

INCH-POUND

MIL-PRF-55339/17B

17 September 2004

SUPERSEDING

MIL-PRF-55339/17A

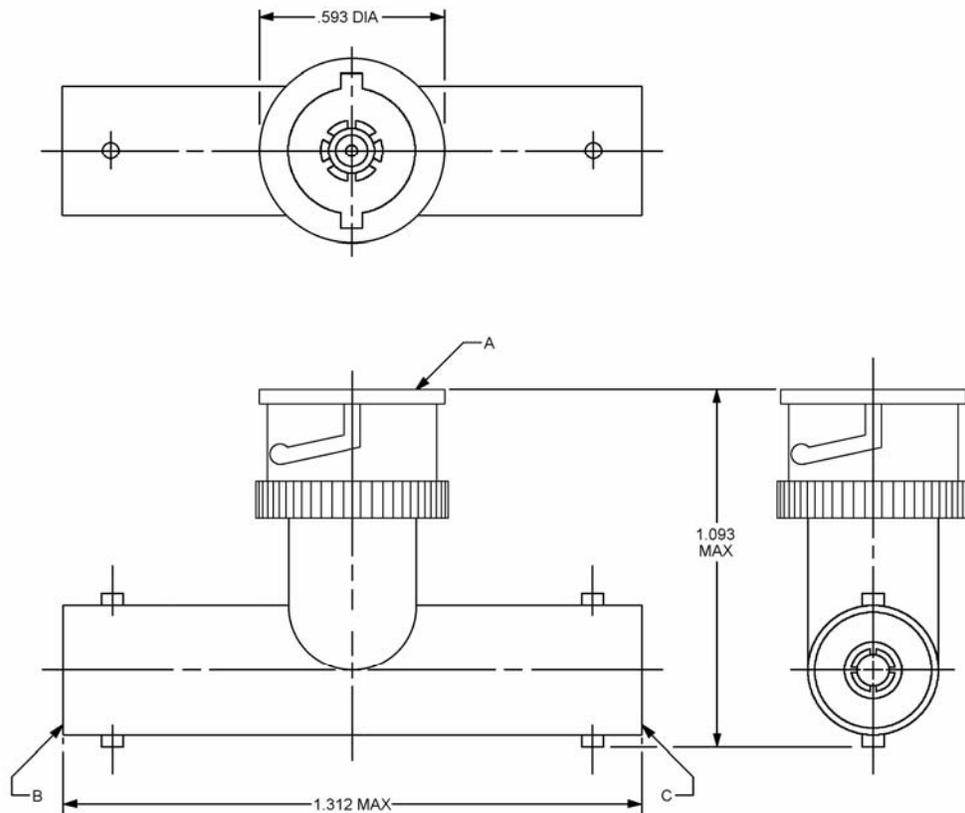
9 April 1986

PERFORMANCE SPECIFICATION SHEET

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, "T",
(BETWEEN SERIES BNC JACK TO JACK AND SERIES BNC PLUG TO JACK)
CLASS 2

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

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



Part or Identifying Number (PIN): M55339/17-00274 or M55339/17-70001

FIGURE 1. General configuration.

Reference	Series	Contact
A	BNC	Pin
B and C	BNC	Socket

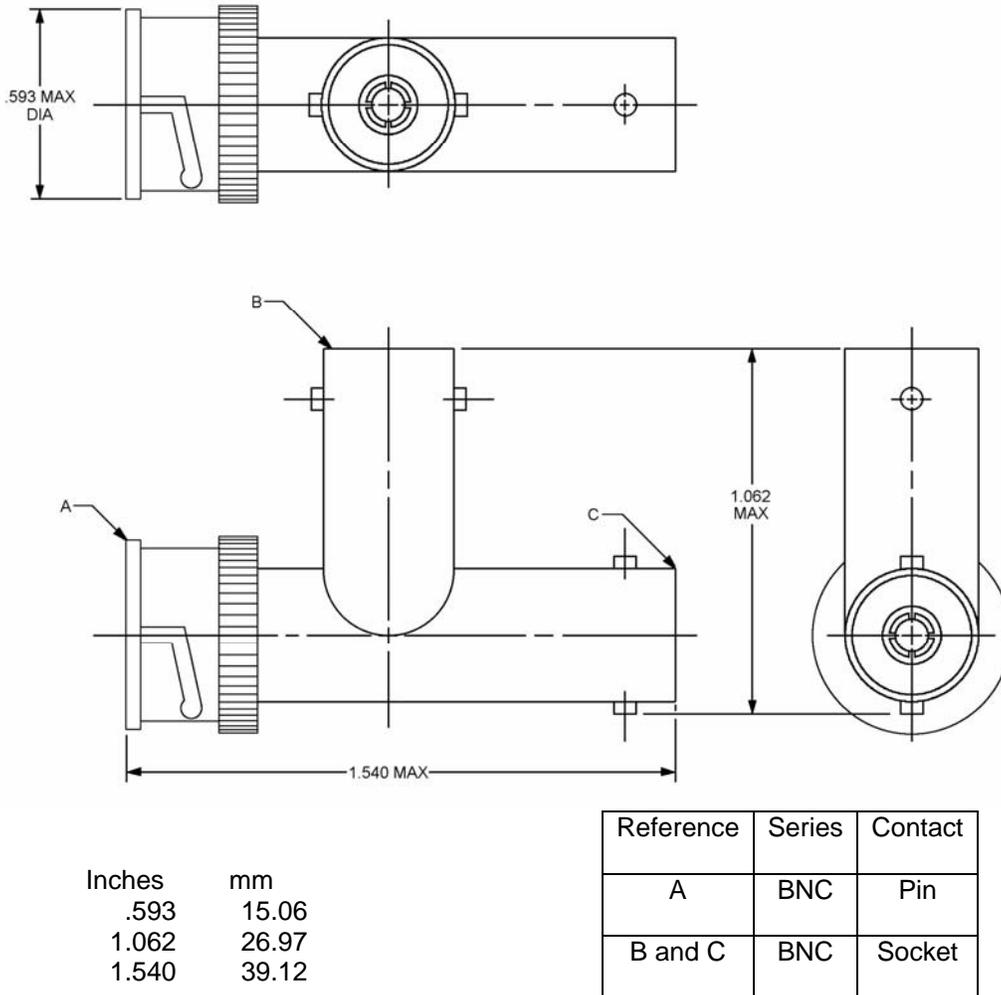
Inches	mm
.593	15.06
1.093	27.76
1.312	33.32

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. All undimensioned pictorial representations are for reference purposes only.
4. Interfaces to be in accordance with MIL-STD-348, series BNC pin contact and series BNC socket contact.

FIGURE 1. General configuration - Continued.

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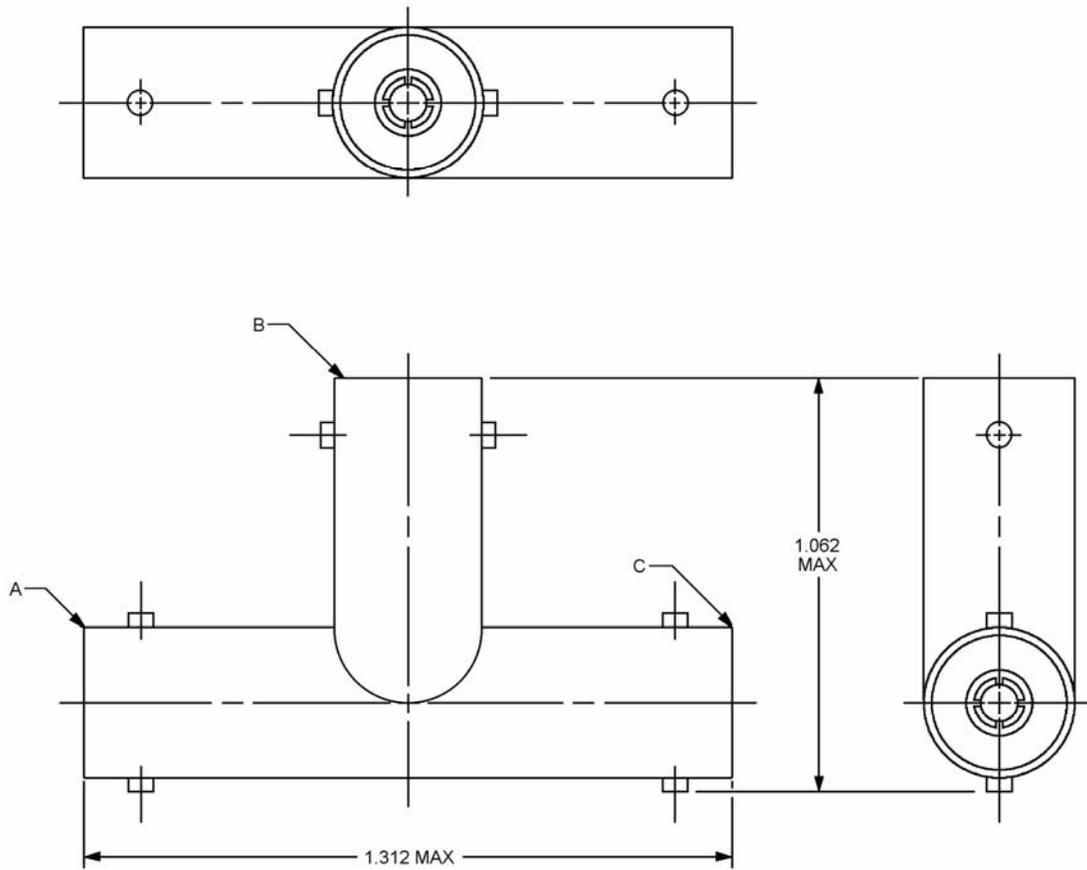
PIN M55339/17-00001 or M55339/17-70002

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. All undimensioned pictorial representations are for reference purposes only.
4. Interfaces to be in accordance with MIL-STD-348, series BNC pin contact and series BNC socket contact.

FIGURE 2. General configuration, plug - jack - jack.

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Reference	Series	Contact
A, B, and C	BNC	Socket

Inches	mm
1.062	26.97
1.312	33.32

PIN M55339/17-00002 or M55339/17-70003

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. All undimensioned pictorial representations are for reference purposes only.
4. Interfaces to be in accordance with MIL-STD-348, series BNC socket contact.

FIGURE 3. General configuration, jack - jack - jack.

DESIGN AND CONSTRUCTION

General configuration: See figures 1, 2, and 3.

Impedance: 50 ohms, nom.

Working voltage: Sea level – 500 V rms, 70,000 feet (4.437 kPa) – 125 V rms.

Frequency range: 0 to 4 GHz.

Temperature range: -65°C to +165°C.

PERFORMANCE (installation torque is not applicable)

Dimensions: See figures 1, 2, and 3 and MIL-STD-348.

Center contact retention: Axial force 6 pounds (26.69 N), minimum; torque – 4 inch-ounces (0.028 Nm), minimum.

Force to engage and disengage: Longitudinal force – 3 pounds (13.34 N), maximum; torque – 2.5 inch-pounds (0.28 Nm), maximum.

Coupling proof torque: Not applicable.

Mating characteristics:

Center contact (socket):

Oversize test pin dia - .057 inch (1.44 mm), minimum.

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

Number of insertions – 1.

Max test pin (insertion force test):

Steel test pin dia - .054 inch (1.37 mm), minimum.

Pin finish – 16 microinches (0.406 μm).

Insertion force – 2 pounds (8.90 N), maximum.

Number of insertions – 1.

Min test pin (withdrawal force):

Steel test pin dia - .052 inch (1.32 mm), maximum.

Pin finish – 16 microinches (0.406 μm).

Withdrawal force – 2 ounces (0.56 N), minimum.

Number of withdrawals – 1.

Outer contact:

Min test ring ID - .319 inch (8.10 mm), maximum.

Ring finish – 16 microinches (0.406 μm).

Insertion force – 5 pounds (22.24 N), maximum.

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

Number of insertions – Not applicable.

Max test ring ID - .324 inch (8.23 mm), minimum.

Test ring finish – Not applicable.

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

Number of insertions – Not applicable.

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Permeability: Less than 2.0.

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

Insulation resistance: 5,000 megohms, min.

VSWR: Not applicable.

RF leakage (total): Not applicable.

RF insertion loss: Not applicable.

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 V rms, minimum (sea level).

Contact resistance (milliohms, max):

<u>Contact</u>	<u>Initial</u>	<u>After</u>
Center	2.0	2.5
Outer	0.2	N/A
Outer (-70001, -70002 and -70003)	0.4	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, minimum; altitude - 70,000 feet (4.437 kPa), minimum.

RF high potential withstanding voltage: RF voltage – 1,000 V rms minimum;
frequency – 5 MHz, minimum.

Salt spray (corrosion): Applicable.

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

Cross reference: See table I.

TABLE I. Cross reference of PIN.

PIN	Superseded PIN or type designation <u>1/</u>
M55339/17-00001	-
M55339/17-00002	-
M55339/17-70001	-
M55339/17-70002	-
M55339/17-70003	-
M55339/17-00274	MS35173 UG-274C/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 M55339/17-00274 shall be used in all cases for marking and identifying the adapter.

The following PIN's are also available and shall be marked specifically with this PIN:

PIN M55339/17-70001, -70002 or -70003. **CAUTION: THIS PART HAS A NICKEL PLATED BODY AND IS NOT FOR USE IN APPLICATIONS WHERE PASSIVE INTERMODULATION GENERATION (PIM) MAY BE A CONCERN.**

Group qualification: Submission and qualification of any one of the adapters described herein qualifies the respective group in which it was submitted (see table II).

TABLE II. Group qualification.

Qualifying PIN	Group qualification
M55339/17-00274 or M55339/17-00001	Group I accepted <u>1/</u>

1/ Group I is composed of PIN M55339/17-00294, M55339/17-00001 and M55339/17-00002.

PIN M55339/17-70001, -70002 or 70003 may be approved by the qualifying activity with limited testing as directed by the qualifying activity.

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

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

MIL-STD-348

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:
DLA - CC

(Project 5935-4657-016)

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>.