

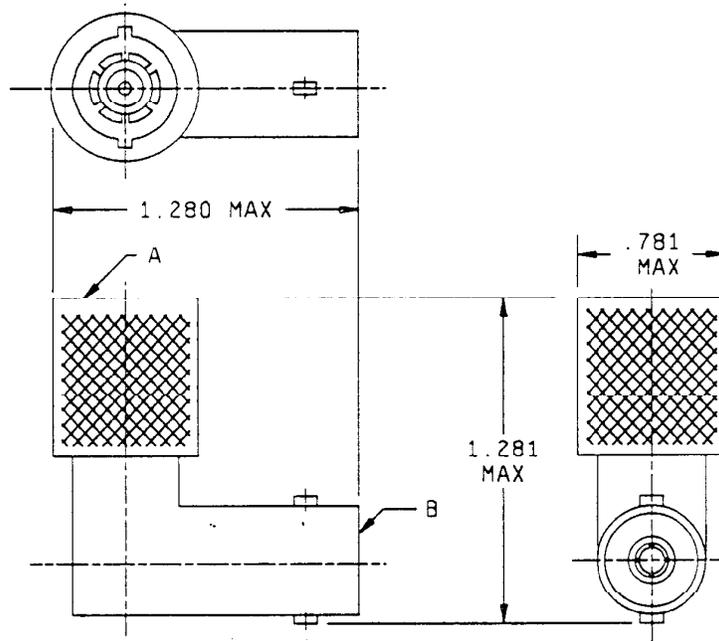
NOTE: The document identifier and heading has been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

MIL-PRF-55339/10  
 6 May 1975  
 SUPERSEDING  
 MS35322E  
 25 February 1966

PERFORMANCE SPECIFICATION  
 ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY,  
 (WITHIN SERIES C), CLASS 2, RIGHT ANGLE PLUG

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

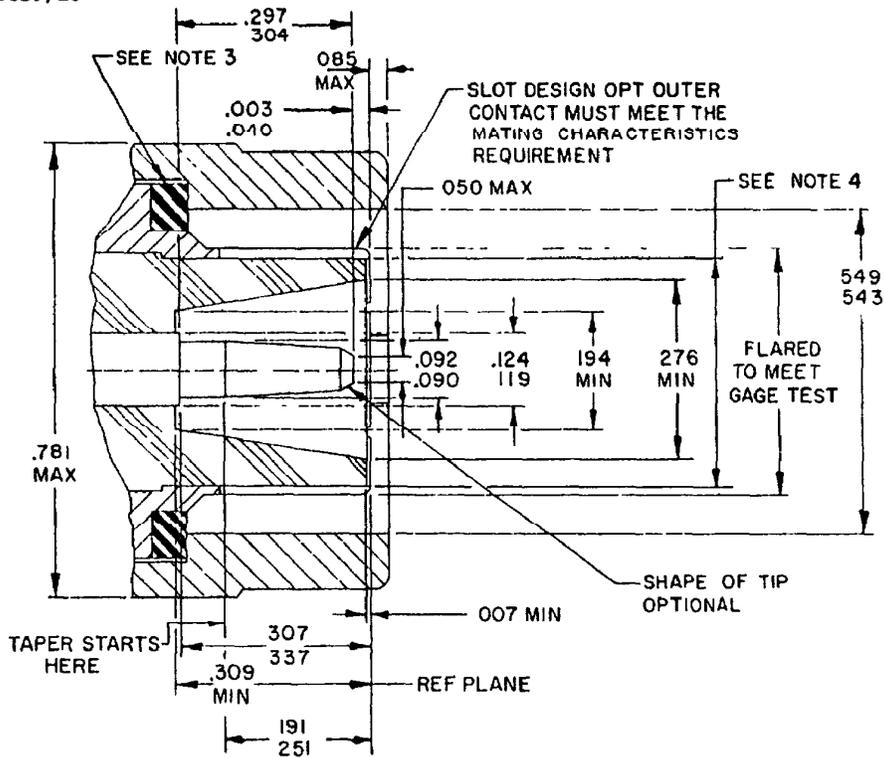
The complete requirements for procuring the adapter described herein shall consist of this specification and the latest issue of Specification MIL-PRF-55339



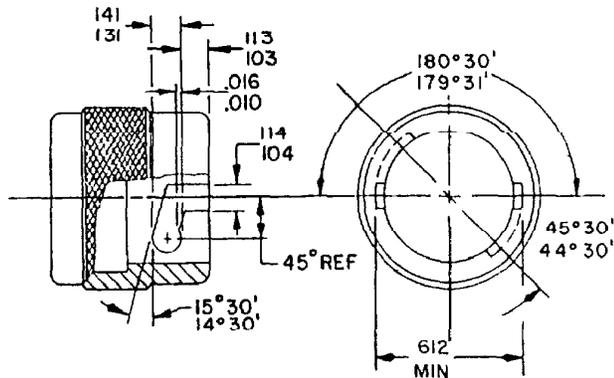
| Reference | Series | Contact | Figure | INCHES | MM    |
|-----------|--------|---------|--------|--------|-------|
| A         | C      | Pin     | 2      | .781   | 19.84 |
| B         | C      | Socket  | 3      | 1.280  | 32.51 |
|           |        |         |        | 1.281  | 32.54 |

- 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.



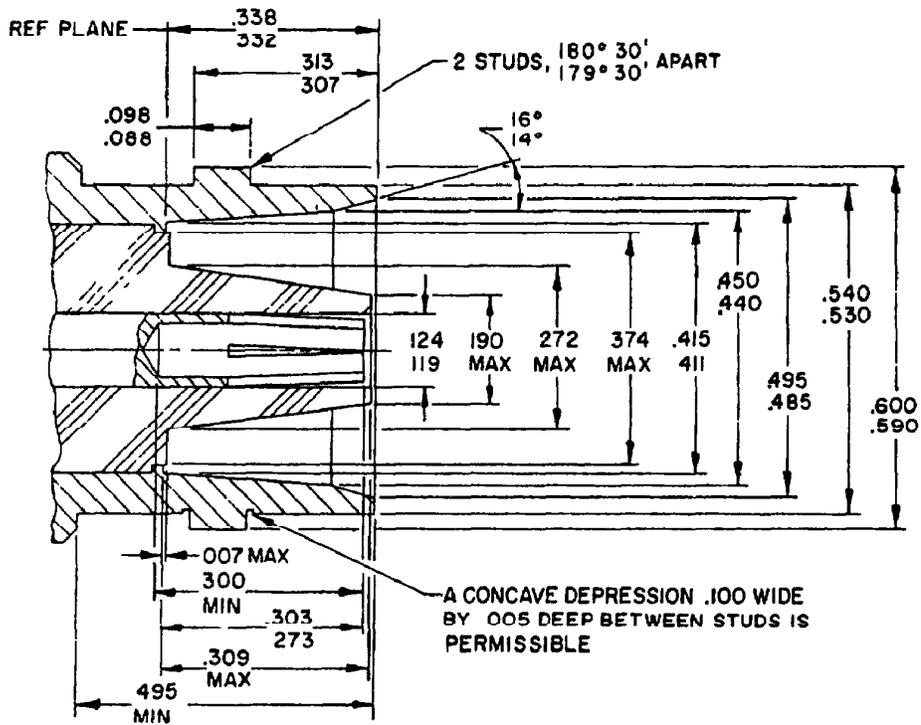
| INCHES | MM   | INCHES | MM    |
|--------|------|--------|-------|
| 003    | .08  | .131   | 3.32  |
| 007    | .18  | .141   | 3.58  |
| 010    | .25  | .191   | 4.85  |
| 016    | .41  | .194   | 4.92  |
| 040    | 1.02 | .251   | 6.38  |
| .050   | 1.27 | .276   | 7.01  |
| .085   | 2.16 | .297   | 7.54  |
| .090   | 2.29 | .304   | 7.72  |
| .092   | 2.34 | .307   | 7.80  |
| 103    | 2.62 | .309   | 7.85  |
| 104    | 2.64 | .337   | 8.56  |
| .113   | 2.87 | .543   | 13.79 |
| .114   | 2.90 | .549   | 13.94 |
| 119    | 3.02 | .612   | 15.54 |
| 124    | 3.15 | .781   | 19.84 |



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 2. Mating dimensions for pin contact terminations.



| INCHES | MM   | INCHES | MM   | INCHES | MM    |
|--------|------|--------|------|--------|-------|
| .005   | .13  | .273   | 6.93 | .411   | 10.44 |
| .007   | .18  | .300   | 7.62 | .415   | 10.54 |
| .088   | 2.24 | .303   | 7.70 | .440   | 11.18 |
| .098   | 2.49 | .307   | 7.80 | .450   | 11.43 |
| .100   | 2.54 | .309   | 7.85 | .485   | 12.32 |
| .119   | 3.02 | .313   | 7.95 | .495   | 12.57 |
| .124   | 3.15 | .332   | 8.43 | .530   | 13.46 |
| .190   | 4.83 | .338   | 8.59 | .540   | 13.72 |
| .272   | 6.91 | .374   | 9.50 | .590   | 14.99 |
|        |      |        |      | .600   | 15.24 |

NOTES:

1. Dimensions are in inches.
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3. All undimensioned pictorial representations are for reference purposes only.

FIGURE 3. Mating dimensions for socket contact terminations.

MIL-A-55339/10

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 is not applicable).

Dimensions: See figures 1, 2, and 3.

Center contact retention: Axial force - 6 lb, min.  
Torque - 4 in. oz, min.

Force to engage and disengage: Longitudinal force - 4.5 lb, max.  
Torque - 4 in. lb, max.

Coupling proof torque: Not applicable.

Mating characteristics:

Center contact (socket):

Oversize test pin dia - .098 in., min.

Insertion depth - .125 in., min.

No. of insertions - 1.

Max test pin (insertion force test):

Steel test pin dia - .092 in., min.

Pin finish - 16 microinches.

Insertion force - 2 lb, max.

No. of insertions - 1.

Min test pin (withdrawal force):

Steel test pin dia - .090 in., max.

Pin finish - 16 microinches.

Withdrawal force - 2 oz, min.

No. of withdrawals - 1.

Outer contact:

Min test ring ID - .411 in., max.

Ring finish - 16 microinches.

Insertion force - 7 lb, max.

Insertion depth - .125 in., min.

No. of insertions - Not applicable.

Max test ring ID - .419 in., min.

Test ring finish - Not applicable.

Insertion depth - .031 in., max.

No. of insertions - Not applicable.

Permeability: <2.0.

Seal: Hermetic - Not applicable.

Pressurized - Not applicable.

Weatherproof - Not applicable.

Insulation resistance: 5,000 megohms, min.

VSWR: 1.45:1, max at .5 to 11 GHz.

RF leakage (total): Not applicable.

RF insertion loss: .28 dB, max, 6 GHz  
 (.114  $\sqrt{F}$  (GHz) dB max tested at 3 and 6 GHz).

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

Dielectric withstanding: Test voltage - 3,000 Vrms, min (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          |

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

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, min.

Corona level. Voltage - 750 V, min.  
 Altitude - 70,000 feet, min.

RF high potential withstanding voltage: RF voltage - 2,500 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. M55339/10-00567.

TABLE I. Cross reference of part numbers.

| Part number     | Superseded part number<br>or type designation <u>1/</u> |
|-----------------|---|
| M55339/10-00567 | MS35322<br>UG-567A/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 M55339/10-00567 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 - AT  
 Navy - AS, MC  
 Air Force - 19

Preparing activity:  
 Army - EL

Agent:  
 DSA - ES

(Project 5935-1918-8)

**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-55339/10 ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, (WITHIN SERIES C), 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)

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