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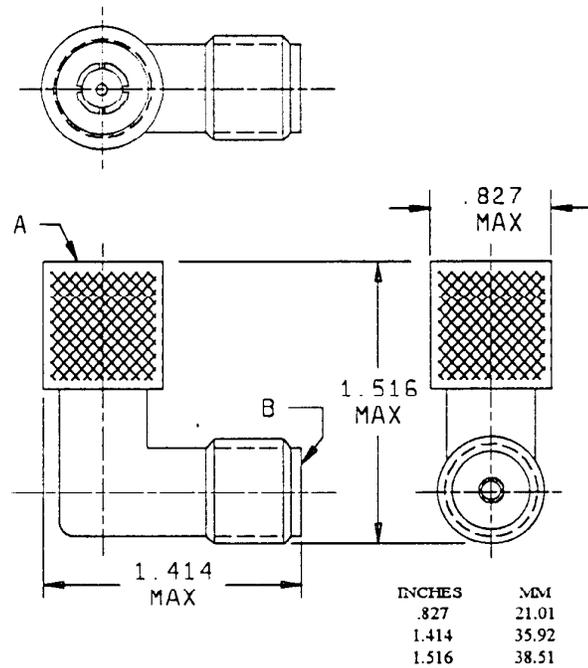
MIL-PRF-55339/3
 6 May 1975
 SUPERSEDING
 MS90156F
 25 February 1966

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY,
 (WITHIN SERIES N), CLASS 2, RIGHT ANGLE PLUG

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

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



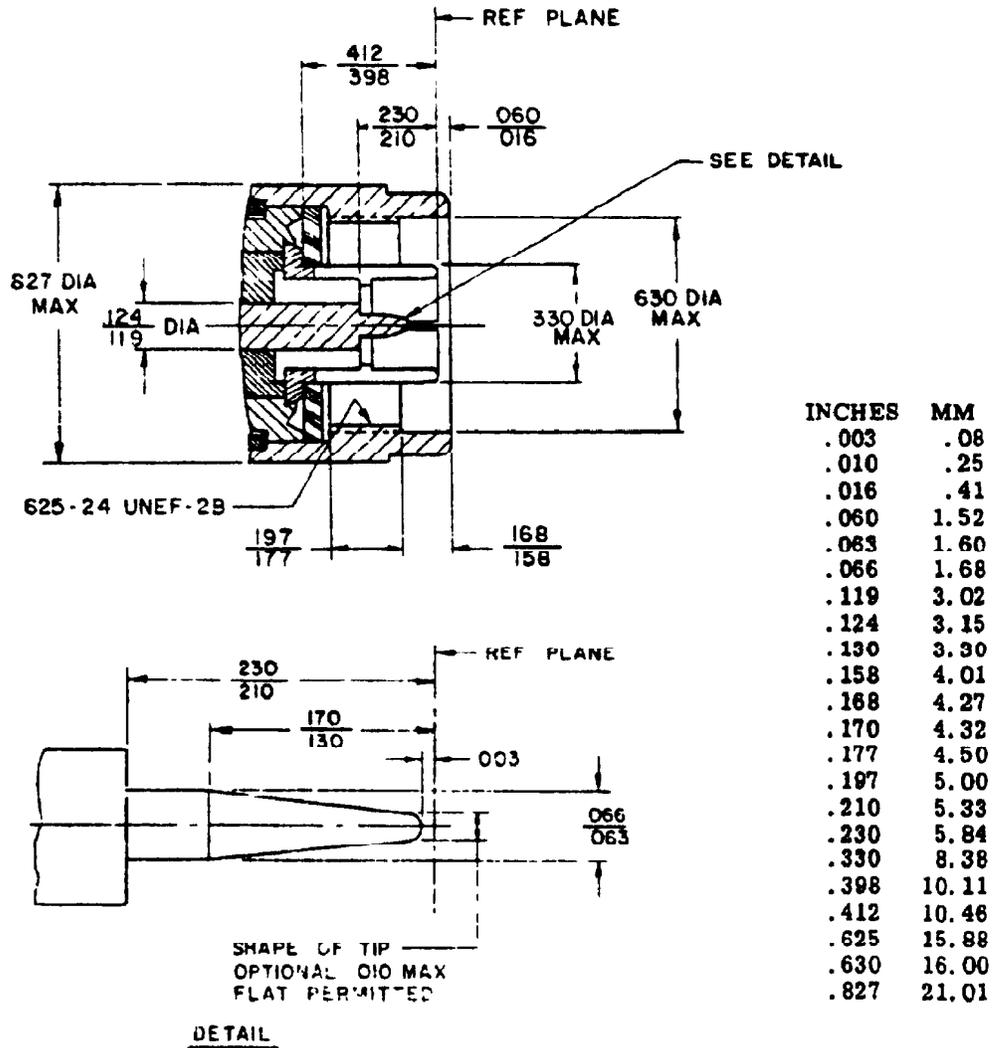
Reference	Series	Contact	Figure
A	N	Pin	2
B	N	Socket	3

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.

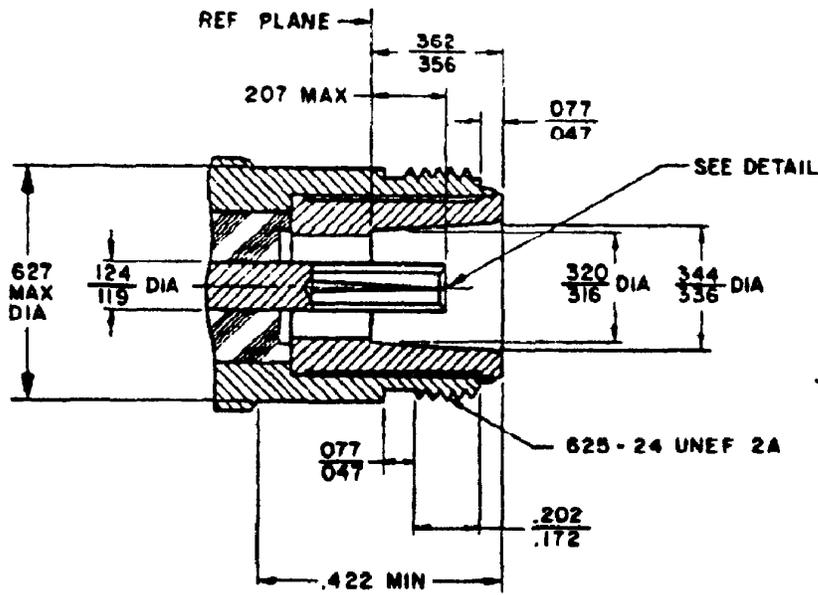
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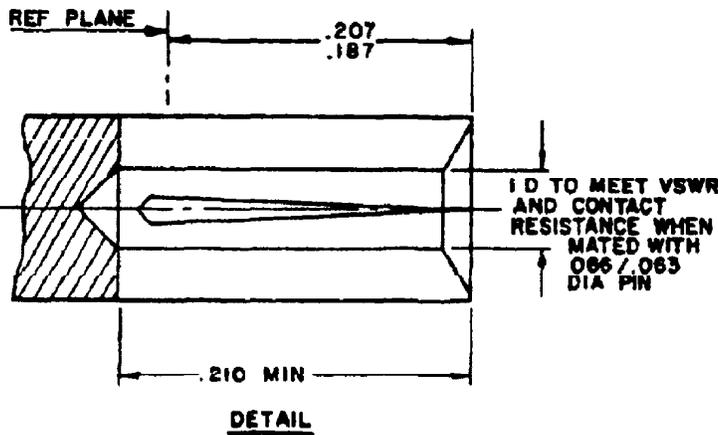
NOTES:

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. Three holes .027 (.69 mm) minimum diameter, equally spaced, are required for safety wiring after mating. Location on coupling nut optional.
4. All undimensioned pictorial representations are for reference purposes only.
5. Outer contact shall have a minimum of four slots.

FIGURE 2. Mating dimensions for 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 (to the nearest .01 mm) are given for general information only and are based upon 1 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 socket contact terminations.

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DESIGN AND CONSTRUCTION:

General configuration. See figure 1.

Impedance: 50 ohms, nom.

Working voltage: Sea level - 1,000 Vrms.
70,000 feet - 250 Vrms.

Frequency range: 0 to 11 GHz.

Temperature range: -65° to +165°C.

PERFORMANCE (installation torque of 6 to 10 in. lb).

Dimensions: See figures 1, 2, and 3.

Center contact retention: Axial force - 6 lb, min.
Torque - Not applicable.

Force to engage and disengage: Longitudinal force - Not applicable.
Torque - 6 in. lb, max.

Coupling proof torque: 15 in. lb, min.

Mating characteristics:

Center contact (socket):

Oversize test pin dia - .074 in., min.

Insertion depth - .125 in., min.

No. of insertions - 1.

Max test pin (insertion force test):

Steel test pin dia - .066 in., min.

Pin finish - 16 microinches.

Insertion force - 2 lb, max.

No. of insertions - 1.

Min test pin (withdrawal force):

Steel test pin dia - .063 in., max.

Pin finish - 16 microinches.

Withdrawal force - 2 oz, min.

No. of withdrawals - 1.

Outer contact:

Min test ring ID - .316 in., max.

Ring finish - 16 microinches.

Insertion force - 25 lb, max.

Insertion depth - .093 in., min.

No. of insertions - 1.

Max test ring ID - .324 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. 1.35, max at .5 to 9 GHz; 1.5, max at 9 to 11 GHz.

RF leakage (total): Not applicable.

RF insertion loss: .28 dB, max, 9 GHz
 $(.094 \sqrt{F \text{ (GHz)}})$ dB max tested at 9 GHz).

Durability: 500, min.

Rate: 12 c/m, min.

Dielectric withstanding: Test voltage - 2,500 Vrms, min (sea level).

Contact resistance (milliohms, max):

<u>Contact</u>	<u>Initial</u>	<u>After</u>
Center	2.5	3.0
Outer	0.2	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 - 500 V, min.
 Altitude - 70,000 feet, min.

RF high potential withstanding voltage: RF voltage - 1,500 Vrms, min.
 Frequency - 5 MHz, min.

Salt spray (corrosion): Applicable.

Coupling mechanism retention force: 100 lb, min.

MARKING. As specified in MIL-A-55339.
 Part No. M55339/03-00027

TABLE I. Cross reference of part numbers.

Part number	Superseded part number or type designation <u>1/</u>
M55339/03-00027	MS90156 UC-27D/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 M55339/03-00027 shall be used in all cases for marking and identifying the adapter.

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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 - AT
Navy - AS, MC
Air Force - 19

Preparing activity:

Army - EL

Agent:

DSA - ES

(Project 5935-1918-1)

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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-55339/3 ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, (WITHIN SERIES N), CLASS 2, RIGHT ANGLE 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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