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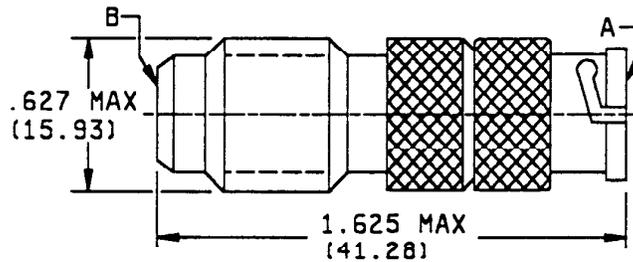
MIL-PRF-55339/49  
2 May 1977

PERFORMANCE SPECIFICATION

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 complete requirements for procuring the connector adapter described herein shall consist of this document and the latest issue of Specification MIL-PRF-55339



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

NOTES:

1. Dimensions are in inches
2. Metric equivalents are in parentheses.
3. Metric equivalents are given for general information only and are based upon 1 inch = 25.4 mm.
4. All undimensioned pictorial representations are for reference purposes only.

FIGURE 1. General configuration.

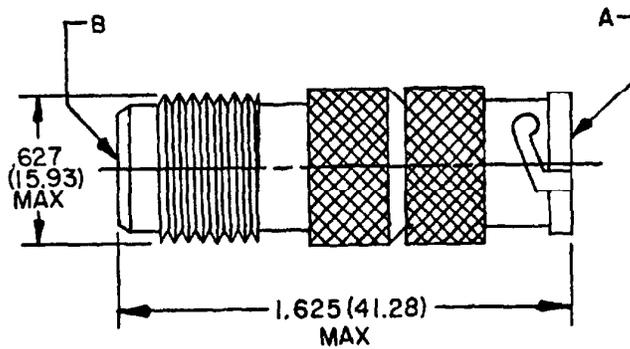
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## MILITARY SPECIFICATION SHEET

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY.  
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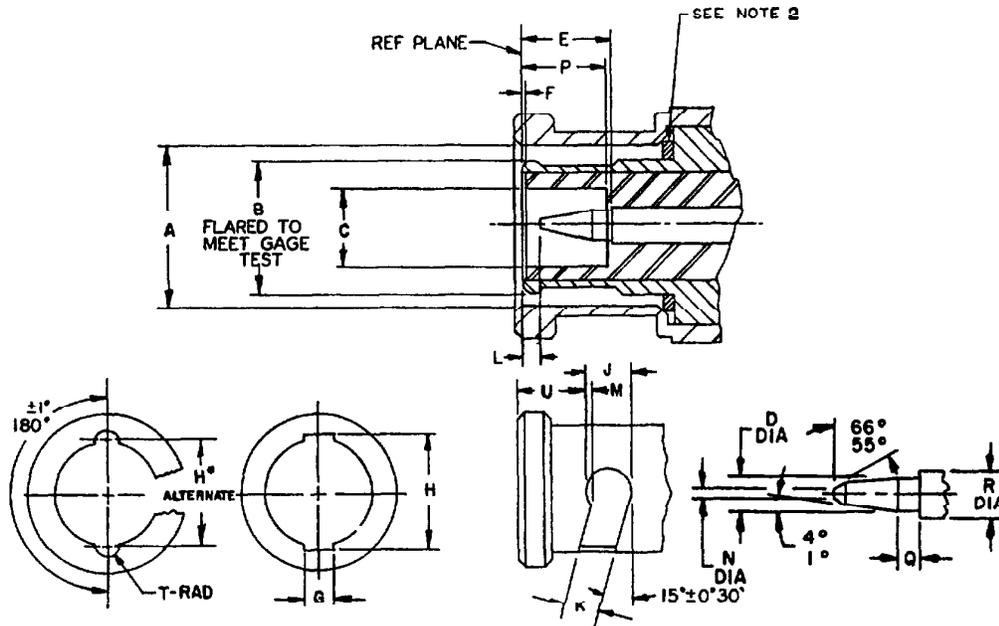


Reference	Series	Contact	Figure
A	BNC	Pin	2
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## NOTES

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FIGURE 1. General configuration.

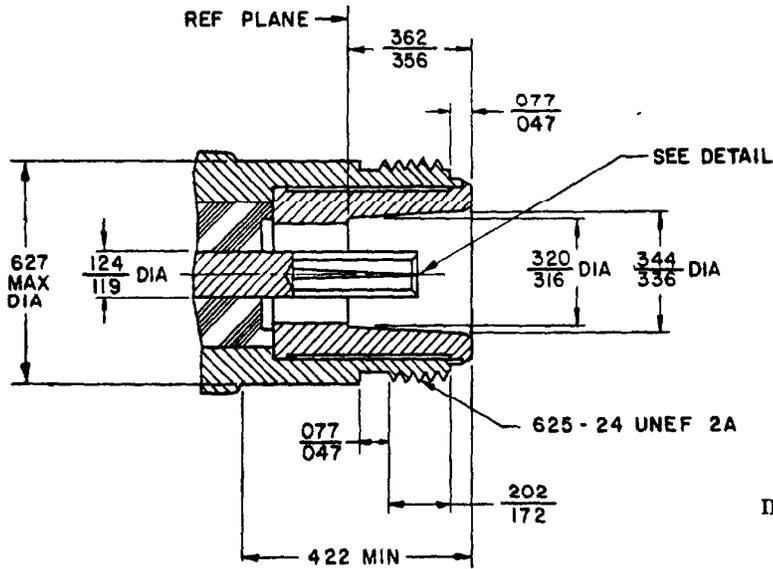


Ltr	Dimensions in inches with metric equivalents (mm) in parentheses	
	Minimum	Maximum
A	.385 (9.78)	.390 (9.91)
B	<i>Gage test</i>	
C	.190 (4.83)	
D	.052 (1.32)	.054 (1.37)
E	.210 (5.33)	.230 (5.84)
F	.006 (.15)	
G	.091 (2.31)	.097 (2.46)
H	.463 (11.76)	.473 (12.01)
H*	.394 (10.01)	.400 (10.16)
J	.124 (3.15)	
K	.091 (2.31)	.097 (2.46)
L	.003 (.08)	
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)
U	.180 (4.57)	.184 (4.67)

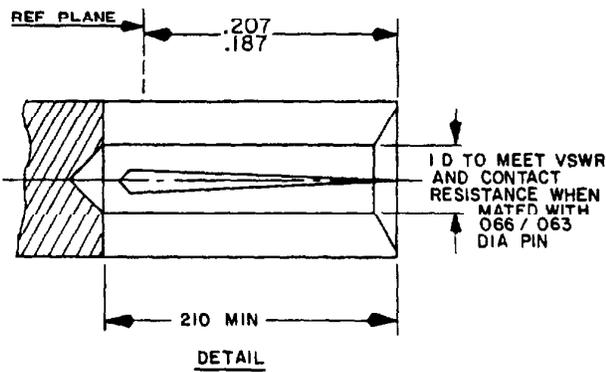
NOTES

- Metric equivalents are given for general information only and are based upon 1.00 inch = 25.4 mm.
- 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.
- All undimensioned pictorial representations are for reference purposes only.
- Outer contact shall have a minimum of four slots.

FIGURE 2. Mating dimensions for BNC pin contact terminations.



INCHES	MM
.047	1.19
.063	1.60
.066	1.68
.077	1.96
.119	3.02
.124	3.15
.172	4.37
.187	4.75
.202	5.13
.207	5.26
.316	8.03
.320	8.13
.336	8.53
.344	8.74
.356	9.04
.362	9.19
.422	10.72
.625	15.88
.627	15.93



- NOTES
- 1 Dimensions are in inches
  - 2 Metric equivalents are given for general information only and are based upon 1 00 inch = 25.4 mm
  - 3 Slitting of inner contact optional
  - 4 All undimensioned pictorial representations are for reference purposes only

FIGURE 3. Mating dimensions for N socket contact terminations.

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:

Dimensions: See figures 1, 2, and 3.

	<u>Series BNC</u>	<u>Series N</u>
Center contact retention:	6	6
Axial force (lb, min) - - - - -	N/A	N/A
Torque (in. oz, min) - - - - -		
Force to engage and disengage:	<u>Series BNC</u>	<u>Series N</u>
Longitudinal force (lb, max) - - - -	3.0	N/A
Torque (in. lb, max) - - - - -	2.5	6.0

Coupling proof torque: Not applicable.

Mating characteristics:

	<u>Series BNC</u>
Outer contact:	
Min test ring ID (in., max) - - - - -	.319
Ring finish (microinches) - - - - -	16
Insertion force (lb, max) - - - - -	5
Insertion depth (in., min) - - - - -	.093
No. of insertions - - - - -	1
Max test ring ID (in., min) - - - - -	.324
Test ring finish (microinches) - - - - -	16
Insertion depth (in., max) - - - - -	.031
No. of insertions - - - - -	1
Center contact (socket):	<u>Series N</u>
Oversize test pin dia (in., min) - - - - -	.074
Insertion depth (in., min) - - - - -	.125
No. of insertions - - - - -	1
Max test pin (insertion force test):	
Steel test pin dia (in., min) - - - - -	.066
Pin finish (microinches) - - - - -	16
Insertion force (lb, max) - - - - -	2
No. of insertions - - - - -	1
Min test pin (withdrawal force):	
Steel test pin dia (in., max) - - - - -	.063
Pin finish (microinches) - - - - -	16
Withdrawal force (oz, min) - - - - -	2
No. of withdrawals - - - - -	1

Permeability: <2.0.

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

Insulation resistance: 5,000 megohms, min.

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, min.

Rate: 12 c/m, min.

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

Contact resistance (milliohms, max):

Contact	Initial	After
Center	2.0	2.5
Outer	1.5	N/A

Vibration, high frequency: Interruptions - 1 us, max.

Shock: Test condition I.

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 pounds, min.

MARKING: As specified in MIL-A-55339.

Part No. M55339/49-00349.

TABLE I. Cross reference of part numbers.

Part number	Superseded part number or type designation <u>1/</u>
M55339/49-00349	UG-349/U

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 M55339/49-00349 shall be used in all cases for marking and identifying the adapter.

MIL-A-55339/49

Custodians:

Army - EL  
Navy - EC  
Air Force - 85

Review activities:

Army - MU, MI, AT  
Navy - SH  
Air Force - 11, 99  
DLA - ES

User activities:

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

Preparing activity:

Army - EL

Agent:

DLA - ES

Project 5935-A053)

**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-55339/49 ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY  
(BETWEEN SERIES N JACK TO SERIES BNC 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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