

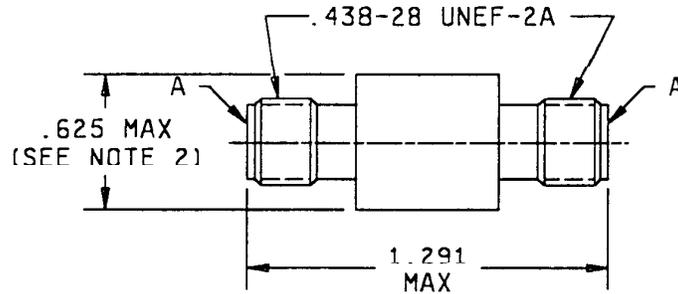
NOTE: The document identifier and heading has been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

MIL-PRF-55339/33
11 January 1977

PERFORMANCE SPECIFICATION
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 complete requirements for procuring the connector adapter described herein shall consist of this document and the latest issue of Specification MIL-PRF-55339.



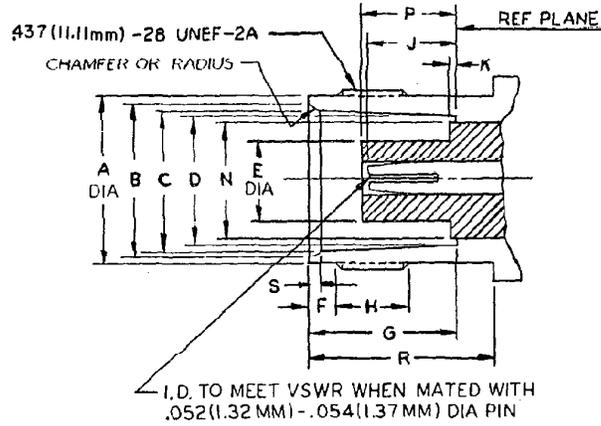
Reference	Series	Contact	Figure
A	TNC	Socket	2

Inches	mm
.438	11.13
.625	15.88
1.291	32.79

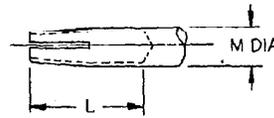
NOTES:

1. Dimensions are in inches
2. This dimension is the largest overall diameter of the connector.
3. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
4. Wrench flats to accommodate standard wrench per H-28 appendix.

FIGURE 1. General configuration.



Ltr	Dimensions in inches with metric equivalents (mm) in parentheses (see note)	
	Minimum	Maximum
A	.378 (9.60)	.381 (9.58)
B	.345 (8.76)	.356 (9.04)
C	.327 (8.31)	.333 (8.46)
D	.319 (8.10)	.321 (8.15)
E		.186 (4.72)
F	.068 (1.73)	.088 (2.24)
G	.329 (8.36)	.333 (8.46)
H	.187 (4.75)	
J	.186 (4.72)	.206 (5.23)
K		.006 (.15)
L	.195 (4.95)	
M	.081 (2.06)	.087 (2.21)
N		.256 (6.50)
P	.188 (4.78)	.208 (5.28)
R	.415 (10.56)	
S	.015 (.38)	.030 (.76)



*N dimension applies to that portion (if applicable) of the dielectric which protrudes beyond the metal shoulder (or reference plane) by dimension K.

NOTES:

1. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
2. All undimensioned pictorial configurations are for reference purposes only.

FIGURE 2. Mating dimensions for female terminations.

DESIGN AND CONSTRUCTION:

General configuration: See figure 1.

Impedance: 50 ohms, nom.

Working voltage: Sea level - 500 Vrms.
70,000 feet - 125 Vrms.

Frequency range: 0 to 11 GHz.

Temperature range: -65° to +165°C.

PERFORMANCE (installation torque is not applicable).

Dimensions: See figures 1 and 2.

Center contact retention: Not applicable.

Force to engage and disengage: Longitudinal force - Not applicable.
Torque - 2 in. lb, max.

Mating characteristics:

Center contact (socket):

Oversize test pin dia - .057 in., min.

Insertion depth - .125 in., min.

No. of insertions - 1.

Max test pin (insertion force test):

Steel test pin dia - .054 in., min.

Pin finish - 16 microinches.

Insertion force - 2 lb, max.

No. of insertions - 1.

Min test pin (withdrawal force):

Steel test pin dia - .052 in., max.

Pin finish - 16 microinches.

Withdrawal force - 2 oz, min.

No. 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: .25 dB, max, 9 GHz, min

$(.12 \sqrt{F} \text{ (GHz)})$ dB max tested at 3 GHz).

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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, min (sea level).

Contact resistance (milliohms, max):

<u>Contact</u>	<u>Initial</u>	<u>After</u>
Center	2.0	2.5
Outer	0.2	Not applicable

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, min.

RF high potential withstanding voltage: RF voltage - 1,000 Vrms, min.
Frequency - 5 MHz, min.

Salt spray (corrosion): Test condition B.

MARKING: As specified in MIL-A-55339.
Part No. M55339/33-00001.

Custodians:
Army - EL
Navy - EC
Air Force - 85

Review activities:
Army - MU, MI, EL, AT
Navy - SH
Air Force - 11, 99
DSA - ES

User activities:
Army - AT, MU
Navy - AS, MC
Air Force - 19

Preparing activity:
Army - EL

Agent:
DSA - ES

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