

NOTE: The document identifier and heading has been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

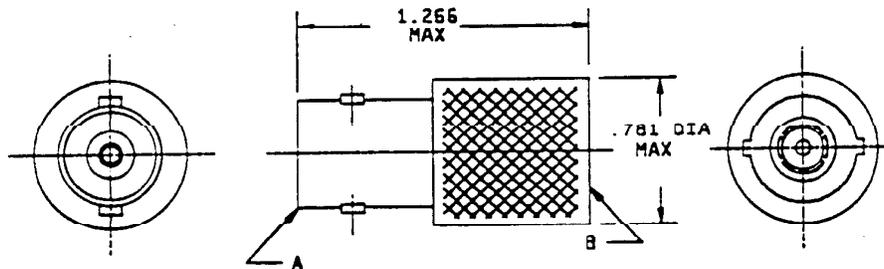
MIL-PRF-55339/22
 6 May 1975
 SUPERSEDING
 MIL-A-27434/4
 10 May 1960

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



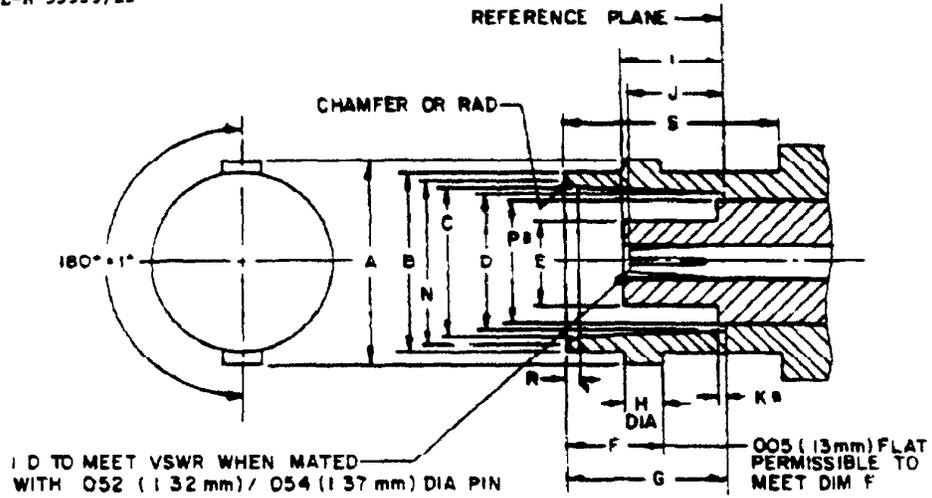
Inches	mm
.781	19.84
1.266	32.16

Reference	Series	Contact	Figure
A	BNC	Socket	2
B	C	Pin	3

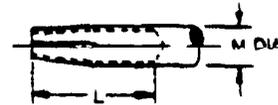
NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) 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.

FIGURE 1. General configuration.



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)
J	- - -	.208(5.28)
K*	- - -	.006(.15)
L	.195(4.95)	- - -
M	.081(2.06)	.087(2.21)
N	.346(8.78)	.358(9.04)
P*	- - -	.256(6.50)
R	.015(.38)	.030(.76)
S	.414(10.52)	- - -

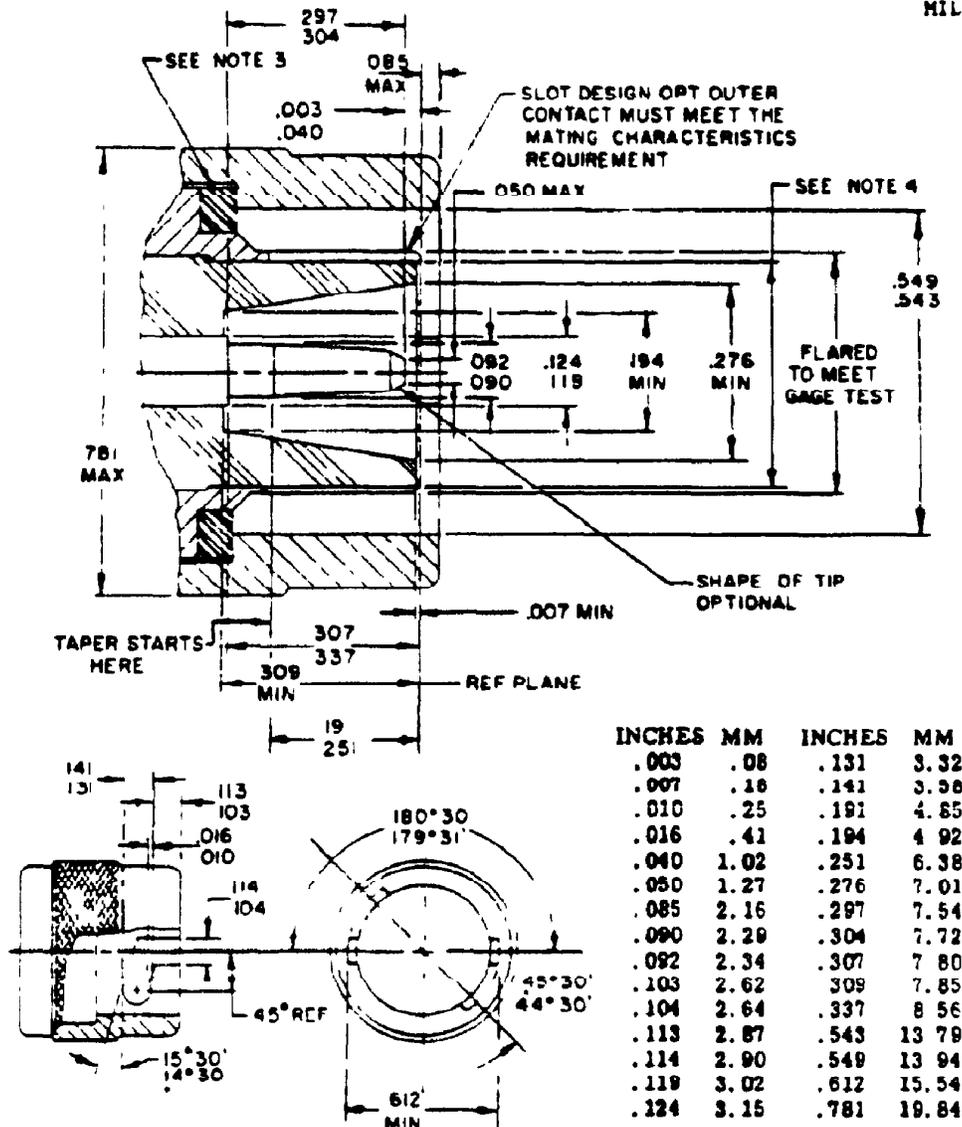


P dimension applies to that portion (if applicable) of dielectric which extends beyond reference plane by dimension K

NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
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 2 Mating dimensions for BNC socket contact terminations.



NOTES

1. Dimensions are in inches
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
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. The ID of outer contact when inserted into a .411 (10.44 mm) maximum ring gage shall be .377 (9.58 mm) minimum
5. All undimensioned pictorial representations are for reference purposes only
6. Outer contact shall have a minimum of four slots.

FIGURE 3. Mating dimensions for C pin contact terminations.

MIL-A-55339/22

DESIGN AND CONSTRUCTION

General configuration. See figure 1.

Impedance 50 ohms, nom.

Working voltage: Sea level - 500 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 figures 1, 2, and 3.

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 lb, max) - - - - -	2.5	4.0

Coupling proof torque Not applicable

Mating characteristics, series BNC

Center contact (socket)

Oversize test pin dia - .057 in., min

Insertion depth - .125 in., min.

No. of insertions - 1

Max test pin (insertion force test), series BNC

Steel test pin dia - .054 in., min

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 \times F (GHz) dB max tested at 3 GHz)

Durability: 500, min
Rate: 12 c/m, min.

Dielectric withstanding: Test voltage - 1,500 Vrms, min (sea level).

Contact resistance (milliohms, max).

Contact	Initial	After
Center	.25	.30
Outer	0.2	N/A

Vibration, high frequency. Interruptions - 1 μ s, max.

Shock Test condition 1

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: 100 lb. min. series C

MARKING. As specified in MIL-A-55339.
Part No. M55339/22-00636

TABLE 1 Cross reference of part numbers

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

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.

Custodians
Army - EL
Navy - EC
Air Force - 85

Review activities
Army - MU, MI, EL
Navy - SH
Air Force - 11, 80
DSA - ES

User activities
Army - A1
Navy - AS, MC
Air Force - 19

Preparing activity
Army - EL

Agent
DSA - ES

(Project 5935-1918-70)

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Headquarters
U.S. Army Electronics Command
Fort Monmouth, New Jersey 07703

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SPECIFICATION ANALYSIS SHEET

Form Approved
Budget Bureau No 22-R255

INSTRUCTIONS This sheet is to be filled out by personnel either Government or contractor involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or serve to amend contractual requirements.

SPECIFICATION MIL-A-55339/22 ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY,
(BETWEEN SERIES BNC TO SERIES C), CLASS 2, STRAIGHT PLUG

ORGANIZATION

CITY AND STATE

CONTRACT NUMBER

MATERIAL PROCURED UNDER A

DIRECT GOVERNMENT CONTRACT SUBCONTRACT

1 HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A GIVE PARAGRAPH NUMBER AND WORDING

B RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

2 COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3 IS THE SPECIFICATION RESTRICTIVE?

YES NO (If "yes", in what way?)

4 REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers attach to form and place both in an envelope addressed to preparing activity.)

SUBMITTED BY (Printed or typed name and activity Optional)

DATE

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