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SUPERSEDING
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MILITARY SPECIFICATION

CONNECTORS, COAXIAL, RADIO FREQUENCY, SERIES HN, AND ASSOCIATED FITTINGS, GENERAL SPECIFICATION FOR

This specification has been approved by the Department of Defense and is mandatory for use by the Departments of the Army, the Navy, and the Air Force.

1. SCOPE

1.1 Scope. This specification covers the general requirements for weatherproof, series HN-radio-frequency, coaxial connectors and associated fittings. These connectors have a nominal impedance of 50 ohms, an operating voltage of 1,500 volts root mean square, and a nominal operating frequency range of 0 to 10,000 mc/sec (see 6.1 and 6.3).

1.2 Classification.

1.2.1 *Type designation.* The type designation of connectors and associated fittings is derived from the AN nomenclature system specified in Standard MIL-STD-196, and shall be as specified (see 3.1 and 6.2).

2. APPLICABLE DOCUMENTS

2.1 The following documents, of the issue in effect on date of invitation for bids, form a part of this specification to the extent specified herein.

SPECIFICATIONS

FEDERAL

O-F-499	— Flux, Low Melting Point Silver Alloy Brazing.
QQ-B-613	— Brass, Leaded and Non-Leaded; Plate, Rolled Bar, Sheet and Strip.
QQ-B-626	— Brass, Leaded and Non-Leaded; Rods, Shapes, Forgings and Flat Products with Finished Edges (Bars, Flat Wire and Strips).
QQ-C-530	— Copper - Beryllium Alloy Bars, Rods, and Wire.
QQ-C-533	— Copper - Beryllium Alloy Strip.
QQ-P-330	— Phosphor Bronze Bars, Plates, Rods, Sheets, Strips, Flat Wire, and Structural and Special Shaped Sections.

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QQ-S-365 — Silver Plating (Electrodeposited).
QQ-S-561 — Solder; Silver.
QQ-S-571 — Solder: Lead Alloy, Tin Lead Alloy, and Tin Alloy; Flux Cored Ribbon and Wire, and Solid Form.
PPP-B-566 — Boxes, Folding, Paperboard.
PPP-B-585 — Boxes; Wood, Wirebound.
PPP-B-591 — Boxes, Fiberboard, Wood-Cleated.
PPP-B-601 — Boxes, Wood, Cleated-Plywood.
PPP-B-621 — Boxes, Wood, Nailed and Lock-Corner.
PPP-B-636 — Box, Fiberboard.
PPP-B-665 — Boxes; Paperboard, Metal Stayed (Including Stay Material).
PPP-B-676 — Boxes, Set-Up, Paperboard.
PPP-T-76 — Tape, Pressure-Sensitive Adhesive, Paper, Water Resistant, (for Carton Sealing).
PPP-T-97 — Tape, Pressure-Sensitive Adhesive, Filament Reinforced.

MILITARY

MIL-P-77 — Plastic Sheet and Plastic Rod, Thermosetting, Cast.
MIL-P-116 — Preservation, Methods of.
MIL-R-5847 — Rubber; Silicone; Low- and High Temperature- and Tear Resistant.
MIL-H-7199 — Heat Treatment of Copper - Beryllium Alloys, Process for.
MIL-B-10377 — Box, Wood, Cleated, Veneer, Paper Overlaid.
MIL-L-10547 — Liners, Case, Waterproof.
MIL-M-14077 — Molding Plastic, Polyetrafluoroethylene (TFE - Fluoro-carbon Resin).
MIL-S-16782 — Steel, Machinery, Cold-Rolled or Cold-Drawn: Bars and Rods.

(For applicable detail specifications, see Supplement 1.)

STANDARDS

MILITARY

MIL-STD-105 — Sampling Procedures and Tables for Inspection by Attributes.
MIL-STD-129 — Marking for Shipment and Storage.
MIL-STD-130 — Identification Marking of U. S. Military Property.
MIL-STD-196 — Joint Electronics Type Designation System.
MIL-STD-202 — Test Methods for Electronic and Electrical Component Parts.

(Copies of specifications, detail specifications, and standards required by contractors in connection with specific procurement functions should be obtained from the procuring agency or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids shall apply.

NATIONAL BUREAU OF STANDARDS

Handbook H28 — Screw-Thread Standards for Federal Services.

(Application for copies should be addressed to the Superintendent of Documents, Government Printing Office, Washington 25, D. C.)

OFFICIAL CLASSIFICATION COMMITTEE

Uniform Freight Classification Rules.

(Application for copies should be addressed to the Official Classification Committee, One Park Avenue, at 33rd Street, New York 16, N. Y.)

3. REQUIREMENTS

3.1 Detail requirements for individual types of connectors and associated fittings. Detail requirements or exceptions applicable to individual types of connectors and associated fittings shall be as specified in the detail specifications listed in Supplement 1 to this specification. In the event of any conflict between requirements of this specification and the detail specifications, the latter shall govern (see 6.2).

3.2 Material. The material shall be as specified herein (see 3.1). However, when a definite material is not specified, a material shall be used which will enable the connectors and associated fittings to meet the performance requirements of this specification. Acceptance or approval of any constituent material shall not be construed as a guaranty of the acceptance of the finished product.

3.2.1 *Brass.* Brass shall conform to composition 2 or 11, half-hard, of Specification QQ-B-613, or composition 22, half-hard, of Specification QQ-B-626, as applicable.

3.2.2 *Copper beryllium.* Copper beryllium shall conform to condition H of Specification QQ-C-530 or QQ-C-533, as applicable. After machining and forming, parts fabricated of copper beryllium shall be heat-treated to condition HT.

3.2.3 *Phosphor bronze.* Phosphor bronze shall conform to composition A of Specification QQ-P-330.

3.2.4 *Plastic.* Plastic shall conform to type E-2 of Specification MIL-P-77, and shall show no visible flaws or cracks.

3.2.5 *Silicone rubber.* Silicone rubber shall conform to class IIa, grade 50 or 60, of Specification MIL-R-5847; except oil-immersion test is not applicable.

3.2.6 *Silver solder.* Silver solder shall conform to class 1 of Specification QQ-S-561.

3.2.6.1 *Flux.* Flux used while silver soldering shall conform to Specification O-F-499.

3.2.7 *Soft solder.* Soft solder shall conform to composition Sn60 of Specification QQ-S-571.

3.2.8 *Polytetrafluoroethylene.* Polytetrafluoroethylene shall conform to Specification MIL-M-14077.

3.3 Design and construction. Connectors and associated fittings shall be of the design, construction, and physical dimensions specified (see 3.1). Wherever feasible, parts having similar electrical characteristics may be combined (fabricated as a single piece) to simplify construction. Parts of unlike materials may be combined such as brass and copper beryllium, provided copper beryllium is used in the fabrication of the single-piece construction.

3.3.1 *Metal parts.* Unless otherwise specified (see 3.1), all metal parts shall have a silver plating not less than 0.0002 inch thick, of sufficient smoothness and density to withstand the salt-spray (corrosion) test specified in 4.6.3. Silver plating shall be in accordance with Specification QQ-S-365. Dimensions of metal parts shall include the plating (see 3.1).

3.3.2 *Screw threads.* Screw threads shall conform to Handbook H28, and shall have the specified fit after plating (see 3.1).

3.3.3 *Gage tests for contacts.*

3.3.3.1 *Center contacts (female).* The center contacts shall meet the gage tests specified in 4.6.1.1 as piece parts and 4.6.1.2 in the assembled connector.

3.3.3.2 *Outer contacts.* The outer contacts shall meet the gage tests specified in 4.6.1.1.2 as piece parts and 4.6.1.2.2 in the assembled connector.

3.3.4 *Outer contact form over.* When outer contacts are tested as specified in 4.6.1.3, they shall show no signs of loosening.

3.3.5 *Assembly and rotation.* When tested as specified in 4.6.1.4, the assembled coupling nuts for electrical plug connectors and connector adapters shall not disengage. Subsequent to this test, the coupling nuts shall be free finger turning.

3.3.6 *Interchangeability (applicable only to male terminations).* The male terminations of the connectors shall mate properly with the

test gage specified in 4.6.1.5. Protrusion of the spring-loaded pin beyond the spring retainer shall indicate an interference fit or eccentricity.

3.4 Dielectric withstanding voltage. When connectors are tested as specified in 4.6.2, there shall be no evidence of breakdown.

3.5 Salt spray (corrosion). When connectors and associated fittings are tested as specified in 4.6.3, they shall show no evidence of destructive corrosion or pitting. Destructive corrosion shall be construed as any type of corrosion which in any way interferes with mechanical or electrical performance.

3.6 Marking. Connectors and associated fittings shall be marked in accordance with Standard MIL-STD-130, with the type designation and the manufacturer's code symbol. Marking shall be in depressed characters approximately $\frac{1}{32}$ inch high, in the place specified (see 3.1).

3.7 Workmanship. Connectors and associated fittings shall be processed in such a manner as to be uniform in quality and shall be free from sharp edges and burrs, except where sharp edges are required for mechanical or electrical reasons. All solder joints shall be thoroughly cleaned.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection.

4.1.1 *Supplier.* The supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own or any other inspection facilities and services acceptable to the Government. Inspection records of the examination and tests shall be kept complete and available to the Government as specified in the contract or order. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplier and services conform to the prescribed requirements.

4.1.1.1 *Test equipment and inspection facilities.* Test equipment and inspection facilities shall be of sufficient accuracy, quality, and quantity to permit performance of the required inspection. The supplier shall establish calibration of inspection equipment to the satisfaction of the Government.

4.2 Classification of inspection. The examination and testing of connectors and associated fittings shall be classified as follows:

(a) Component-materials inspection (see 4.3).
(b) Acceptance inspection (see 4.5).
    1. Inspection of product for delivery (see 4.5.1).
    2. Inspection of preparation for delivery (see 4.5.2).

4.3 Component-materials inspection. Component-materials inspection shall consist of verification that the component materials listed in table I, used in fabricating the connectors and associated fittings, are in accordance with the applicable referenced specifications or requirements prior to such fabrication.

TABLE I. *Component materials inspection.*

Component material	Requirement paragraph	Applicable specification
Brass	3.2.1	QQ-B-613 or QQ-B-626
Copper beryllium	3.2.2	QQ-C-530 or QQ-C-533
Phosphor bronze	3.2.3	QQ-P-330
Plastic	3.2.4	MIL-P-77
Silicone rubber	3.2.5	MIL-R-5847
Silver solder	3.2.6	QQ-S-561
Flux	3.2.6.1	O-F-499
Soft solder	3.2.7	QQ-S-571
Polytetrafluoroethylene.	3.2.8	MIL-M-14077

4.4 Inspection conditions. Unless otherwise specified herein, all inspection shall be made at room ambient temperature, relative humidity, and pressure.

4.5 Acceptance inspection.

4.5.1 *Inspection of product for delivery.* Inspection of product for delivery shall consist of groups A, B, and C.

4.5.1.1 *Inspection lot.* An inspection lot, as far as practicable, shall consist of all the connectors and associated fittings of the same type

designation, produced under essentially the same conditions, and offered for inspection at one time.

4.5.1.2 *Resubmitted lots.* If an inspection lot is rejected, the supplier may replace it with a new lot, rework it to correct the defects, or screen out the defective units, and submit it again to acceptance inspection. Resubmitted lots shall be kept separate from new lots and shall be clearly identified as resubmitted lots. Resubmitted lots shall be inspected, using tightened inspection.

4.5.1.3 *Group A inspection.* Group A inspection shall consist of the examinations and test specified in table II, and shall be made on the same set of sample units.

TABLE II. *Group A inspection.*

Examination or test	Requirement paragraph	Method paragraph	AQL (percent defective)	
			Major	Minor
Visual and mechanical examination:	.....	4.6.1	1.0	4.0
Marking	3.6	.....		
Workmanship [1]	3.7	.....		
Gage tests for contacts (assembled connectors:				
Center contacts (female).	3.3.3.1	4.6.1.2.1	1.0	
Outer contacts	3.3.3.2	4.6.1.2.2	1.0	
Dielectric withstanding voltage.	3.4	4.6.2	1.0	

[1] Assembly, fit of parts, and plating coverage.

4.5.1.3.1 *Sampling plan.* Statistical sampling and inspection shall be in accordance with Standard MIL-STD-105 for ordinary inspection. The acceptable quality levels (AQL) shall be as specified in table II. Major and minor defects shall be as defined in Standard MIL-STD-105.

4.5.1.4 *Group B inspection.* Group B inspection shall consist of the examinations specified in table III, in the order shown, and shall be made on sample units which have passed group A inspection. The same set of sample units shall be used for both subgroups.

4.5.1.4.1 *Sampling plan.* The sampling plan shall be in accordance with Standard MIL-STD-105 for small sample inspection. Unless otherwise specified herein, normal inspection shall be used at the start of the contract. For small-sample reduced inspection, procedure R-1 shall be used. The AQL and inspection levels shall be as specified in table III.

4.5.1.5 *Disposition of sample units.* Sample units which have passed the groups A and B inspection may be delivered on the contract or order, if the lot is accepted.

4.5.1.6 *Group C inspection.* Group C inspection shall consist of the examinations and tests specified in table IV.

4.5.1.6.1 *Sampling plan.*

4.5.1.6.1.1 *Subgroup 1 (unassembled connectors and associated fittings).* Equivalent piece parts for six sample units of each type connector

TABLE III. *Group B inspection.*

Examination	Requirement paragraph	Method paragraph	AQL (percent defective)	Inspection level	
				Normal and tightened inspection	Reduced inspection
Subgroup 1					
Visual and mechanical examination:					
Outer contact form over	3.3.4	4.6.1.3	4.0	L8	L6
Assembly and rotation	3.3.5.1	4.6.1.4			
Subgroup 2					
Visual and mechanical examination:					
Physical dimensions [1]	3.3	Fig. 1	6.5	L7	L5
Interchangeability (applicable only to male terminations).	3.3.6	4.6.1.5 and fig. 2			

[1] Applicable only to female terminations.

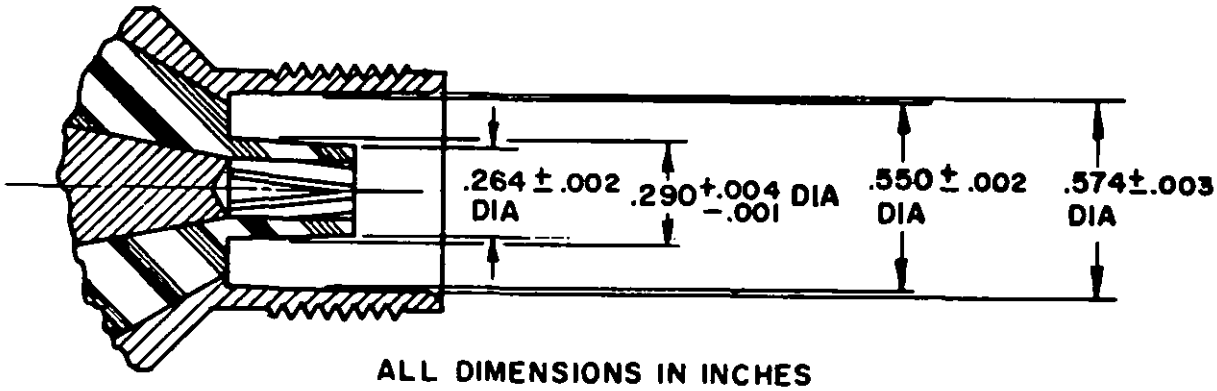


FIGURE 1. *Dimensional requirements for female terminations.*

and associated fitting shall be selected from the first lot produced. Thereafter, for each 500 connectors and associated fittings subsequently produced, piece parts for one sample unit shall be selected.

TABLE IV. *Group C inspection*

Examination or test	Requirement paragraph	Method paragraph
Subgroup 1 (unassembled connectors and associated fittings)		
Visual and mechanical examination:	.....	4.6.1
Design and construction:		
Physical dimensions [1]	3.3	4.5.1.6.1.1.1
Gage tests for contacts [2] ...	3.3.3	4.6.1.1 to 4.6.1.1.2, incl
Subgroup 2 (assembled connectors and associated fittings)		
Salt spray (corrosion)	3.5	4.6.3

[1] Only those dimensions related to piece parts (other than gage tests for contacts) shall be checked.

[2] This test is not applicable to associated fittings. In addition, test 3 of 4.6.1.1.3 is not applicable to connectors UG-60E/U, -61E/U, and -219C/U.

4.5.1.6.1.1.1 *Physical dimensions.* To facilitate inspection of the physical dimensions, the unassembled sample units shall be divided into groups of identical piece parts. Inspection of the physical dimensions shall then be performed on a group-by-group basis.

4.5.1.6.1.1.2 *Acceptance criteria.* The acceptance criteria shall be determined as follows:

(a) For each piece part containing five or more specified dimensions, the number of dimensional defects in a group shall not exceed one. A total of not more than 10 defects per 100 specified dimensions will be accepted.

(b) No defects shall be permitted for piece parts containing less than five dimensions. In addition, no defects shall be permitted for material, plating of metal parts, and screw threads; and no failures shall be permitted in the gage tests for contacts.

4.5.1.6.1.2 *Subgroup 2 (assembled connectors and associated fittings.)* Six sample units of each type connector and associated fitting shall be selected from the first lot produced. Thereafter, for each 500 connectors subsequently produced, one sample unit shall be selected. If any failures occur during this test, the sample shall be rejected.

4.5.1.6.2 *Disposition of sample units.* Sample units which have been subjected to group C inspection, subgroup 2, shall not be delivered on the contract or order.

4.5.1.6.3 *Noncompliance.* If a sample fails to pass group C inspection, the supplier shall take corrective action on the materials or process, or

both, as warranted, and on all units of product which can be corrected and which were manufactured under essentially the same conditions, and with essentially the same materials, processes, etc., and which are considered subject to the same failure. Acceptance of the product shall be discontinued until corrective action, acceptable to the Government, has been taken. After the corrective action has been taken, group C inspection shall be repeated on additional sample units (all inspection, or the inspection which the original sample failed, at the option of the Government). Groups A and B inspection may be reinstituted; however, final acceptance shall be withheld until the group C reinspection has shown that the corrective action was successful. In the event of failure after reinspection, information concerning the failure and the corrective action taken shall be furnished to the contracting officer.

4.5.2 *Inspection of preparation for delivery.* Sample items and packs shall be selected and inspected in accordance with Specification MIL-P-116 to verify conformance with requirements in section 5 of this specification.

4.6 Methods of examination and test.

4.6.1 *Visual and mechanical examination.* Connectors and associated fittings shall be examined to verify that the design, construction, physical dimensions, marking, and workmanship are in accordance with the applicable requirements (see 3.1, 3.3 to 3.3.5, incl, 3.6, and 3.7).

4.6.1.1 *Gage tests for contacts (piece parts).*

4.6.1.1.1 *Center contacts (female).* The center contacts shall be subjected to the gage tests specified in 4.6.1.1.1.1 to 4.6.1.1.1.3, inclusive, prior to assembling the center contact in the connector. The pins used in the performance of these tests may be tapered at their ends to facilitate insertion, but the tapered portions shall not be included in the specified dimensions (see 3.3.3.1).

4.6.1.1.1.1 *Test 1.* A pin 0.084 inch minimum in diameter shall be inserted into the center contact to a depth of not less than $\frac{4}{16}$ inch, and then removed. All four contact members shall not make contact with a pin 0.058 inch minimum in diameter, within $\frac{1}{32}$ inch of their tip ends, when this pin is inserted to a minimum depth of $\frac{4}{32}$ inch.

4.6.1.1.1.2 *Test 2.* All contact members shall make contact with a pin 0.065 inch maximum in diameter, within $\frac{1}{32}$ of their tip ends, when this pin is inserted to a minimum depth of $\frac{4}{16}$ inch.

4.6.1.1.1.3 *Test 3.* When a pin 0.065 inch minimum in diameter is inserted to a minimum of $\frac{4}{16}$ inch, the contact shall pass through a cylindrical hole 0.122 inch maximum in diameter and ½ inch minimum in length, when a maximum force of 2 pounds is applied. This test shall be applied only to those connectors with removable female contacts.

4.6.1.1.2 *Outer contacts.* All contact members shall make contact within $\frac{1}{32}$ inch of their tip ends, with a ring having an inside diameter of 0.560 inch minimum. All contact members shall then enter a ring having an inside diameter of 0.570 inch maximum, when a maximum force of 5 pounds is applied (see 3.3.3.2).

4.6.1.2 *Gage tests for contacts (assembled connectors)*

4.6.1.2.1 *Center contact (female).* The center contact shall accept a pin having a maximum diameter of 0.063 inch, when a minimum force of 1 pound is applied.

4.6.1.2.2 *Outer contact.* The outer contact shall accept a ring having a minimum diameter of 0.558 inch, when a minimum force of 1 pound is applied.

4.6.1.3 *Outer contact form over.* A withdrawal force of 25 pounds shall be applied to the outer contact. The force shall be applied to and in the direction away from the connector body and along the longitudinal axis (see 3.3.4).

4.6.1.4 *Assembly and rotation.* The assembled coupling nut shall be subjected to a force of 100 pounds gradually applied relative to and in a direction away from the connector body and along a longitudinal axis. The coupling nut shall then be examined for free finger turning (see 3.3.5).

4.6.1.5 *Interchangeability (applicable only to male terminations).* A test gage conforming to a

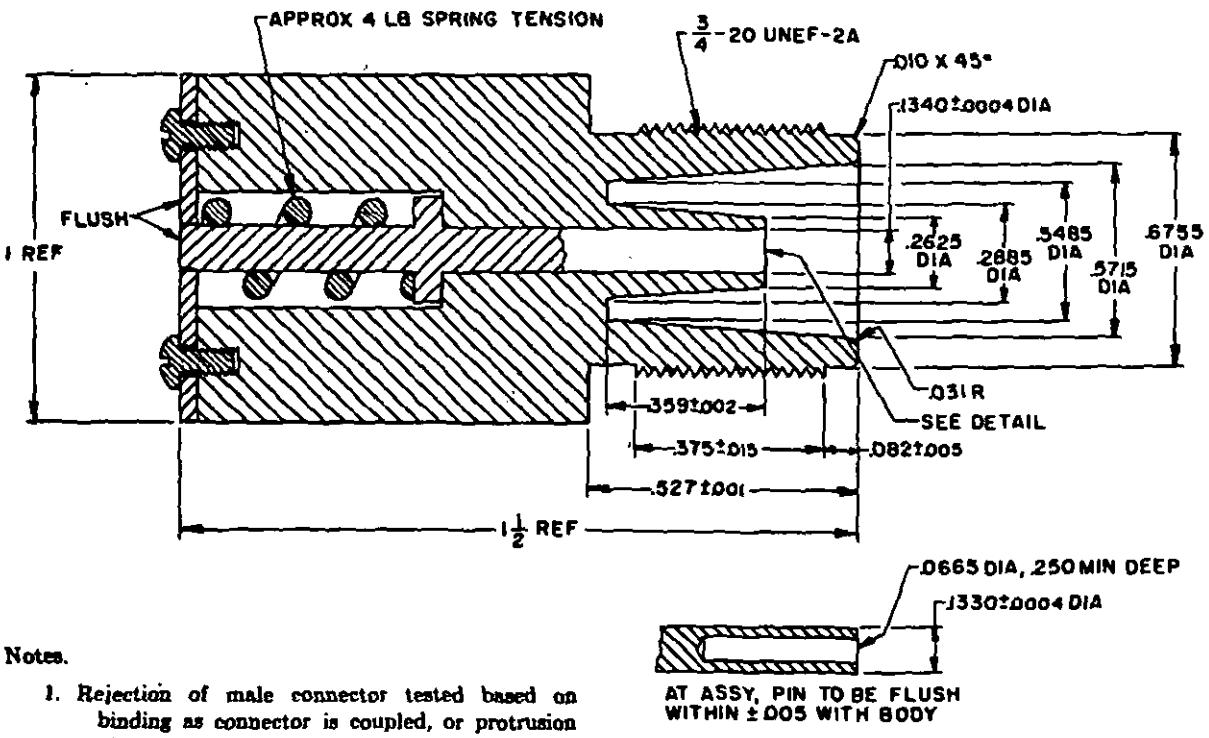
figure 2 shall be used. When testing connectors in which center contacts are *not* permanently assembled, the center section of the test gage shall be removed. When testing connectors in which center contacts are permanently assembled, the center section of the test gage shall be inserted and held in the position shown on figure 2. The coupling nut shall then be hand tightened on the gage.

4.6.2 *Dielectric withstanding voltage (see 3.4)* Connectors shall be tested in accordance with method 301 of Standard MIL-STD-202. The following details shall apply:

(a) Special preparations or conditions—

1. The maximum relative humidity shall be 50 percent. When facilities are not available at this test condition, connectors shall be tested at room ambient relative humidity. In case of dispute, if the test has been made at room ambient relative humidity, retest shall be made at 50 percent maximum relative humidity.
2. The center contact of electrical plug connectors and electrical receptable connectors shall be positioned in such a manner as to simulate actual assembly conditions.
3. Precautions shall be taken to prevent air-gap voltage breakdowns.
4. The voltage shall be metered on the high side of the transformer.

(b) Magnitude of test voltage—5,000 volts root mean square, applied at approxi-



Notes.

1. Rejection of male connector tested based on binding as connector is coupled, or protrusion of center pin during or after coupling.
2. T.I.R. of all diameters = .0003 max.
3. Tolerance of dimensions unless otherwise specified = ± .0005.
4. All dimensions in inches.
5. Material shall be cold-rolled steel conforming to Specification MIL-S-16782, and shall be chrome plated.

FIGURE 2. *Test gage for interchangeability test.*

mately 500 volts per second until the rated test voltage is reached.

(c) Nature of potential—Alternating current.

(d) Points of application of test voltage—Between the center contact and body.

4.6.3 *Salt spray (corrosion).* Connectors and associated fittings shall be tested in accordance with method 101, test condition B, of Standard MIL-STD-202. At the conclusion of this test, the connectors and associated fittings shall be washed, shaken, and air blasted, and then permitted to dry for 24 hours at 40° C. The connectors and associated fittings shall then be examined for evidence of corrosion (see 3.5).

5. PREPARATION FOR DELIVERY

5.1 Preservation and packaging (see 6.2).

5.1.1 *Level A.* Unless otherwise specified (see 6.2), connectors and associated fittings shall be individually protected and unit-packaged in accordance with method IA of Specification MIL-P-116, without the use of contact preservatives. Prior to packaging, the parts of the connector shall be completely assembled wherever practical. All center contacts, where loose, shall be securely fastened to the body of the connector by wire or other approved method. Unless otherwise specified (see 6.2), five unit packages or a multiple thereof shall be further packaged in intermediate containers conforming to Specification PPP-B-566, class 1 of PPP-B-636, PPP-B-665, or PPP-B-676. The gross weight of the intermediate container shall not exceed 10 pounds.

5.1.2 *Level C.* Connectors and associated fittings shall be afforded preservation and packaging in accordance with the supplier's normal commercial practice.

5.2 Packing (see 6.2).

5.2.1 *Level A.* Connectors and associated fittings packaged as specified (see 6.2), shall be packed in overseas-type wirebound wood, wood-cleated fiberboard, wood-cleated plywood, nailed wood, fiber (class 2 or 3), or wood-cleated paper overlaid boxes conforming to Specifications PPP-B-585, PPP-B-591, PPP-B-601, PPP-B-621, PPP-B-636, and MIL-B-10377, respectively, at the option of the supplier. Shipping containers shall have case liners conforming to Specification MIL-L-10547; the case liners shall be closed and sealed in accordance with the appendix thereto. Case liners for boxes conforming to Specification PPP-B-636 will not be required provided the center and edge seams and manufacturers' joints are sealed with tape, at least 1½ inches wide, conforming to Specification PPP-T-76. Box closures and strapping shall be as specified in the applicable box specification or appendix thereto. Fiber boxes conforming to Specification PPP-B-636 may be banded with tape conforming to type IV of Specification PPP-T-97 and appendix thereto in lieu of steel straps. The gross weight of wood boxes shall not exceed 200 pounds; fiberboard boxes shall not exceed the weight limitations of the applicable box specification.

5.2.2 *Level B.* Connectors and associated fittings packaged as specified (see 6.2) shall be packed in domestic-type wirebound wood, wood-cleated fiberboard, wood-cleated plywood, nailed wood, fiber (class 1 or 2, as specified (see 6.2)), or wood-cleated paper-overlaid boxes conforming to Specifications PPP-B-585, PPP-B-591, PPP-B-601, PPP-B-621, PPP-B-636, and MIL-B-10377, respectively, at the option of the supplier. Box closures shall be as specified in the applicable box specification or appendix thereto. The gross weight of wood boxes shall not exceed 200 pounds; fiberboard boxes shall not exceed the weight limitations of the applicable box specification.

5.2.3 *Level C.* Connectors and associated fittings packaged as specified (see 6.2) shall be packed in containers of the type, size, and kind commonly used for the purpose, in a manner that will insure acceptance by common carrier and safe delivery at destination. Shipping containers shall comply with the Uniform Freight Classification Rules, or regulations of other carriers as applicable to the mode of transportation.

5.2.4 *General.* Insofar as possible and practical, exterior containers shall be uniform in shape and size, shall be of minimum cube and tare con-

sistent with the protection required, and shall contain identical quantities of identical items.

5.3 Marking. In addition to any special marking required by the contract or order, unit packages, intermediate packages, and exterior shipping containers shall be marked in accordance with Standard MIL-STD-129 (see 6.2).

6. NOTES

6.1 Intended use. Connectors and associated fittings covered by this specification are intended for use in radio-frequency applications up to 10,000 megacycles per second. They are designed for use with medium-size, radio-frequency, coaxial cables. Their use is governed by temperature limitations of materials, and they are not recommended for use in applications where temperatures exceed 125° C.

6.2 Ordering data. Procurement documents should specify the following:

(a) Title, number, and date of this specification.

(b) Title, number, and date of the applicable detail specification, and the complete type designation (see 1.2.1 and 3.1).

(c) That the contractor shall not substitute for a specified material or combination of fabricated parts (see 3.3) unless he obtains approval from the Government. Evidence to substantiate his claim that such a substitution is suitable shall be submitted with his request. Similar notification and substantiating evidence shall be submitted at any later time if substitution becomes necessary or desirable. At the discretion of the Government, test samples may be required to prove the suitability of the proposed substitute.

(d) Levels of preservation and packaging and packing, and applicable marking (see sect 5).

(e) Number of unit packages if other than that specified in 5.1.1.

(f) Class of fiber (see 5.2.2).

6.3 Engineering information. Illustrations and additional engineering information for this series of connectors and associated fittings are available in the Armed Services Index of R. F. Transmission Lines and Fittings, copies of which are available upon request from the Armed Services Electro-Standards Agency (ASESA), Fort Monmouth, N. J.

Custodians:

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SPECIFICATION ANALYSIS SHEET

Form Approved
Budget Bureau No. 119-R004

INSTRUCTIONS

This sheet is to be filled out by personnel either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity (as indicated on reverse hereof).

SPECIFICATION

ORGANIZATION (Of submitter) | CITY AND STATE

CONTRACT NO. | QUANTITY OF ITEMS PROCURED | DOLLAR AMOUNT $

MATERIAL PROCURED UNDER A

☐ DIRECT GOVERNMENT CONTRACT ☐ SUBCONTRACT

1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A. GIVE PARAGRAPH NUMBER AND WORDING.

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES.

2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3. IS THE SPECIFICATION RESTRICTIVE?

☐ YES ☐ NO IF "YES", IN WHAT WAY?

4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)

SUBMITTED BY (Printed or typed name and activity) | DATE

DD FORM 1 APR 63 1426 REPLACES NAVSHIPS FORM 4863, WHICH IS OBSOLETE C-8279