

INCH-POUND

MIL-PRF-55339/52A  
30 April 2015  
SUPERSEDING  
MIL-PRF-55339/52  
8 February 1989

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, ELECTRICAL, COAXIAL, RADIO FREQUENCY,  
(BETWEEN SERIES SMA TO N)

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.

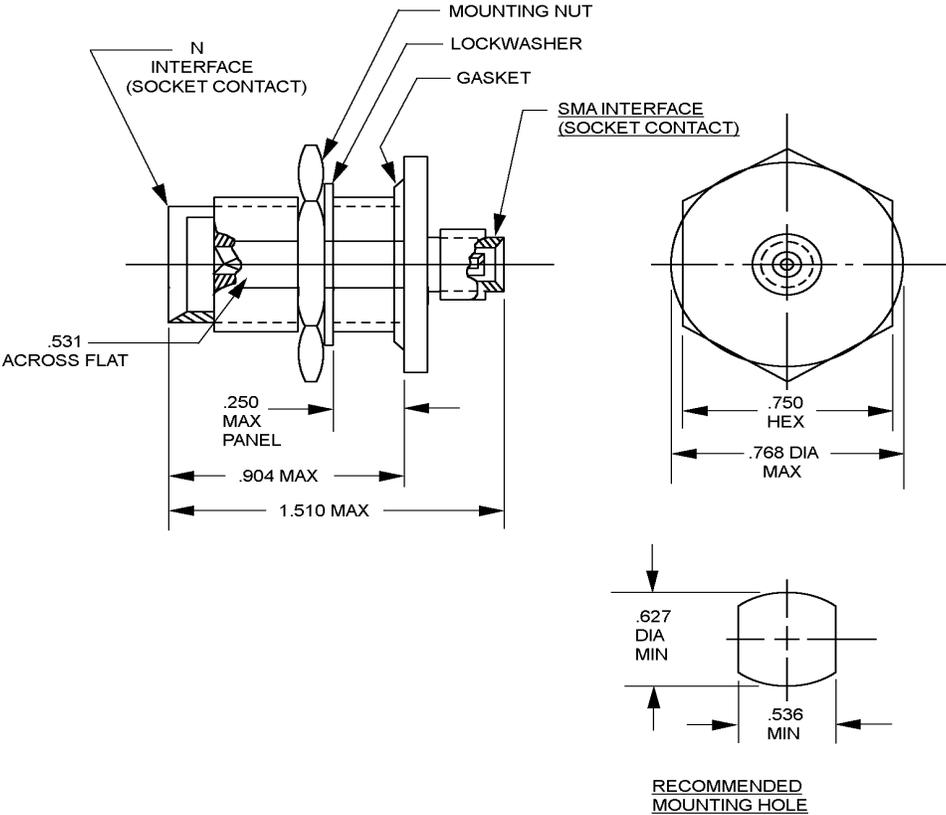
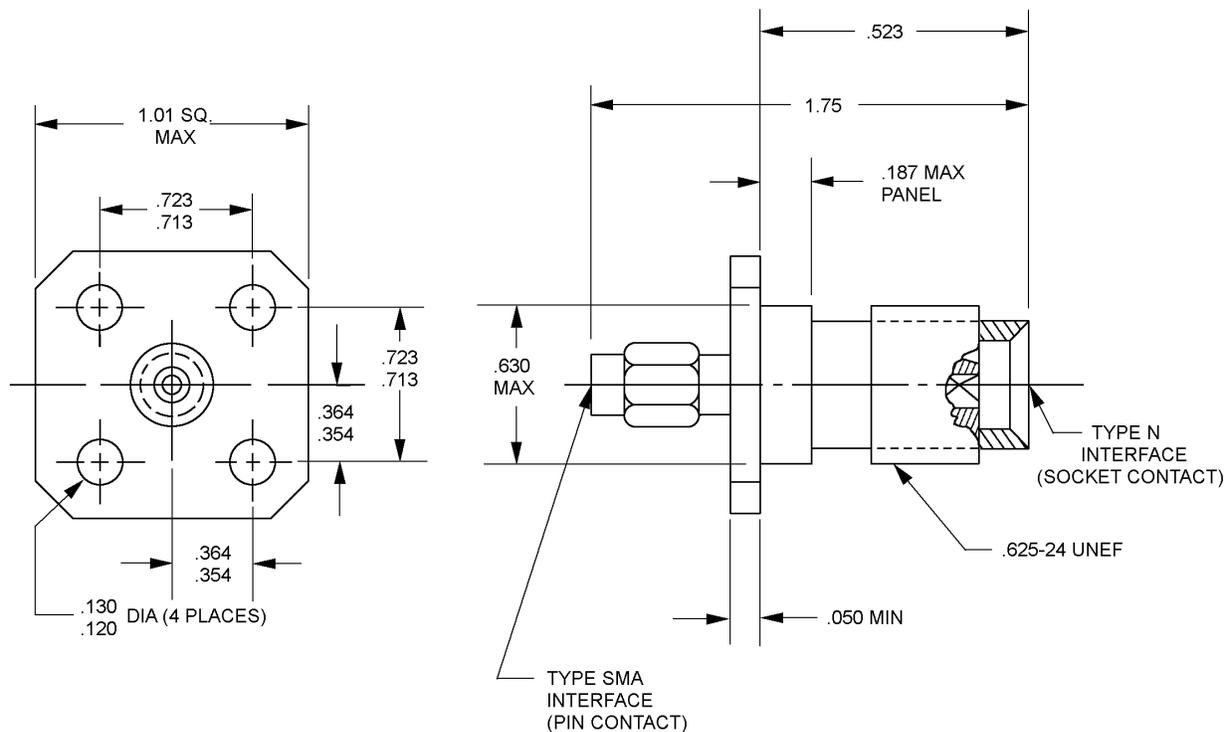


FIGURE 1. General configuration.





Inches	mm	Inches	mm
.015	0.38	.627	15.93
.050	1.27	.630	16.00
.060	1.52	.713	18.11
.120	3.04	.723	18.36
.130	3.30	.750	19.05
.187	4.75	.904	22.96
.259	6.35	.910	23.11
.320	8.13	1.01	25.7
.354	8.99	1.231	31.29
.364	9.25	1.52	38.61
.495	12.57	1.75	44.45
.531	13.49		
.536	13.61		
.625	15.88		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is  $\pm .015$  (0.38 mm).
4. All undimensioned pictorial configurations are for reference purposes only.
5. N and SMA interfaces shall be in accordance with MIL-STD-348.

FIGURE 1. General configurations – Continued.

## ENGINEERING DATA:

Nominal impedance: 50 ohms.

Frequency range: 18 GHz.

Voltage rating:

335 V rms at sea level.

85 V rms at 70,000 feet.

Operating temperature range: -65°C to +165°C.

## REQUIREMENTS:

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

Center contact retention:	<u>Series SMA</u>	<u>Series TNC</u>
Axial force (pounds, minimum)	6	6
Torque	Not applicable	Not applicable
Coupling proof torque	15 inch-pounds, minimum	
Force to engage and disengage:	<u>Series SMA</u>	<u>Series TNC</u>
Longitudinal force (pounds, minimum)	Not applicable	3
Torque (inch-pounds, maximum)	2	6
Mating characteristics in accordance With MIL-STD-348:	<u>Series SMA</u>	<u>Series TNC</u>
Center contact (socket):		
Oversize test pin diameter (inch)	.0375 + .0001	.074 minimum
Insertion depth (inch, minimum)	.030/.045	.125
Number of insertions	3	1
Pin finish (microinches)	16	16
Maximum test pin (insertion force test):		
Steel test pin diameter (inch, minimum)	.0370 + .0001	.066
Pin finish (microinches)	16	16
Insertion force (pounds, maximum)	3	2
Insertion depth (inch, minimum)	.050/.075	.125
Minimum test pin (withdrawal force):	<u>Series SMA</u>	<u>Series TNC</u>

Steel test pin diameter (inch)	.0355 - .0001	.063
Pin finish (microinches)	16	16
Withdrawal force (ounces, minimum)	1	1
Insertion depth (inch, minimum)	.050/.075	125

Permeability: Less than 2.0, air = 1.0.

Seal:

Pressurized: Not applicable.

Weatherproof: Not applicable.

Insulation resistance: 5,000 megohms, minimum.

VSWR:

1.06 + .005 F (GHz); dc to 12.4 GHz.

.83 + .023° F (GHz); 12.4 to 18 GHz.

RF leakage (total): -65 dB, minimum, 2 to 3 GHz.

RF insertion loss: .18 dB, maximum, at 9 GHz.

Dielectric withstanding voltage: 1,000 V rms at sea level, minimum.

Contact resistance (milliohms, maximum):

Contact	Initial	After environmental
Center	4.1	6.0
Outer	2.2	Not applicable

Vibration, high frequency: Interruptions: 1 μs, maximum, method 204 of MIL-STD-202, test condition D.

Shock: Method 213 of MIL-STD-202, test condition I.

Thermal shock: Method 107 of MIL-STD-202, test condition C.

Moisture resistance: Method 106 of MIL-STD-202.

Insulation resistance: 200 megohms, minimum, within 5 minutes after removal from humidity.

Corona level:

Voltage: 250 V, minimum at 70,000 feet, minimum.

RF high potential withstanding voltage:

RF voltage: 1,000 V rms, minimum, at 5 MHz, minimum.

Salt spray: Method 101 of MIL-STD-202, test condition B.

Connector durability: 500 cycles minimum at 12 cycles per minute maximum. The connector shall meet mating characteristics and force to engage and disengage.

Marking: As specified in MIL-PRF-55339.

Part or Identifying Number (PIN):

M55339/52-30001  
M55339/52-50001

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

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

MIL-STD-202  
MIL-STD-348

#### CONCLUDING MATERIAL

Custodians:  
Army - CR  
Navy - EC  
Air Force - 85  
DLA - CC

Preparing activity:  
DLA - CC

(Project 5935-2015-028)

Review activities:  
Army - AR, AT, 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>.