

INCH-POUND

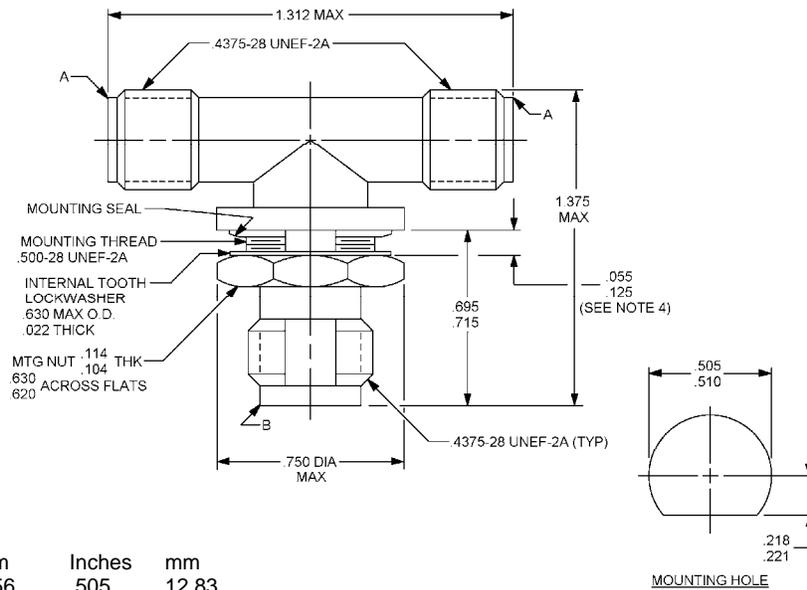
MIL-PRF-55339/50B  
 10 January 2005  
 SUPERSEDING  
 MIL-PRF-55339/50A  
 28 February 1979

PERFORMANCE SPECIFICATION SHEET

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY  
 (WITHIN SERIES TNC JACK TO TWO SERIES TNC JACKS), CLASS 2 "T" JAMNUT MOUNT

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.



Inches	mm	Inches	mm
.022	0.56	.505	12.83
.055	1.40	.510	12.95
.104	2.64	.620	15.75
.114	2.89	.630	16.00
.125	3.18	.695	17.65
.218	5.54	.715	18.16
.221	5.61	.750	19.05
.4375	11.112	1.312	33.32
.500	12.7	1.375	34.92

Reference	Series	Contact
A	TNC	Socket
B	TNC	Socket

FIGURE 1. General configuration.

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. Panel thickness .055 (1.40 mm) minimum. .125 (3.18 mm) maximum.
5. Unless otherwise specified, tolerances are  $\pm 0.005$  (.13 mm) on three place decimals and  $\pm 0.010$  (.25 mm) on two place decimals.
6. Interfaces shall be in accordance with MIL-STD-348.

FIGURE 1. General configuration. (continued)

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 inch ounces (0.03 Nm), minimum.

Force to engage and disengage:

Longitudinal force: Not applicable.

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

Mating characteristics:

Center contact (socket):

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

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

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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  $\mu\text{m}$ ).

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  $\mu\text{m}$ ).

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

Number of withdrawals: Not applicable.

Outer contact: Not applicable.

Permeability: <2.0

Seal:

Hermetic: Not applicable.

Pressurized: Not applicable.

Weatherproof: 30 psi (206.8 kPa), maximum (mounting seal).

Insulation resistance: 5,000 megohms, minimum.

VSWR: Not applicable.

RF leakage (total): Not applicable.

RF insertion loss: Not applicable.

Durability: 500 cycles minimum at 12 cycles/min 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).

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Contact resistance (milliohms, maximum).

<u>Contact</u>	<u>Initial</u>	<u>After</u>
Center	2.5	3.0
Outer	0.25	N/A
Outer (-70001)	0.5	N/A

Vibration, high frequency:

Interruptions: 1 microsecond ( $\mu$ s), max.

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, min.

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 Identifying Number (PIN): M55339/50-00001 or;

PIN: M55339/50-70001 **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.

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CONCLUDING MATERIAL

Custodians:

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

Preparing activity:  
DLA - CC

(Project 5935-4657-034)

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>.