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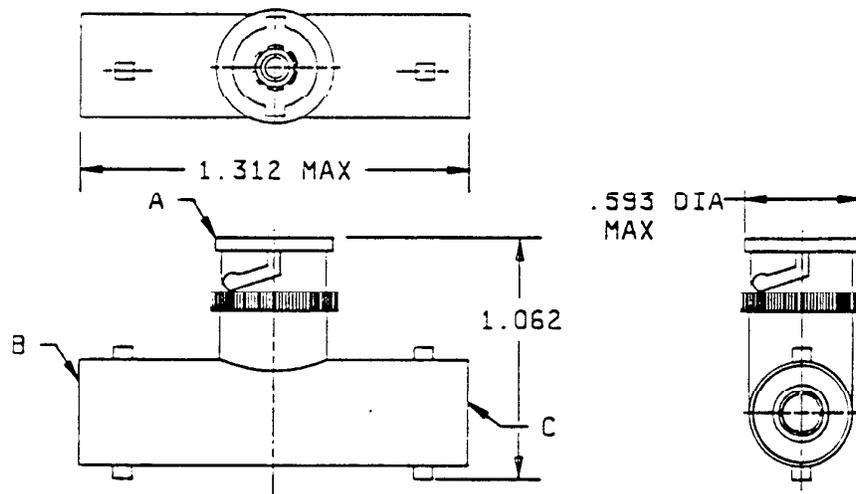
MIL-PRF-55339/17A  
 9 April 1986  
 SUPERSEDING  
 MIL-A-55339/17  
 6 May 1975

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, "T",  
 (WITHIN SERIES BNC PLUG TO 2 SERIES BNC JACKS)  
 CLASS 2

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

The complete requirements for acquiring the adapters described herein shall consist of this specification and the latest issue of Specification MIL-PRF-55339.



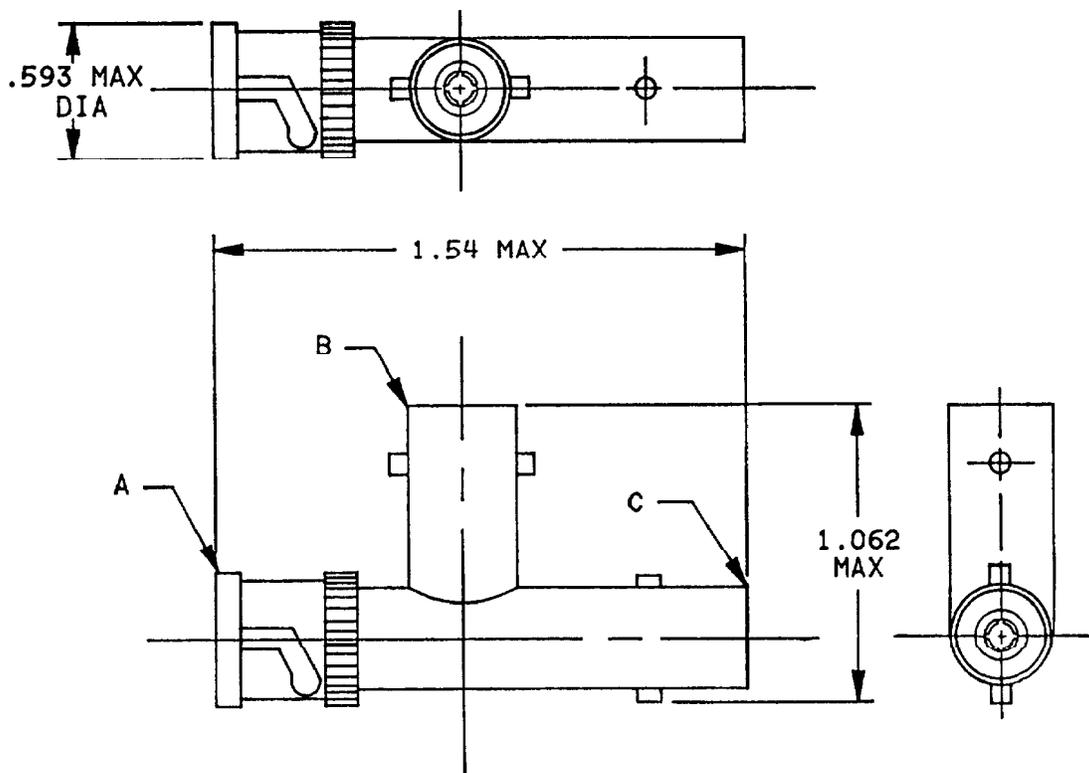
Part Number M55339/17-00274

Reference	Series	Contact	Figure
A	BNC	Pin	4
B & C	BNC	Socket	5

Inches	mm
.593	15.08
1.062	26.97
1.312	33.32

FIGURE 1. General configuration, jack-plug-jack.

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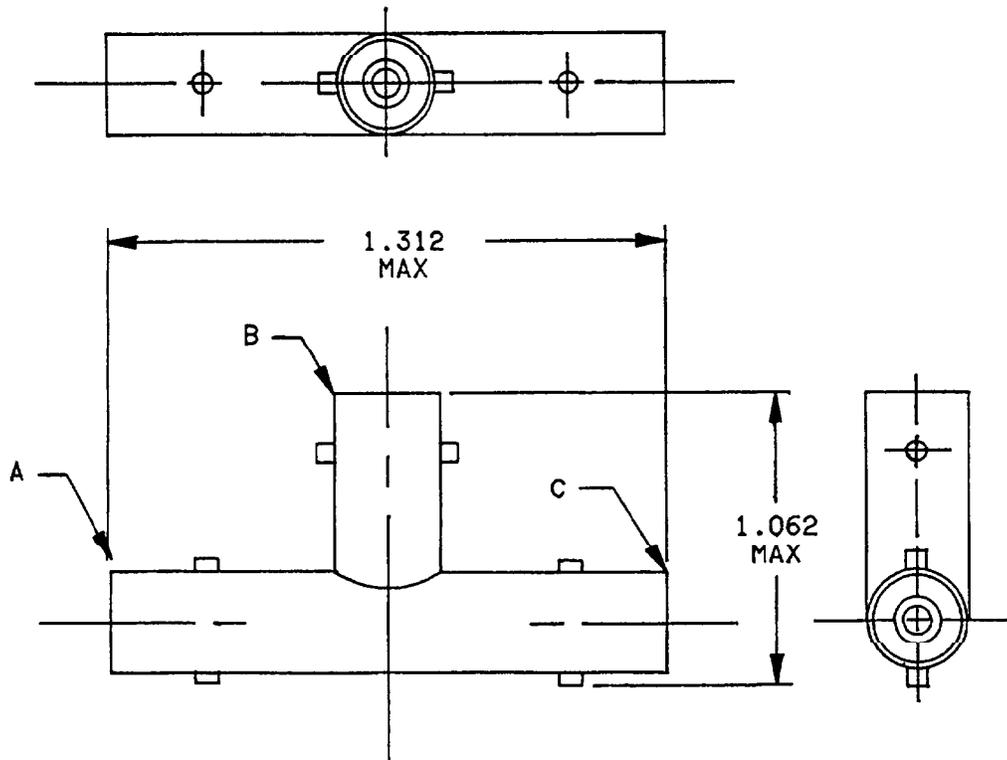
Part Number M55339/17-00001

Reference	Series	Contact	Figure
A	BNC	Pin	4
B & C	BNC	Socket	5

INCHES	mm
.593	15.06
1.062	26.97
1.54	39.1

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.



Part Number M55339/17-00002

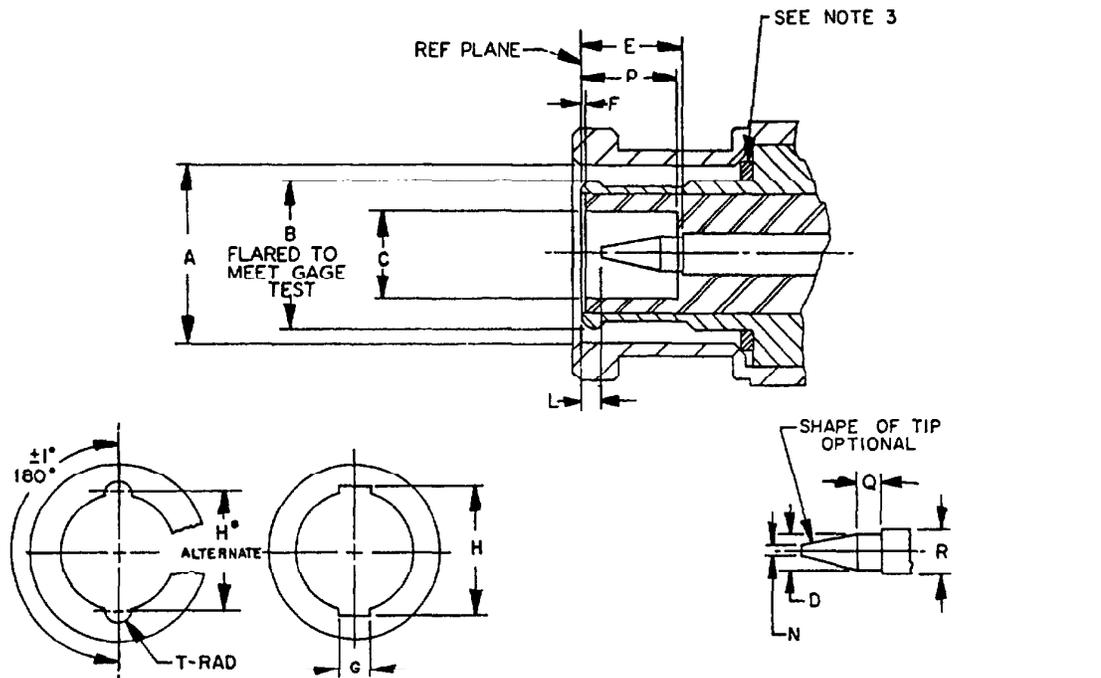
Reference	Series	Contact	Figure
A, B & C	BNC	Socket	5

NOTES

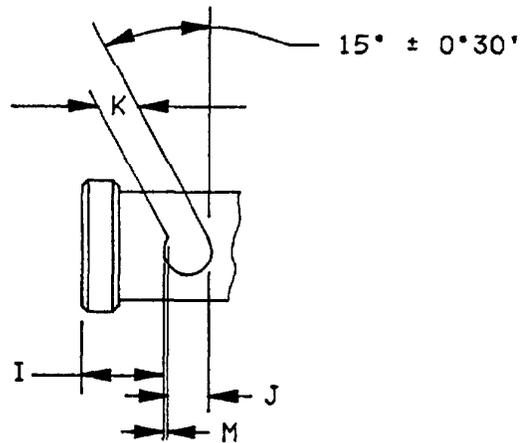
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. All undimensioned pictorial representations are for reference purposes only.

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

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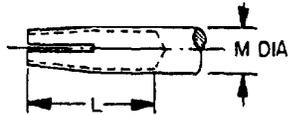
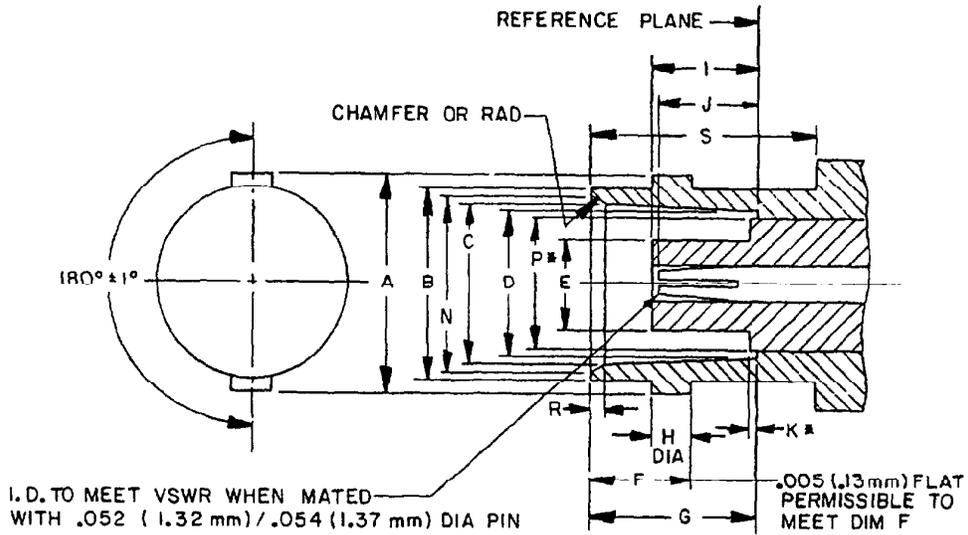
Ltr	Dimensions in inches with metric equivalents (mm) in parentheses	
	Minimum	Maximum
A	385 (9.78)	390 (9.91)
B	Gauge test	
C	190 (4.83)	
D	052 (1.32)	054 (1.37)
E	.210 (5.33)	230 (5.84)
F	.006 (15)	
G	091 (2.31)	097 (2.46)
H	463 (11.76)	.473 (12.01)
H*	.394 (10.01)	400 (10.16)
I	180 (4.57)	184 (4.67)
J	124 (3.15)	
K	091 (2.31)	.097 (2.46)
L	003 (08)	040 (1.02)
M	018 (46)	022 (56)
N		025 (64)
P	208 (5.28)	228 (5.79)
Q	078 (1.98)	
R	.081 (2.06)	087 (2.21)
T	045 (1.14)	.049 (1.24)



NOTES-

1. Dimensions are in inches
2. Metric equivalents are given for general information only
3. In the mated condition the longitudinal force of the spring of the coupling mechanism shall exceed the pressure exerted by the sealing gasket by an amount necessary to insure butting of the outer contacts at the reference plane
4. All undimensioned pictorial representations are for reference purposes only
5. Outer contact shall have a minimum of four slots.

FIGURE 4. Mating dimensions for pin contact terminations.



Ltr	Dimensions in inches with metric equivalents (mm) in parentheses	
	Minimum	Maximum
A	.432 (10.97)	.436 (11.07)
B	.378 (9.60)	.382 (9.70)
C	.327 (8.31)	.333 (8.46)
D	.319 (8.10)	.321 (8.15)
E		.186 (4.72)
F	.204 (5.18)	.208 (5.28)
G	.327 (8.31)	.335 (8.51)
H	.075 (1.91)	.081 (2.06)
I		.208 (5.28)
J	.190 (4.83)	.206 (5.23)
K*		.006 (.15)
L	.195 (4.95)	
M	.081 (2.06)	.087 (2.21)
N	.346 (8.79)	.356 (9.04)
P**		.256 (6.50)
R	.015 (.38)	.030 (.76)
S	.414 (10.52)	

\*P dimension applies to that portion (if applicable) of dielectric which extends beyond reference plane by dimension K\*.

NOTES

1. Dimensions are in inches
2. Metric equivalents are given for general information only.
3. Concave depression .100 (2.54 mm) x .005 (.13 mm) deep between studs permissible.
4. All undimensioned pictorial representations are for reference purposes only.

FIGURE 5. Mating dimensions for socket contact terminations.

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DESIGN AND CONSTRUCTION:

General configuration: See figure 1.

Impedance: 50 ohms, nominal.

Working voltage: Sea level - 500 V rms, 70,000 feet - 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, 3, 4, and 5.

Center contact retention: Axial force 6 pounds, minimum; torque - 4 inch-ounces, minimum.

Force to engage and disengage: Longitudinal force - 3 pounds, maximum; torque - 2.5 inch-pounds, maximum.

Coupling proof torque: Not applicable.

Mating characteristics:

Center contact (socket):

    Oversize test pin diameter - .057 inch, minimum.

    Insertion depth - .125 inch, minimum.

    Number of insertions - 1.

    Maximum test pin (insertion force test):

        Steel test pin diameter - .054 inch, minimum.

        Pin finish - 16 microinches.

        Insertion force - 2 pounds, maximum.

        Number of insertions - 1.

    Minimum test pin (withdrawal force):

        Steel test pin diameter - .052 inch, maximum.

        Pin finish - 16 microinches.

        Withdrawal force - 2 ounces, minimum.

        Number of withdrawals - Not applicable.

Outer contact:

    Minimum test ring ID - .319 inch, maximum.

    Ring finish - 16 microinches.

    Insertion force - 5 pounds, maximum.

    Insertion depth - .093 inch, minimum.

    Number of insertions - Not applicable.

    Maximum test ring ID - .324 inch, minimum.

    Test ring finish - Not applicable.

    Insertion depth - .031 inch, maximum.

    Number of insertions - Not applicable.

Permeability: Less than 2.0.

Seal: Hermetic - Not applicable.

    Pressurized - Not applicable.

    Weatherproof - Not applicable.

Insulation resistance: 5,000 megohms, minimum.

VSWR: Not applicable.

RF leakage (total): Not applicable.

RF insertion loss: Not applicable.

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Durability: 500, minimum.

Rate: 12 c/m, minimum.

Dielectric withstanding: Test voltage - 1,500 V<sub>rm</sub>, minimum (sea level).

Contact resistance (milliohms, maximum).

<u>Contact</u>	<u>Initial</u>	<u>After</u>
Center	2.0	2.5
Outer	0.2	N/A

Vibration, high frequency: Interruptions - 1  $\mu$ 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, minimum.

RF high potential withstanding voltage: RF voltage - 1,000 V<sub>rms</sub>, minimum; frequency - 5 MHz, minimum.

Salt spray (corrosion): Applicable.

Coupling mechanism retention force: 100 pounds, minimum.

MARKING: As specified in MIL-A-55339.

TABLE I. Cross reference of part numbers.

<u>Part number</u>	<u>Superseded part number or type designation <sup>1/</sup></u>
M55339/17-00001	---
M55339/17-00002	---
M55339/17-00274	MS35173 UG-274C/U

<sup>1/</sup> 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 M55339/17-00274 shall be used in all cases for marking and identifying the adapter.

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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 part number	Group qualification
M55339/17-00274 or M55339/17-00001	Group I accepted <u>1/</u>

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

Revision letters are not used to denote changes due to the extensiveness of the changes.

Custodians:

Army - CR  
Navy - EC  
Air Force - 85

Review activities:

Army - AR, MI  
Navy - OS, SH  
Air Force - 11, 99  
DLA - ES

User activities:

Army - AT  
Navy - AS, MC, SH  
Air Force - 19

Preparing activity:  
Army - CR

Agent:  
DLA - ES

(Project 5935-3547)