

INCH-POUND

MIL-PRF-55339B
AMENDMENT 4
10 July 2003
SUPERSEDING
AMENDMENT 3
7 July 1998

PERFORMANCE SPECIFICATION

ADAPTERS, CONNECTORS, COAXIAL, RADIO FREQUENCY,
(BETWEEN SERIES AND WITHIN SERIES)
GENERAL SPECIFICATION FOR

This amendment forms a part of MIL-PRF-55339B, dated 1 April 1996, and is approved for use by all Departments and Agencies of the Department of Defense.

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* Beneficial comments delete and substitute:

“ Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Defense Supply Center Columbus, Attn: VAI, P. O. Box 3990 East Broad Street, Columbus, Ohio, 43216-5000 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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Under Specifications, delete the following:

* “QQ-N-290, QQ-P-35, QQ-S-365, QQ-S-763, WW-T-799, ZZ-R-765 and MIL-G-45204”

* Under Specifications, federal, add the following reference:

“A-A-59588 - Rubber, Silicone”

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- * 2.3 Non-Government publications, delete the following reference in its entirety:

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

“ASTM D1457”

Add the following references as follows:

- “ ASTM B88 - Tube, Water, Seamless Copper
- ASTM B488 - Gold for Engineering Uses, Electrodeposited Coatings of
- ASTM B700 - Electrodeposited Coatings of Silver for Engineering Use”
- ASTM D4894 - Polytetrafluoroethylene (PTFE), Granular Molding and Ram Extrusion Materials
- ASTM D4895 - Standard Specification for Polytetrafluoroethylene (PTFE), Resin Produced from Dispersion”

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- * Add the following new reference:

“SOCIETY OF AUTOMOTIVE ENGINEERS, INC. (SAE)

- “SAE-AMS-QQ-N-290 - Nickel Plating (Electrodeposited)
- SAE-AMS-QQ-P-35 - Passivation Treatment for Corrosion – Resistant Steel
- SAE-AMS-QQ-S-763 - Steel Bars, Wires, Shapes, and Forgings; Corrosion Resistant

(Application for copies should be addressed to SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001.”

Table I, delete and substitute:

“TABLE I. Materials.

Component material	Applicable Specification
Phosphor bronze	ASTM B139
Soft copper	ASTM B152
Copper	ASTM B88
PTFE fluorocarbon	ASTM D4594 and ASTM B4595
FEP fluorocarbon	ASTM D2116
Silicon rubber	A-A-59588

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3.3.1.1 Center contacts, delete and substitute the following:

“3.3.1.1 Center contacts. The male pin shall be plated to a minimum gold thickness of 50 micro inches (1.27µm) in accordance with ASTM B488, type II, Code C, class 1.27, over 50 micro inches (1.27µm) minimum of nickel in accordance with AMS-QQ-N-290, class 1, measured anywhere along the mating surface, for all series. The socket contact shall be plated to a minimum of 50 micro inches (1.27 µm) of gold in accordance with ASTM B488, type II, Code C, class 1.27, over 50 micro inches (1.27 µm) minimum of nickel in accordance with AMS-QQ-N-290, class 1, including the I.D., measured at a depth of .040 inch minimum. The plating on non-significant surfaces in the I.D. shall be of sufficient thickness to ensure plating continuity and uniform utility and protection. This plating may consist of an underplate only. A silver underplate shall not be permitted.”

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3.3.1.2 Adapter bodies, delete and substitute the following:

“3.3.1.2 Adapter bodies. All brass bodied adapters shall be silver plated in accordance with ASTM B700 to a minimum thickness of 0.000200 inch over a copper underplate. All copper-beryllium bodied adapters shall be gold plated in accordance with ASTM B488, type II, Code C, class 1.27 over a copper flash. All corrosion resistant steel bodied adapters shall be passivated in accordance with SAE AMS-QQ-P-35, unless otherwise specified (see 3.1). NOTE: Ferrous or nickel alloys shall not be used on brass or copper-beryllium bodied adapters (i.e., coupling nuts, etc). 1/”

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4.5.2.1.1, line 3: Delete “or not less than once every year” and substitute “or not less than once every three years”.

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Table VII, delete and substitute:

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"TABLE VII. Group C inspection. 1/

Inspection	Requirement Paragraph	Test method paragraph
<u>Subgroup 1</u>		
VSWR	3.12	4.6.9
RF leakage <u>2/</u>	3.13	4.6.10
RF insertion loss <u>2/</u>	3.14	4.6.11
Durability	3.15	4.6.12
Force to engage/disengage	3.6	4.6.3
Coupling proof torque	3.7	4.6.4
Mating characteristics	3.8	4.6.5
VSWR	3.12	4.6.9
Dielectric withstanding voltage	3.16	4.6.13
<u>Subgroup 2</u>		
Contact resistance (center and outer contacts)	3.17	4.6.14
Vibration, high frequency <u>2/</u>	3.18	4.6.15
Contact resistance (center contact)	3.17	4.6.14
Shock (specified pulse) <u>2/</u>	3.19	4.6.16
Contact resistance (center contact)	3.17	4.6.14
Dielectric withstanding voltage	3.16	4.6.13
Contact resistance (center contact)	3.17	4.6.14
Thermal shock (hermetic-sealed adapters)	3.20	4.6.17
Dielectric withstanding voltage	3.16	4.6.13
Contact resistance (center contact)	3.17	4.6.14
Moisture resistance	3.21	4.6.18
Dielectric withstanding voltage	3.16	4.6.13
Corona level <u>2/</u>	3.22	4.6.19
Hermetic seal	3.10	4.6.7
Leakage	3.10.1	4.6.7.1
RF high potential withstanding voltage <u>2/</u>	3.23	4.6.20
Corrosion (salt spray)	3.24	4.6.21
Force to engage/disengage	3.6	4.6.3
Coupling mechanism retention force	3.25	4.6.22
Force to engage/disengage	3.6	4.6.3

1/ Manufacturers who have products listed on QPL-39012 and produce adapters of the same series, may apply to qualifying activity for waiver in performing group C, subgroup 2, retention testing, providing the interfacial coupling, materials and plating of the adapter and connector are identical.

2/ These tests are to be performed during initial qualification only, as long as the qualifying design, materials and manufacturing process has not been changed."

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4.6.3.1, 4.6.3.2, 4.6.4 and 4.6.5, add the following:

“NOTE: As an option for this test, a qualified mating connector may be used in place of the standard steel jig with the approval of the qualifying agency.”

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6.3, delete and substitute:

“6.3 Qualification. With respect to products requiring qualification, awards will be made only for products which are, at the time of award of contract, qualified for inclusion in the applicable Qualified Products List whether or not such products have actually been so listed by that date. The attention of the contractors is called to this requirement, and manufacturers are urged to arrange to have the products that they propose to offer to the Federal Government tested for qualification in order that they may be eligible to be awarded contracts or orders for the products covered by this specification. Information pertaining to qualification of products may be obtained from Defense Supply Center Columbus (DSCC-VQ), P.O. Box 3990, Columbus, Ohio 43216-5000.”

The margins of this amendment are marked with asterisks to indicate where changes from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

CONCLUDING MATERIAL

Custodians:

Army – CR
Navy – EC
Air Force – 11
NASA – NA

Preparing activity:

DLA – CC
(Project 5935-4594-000)

Review activities:

Army – AR, AT, MI
Navy – AS, MC, OS, SH
Air Force – 19, 99