

INCH-POUND

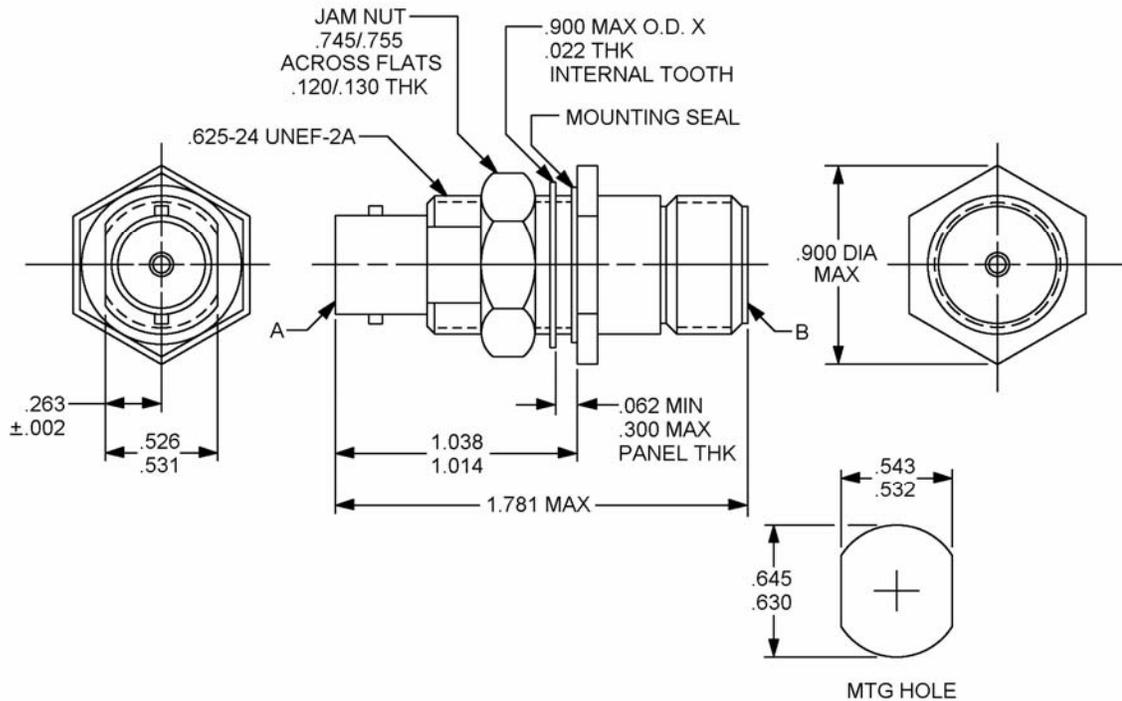
  
MIL-PRF-55339/25C  
17 September 2004  
SUPERSEDING  
MIL-A-55339/25B  
23 March 1988

PERFORMANCE SPECIFICATION SHEET

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, IN-LINE, JAMNUT MOUNTED,  
(BETWEEN SERIES BNC JACK TO SERIES N JACK), CLASS 2

This specification is approved for use by all Departments  
and Agencies of the Department of Defense.

The requirements for acquiring the document described herein shall  
consist of this specification sheet and MIL-PRF-55339.



Reference	Series	Contact
A	BNC	Socket
B	N	Socket

FIGURE 1. General configuration.

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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. All undimensioned pictorial representations are for reference purposes only.
4. Interfaces shall be in accordance with MIL-STD-348, series BNC socket contact and series N socket contact.

Inches	mm	Inches	mm
.002	0.05	.543	13.79
.022	0.58	.625	15.88
.062	1.57	.630	16.00
.120	3.05	.645	16.38
.130	3.30	.745	18.92
.263	5.68	.755	19.18
.300	7.62	.900	22.86
.526	13.36	1.014	25.76
.531	13.49	1.038	26.37
.532	13.51	1.071	27.20
		1.781	45.24

FIGURE 1. General configuration - Continued.

DESIGN AND CONSTRUCTION

General configuration: See figure 1.

Impedance: 50 ohms, nom.

Working voltage: Sea level – 500 V rms.  
70,000 feet (4.437 kPa) – 125 V rms.

Frequency range: 0 to 4 GHz.

Temperature range: -65° to +165°C.

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

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

Center contact retention:

	<u>Series BNC</u>	<u>Series N</u>
Axial force (pounds, minimum)	6 (26.7 N)	6 (26.7 N)
Torque (ounce-inch, minimum)	N/A	N/A

Force to engage and disengage:

	<u>Series BNC</u>	<u>Series N</u>
Longitudinal force (pounds, maximum)	3.0 (13.3 N)	N/A
Torque (inch-pounds, maximum)	2.5 (0.34 Nm)	6.0 (0.68 Nm)

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Coupling proof torque: Not applicable.

Mating characteristics:

Center contact (socket):

	<u>Series BNC</u>	<u>Series N</u>
Oversize test pin diameter (inch, minimum):	.057 (1.45 mm)	.074 (1.88 mm)
Insertion depth (inch, minimum)	.125 (3.17 mm)	.125 (3.17 mm)
Number of insertions	1	1
Maximum test pin (insertion force test):		
Steel test pin diameter (inch, minimum)	.054 (1.37 mm)	.066 (1.68 mm)
Pin finish (microinches)	16 (0.407 μm)	16 (0.407 μm)
Insertion force (pounds, maximum)	2(8.89 N)	2 (8.89 N)
Number of insertions	1	1
Minimum test pin (withdrawal force):		
Steel test pin diameter (inch, minimum)	.052 (1.32 mm)	.063 (1.60 mm)
Pin finish (microinches)	16 (0.407 μm)	16 (0.407 μm)
Withdrawal force (ounces, minimum)	2 (0.56 N)	2 (0.56 N)
Number of withdrawals	1	1

Outer contact: Not applicable.

Permeability: < 2.0.

Seal: Hermetic – Not applicable.

  Pressurized – 30 psi (207 kPa) minimum.

  Weatherproof – 30 lbf/in<sup>2</sup> (207 kPa).

Insulation resistance: 5,000 megohms, minimum.

Voltage standing wave ratio (VSWR): 1.30, max .5 to 4 GHz.

RF leakage (total): -55 dB, min, 2 to 3 GHz.

RF insertion loss: .2 dB, max, 3 GHz (.012  $\sqrt{F}$  (GHz) dB max tested at 3 GHz).

Durability: 500 cycles minimum at 12 cycles/min max. The connector shall meet the mating characteristics and force to engage and disengage requirements.

Dielectric withstanding: Test voltage – 1,500 V rms, minimum (sea level).

Contact resistance (milliohms, max).

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

Vibration, high frequency: Interruptions – 1 microsecond (μs), maximum.

Shock: Test condition I.

Thermal shock: Test condition C.

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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 V rms, minimum.  
Frequency – 5 MHz, minimum.

Salt spray (corrosion): Applicable.

Coupling mechanism retention force: Not applicable.

Part or Identifying Number (PIN): M55339/25-00606.

**PIN: M55339/25-70001. CAUTION: THIS PART HAS A NICKEL PLATED BODY AND IS NOT FOR USE IN APPLICATIONS WHERE PASSIVE INTERMODULATION GENERATION (PIM) MAY BE A CONCERN.**

Cross reference: See table I.

TABLE I. Cross reference of PINs.

PIN	Superseded PIN or type designation <sup>1/</sup>
M55339/25-00606	51C12929 UG-606/U

<sup>1/</sup> The superseded PIN or the type designation is for cross reference only. Where a superseded PIN or type designation is not given, none was assigned or will be assigned. PIN M55339/25-00606 shall be used in all cases for marking and identifying the adapter.

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-348

MIL-PRF-55339/25C

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-4657-024)

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