

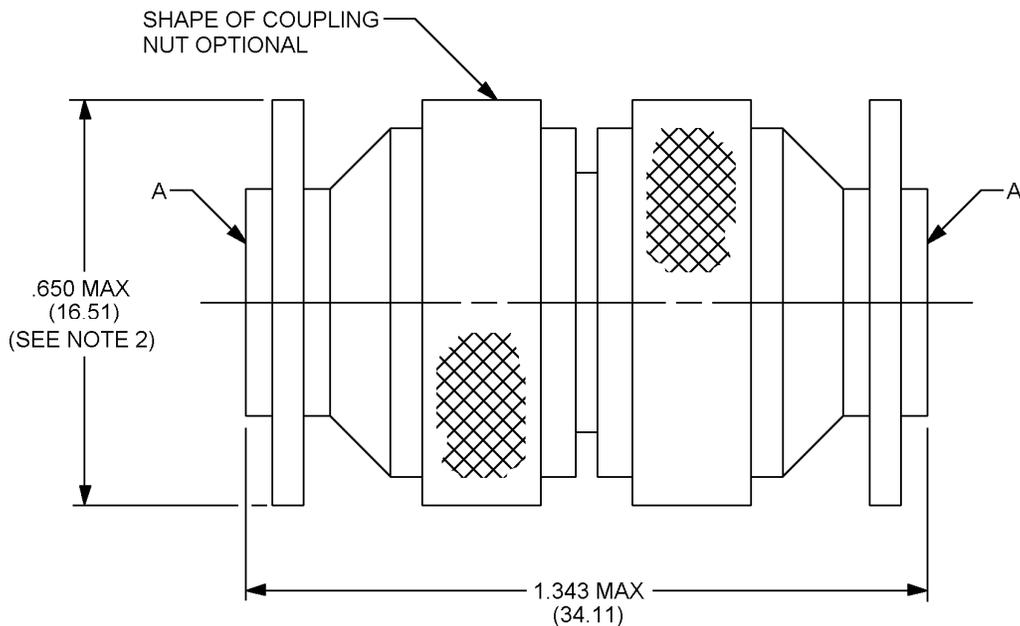
INCH-POUND  
MIL-PRF-55339/36B  
10 January 2005  
SUPERSEDING  
MIL-A-55339/36A  
1 February 1983

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 product described herein shall consist of this specification sheet and MIL-PRF-55339.



Reference	Series	Contact
A	TNC	Pin

NOTES:

1. Dimensions are in inches.
2. This dimension is the largest overall diameter of the connector.
3. Metric equivalents are given for information only.
4. Interface shall be in accordance with MIL-STD-348.

FIGURE 1. General configuration.

DESIGN AND CONSTRUCTION:

General configuration: See figure 1.

Impedance: 50 ohms, nominal.

Working voltage:

Sea level: 500 Vrms.

70,000 feet (4.437 kPa): 125 Vrms

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:

Axial force: 6 lb (26.69 N) minimum.

Torque: 4 in. oz (1.11 Nm), minimum.

Force to engage and disengage:

Longitudinal force: Not applicable.

Torque: 2 in. lb (0.22 Nm), maximum.

Mating characteristics:

Outer contact, series TNC:

Minimum test ring ID: .319 inch (8.10 mm), maximum.

PIN finish: 16 microinches (.406  $\mu\text{m}$ ).

Insertion force: 5 lb (22.24 N), maximum.

Insertion depth: .093 inch (2.36 mm), minimum.

Number of insertions: 1.

Maximum test ring ID: .324 inch (8.23 mm), minimum.

Test ring finish: 16 microinches (.406  $\mu\text{m}$ ).

Insertion depth: .031 inch (0.79 mm), maximum.

Number of insertions: 1.

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Permeability: <2.0

Seal:

Pressurized: Not applicable.

Weatherproof: Not applicable.

Insulation resistance: 5,000 megohms, minimum.

Voltage standing wave ratio: 1.35, maximum .5 to 11 GHz.

RF leakage (total): -60 dB, minimum, 2 to 3 GHz.

RF insertion loss: .18 dB, max, 9 GHz ( $.006 \sqrt{F}$  (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, minimum (sea level).

Contact resistance (milliohms, maximum).

<u>Contact</u>	<u>Initial</u>	<u>After</u>
Center	2.0	2.5
Outer	.45	N/A
Outer (-70001)	.90	N/A

Vibration, high frequency:

Interruptions: 1  $\mu$ s, maximum.

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, minimum.

Corona level:

Voltage: 375 V, minimum.

Altitude: 70,000 feet (4.437 kPa), minimum.

RF high potential withstanding voltage:

RF voltage: 1,000 Vrms, minimum.

Frequency: 5 MHz, minimum.

Salt spray (corrosion): Test condition B.

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Coupling proof torque: 15 in. lbs (1.69 Nm).

Coupling mechanism retention force: 100 lbs (444.82 N), minimum.

Part or Identifying Number (PIN): M55339/36-00001 or:

PIN: M55339/36-70001 **CAUTION: THIS PART HAS A NICKEL PLATED BODY AND IS NOT FOR USE IN APPLICATIONS WHERE PASSIVE INTERMODULATION GENERATION (PIM) MAY BE A CONCERN.**

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

MIL-STD-348

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

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:  
DLA - CC

(Project 5935-4657-029)

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>.