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IN REPLY
REFER

DSCC-VAI (Mr. Ron Gary/(614) 692-0568

May 12, 2004

MEMORANDUM FOR MILITARY/INDUSTRY DISTRIBUTION

SUBJECT: Initial Drafts of MIL-PRF-55339/1B, /3A through /25C, /32A through /39A and /49A through /51A; Adapter, Connectors, Coaxial, Radio Frequency, Various Series; Project Numbers 5935-4657-001 through -035.

The initial drafts for this subject documents will be available for viewing and downloading from the DSCC-VAI Web site within the next 5 working days:

<http://www.dsccl.dla.mil/Programs/MilSpec/initialdrafts.asp>

Changes to this document include new part number additions that allow for the use of Nickel plated adapter bodies, contact resistance values for the new plating and format up dates. However, the entire set of specification sheets are offered up for comment.

Concurrence or comments are required at this Center within 45 days from the date of this letter. Late comments will be held for the next coordination of this document. Comments from Military Departments must be identified as either "Essential" or "Suggested". Essential comments must be justified with supporting data. Military review activities should forward comments to their custodians, as applicable, in sufficient time to allow for consolidation of the Department reply.

Please forward your comments or concurrence electronically to the project officer listed below. This can be in the form of a return e-mail, with or without attached text files. If an electronic response is not possible, we will accept comments via letter, facsimilie, or phone call. Any further coordination concerning this document will be circulated only to firms and organizations that furnish comments or reply that they have an interest.

The point of contact for this document is Mr. Ron Gary. The preferred method of contact is via e-mail: Estel.Gary@dla.mil. Mr. Gary can also be reached at 614-692-0568/DSN 850-0568, or by facsimilie 614-692-6940.

Sincerely,

/SIGNED/

RICHARD L. TAYLOR
Chief,
Interconnection Devices Team

Note: This draft dated 10 May 2004, prepared by the Defense Supply Center Columbus (DSCC-VAI) has not been approved and is subject to modification.

DO NOT USE FOR ACQUISITION PURPOSES

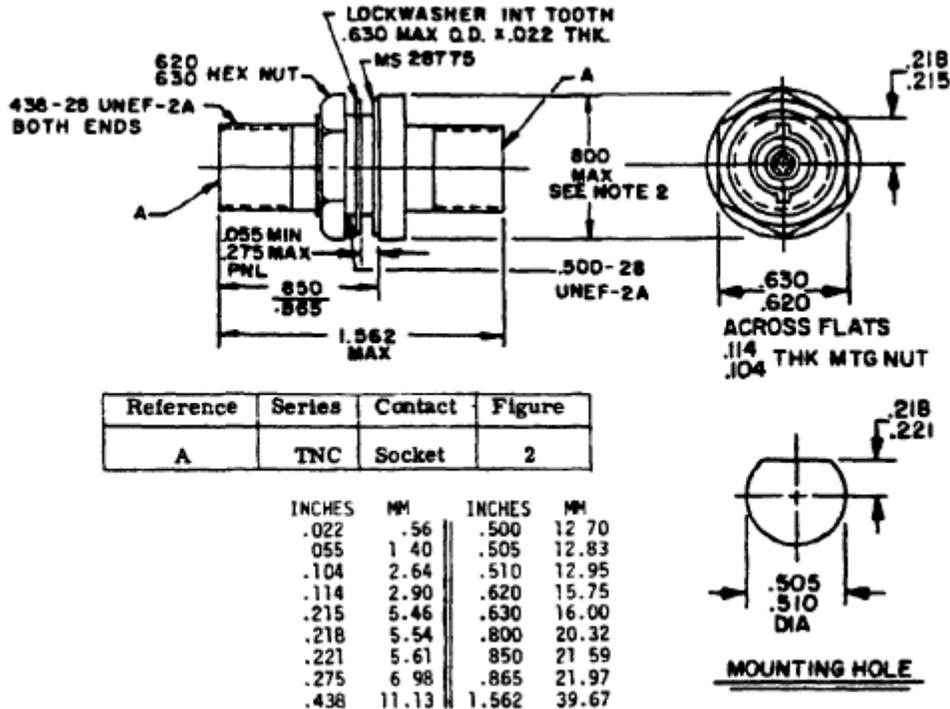
MIL-PRF-55339/34A
DRAFT
 SUPERSEDING
 MIL-PRF-55339/34
 11 January 1977

PERFORMANCE SPECIFICATION

**ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY.
 (WITHIN SERIES TNC, (HERMETIC)), CLASS 2, RECEPTACLE**

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the adapter described herein shall consist of this specification sheet and MIL-PRF-55339.



NOTES:

- Dimensions are in inches.
- This dimension is the largest overall diameter of the connector.
- Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
- Minimum panel thickness .055 minimum (1.40 mm).
- Interface shall be in accordance with MIL-STD-348.

FIGURE 1. General configuration.

DESIGN AND CONSTRUCTION:

General configuration. See figure 1.

Impedance 50 ohms, nom.

Working voltage: Sea level – 500 Vrms.
70,000 feet – 125 Vrms

Frequency range: 0 to 11 GHz.

Temperature range: -65° to +165°C.

PERFORMANCE (installation torque is not applicable).

Dimensions – See figures 1 and MIL-STD-348.

Center contact retention: Not applicable.

Force to engage and disengage: Longitudinal force – Not applicable.
Torque – 2 in. lb, max.

Mating characteristics:

Center contact (socket):

Oversize test pin dia - .057 in., min.

Insertion depth - .125 in., min.

No. of insertions - 1.

Max test pin (insertion force test):

Steel test pin dia - .054 in., min.

Pin finish – 16 microinches.

Insertion force – 2 lb, max.

No. of insertions – 1.

Min test pin (withdrawal force):

Steel test pin dia - .052 in., max

Pin finish – 16 microinches.

Withdrawal force – 2 oz, min.

No. of withdrawals – 1.

Permeability: < 2.0

Seal:

Hermetic: Contact to shell – 1×10^{-7} atm cm³/s.

Pressurized : Not applicable.

Weatherproof: 30 psi, max (mounting seal).

Insulation resistance: 5,000 megohms, minimum.

VSWR: 1.4, max .5 to 11 GHz.

RF leakage (total): -55 dB, min, 2 to 3 GHz.

RF insertion loss: .5 dB, max, 9 GHz (.014 \sqrt{F} (GHz) dB max tested at 3 GHz)

Durability: 500 minimum at 12 cycles per minute maximum. The connector shall meet the mating characteristics and force to engage and disengage requirements.

Dielectric withstanding: Test voltage – 1,500 Vrms, min (sea level).

Contact resistance (milliohms, max).

| <u>Contact</u> | <u>Initial</u> | <u>After</u> |
|----------------|----------------|--------------|
| Center | 2.5 | 3.0 |
| Outer | 0.5 | N/A |
| Outer (-70001) | 1.0 | N/A |

Vibration, high frequency: Interruptions – 1 microsecond (μ s), max.

Shock: Test condition I.

Temperature cycling: High temperature - 200°C, min.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, min.

Corona level: Voltage – 375 V, min.
Altitude - 70,000 feet, min.

RF high potential withstanding voltage: RF voltage – 1,000 Vrms. min.
Frequency – 5 MHz, min.

Salt spray (corrosion): Test condition B.

Part Identifying Number (PIN):. M55339/34-*0001 or;

PIN: M55339/34-70001 CAUTION: THIS PART HAS A NICKEL PLATED BODY AND IS NOT FOR USE IN APPLICATIONS WHERE PASSIVE INTERMODULATION GENERATION (PIM) MAY BE A CONCERN.

Referenced documents.

MIL-STD-348
MIL-PRF-55339

CONCLUDING MATERIAL

Custodians:

Army – CR
Navy – EC
Air Force – 11
DLA - CC

Preparing activity:
DLA – CC

(Project 5935-4657-027)

Review activities:

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

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at www.dodssp.daps.mil.