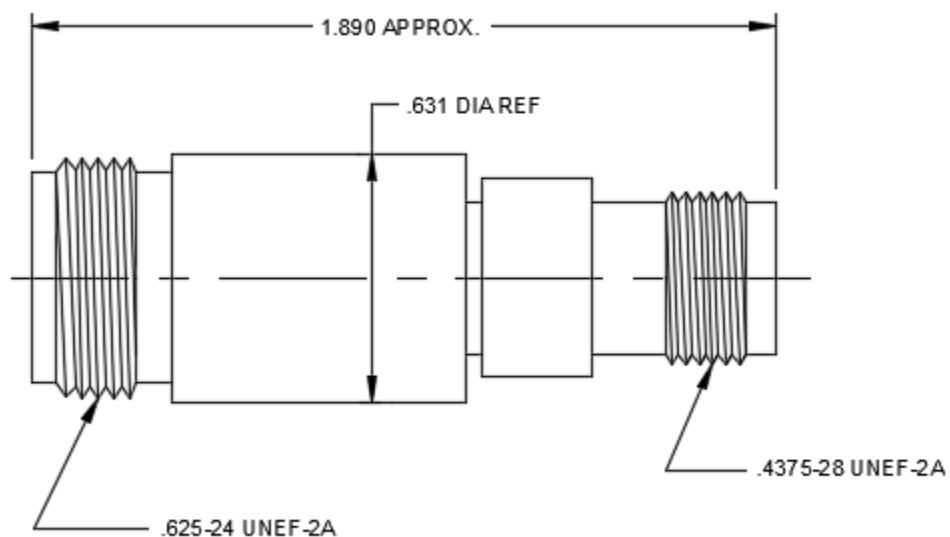


PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY.
(BETWEEN SERIES N JACK TO SERIES TNC JACK), 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	N	Socket
B	TNC	Socket

NOTES:

1. Dimensions are in inches. Metric equivalents are given for general information only.
2. All undimensioned pictorial configurations are for reference purposes only.
3. Interfaces 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 V rms

70,000 feet (4.437 kPa): 125 Vrms

Frequency range: 5 to 11 GHz.

Temperature range: -65°C to +165°C.

PERFORMANCE: (Installation torque of 6 to 10 in. lb (0.68Nm to 1.13 Nm), series N).

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

Center contact retention:	Series TNC	Series N
Axial force (lb, minimum)	6 (26.69 N)	6 (26.69 N)
Torque (in. oz, minimum)	N/A	N/A
Force to engage and disengage:	Series TNC	Series N
Longitudinal force (lb, maximum)	3.2 (14.23 N)	N/A
Torque (in, lb, maximum)	2 (0.22 Nm)	6.0 (0.68 Nm)

Coupling proof torque: 15 in. lb (1.69 Nm), minimum, series N.

Mating characteristics:

Center contact (socket) series TNC:

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) series TNC:

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) series TNC:

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

Pin finish: 16 microinches (.406 μ m).

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

Number of withdrawals: 1.

Center contact (socket) series N:

Oversize test pin dia. - .074 in. (1.88 mm), min.

Insertion depth - .125 in. (3.18 mm), min.

Number of insertions – 1.

Maximum test pin (insertion force test):

Steel test pin dia. - .066 in. (1.68 mm), min.

Pin finish – 16 microinches (0.41 μ m).

Insertion force – 2 lb, max. (8.89 N).

Number of insertions – 1.

Minimum test pin (withdrawal force):

Steel test pin dia. - .063 in. (1.60 mm), max.

Pin finish – 16 microinches (0.41 μ m).

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

Number of withdrawals – 1.

Permeability: <2.0

Seal:

Hermetic: Not applicable.

Pressurized: Not applicable.

Weatherproof: Not applicable.

Insulation resistance: 5,000 megohms, minimum.

VSWR: 1.35:1, maximum at .5 to 9 GHz. 1.5 maximum at 9 to 11 GHz.

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

RF insertion loss: $.060\sqrt{F(GHz)}$ dB maximum, tested at 6 GHz.

Durability: 500 cycles minimum at 12 cycles/minimum 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	.25	N/A
Outer (-70001)	.5	N/A

Vibration, high frequency:

Interruptions: 1 μ 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): Applicable.

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

Part or Identifying Number (PIN). M55339/58-00001

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

MIL-STD-348

CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA – CC

Preparing activity:
DLA - CC

(Project 5935-2018-039)

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 information above using the ASSIST Online database at <https://assist.dla.mil>.