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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. 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

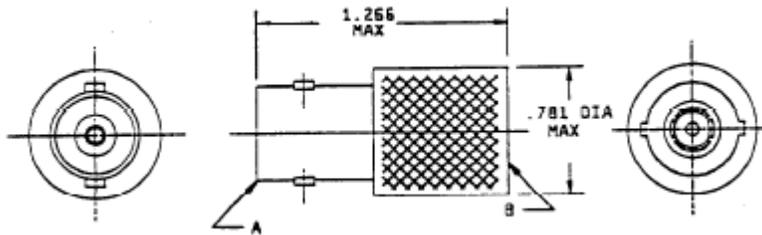
MIL-PRF-55339/22
DRAFT
 SUPERSEDING
 MIL-PRF-55339/22
 6 May 1975

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY,
 (BETWEEN SERIES BNC TO SERIES C), CLASS 2, STRAIGHT PLUG

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

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



Reference	Series	Contact
A	BNC	Socket
B	C	Pin

Inches	mm
.781	19.84
1.266	32.16

NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. All undimensioned pictorial representations are for reference purposes only.
4. Interface dimensions shall be in accordance with MIL-STD-348.

FIGURE 1. General configuration

DESIGN AND CONSTRUCTION.

General configuration. See figure 1.

Impedance 500 ohms, nom.

Working voltage: Sea level – Vrms.
70,000 feet – 125 Vrms

Frequency range: 0 to 4 GHz.

Temperature range -65° to 165° C.

Performance (installation torque is not applicable).

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

Center contact retention:	<u>Series BNC</u>	<u>Series C</u>
Axial force (lb. Min)-----	6	6
Torque (in. oz. Min)-----	N/A	N/A
Force to engage and disengage	<u>Series BNC</u>	<u>Series C</u>
Longitudinal force (lb. Max)-----	3.0	4.5
Torque (in. oz. Min)	2.5	4.0

Coupling proof torque: Not applicable.

Mating characteristics, series BNC

Center contact (socket)

Insertion depth – 125 in. min.

No. of insertions – 1

Max. test pin (insertion force test), series BNC

Steel test pin dia. - .054 in., max

Pin finish – 16 microinches.

Insertion force – 2 lb, max

No. of insertions – 1.

Min. test pin (withdrawal force), series BNC.

Steel test pin dia. - .052 in., max

Pin finish – 16 microinches.

Withdrawal force – 2 oz., min.

No. of withdrawals – 1

Outer contact, series C.

Min. test ring ID - .411 in., max

Ring finish – 16 microinches

Insertion force – 7 lb. Max.

Insertion depth - .125 in., min.

No. of insertions – 1.

Max test ring ID - .419 in., min.

Test ring finish – 16 microinches.

Insertion depth - .031 in., max.

No. of insertions – 1.

Permeability. <2.0.

Seal Hermetic – Not applicable
Pressurized – Not applicable
Weatherproof – Not applicable

Insulation resistance – 5,000 megohms, min.

VSWR 1.2:1, max. at .5 to 4 GHz

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

RF insertion loss. .35 dB, max.,. 3 GHz
(.020 √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</u>
Center	.25	.30
Outer	0.2	N/A
Outer (-70001)	0.4	N/A

Vibration, high frequency. Interruptions – 1 μs, 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: 10 lb. Min. series C.

Part Identifying Number (PIN): MS55339/22-00636, or

Part Identifying Number (PIN): M55339/22-70001: **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. Cable reference of part numbers

Part number	Superseded part number or type designation <u>1/</u>
M55339/22-00636	MS35283 REB49238 UG-636A/L

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 part number M55339/22-00636 shall be used in all cases for marking and identifying the adapter.

Documents referenced.

MIL-STD-348
MIL-PRF-55339

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:
DLA - CC

Review activities:

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

(Project 5935-4657-021)

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.