INCH-POUND

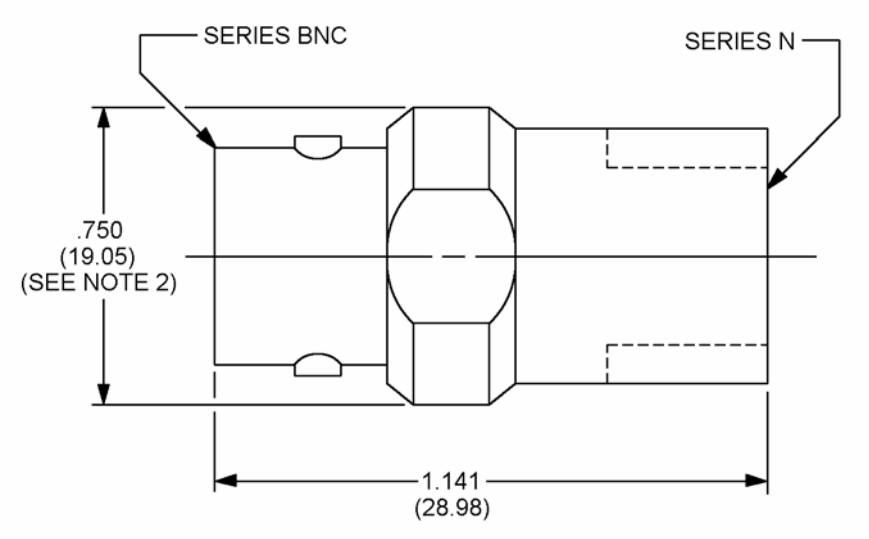
MIL-PRF-55339/1B
25 August 2004
SUPERSEDING
MIL-PRF-55339/1A
29 April 1975

PERFORMANCE SPECIFICATION SHEET

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, IN-LINE, (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 product described herein shall consist of this specification sheet and MIL-PRF-55339.



NOTES:
1. Dimensions are in inches.
2. This dimension is the largest overall diameter of the adapter.
3. Metric equivalents are given for general information only.
4. Interface dimensions shall be in accordance with MIL-STD-348, series BNC socket contact and series N socket contact.

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 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 only)

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

Center contact retention:

Axial force: 6 lb (26.69 N), min.
Torque: Not applicable.

Force to engage and disengage: See table I.

Coupling proof torque: 15 in-lb (1.69 Nm), max (series N only).

Mating characteristics:

Center contact: See table I.
Outer contact: Not applicable.

TABLE I. Performance characteristics.

Characteristics	Test value	
	Series BNC	Series N
Force to engage and disengage:		
Longitudinal force	3 lb (13.3 N), max.	3 lb (13.3 N), max.
Torque	2.5 in-lb (0.28 Nm), max.	10 in-lb (1.13 Nm), max.
Mating characteristics (center contact):		
Oversize test pin (inserted .125 in. (3.18 mm) deep)	.057 in (1.45 mm) dia.	.074 in (1.88 mm) dia.
Max test pin (insertion force 2 lb (8.89 N), max.)	.054 in (1.37 mm) dia.	.066 in (1.68 mm) dia.
Min test pin (withdrawal force 2 oz (0.56 N), min.)	.052 in (1.32 mm) dia.	.063 in (1.60 mm) dia.

Permeability: Less than 2.0.

Seal (hermetic, pressurized, and weatherproof): Not applicable.

Insulation resistance: 5,000 megohms, min.

VSWR: 1.30, max, at 500 to 4 GHz.

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

RF insertion loss: .2 dB, max, at 3 GHz (.12 $\sqrt{F\ GHz}$) dB max tested at 3 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 voltage: Method 301 of MIL-STD-202.
Test voltage: 1,500 V rms, max, at sea level.

Contact resistance (in milliohms, max):

	Initial	After environment
Center contact	2.0	2.5
Outer contact	0.2	0.2
Outer contact (-70001)	0.4	0.4

Vibration, high frequency: Method 204 of MIL-STD-202, test condition B.

Shock (specified pulse): Method 213 of MIL-STD-202, test condition B.

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

Moisture resistance: Method 106 of MIL-STD-202, 200 megohms, min.

Corona level: 375 V rms, min.
Altitude: 70,000 feet (4.437 kPa).

RF high potential withstanding voltage:

RF voltage – 1,000 V rms.
Frequency – 5 MHz.

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

Coupling mechanism retention force: Not applicable.

Part or Identifying Number (PIN): M55339/01-00001 or M55339/01-70001.

PIN: M55339/01-70001**. CAUTION: THIS PART HAS A NICKEL PLATED BODY AND IS NOT FOR USE IN APPLICATIONS WHERE PASSIVE INTERMODULATION GENERATION (PIM) MAY BE A CONCERN.**

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 – 11
DLA - CC

Preparing activity:
DLA - CC

(Project 5935-4657-001)

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.