

(R) Cable Assemblies and Attachable Plugs, External Electrical Power, Aircraft,
General Specification For

RATIONALE

Completely revised to remove government jargon, update specification references, align specification with sae ae-8 guidelines, incorporate amendment, and review for minor technical problems.

1. SCOPE

1.1 Scope

This specification applies to complete cable assemblies (using either molded on or attachable plugs) used to connect external electric power to aircraft and to attachable plugs used as replacement for plugs damaged in service.

1.2 Classification

Each cable assembly or attachable plug (hereinafter referred to as item) shall be identified by the part number listed on the applicable detail specification sheet. The products under this specification shall be one of the following types:

- a. Attachable connector plugs: Molded rubber connector plugs with mechanically attachable crimp contacts or splices.
- b. Cable assemblies: Assemblies consisting of integrally molded or attachable connector plugs (when specified) and other termination devices attached to single jacketed or banded cables

1.3 Air Force Applications

1.3.1 Integrally Molded Plugs for Original Equipment

Cable assemblies that are procured for air force original equipment applications shall only be integrally molded cable assemblies.

1.3.2 Attachable Plugs for Replacement

Air Force use of attachable plugs shall be limited to replacement of plugs damaged in service.

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2. APPLICABLE DOCUMENTS

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of the other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

AMS-R-81828	Rubber, Chlorosulfonated Polyethylene Elastomer, Sheet and Molded Shapes, Ozone Resistant
AS5756	Cable and Wire, Power, Electric, Portable
AS7974/1	Connector, Plug, Aircraft External Power
AS7974/2	Cable Assembly, External Power, Aircraft 115/200 Volt, 400 Hertz Power Distribution Flight Line (for A/E 24A-166A)
AS7974/3	Connector, Plug, Attachable, External Electric Power, Aircraft, Single-Jacketed Cable Assemblies, 115/200 Volt, 400 Hertz
AS7974/4	Cable Assembly, External Electric Power, Aircraft, Single-Jacketed 115/200 Volt, 400 Hertz
AS7974/5	Cable Assembly, External Power, Aircraft 270 Volt, 400 Hertz, 90 KW Power Distribution Flight Line
AS81790	Connectors, Receptacle, External Electric Power, Aircraft
AS20659	Terminal, Lug, Crimp Style, Copper, Uninsulated, Ring Tongue, Type I, Class 1
AS21378	Plugs and Cable Assemblies, External Power, Aircraft 230/400 Volt, 400 Hertz
AMS-DTL-23053	Insulation Sleeving, Electrical, Heat Shrinkable, General Specification For
AS 24121	Wiring Harness, Single Point Refueling
AS24122	Wiring Harness, External Power, 115 Volt AC, Single Phase
AS24208	Cable and Plug Assembly, External Power, 115/200 Volts, 3 Phase, Single Point Refueling
AS25019	Cable Assembly-Jet Starting Power
AS25486	Connector, Plug, Attachable, external Electric Power, Aircraft, 115/200 Volt, 400 Hertz
AS25487	Connector, Plug, Attachable External Electric Power, Aircraft 28 Volt DC, Jet Starting
AS25488	Connector Plug, Attachable, External Power, Aircraft, 28 Volt DC Operating Power
AS90328	Cable Assembly, External Electric Power, Aircraft, 115/200 Volt, 400 Hertz
AS90347	Cable Assembly, External Electric Power, Aircraft, 28 Volt DC Operating Power
AS90362	Connector, Receptacle, External Power, Aircraft, 115/200 Volt, 400 Hertz

2.2 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org.

ASTM D 1149	Rubber Deterioration-Surface Ozone Cracking in a Chamber
ASTM D 5118	Standard Practice for Fabrication of Fiberboard Shipping Boxes
ASTM D 1630-83	Standard Test Method for Rubber Property-Abrasion Resistance (NBS Abrader)
ASTM D 1974	Standard Method for Closing, Sealing, and Reinforcing Fiberboard Shipping Containers

2.3 ASQ Publications

Available from American Society for Quality, 600 North Plankinton Avenue, Milwaukee, WI 53203, Tel: 800-248-1946 (United States or Canada)) or +1-414-272-8575 (International), www.asq.org.

ASQC Z1.4	Sampling Procedures and Tables for Inspection by Attributes
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2.4 National Conference Of Standards Laboratories (NCSL) Publications

National Conference of Standards Laboratories, 2995 Wilderness Place, Suite 107, Boulder, CO 80301-5404, Tel: 303-440-3339, www.ncsli.org.

NCSL Z540-1	General Requirements for Calibration Laboratories and Measuring and Test Equipment
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2.5 U.S. Government Publications

Available from the Document Automation and Production Service (DAPS), Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Tel: 215-697-6257, <http://assist.daps.dla.mil/quicksearch/>.

A-A-3174	Plastic Sheet, Polyolefin
A-A-1898	Cushioning Material, Cellulosic, Packaging
MIL-STD-5624	Turbine Fuel, Aviation, Grades JP-4 and JP-5
MIL-DTL-83133	Turbine Fuels, Aviation, Kerosene Types, NATO F-34(JP-8), NATO F-35, and JP-8 + 100
MIL-STD-202	Test Methods for Electronic and Electrical Component Parts
MIL-PFR-6855	Rubber, Synthetic, Sheets, Strips, Molded or Extruded Shapes, General Specification for
MIL-STD-2073- 1	Standard Practice for Military Packaging.
MIL-PRF-23699	Lubricating Oil, Aircraft Turbine Engines, Synthetic Base
MIL-STD-129	Military Marking for Shipment and Storage
MIL-STD-130	Identification Marking of U.S. Military Property
SD-6	Provisions Governing Qualification

2.6 Order of Precedence

In the event of a conflict between the text of this document and the references cited herein (except for related associated detail specifications,) the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Specification Sheets

The individual item requirements shall be as specified herein and in accordance with the applicable specification sheets. In the event of any conflict between requirements of this specification and the specification sheets, the latter shall govern.

3.2 Qualification (see 4.7 and 7.4):

Products furnished under the specification shall be products that are qualified for listing in the applicable qualified products list (QPL) at the time set for the opening of government bids or commercial purchase orders.

3.3 Cable Assembly Materials (see 5.1.1)

3.3.1 Plug Materials

The plugs shall be fabricated from chlorosulfonated polyethylene rubber conforming to AMS-R-81828, or synthetic rubber conforming to MIL-PFR-6855, Class 2, Grade 60. The plug body material shall have an abrasion resistance index of at least 75 percent of the Standard reference compound when tested in accordance with ASTM D 1630-83. The depth of the abrasion shall be specified in Table 1. Equivalent materials shall be approved by the qualifying activity and shall meet the test requirements of this specification.

TABLE 1 - DEPTH OF REQUIRED ABRASION RESISTANCE

Part of plug	Min. thickness (inches)
Front end	0.100
Widest side-within one inch of front end	0.15
Remainder of sides	0.100

3.3.2 Socket Contact Materials

The small socket contacts shall be tellurium copper, leaded copper, or brass, with a minimum of 0.0002 inch of silver plate. The large socket contacts shall be tellurium copper or leaded copper or equal with a minimum of 0.0002 inch of silver plate. The conductivity of the alloys used for the large socket contacts shall be a minimum of 90 percent of the International Annealed Copper Standard (IACS).

3.3.3 Band Material

The bands shall be of a nonmetallic material having an abrasion resistance index of at least 75 percent of the Standard reference compound when tested in accordance with ASTM D 1630-83.

3.3.4 Wire and Cable Material

The wire and cable used in the cable assemblies shall be an ozone-resistant material that is qualified under AS5756.

3.4 Cable Assemblies Design and Construction (see 3.1 and 5.1.2)

Unless otherwise specified, cable assemblies and plugs shall be design and constructed as follows:

3.4.1 Dimensions

Physical dimensions shall be as specified on the applicable detail specification and herein (see 3.1).

3.4.1.1 Banding Location

Bundled cable shall be banded at intervals not to exceed 24 inches.

3.4.1.2 Wire and Cable

The cable insulation shall be continuous between plug body and termination lugs with a maximum separation between insulation and lug barrel of 1/4 inch. Additionally, a minimum length of 2 inches of properly sized shrinkable insulation sleeve in accordance with AMS-DTL-23053 shall be installed to symmetrically cover the insulation gap.

3.4.1.3 Plug Socket Location

No part of any socket, nor any part which is electrically connected to any socket, shall be within 0.100 inch of the front end of the plug. Each large socket shall be in contact with its mating pin when the end of the pin has been inserted into the plug 0.500 inch from the surface of the front end of the plug.

3.4.2 Stripping Insulation

When wires are stripped, for cables composed of less than or equal to 100 strands, not more than one strand shall be nicked or cut through. For all cables composed of more than 100 strands, no more than 1 percent of the strands shall be nicked or cut through when stripping the conductor insulation.

3.4.3 Terminals

Lug terminals shall conform to AS20659, or as specified on the applicable detail specification, and shall be crimped with the proper dies listed on AS20659 or equivalent as approved by the qualifying activity (see 6.4). Terminals and wire shall be free of foreign material. Soldered joints is not be permitted.

3.4.4 Cable Assembly Plugs

As required by the cable assembly part number (see 3.1), the cable assembly plug may be either molded to, or mechanically attached to, the cable bundle.

3.4.5 Attachable Plugs

An attachable plug shall be attachable to any cable conforming to the requirements detailed on the applicable standard for that plug. The plug shall be attachable by the use of commercial standard tools. Socket contacts shall be provided with crimp type barrel ends with diameters as specified on the applicable SAE standard (see 3.1). When attached, the cable and new plug shall meet all applicable requirements of this specification.

3.4.6 Structural Integrity (see 5.1.3)

Each plug shall be so constructed that if the widest sides of the plug within 1 inch of the original front end are ground away to a depth of 0.125 inch, no part of the plug will fail or become loose and the plug will meet all the performance requirements of this specification.

3.4.7 Identification Marking

3.4.7.1 Cable Assemblies with Control Leads Color

Cable assemblies that utilize control leads shall have contact E crimped to the white colored lead wire and contact F crimped to the black colored lead wire.

3.4.7.2 Socket Identification

Socket identification shall be clearly and durably marked adjacent to each socket on the side or end as shown on the applicable detail specification sheet.

3.4.7.3 Cable Lug Terminal Identification

The lug terminal identification shown on the detail specification sheet shall be clearly and durably marked on both sides of sleeve which shall be shrunk or cemented onto the insulation of the wire within 6 inches of the lug terminal. Each wire shall be electrically connected to the corresponding marked plug socket. Control leads, when specified, shall be from 2 to 6 inches longer than the power leads.

3.4.7.4 Cable Assemblies Marking Location

Marking of cable assemblies shall be on a band or sleeve around all wires and located between any two clamping bands except the three nearest to the plug and the three nearest to the terminals.

3.4.7.5 Attachable Plugs Marking (Type and Location)

Marking of attachable plugs shall be 3/16 inch minimum block style depressed characters located on the wide face of the plug body. Marking shall be readable when the cable entry end of the plug is facing downward.

3.4.7.6 Item Package Identification (see 6.)

Each item shall be marked as follows for identification in accordance with MIL-STD-130:

AS Part Number

Manufacturer's Part Number

Manufacturer's Name or Trademark

Date Indicator Which Defines Manufacturing Dates for Periods 3 Months or Less

3.4.8 Workmanship (see 5.1.4)

Items shall be fabricated and finished in a workman-like manner. There shall be no imperfections affecting the functioning and assembly of the product. Particular attention shall be given to freedom from chips, dirt, grit and other foreign material; also to freedom from defects, burrs, sharp edges, corners and points. The cleansing methods used shall not be injurious to any of the parts nor shall any of the parts be contaminated by the cleaning agents employed.

3.5 Mechanical Performance (see 5.2)

Unless otherwise specified, requirements for plugs shall apply both to plugs supplied on the cable assemblies and to separate attachable plugs.

3.5.1 Plug Engagement Location with Receptacle (see 5.2.1)

Each plug shall be engagable with the mating receptacle specified on the applicable detail specification so that the front end of the plug touches the base plate of the receptacle.

3.5.2 Plug Engagement and Disengagement Forces (see 5.2.2)

3.5.2.1 Plug Engagement Force

The force required to mate the plug with its applicable receptacle shall not, at any point of engagement, exceed 50 pounds for three-socket plugs and 80 pounds for six-socket plugs.

3.5.2.2 Plug Disengaging Force

The force required to remove the plug from the receptacle at each point in the first half-inch of travel from the fully engaged position shall be a minimum of 30 pounds for three-socket plugs, and shall be a minimum of 55 pounds for six-socket plugs. The force required to remove the plug from the receptacle at all other points shall not exceed 50 pounds for three-socket plugs and shall not exceed 100 pounds for six-socket plugs.

3.5.3 Plug Static Strength (see 5.2.3)

Plug shall be capable of withstanding without damage a force of 1000 pounds.

3.5.4 Plug Misengagement (see 5.2.4)

There shall be no electrical contact of the small plug sockets with any of the receptacle pins.

3.5.5 Plug to Cable Attachment Strength (see 5.2.5)

There shall be no damage to the cable assembly.

3.5.6 Cable Attachment to Lug Terminal and Crimp Barrel Strength (see 5.2.6)

The mechanical connection of the wire to the lug terminal or crimp barrel shall not break or become distorted.

3.5.7 Plug Bending Strength (see 5.2.7)

There shall be no damage to the plug. Plug shall pass plug engagement and disengagement forces.

3.5.8 Band Tensile Strength (see 5.2.8)

There shall be no tearing of the bands or shifting of the bands on the cables by more than one inch.

3.6 Environmental Performance (see 5.4)

3.6.1 Low Temperature Exposure (See 5.3.1)

3.6.1.1 Low Temperature Plug and Band Impact

The plugs and bands shall be capable of withstanding an impact at low temperature without damage.

3.6.1.2 Low Temperature Plug Engagement Force

The engaging force shall not exceed the maximum value of the plug engagement force by more than 50 percent (see 3.5.3).

There shall be no damage to the cable assemblies when flexed as specified. The cable shall pass wet dielectric strength after humidity, voltage drop after salt spray, current overload, and plug cable attachment requirements.

3.6.2 Wet Dielectric Strength After Humidity (see 5.3.3)

The cable assembly and attachable plugs shall be capable of withstanding for 1 minute the application of 2000 volts DC when tested as specified in 4.7.7. There shall be no current leakage in excess of 1.0 milliamperes.

3.6.3 Voltage Drop After Salt Spray (see 5.3.4)

With the plug of a cable assembly mated with a receptacle, the voltage drop from the end of each contact on the rear of the receptacle to a point on each corresponding wire of the cable assembly shall not exceed the values specified in Table 2.

TABLE 2 - ALLOWABLE VOLTAGE DROP

Contact size	Test current (amps)	Maximum allowable voltage drop (millivolts)
12	15	30
8	45	30
4	150	40
2	200	45
0	250	45
00	300	45
0000	400	45

3.6.4 Current Overload (see 5.3.5)

There shall be no shorting or loss of continuity, burning, rupture or other visual damage. Smoking shall not be cause for failure. Cable assembly shall pass the engagement force requirements. There shall be no shorting or loss of continuity, burning, rupture or other damage to the item.

3.6.5 Ozone Resistance (see 5.3.6)

The cable assembly or attachable plug shall exhibit no cracks in the jacket or insulating materials.

3.6.6 Fluid Immersion (see 5.3.7)

The cable assembly or plug shall be exposed to the fluids as specified. The cable assembly or plug shall pass the engagement and disengagement force requirement of 3.5.3.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection

Unless otherwise specified, the supplier is responsible for the performance of all contract inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the supplier may use any qualifying activity approved facilities suitable for the performance of the inspection requirements specified herein. The purchaser or qualifying activity has the right to perform any of the inspections set forth in the standard where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Responsibility for Compliance

All items must meet all technical requirements of the product specification. The inspection set forth in this specification shall become a part of the supplier's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the supplier of the responsibility of assuring that all products comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective units nor does it commit the purchaser to acceptance of defective material.

4.3 Classification of Inspections

The inspection requirements specified herein are classified as follows:

- a. Materials and design inspection (see 4.3)
- b. Qualification inspection (see 4.5)
- c. Quality conformance inspection (see 4.6)
- d. Retention of qualification (see 4.6.3)

- 4.4 Materials and Design Inspection Materials and design inspection shall consist of certification that the materials and design used in fabricating the components, as listed in 3.4 through 3.5.4 are in accordance with the applicable referenced standards, specifications or requirements prior to such fabrication. This certification shall be supported by verifying data and shall be furnished with the report of qualification testing.
- 4.5 Test Equipment and Inspection Facilities Test and measuring equipment and inspection facilities of sufficient accuracy, quality and quantity to permit performance of the required inspection shall be established and maintained. The establishment and maintenance of a calibration system to control the accuracy of the measuring and test equipment shall be in accordance with ANSI/NCSL Z540-1 or equivalent.
- 4.6 Inspection of Packaging

The inspection of packaging shall be as specified in the contract (see 6.2).

- 4.7 Qualification Inspections (see 7.4).

Qualification inspection shall be in accordance with Table 3 and 4. A request for qualification shall be made to the qualifying activity prior to initiating testing. Testing cannot begin until the supplier has received an authorization letter. The supplier is recommended to provide the qualifying activity a test plan based on the authorization letter to ensure the supplier and qualifying activity maintain communication and document changes as needed. The qualifying activity has the authority to modify the specification test requirements to resolve test failures/discrepancies and to wave testing to verify specific product manufacturing changes or qualifications by similarity. For each component tested, the supplier shall use the same materials, manufacturing procedures, and methods of inspection as would be used to provide the component to a purchaser. Any change by the manufacturer that does not agree with the specific qualification baseline as submitted and approved requires qualifying activity concurrence. A change in the product that does not comply with this specification shall result in qualification disapproval of that product and family products represented by that product. The qualifying activity shall perform the tests specified in Table 3. The supplier shall perform the tests specified in Table 4 in a laboratory of their choice. All test laboratories requires qualifying activity approval.

TABLE 3 – QUALIFYING ACTIVITY QUALIFICATION TEST REQUIREMENTS

Examination or test	Requirement paragraph	Inspection paragraph
Examination of product <u>1/</u>	3.1, 3.3, 3.4 <u>3/</u>	5.1
Plug Engagement Location with Receptacle	3.5.1	5.2.1
Plug Engagement and Disengagement Forces <u>2/</u>	3.5.2	5.2.2
Plug Static Strength	3.5.3	5.2.3
Plug Misengagement	3.5.4	5.2.4
Plug to Cable Attachment Strength	3.5.5	5.2.5
Lug Terminal and Crimp Barrel Strength	3.5.6	5.2.6
Plug Bending Strength	3.5.7	5.2.7
Band Tensile Strength	3.5.8	5.2.8
Low Temperature Exposure	3.6.1	5.3.1
Wet Dielectric Strength After Humidity	3.6.2	5.3.3
Voltage Drop After Salt Spray	3.6.3	5.3.4
Current Overload	3.6.4	5.3.5

1/ Dimensions only performed on specimen not submitted to structural integrity.

2/ Receptacle standards shall be provided by the supplier and returned upon request

3/ Structural integrity shall be performed on all test sample by the supplier (see 4.7.1).

TABLE 4 – SUPPLIER QUALIFICATION TEST REQUIREMENTS (INITIAL ONLY)

Examination or test	Requirement paragraph	Inspection paragraph
Structural Integrity <u>1/</u>	3.4.6	5.1.3
Cable Assembly Life flexing <u>2/</u>	3.6.2	5.3.2
Ozone resistance	3.6.5	5.3.6
Fluid immersion	3.6.6	5.6.7

1/ Structural integrity shall be performed on all test sample by the supplier (see 4.7.1).

2/ Test to be performed on only one specimen

4.7.1 Qualification Test Samples

The test sample size shall be two specimens of each type component being qualified, one of the two specimens shall have the plug prepared as a structural integrity sample (see 3.4.6 and 5.1.2). Two sample sizes are required (one sample size for Table 3 and one for Table 4). For the fluid test one additional sample size shall be used. For the ozone test one additional specimen shall be used. For each type component being qualified with the same material, only one sample or specimen representing that material is required for the fluid and ozone tests.

4.7.1.1 Molded Cable Assemblies Specimens

For qualification inspection, cable assemblies specimens shall be 5 ft ± 0.1 ft in overall length and be provided with two clamping bands 24 inches apart (location on cable optional) with the item identification band or sleeve located between them. In addition, terminals must be included on the cable assembly. When attachable plugs are used as part of the cable assembly, two crimp barrels for each wire size shall be supplied to the qualifying activity for verification of ability to be crimped with the required tooling. For each cable assembly type being qualified, a minimum of one specimen shall be subjected to the structural integrity test by the supplier prior to qualification testing (see 3.4.6).

4.7.1.2 Attachable Plugs Assembly Specimens

For qualification inspection, attachable plugs shall be crimped to cables to form cable assemblies 5 ft ± 0.1 ft in overall length before being subjected to the inspections specified for attachable plugs in Table 3 and 4. For each cable assembly type being qualified, a minimum of one specimen shall be subjected to the structural integrity test by the supplier prior to qualification testing (see 3.4.6). Clamping and identification banding is not required, but terminals must be crimped to the cable assembly. The cables shall be the size specified on the applicable detail specification and shall meet the requirements of AS5756 (see 3.1).

4.7.1.3 Contacts Specimens (applicable only for Table 3 tests)

Two uncrimp contacts for each wire size in each different cable assembly being qualified.

4.7.1.4 Receptacle Standards

Upon request from the qualifying activity, the supplier will provide the receptacles and standards necessary for the test specified in Table 3.

4.7.2 Qualification Test Report (initial testing only)

The qualifying activity will provide certified Table 3 test results to the supplier. The supplier shall furnish the qualifying activity one certified test report containing the following information. All results shall be maintained by the supplier for two retention periods.

- The quantitative results for tests specified in Table 4 and the authorization letter. The supplier may, but is not required, to include the qualifying activity test results in the test report.
- The material and detail specification certifications

4.7.3 Retention of Qualification Inspection

At 36 months intervals the qualifying activity shall establish an initial reporting date and provide an authorization test notification to begin testing. The qualifying activity is authorized to establish an alternate due date to accommodate testing schedules. The supplier shall provide a Retention of Qualification test report with all information specified in the authorization test notification (see 4.6.5). The qualifying activity shall perform the Table 3 tests on the required qualification samples (see 4.7.1) that have passed the quality conformance inspection tests (see Table 5). The qualifying activity will provide the certified Table 3 data to the supplier. Failure to submit to Retention of Qualification shall result in loss of qualification for that product.

4.7.3.1 Retention of Qualification Test Report

The supplier shall furnish the qualifying activity one certified test report containing the following information. All results shall be maintained by the supplier for two retention periods

- a. A summary of the results of quality conformance inspection tests, indicating as a minimum, the number of cables that passed and the number that failed. The supplier may include, but is not required, to include the Table 3 results in the test report.
- b. All corrective actions completed during the retention period
- c. The material and detail specification certifications

4.8 Qualification Non-compliance

Failure to pass all qualification requirements shall result in disapproval of the components that failed.

4.9 Quality Conformance Inspection

Quality conformance inspection shall consist of the following:

- a. Individual inspection
- b. Sampling inspection

4.9.1 Individual Inspection

All cable assemblies produced under the contract shall be given an electrical continuity test to ensure correct connections between respective sockets and terminals, and shall be tested for dielectric conformance requirements of 4.7.7, except humidity. Reject any item that fails.

4.9.2 Sampling Inspection

Sampling of items shall be in accordance with ASQC Z1.4 inspection level II, AQL 1.0%. Each item of the sample shall be subjected to the applicable inspections as specified in Table 4. Major and minor defects shall be as defined herein (see 7.5).