

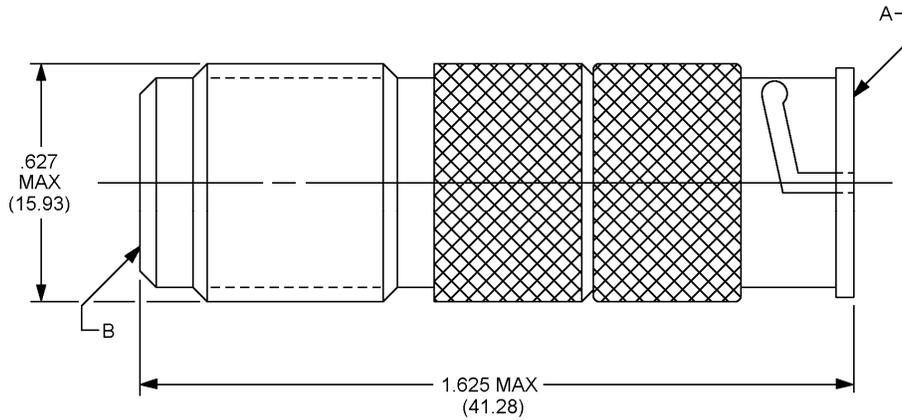
INCH-POUND
MIL-PRF-55339/49A
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SUPERSEDING
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PERFORMANCE SPECIFICATION SHEET

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 product 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 information only.
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, nominal.

Working voltage:

Sea level: 500 Vrms.

70,000 feet (4.437 kPa): 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, minimum)	6 (26.69 N)	6 (26.69 N)
Torque (in. lb, maximum)	N/A	N/A

Force to engage and disengage:	<u>Series BNC</u>	<u>Series N</u>
Longitudinal force (lb, maximum)	3.0 (13.34 N)	N/A
Torque (in. lb, maximum)	2.5 (0.28 Nm)	6.0 (0.68 Nm)

Coupling proof torque: Not applicable.

Mating characteristics:

Outer contact:	<u>Series BNC</u>
Minimum test ring ID (in., maximum)	.319 (8.10 mm)
Ring finish (microinches)	16 (.406 μ m)
Insertion force (lb, maximum)	5 (22.24 N)
Insertion depth (in., minimum)	.093 (2.36 mm)
Number of insertions	1
Maximum test ring ID (in., minimum)	.324 (8.23 mm)
Test ring finish (microinches)	16 (.406 μ m)
Insertion depth (in., min)	.031 (0.79 mm)
Number of insertions	1

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Center contact (socket):	<u>Series N</u>
Oversize test pin diameter (inch, minimum)	.074 (1.88 mm)
Insertion depth (inch, minimum)	.125 (3.17 mm)
Number of insertions	1
Maximum test pin (insertion force test):	
Steel test pin diameter (inch, minimum)	.066 (1.68 mm)
Pin finish (microinches)	16 (.406 μ m)
Insertion force (lb, maximum)	2 (8.90 Nm)
Number of insertions	1
Minimum test pin (withdrawal force):	
Steel test pin dia (in., maximum)	.063 (160 mm)
Pin finish (microinches)	16 (.406 μ m)
Withdrawal force (oz, minimum)	2 (0.56 Nm)
Number of withdrawals	1

Permeability: <2.0

Seal:

Hermetic: Not applicable.

Pressurized: Not applicable.

Weatherproof: Not applicable.

Insulation resistance: 5,000 megohms, minimum.

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, minimum (sea level).

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Contact resistance (milliohms, maximum).

<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 microsecond (μ s), max.

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, min.

Corona level:

Voltage: 375 V, minimum.

Altitude: 70,000 feet (4.437 kPa), minimum.

RF high potential withstanding voltage:

RF voltage: 1,000 Vrms. minimum.

Frequency: 5 MHz, minimum.

Salt spray (corrosion): Applicable.

Coupling mechanism retention force: 100 lb (444.82 N), minimum.

Part or 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 PINs.

PIN	Superseded PIN or type designation ^{1/}
M55339/49-00349	UG-349/U

^{1/} 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. The PIN M55339/49-00349 shall be used in all cases for marking and identifying the adapter.

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Reference documents. In addition to MIL-PRF-55339, this document references the following:

MIL-STD-348

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-4657-033)

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>.