



## DEFENSE LOGISTICS AGENCY

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IN REPLY  
REFER

DSCC-VAI (Mr. Ron Gary/(614) 692-0568

May 12, 2004

### MEMORANDUM FOR MILITARY/INDUSTRY DISTRIBUTION

**SUBJECT:** Initial Drafts of MIL-PRF-55339/1B, /3A through /25C, /32A through /39A and /49A through /51A; Adapter, Connectors, Coaxial, Radio Frequency, Various Series; Project Numbers 5935-4657-001 through -035.

The initial drafts for this subject documents will be available for viewing and downloading from the DSCC-VAI Web site within the next 5 working days:

<http://www.dsccl.dla.mil/Programs/MilSpec/initialdrafts.asp>

Changes to this document include new part number additions that allow for the use of Nickel plated adapter bodies, contact resistance values for the new plating and format up dates. However, the entire set of specification sheets are offered up for comment.

Concurrence or comments are required at this Center within 45 days from the date of this letter. Late comments will be held for the next coordination of this document. Comments from Military Departments must be identified as either "Essential" or "Suggested". Essential comments must be justified with supporting data. Military review activities should forward comments to their custodians, as applicable, in sufficient time to allow for consolidation of the Department reply.

Please forward your comments or concurrence electronically to the project officer listed below. This can be in the form of a return e-mail, with or without attached text files. If an electronic response is not possible, we will accept comments via letter, facsimilie, or phone call. Any further coordination concerning this document will be circulated only to firms and organizations that furnish comments or reply that they have an interest.

The point of contact for this document is Mr. Ron Gary. The preferred method of contact is via e-mail: [Estel.Gary@dla.mil](mailto:Estel.Gary@dla.mil). Mr. Gary can also be reached at 614-692-0568/DSN 850-0568, or by facsimilie 614-692-6940.

Sincerely,

/SIGNED/

RICHARD L. TAYLOR  
Chief,  
Interconnection Devices Team

Note: This draft dated 10 May 2004, prepared by the Defense Supply Center Columbus (DSCC-VAI) has not been approved and is subject to modification.

**DO NOT USE FOR ACQUISITION PURPOSES**

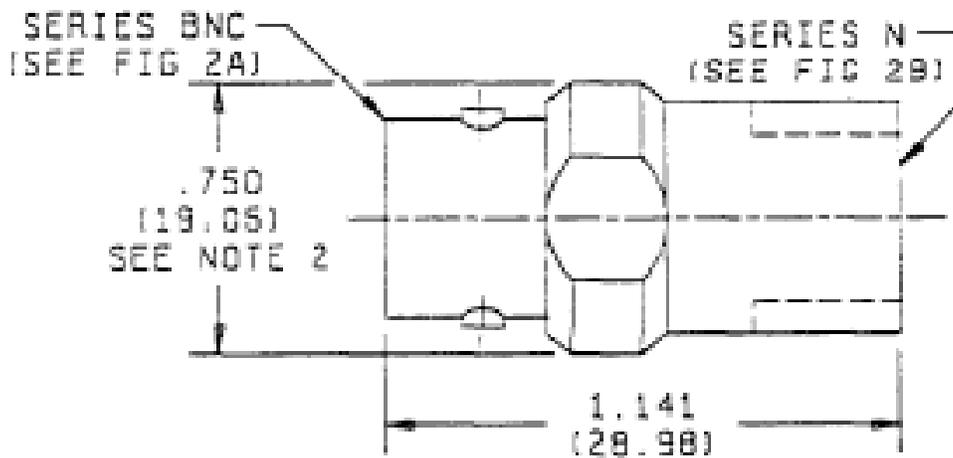
MIL-PRF-55339/1B  
**DRAFT**  
SUPERSEDING  
MIL-PRF-55339/1A  
29 April 1975

## PERFORMANCE SPECIFICATION

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 adapter 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 (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
4. Interface dimensions shall be in accordance with MIL-STD-348.

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: 125 V rms.  
 Frequency range: .5 to 4 GHz.  
 Temperature range: -65° to +165°C.

PERFORMANCE (installation torque of 6 to 10 in lb, series N only)

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

Center contact retention:

Axial force – 6 lb min.  
 Torque – N0t applicable.

Force to engage and disengage:  
 See table I.

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

Mating characteristics:

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

TABLE I. Performance characteristics

Characteristic	Test value	
	Series BNC	Series N
Force to engage and disengage		
Longitudinal force	3 lb, max	3 lb, max
Torque	2-1/2 in. lb, max	10 in lb, max
Mating characteristics (center contact):		
Oversize test pin (inserted .125 in. deep)	.057 in dia	.074 in dia
Max test pin (insertion force 2 lb, max)	.054 in dia	.066 in dia
Min test pin (withdrawal force 2 oz, min)	.052 in dia	.063 in dia

Permeability: Less than 2.0.

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

Insulation resistance: Method 302 of MIL-STD-202, test condition B. 5,000 megohms, min.

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

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

RF insertion loss: .2dB, max, at 3 GHz (.12  $\sqrt{F}$  GHz) dB max tested at 3 GHz).

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 voltage: Method 301 of MIL-STD-202.

Test voltage: 1,500 Vrms, max, at sea level.

Contact resistance (in milliohms, max):

	<u>Initial</u>	<u>After environment</u>
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

Insulation resistance: 200 megohms, min.

Corona level: 375 Volts rms, min.

Altitude: 70,000 feet.

RF high potential withstanding voltage:

RF voltage – 1,000 Volts rms.

Frequency – 5 MHz

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

Coupling mechanism retention force: Not applicable.

Part Identification Number (PIN) M55339/01-00001

Or:

**Part or Identifying Number: 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.**

Referenced documents.

- MIL-STD-202
- MIL-STD-348
- MIL-PRF-55339

CONCULDING MATERIAL

Custodians:

Army – CR  
Navy – EC  
Air Force – 11

Preparing activity:  
DSCC - CC

Review activities

Army – AR, AT, EA, MI  
Navy – AS, MC, OS, SH  
Air Force – 19, 99

(Project 5935-4657-001)

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 [www.dodssp.daps.mil](http://www.dodssp.daps.mil).