

INCH-POUND
MIL-PRF-55339/14A
w/AMENDMENT 1
13 February 2007
SUPERSEDING
MIL-PRF-55339/14A
10 January 2005

PERFORMANCE SPECIFICATION SHEET

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, RIGHT ANGLE
(WITHIN SERIES BNC JACK TO SERIES BNC PLUG), 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.

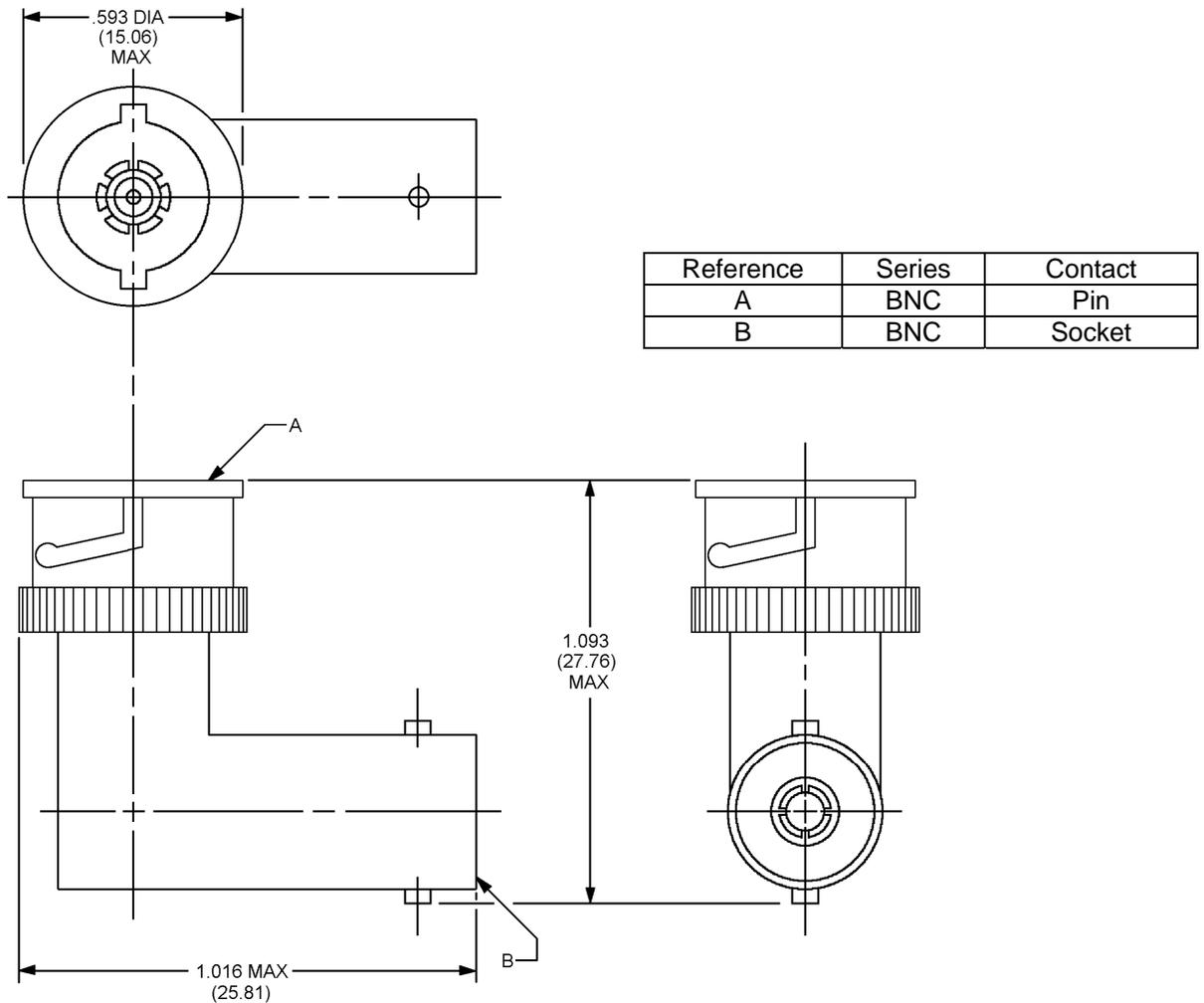


FIGURE 1. General configuration.

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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
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 – Continued.

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 (installation torque is not applicable).

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

Center contact retention:

Axial force: 6 lb (26.69 N) minimum.

Torque: 4 in. oz (1.11 Nm), minimum.

Force to engage and disengage:

Longitudinal force: 3 lb (13.34 N), maximum.

Torque: 2.5 in. lb (0.28 Nm), maximum.

Coupling proof torque: Not applicable.

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Mating characteristics:

Center contact (socket):

Oversize test pin diameter: .057 inch (1.45 mm), minimum.

Insertion depth: .125 inch (3.17 mm), minimum.

Number of insertions: 1.

Maximum test pin (insertion force test):

Steel test pin diameter: .054 inch (1.37 mm), minimum.

Pin finish: 16 microinches (.406 μm).

Insertion force: 2 lb (8.90 N), maximum.

Number of insertions: 1.

Minimum test pin (withdrawal force):

Steel test pin diameter: .052 inch (1.32 mm), maximum.

Pin finish: 16 microinches (.406 μm).

Withdrawal force: 2 oz (0.56 N), minimum.

Number of withdrawals: 1.

Outer contact:

Minimum test ring ID: .319 inch (8.10 mm), maximum.

Ring finish: 16 microinches (.406 μm).

Insertion force: 5 lb (22.2 N), maximum.

Insertion depth: .093 inch (2.36 mm), minimum.

Number of insertions: Not applicable.

Maximum test ring ID: .324 inch (8.25 mm), minimum.

Test ring finish: Not applicable.

Insertion depth: .031 inch (0.79 mm), maximum.

Number of insertions: Not applicable.

Permeability: <2.0

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Seal:

Hermetic: Not applicable.

Pressurized: Not applicable.

Weatherproof: Not applicable.

Insulation resistance: 5,000 megohms, minimum.

VSWR: 1.30:1, maximum .5 to 4 GHz.

RF leakage (total): Not applicable.

RF insertion loss: .25 dB, maximum, 3 GHz ($.144 \sqrt{f}$ (GHz) dB maximum 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: Test voltage: 1,500 Vrms, minimum (sea level).

Contact resistance (milliohms, maximum).

<u>Contact</u>	<u>Initial</u>	<u>After</u>
Center	2.5	3.0
Outer	0.5	N/A
Outer (-70001)	1.0	N/A

Vibration, high frequency:

Interruptions: 1 μ s, maximum.

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, minimum.

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.

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Salt spray (corrosion): Applicable.

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

Part or Identifying Number (PIN): M55339/14-00306 or:

PIN: M55339/14-70001 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/}
M55339/14-00306	MS35368 UG-306B/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. PIN: M55339/14-00306 shall be used in all cases for marking and identifying the adapter.

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

MIL-STD-348

Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:
DLA - CC

(Project 5935-2006-236)

Review activities:

Army - AR, AT, MI
Navy - AS, MC
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>.