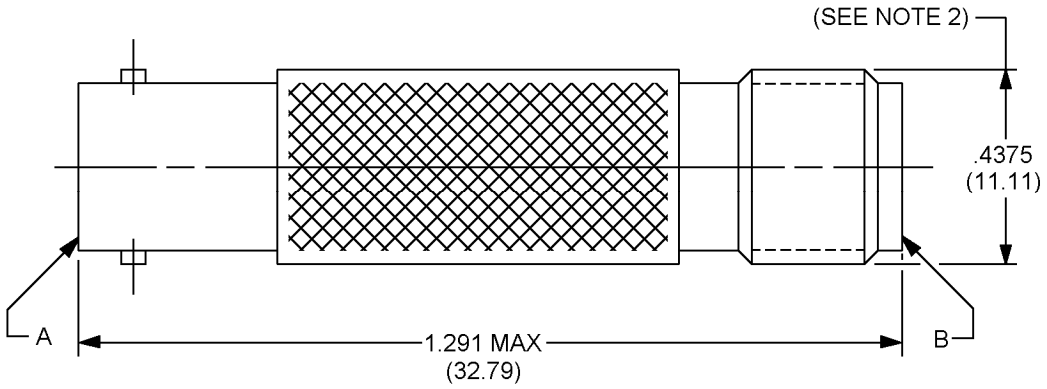
INCH-POUND
MIL-PRF-55339/37A
10 January 2005
SUPERSEDING
MIL-PRF-55339/37
11 January 1977

PERFORMANCE SPECIFICATION SHEET

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY (BETWEEN SERIES BNC TO 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	BNC	Socket
B	TNC	Socket

Inches	mm
.381	9.68
.382	9.70
.4375	11.11
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 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 4 GHz.

Temperature range: -65º to +165ºC.

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 series BNC and TNC.

Torque: Not applicable.

Force to engage and disengage:

	Series BNC	Series TNC
Longitudinal force:	3 lb (13.34 N)	Not applicable
Torque: (in. lb, maximum)	2.5 (0.28 Nm)	2 (0.22 Nm)

Mating characteristics:

Center contact (socket):

Oversize test pin diameter: .057 inch (1.45 mm), minimum.

Insertion depth: .125 inch (3.17 mm), minimum.

Number of insertions: 1.

Maximum test pin (insertion force test):

Steel test pin diameter: .054 inch (1.37 mm), minimum.

Pin finish: 16 microinches (.406 µm).

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

Number of insertions: 1.

Minimum test pin (withdrawal force):

Steel test pin diameter: .052 inch (1.32 mm), maximum.

Pin finish: 16 microinches (.406 µm).

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

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 .5 to 4 GHz.

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

RF insertion loss: .2 dB, max, 3 GHz (.115 $\sqrt{F\ (GHz}$) dB max tested at 3 GHz)

Durability: 500 minimum at 12 cycles per minute maximum. The connector shell 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).

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

Vibration, high frequency:

Interruptions: 1 µs, 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.

Part or Identifying Number (PIN): M55339/37-00001 or:

PIN: M55339/37-70001 **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 5935-4657-030)

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.