-C-5756B and submit Qualification Test Report A002 to OC-ALC/LGBEC. If article is disapproved, contractor shall identify failures and provide documentation of corrective actions. OC-ALC/LGBEC will approve/disapprove corrective action. If an article is disapproved,

OC-ALC/LGBEC reserves the right to have the contractor retest and resubmit a Test Report on the item or submit a sample to the Government for testing and evaluation.

**4. Production Articles**

Contractor shall not perform acceptance testing of production articles prior to approval of the Acceptance Test Procedures A001 by OC-ALC/LGBEC. Disapproved Production Units shall be retained by contractor pending disposition instructions from OC-ALC/LGBEC. Contractor shall identify failures OC-ALC/LGBEC and provide corrective actions and revised Acceptance Test Procedures (if applicable) to OC-ALC/LGBEC. OC-ALC/LGBEC will approve/disapprove the corrective actions and revised procedures within 30 days of receipt.

**Government reserves the right to inspect the manufacturing process at any time during the contract**

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**5. Conditions for Waiver of Qualification Requirements**

Contractors who are currently in production of or who have previously furnished production quantities of the same article and provided the reports identified in paragraph 2 above are exempt from this qualification requirement provided not more than 36 months have elapsed since completion of the contract. Offerors who have previously furnished production quantities of a similar article may request a waiver of Qualification Requirements. OC-ALC/LGBEC will approve/disapprove the waiver request.

**6. Responsible U.S. Government Engineering Organization**

The U.S. Government engineering organization responsible for the development and approval of these Qualification Requirements is the Oklahoma City Air Logistics Center, Airborne Accessories Directorate, Aerospace Accessories Division, Engineering Branch, OC-ALC/LGBE, 3001 Staff Dr, Tinker AFB, OK 73145.

**CONTRACT DATA REQUIREMENTS LIST**  
(1 Data Item)

Form Approved  
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the

<b>A. CONTRACT LINE ITEM NO.</b> Cable, Electrical 58313-90765	<b>B. EXHIBIT</b>	<b>C. CATEGORY:</b> TDP _____ TM _____ OTHER _____
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<b>D. SYSTEM/ITEM</b>	<b>E. CONTRACT/PR NO.</b>	<b>F. CONTRACTOR</b>
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<b>1. DATA ITEM NO.</b> A002	<b>2. TITLE OF DATA ITEM</b> Test Inspection Report	<b>3. SUBTITLE</b> Qualification Test Report
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<b>4. AUTHORITY (Data Acquisition Document No.)</b> DI-NDTI-80809B	<b>5. CONTRACT REFERENCE</b>	<b>6. REQUIRING OFFICE</b> OC-ALC/LGBEC
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<b>7. DD 250 REQ</b> LT	<b>9. DIST STATEMENT REQUIRED</b> N/A	<b>10. FREQUENCY</b> SEE BLK 16	<b>12. DATE OF FIRST SUBMISSION</b> SEE BLK 16	<b>14. DISTRIBUTION</b>		
<b>8. APP CODE</b> A		<b>11. AS OF DATE</b> SEE BLK 16	<b>13. DATE OF SUBSEQUENT SUBMISSION</b> SEE BLK 16	<b>a. ADDRESSEE</b> OC-ALC/LGBEC	<b>b. COPIES</b>	
					Draft	Final
					Reg	Repro

<b>16. REMARKS</b>	<b>15. TOTAL</b> →	1	1

<b>G. PREPARED BY</b>	<b>H. DATE</b>	<b>I. APPROVED BY</b>	<b>J. DATE</b>
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<b>17. PRICE GROUP</b>
<b>18. ESTIMATED TOTAL PRICE</b>

# DATA ITEM DESCRIPTION

Form Approved  
OMB No. 0704-0188

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LE

TEST/INSPECTION REPORT

2. IDENTIFICATION NUMBER

DI-NDTI-80809B

### 3. DESCRIPTION/PURPOSE

3.1 The test/inspection report is used to document test/inspection results, findings, and analyses that will enable the government or contracting agency to evaluate compliance with system requirements, performance objectives, specifications, and test/inspection plans.

4. APPROVAL DATE  
(YYMMDD)

970124

5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)

F/AFMC-DOP

6a. DTIC APPLICABLE

6b. GIDEP APPLICABLE

### 7. APPLICATION/INTERRELATIONSHIP

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

7.2 This DID is applicable to engineering (developmental), preliminary qualification, qualification, and acceptance testing.

7.3 This DID supersedes DI-NDTI-80809A and DI-MISC-80653.

8. APPROVAL LIMITATION

9a. APPLICABLE FORMS

9b. AMSC NUMBER

F7231

### 10. PREPARATION INSTRUCTIONS

10.1 Format. Contractor format is acceptable. Organize the information required by paragraph 10.2 and its subparagraphs in a manner that facilitates presentation and understanding

10.2 Content. The test/inspection report shall contain the following information, as applicable.

10.2.1 Cover and title page. The following information shall appear on the outside front cover and title page:

- a. Report date.
- b. Report number (contractor or government)
- c. Contractor's name, address, and commercial and government entity code.
- d. Contract number and contract line item number or sequence number (if applicable).
- e. Type of test/inspection (for example, first article acceptance test, quality conformance inspection, developmental test, qualification test, environmental test).
- f. Identification of item tested/inspected.
- g. Date or period of test/inspection.
- h. Name and address of requiring government activity.
- i. Security classification, downgrading and declassifying information, if applicable.

(Continued on page 2)

### 11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.

## DI-NDTI-80809B

Block 10, Preparation Instructions (continued)

10.2.2 Table of contents. The table of contents shall identify the following:

- a. The title and starting page of each major section, paragraph, and appendix of the report.
- b. The page, identifying number, and title of each illustration (for example; figure, table, photograph, chart, and drawing).

10.2.3 Introduction. The introduction shall include the following information:

10.2.3.1 Test/inspection objective(s). The specific test/inspection objective(s) as specified in the contract tasking document.

10.2.3.2 Item(s) tested/inspected. Complete identification of the item(s) tested/inspected including the following:

- a. Nomenclature.
- b. National stock number.
- c. Model number, part number, and serial number
- d. Type of item (for example, prototype, production item, laboratory model).
- e. Serial or lot number.
- f. Applicable engineering changes.
- g. Production item specification, if applicable.
- h. Date of manufacture.

10.2.3.3 Test/inspection requirements. Complete identification of the test/inspection requirements correlated to contractual requirements including the following:

- a. Required test/inspection parameters.
- b. Performance requirements, acceptance or compliance limits, and environmental criteria.

10.2.4 Summary. Complete test/inspection report summary including the following:

- a. A brief discussion of the significant test/inspection results, observations, conclusions, and recommendations covered in greater detail elsewhere in the report.
- b. Proposed corrective actions and schedules for failures or problems encountered.
- c. Identification of deviations, departures, or limitations encountered, referenced to the contract requirements.
- d. Tables, graphs, illustrations, or charts as appropriate to simplify the summary data.

10.2.5 Reference documents. Complete identification of all documents referenced in the test/inspection report including the following, as applicable:

- a. Prior test/inspection reports on the same item.
- b. Test/inspection plans and procedure documents.
- c. Prior certifications of compliance.
- d. Contractor's file designation where test/inspection records are maintained.
- e. Input parameters used.

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

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10.2.6 Body of report. The body of the test/inspection report shall be as follows:

10.2.6.1 Test equipment identification. Complete identification of each item of test equipment used in the test/inspection including the following:

- a. Nomenclature.
- b. Model number.
- c. Serial number.
- d. Manufacturer.
- e. Calibration status.
- f. Accuracy data.
- g. Comments, if applicable.

10.2.6.2 Test/inspection facility installation and set-up. Complete description of the physical set-up used in conducting the test/inspection to include the following:

- a. Location or orientation of the item.
- b. Location, orientation, or settings of test equipment and instrumentation.
- c. Location, orientation, or settings of sensors and probes.
- d. Location or orientation of interconnections, cables, and hoop-ups.
- e. Electrical power, pneumatic, fluidic, and hydraulic requirements.

Drawings, illustrations, and photographs may be used for clarification.

10.2.6.3 Test/inspection procedures. Complete description of the procedures used in conducting the test/inspection to include the following:

- a. Item selection and inspection that verified suitability for test/inspection.
- b. Summarized sequence of testing/inspection steps, including a description of how the item was operated during the test/inspection, and any control conditions imposed.

10.2.6.4 Test/inspection results and analysis. A copy of all test/inspection results and analysis to include the following:

10.2.6.4.1 Recorded data. The actual recorded data (for example, log book entries, oscillographs, instrument readings, plotter graphs). If the recorded data is extensive, provide it in an appendix.

10.2.6.4.2 Test/inspection results. Identification of all test/inspection results to include the following:

- a. Matrices comparing results achieved against test/inspection objectives or requirements.
- b. A discussion of these matrices as to their significance, and how they compare to any prior test/inspections.
- c. Calculation examples.
- d. Discussion of anomalies, deviations, discrepancies, or failures, including their impact, causes, and proposed corrective actions. The discussion shall address discrepancies between design requirements and the tested/inspected configuration.

10.2.6.5 Conclusions. Test/inspection conclusions distinguished between objective and subjective to include the following:

- a. The effectiveness of the test/inspection procedures in measuring item performance.

## DI-NDTI-80809B

- b. The success or failure of the item to meet required test/inspection objectives.
- c. The need for repeat, additional, or alternative tests/inspections.
- d. The need for item redesign or further development.
- e. The need for improved test/inspection procedures, techniques, or facilities.
- f. The adequacy and completeness of the test/inspection requirements.

10.2.6.6 Recommendations. Recommendations appropriate to the test/inspection results and conclusions including the following:

- a. Acceptability of the item tested/inspected (pass or fail).
- b. Additional testing/inspection required.
- c. Redesign required.
- d. Problem resolution.
- e. Test/inspection procedure or facility improvements.
- f. Disposition of items tested/inspected.
- g. Documentation changes required.
- h. Testing/inspection improvements.

10.2.7 Authentication. The following certifications shall be included, as applicable:

10.2.7.1 Authentication of test/inspection results. A statement that the test/inspection was performed in accordance with applicable test/inspection plans and procedures, and that the results are true and accurate. The authentication shall include the signature of the contractor personnel that performed the test(s)/inspection(s), a contractor representative authorized to make such certification, and any government witnesses.

10.2.7.2 Authentication of prior validation. A statement identifying those requirements not tested/inspected or measured that were previously validated. Include identification of the data and method employed for such validation (for example, prior test/inspection, analytical verification, equivalent item, and so on). The authentication shall include the signature of a contractor representative authorized to make such authentication and any government witness.

10.2.7.3 Authentication of acceptability. A statement that the item tested/inspected either passed or failed item acceptability requirements. This authentication shall include the signature of a contractor representative authorized to make such authentication and any government witness.

10.2.8 Appendices. Appendices shall be used to append detailed test/inspection data, drawings, photographs, or other documentation too voluminous to include in the main body of the report. This includes referenced documentation not previously provided by the government, and test/inspection reports from any associated test/inspection activity that may have performed some of the testing/inspecting requirements.

# CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

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<b>A. CONTRACT LINE ITEM NO.</b> Cable, Electrical 58313-90765	<b>B. EXHIBIT</b>	<b>C. CATEGORY:</b> TDP _____ TM _____ OTHER _____
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<b>D. SYSTEM/ITEM</b>	<b>E. CONTRACT/PR NO.</b>	<b>F. CONTRACTOR</b>
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<b>1. DATA ITEM NO.</b> A001	<b>2. TITLE OF DATA ITEM</b> Quality Conformance Inspection and Test Procedure	<b>3. SUBTITLE</b> a. Qualification Test Procedures b. Acceptance Test Procedures
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<b>4. AUTHORITY (Data Acquisition Document No.)</b> DI-RELI-80322	<b>5. CONTRACT REFERENCE</b>	<b>6. REQUIRING OFFICE</b> OC-ALC/LGBEC
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<b>7. DD 250 REQ</b> LT	<b>9. DIST STATEMENT REQUIRED</b> N/A	<b>10. FREQUENCY</b> SEE BLK 16	<b>12. DATE OF FIRST SUBMISSION</b> SEE BLK 16	<b>14. DISTRIBUTION</b>		
<b>8. APP CODE</b> A		<b>11. AS OF DATE</b> SEE BLK 16	<b>13. DATE OF SUBSEQUENT SUBMISSION</b> SEE BLK 16	<b>a. ADDRESSEE</b> OC-ALC/LGBEC	<b>b. COPIES</b>	
					<b>Draft</b>	<b>Final</b>
					<b>Reg</b>	<b>Repro</b>

<b>16. REMARKS</b>	<b>15. TOTAL</b> →
	1 1

<b>G. PREPARED BY</b>	<b>H. DATE</b>	<b>I. APPROVED BY</b>	<b>J. DATE</b>
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<b>17. PRICE GROUP</b>
<b>18. ESTIMATED TOTAL PRICE</b>

<b>DATA ITEM DESCRIPTION</b>			<i>Form Approved OMB No. 0704-0188</i>	
2. TITLE <b>QUALITY CONFORMANCE INSPECTION AND TEST PROCEDURES</b>		1. IDENTIFICATION NUMBER <b>DI-RELI-80322</b>		
3. DESCRIPTION/PURPOSE <b>3.1 These data outline operation, and inspection procedures to be employed to conduct quality conformance tests by the contractor.</b>				
4. APPROVAL DATE (YYMMDD) <b>870220</b>	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR) <b>N/FLTAC 3241</b>	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE	
7. APPLICATION/INTERRELATIONSHIP <b>7.1 This DID contains the format and content preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.</b> <b>7.2 This DID is applicable to any contract containing requirements for quality conformance inspections and tests.</b> <b>7.3 The procedures are normally required to be approved by the Government before used by</b> <b>(Continued on Page 2)</b>				
8. APPROVAL LIMITATION		9a. APPLICABLE FORMS		9b. AMSC NUMBER <b>N4070</b>
10. PREPARATION INSTRUCTIONS <b>10.1 <u>Content and format.</u> The procedures shall be in contractor format and shall include:</b> <b>10.1.1 Identification of the item to be inspected, such as part number with revision letter and nomenclature.</b> <b>10.1.2 The characteristics to be verified.</b> <b>10.1.3 List of test equipment to be used to verify each characteristic. This list shall include all of the test equipment required to conduct the test of a section. It shall list the name and/or nomenclature, type number, range or spectrum required to conduct the test, accuracy required for the test, and alternate equipment that may be used. Schematics and block diagrams of any special test instrumentation shall be included at the end of the procedure, between the procedure and the data sheets.</b> <b>10.1.4 Detailed operations to be performed by the test operator, including operational checks or preliminary calibration of test setup.</b> <b>10.1.5 Exact method of inspection or measuring, including necessary manipulation of controls on the article involved and on the measuring and test equipment. A step-by-step procedure to obtain the data to determine conformance with the specification requirement.</b>  <b>(Continued on Page 2)</b>				
11. DISTRIBUTION STATEMENT  <b><u>DISTRIBUTION STATEMENT A:</u> Approved for public release; distribution is unlimited.</b>				

## DI-RELI-80322

## Block 7, Application/Interrelationship (Continued)

the contractor in acceptance testing.

7.4 This DID supersedes UDI-R-20332C.

7.5 This DID is related to DI-R-7065, Equipment Calibration Procedures.

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## Block 10, Preparation Instructions (Continued)

10.1.6 Conditions that must be maintained during inspection and test including ambient or environmental and precautions to be observed to prevent damage to the articles or instruments involved. The conditions shall include pictorial diagrams of the equipment set up, and adjustment or alignment of the test equipment and the equipment under test to make the measurement. The pictorial diagrams shall clearly identify each equipment to be utilized and the reference designation of connectors and interconnection cabling. If the diagrams are small, they may be inserted under the description of the conditions. If they are large, they shall be referenced in the description of the conditions.

10.1.7 Criteria for passing or failing the test or for determining conformance or rejection of the article including reference to workmanship standards. The requirement of the specification for the test performed shall be delineated. The applicable tolerances shall be included.

10.1.8 Details of sampling plans to be used if applicable.

10.1.9 All characteristics included in the specification and drawings. Each characteristic that has been classified in these documents as critical or major shall be identified in the inspection and test procedures by a suitable symbol or number.

10.1.10 Data sheets shall be included for recording data of each test. The data sheet shall also include specification requirement values with tolerances wherever applicable. The paragraphing of the data sheets correspond to the paragraphing of the test procedures. The use of check marks and "yes-no" answers for data sheets shall be avoided. Provisions for recording the date the test was performed, signature of tester, signature of inspector, and serial number of the equipment shall be included.