



DEFENSE LOGISTICS AGENCY

DEFENSE SUPPLY CENTER, COLUMBUS
POST OFFICE BOX 3990
COLUMBUS, OHIO 43216-5000

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. 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-55339/49A

DRAFT

SUPERSEDING

MIL-PRF-55339/49

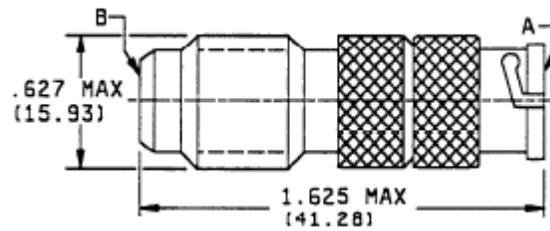
2 May 1977

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY (BETWEEN SERIES N JACK TO SERIES BNC PLUG)

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.



Reference	Series	Contact
A	BNC	Pin
B	N	Socket

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are in parentheses.
3. Metric equivalents are given for general information only and are based upon 1 inch = 25.4 mm.
4. All undimensioned pictorial representations are for reference purposes only.
5. Interface shall be in accordance with MIL-STD-348.

FIGURE 1. General configuration.

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 4 GHz.

Temperature range -65° to +165°C.

PERFORMANCE:

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

Center contact retention:	<u>Series BNC</u>	<u>Series N</u>
Axial force (lb, min) -----	6	6
Torque (in. lb, max) -----	N/A	N/A
Force to engage and disengage:	<u>Series BNC</u>	<u>Series N</u>
Longitudinal force (lb, max) -----	3.0	N/A
Torque (in, lb, max) -----	2.5	6.0

Coupling proof torque: Not applicable.

Mating characteristics:

Outer contact:	<u>Series BNC</u>
Min test ring ID (in., max) -----	.319
Ring finish (microinches) -----	16
Insertion force (lb, max) -----	5
Insertion depth (in., min) -----	.093
No. of insertions -----	1
Max test ring ID (in., min) -----	.324
Test ring finish (microinches) -----	16
Insertion depth (in., min) -----	.031
No. of insertions -----	1
Center contact (socket):	<u>Series N</u>
Oversize test pin dia (in., min) -----	.074
Insertion depth (in., min) -----	.125
No. of insertions -----	1
Max test pin (insertion force test):	
Steel test pin dia (in., min) -----	.066
Pin finish (microinches) -----	16
Insertion force (lb, max) -----	2
No. of insertions -----	1
Min test pin (withdrawal force):	
Steel test pin dia (in., max) -----	.063
Pin finish (microinches) -----	16
Withdrawal force (oz, min) -----	2
No. of withdrawals -----	1

Permeability: <2.0.

Seal: Hermetic – Not applicable.
 Pressurized – Not applicable.
 Weatherproof – Not applicable.

Insulation resistance: 5,000 megohms, min.

VSWR: 1.35:1, max at .5 to 4 GHz.

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

RF insertion loss: .1 dB, max 3 GHz ($.06 \sqrt{F}$ (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: Test voltage – 1,500 Vrms, min (sea level).

Contact resistance (milliohms, max)

<u>Contact</u>	<u>Initial</u>	<u>After environment</u>
Center	2.0	2.5
Outer	1.5	N/A
Outer (-70001)	3.0	N/A

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): Applicable.

Coupling mechanism retention force: 100 lb, min.

Part Identifying Number (PIN): M55339/49-00349 or:

PIN: M55339/49-70001 CAUTION: THIS PART HAS A NICKEL PLATED BODY AND IS NOT FOR USE IN APPLICATIONS WHERE PASSIVE INTERMODULATION GENERATION (PIM) MAY BE A CONCERN.

TABLE I. Cross reference of part numbers.

PIN	Superseded PIN or type designation <u>1/</u>
M55339/49-00349	UG-349/U

1/ The superseded part number or the type designation is for cross reference only. Where a superseded part number or type designation is not given, none was assigned or will be assigned. The PIN M55339/49-00349 shall be used in all cases for marking and identifying the adapter.

Referenced documents.

MIL-STD-348
MIL-PRF-55339

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:
DLA - CC

(5935-4657-033)

Review activities:

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

(Project 5935-4657-033)

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.