

INCH-POUND

MIL-PRF-55339/33A

17 September 2004

SUPERSEDING

MIL-PRF-55339/33

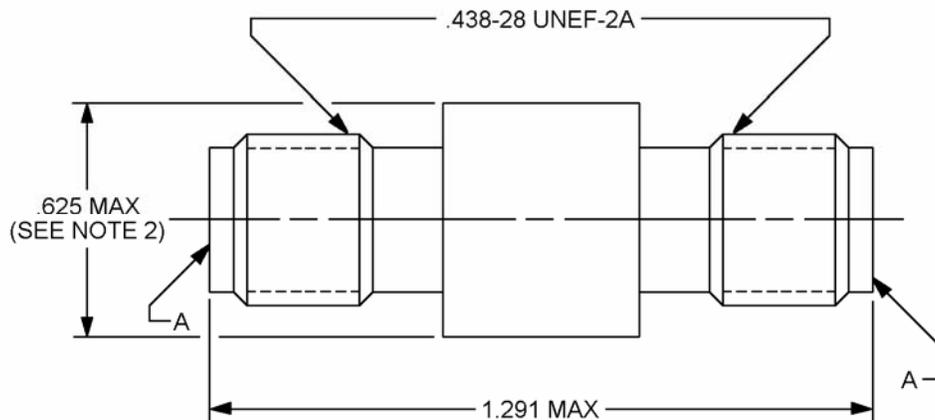
11 January 1977

PERFORMANCE SPECIFICATION SHEET

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, (WITHIN SERIES TNC) CLASS 2, STRAIGHT PLUG

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

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



Reference	Series	Contact
A	TNC	Socket

Inches	mm
.438	11.13
.625	15.88
1.291	32.79

NOTES:

1. Dimensions are in inches.
2. This dimension is the largest overall diameter of the connector.
3. Metric equivalents are given for general information only.
4. Wrench flats to accommodate standard wrench per H-28 appendix.
5. Interface shall be in accordance with MIL-STD-348, series TNC socket contact.

FIGURE 1. General configuration.

DESIGN AND CONSTRUCTION

General configuration: See figure 1.

Impedance: 50 ohms, nom.

Working voltage: Sea level – 500 V rms.
70,000 feet (4.437 kPa) – 125 V rms.

Frequency range: 0 to 11 GHz.

Temperature range: -65° to +165°C.

PERFORMANCE (installation torque is not applicable)

Dimensions: See figure 1 and MIL-STD-348.

Center contact retention: Not applicable.

Force to engage and disengage: Longitudinal force - Not applicable.
Torque – 2-in. lb (0.22 Nm), max.

Mating characteristics:

Center contact (socket):

Oversize test pin dia: .057 in. (1.44 mm), min.

Insertion depth: .125 in. (3.17 mm), min.

Number of insertions: 1.

Max test pin (insertion force test):

Steel test pin diameter: .054 in. (1.37 mm), min.

Pin finish: 16 microinches (0.406 μ m).

Insertion force: 2 lb (8.90 N), max.

Number of insertions: 1.

Min test pin (withdrawal force):

Steel test pin dia: .052 in. (1.32 mm), max.

Pin finish: 16 microinches (0.406 μ m).

Withdrawal force: 2 oz (0.56 N), min.

Number of withdrawals: 1.

Permeability: <2.0.

Seal:

Pressurized - Not applicable.

Weatherproof – Not applicable.

Insulation resistance: 5,000 megohms, min.

VSWR: 1.25:1 max at .5 to 11 GHz.

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

RF insertion loss: $.12 \sqrt{F}$ (GHz) dB max, tested at 3 GHz.

MIL-PRF-55339/33A

Durability: 500 cycles 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 V rms, min (sea level).

Contact resistance (milliohms, max).

<u>Contact</u>	<u>Initial</u>	<u>After</u>
Center	2.0	2.5
Outer	0.2	N/A
Outer (-70001)	0.4	N/A

Vibration, high frequency: Interruptions, 1 μ s, max.

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, min.

Corona level: Voltage - 375 V, min.
Altitude - 70,000 feet (4.437 kPa), min.

RF high potential withstanding voltage: RF voltage – 1,000 V rms, min.
Frequency - 5 MHz, min.

Salt spray (corrosion): Test condition B.

Part or Identifying Number (PIN): M55339/33-00001.

PIN: M55339/22-70001. CAUTION: THIS PART HAS A NICKEL PLATED BODY AND IS NOT FOR USE IN APPLICATIONS WHERE PASSIVE INTERMODULATION GENERATION (PIM) MAY BE A CONCERN.

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Referenced documents. In addition to MIL-PRF-55339, this document references the following:

MIL-STD-348

MIL-PRF-55339/33A

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-4657-026)

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 <http://assist.daps.dla.mil>.