

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.

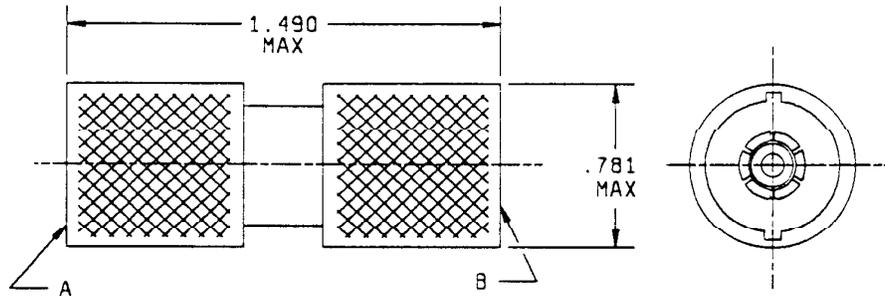
MIL-PRF-55339/9  
 6 May 1975  
 SUPERSEDING  
 MS35287E  
 25 February 1966

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY,  
 (WITHIN 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 adapter described herein shall consist of this specification and the latest issue of Specification MIL-PRF-55339.



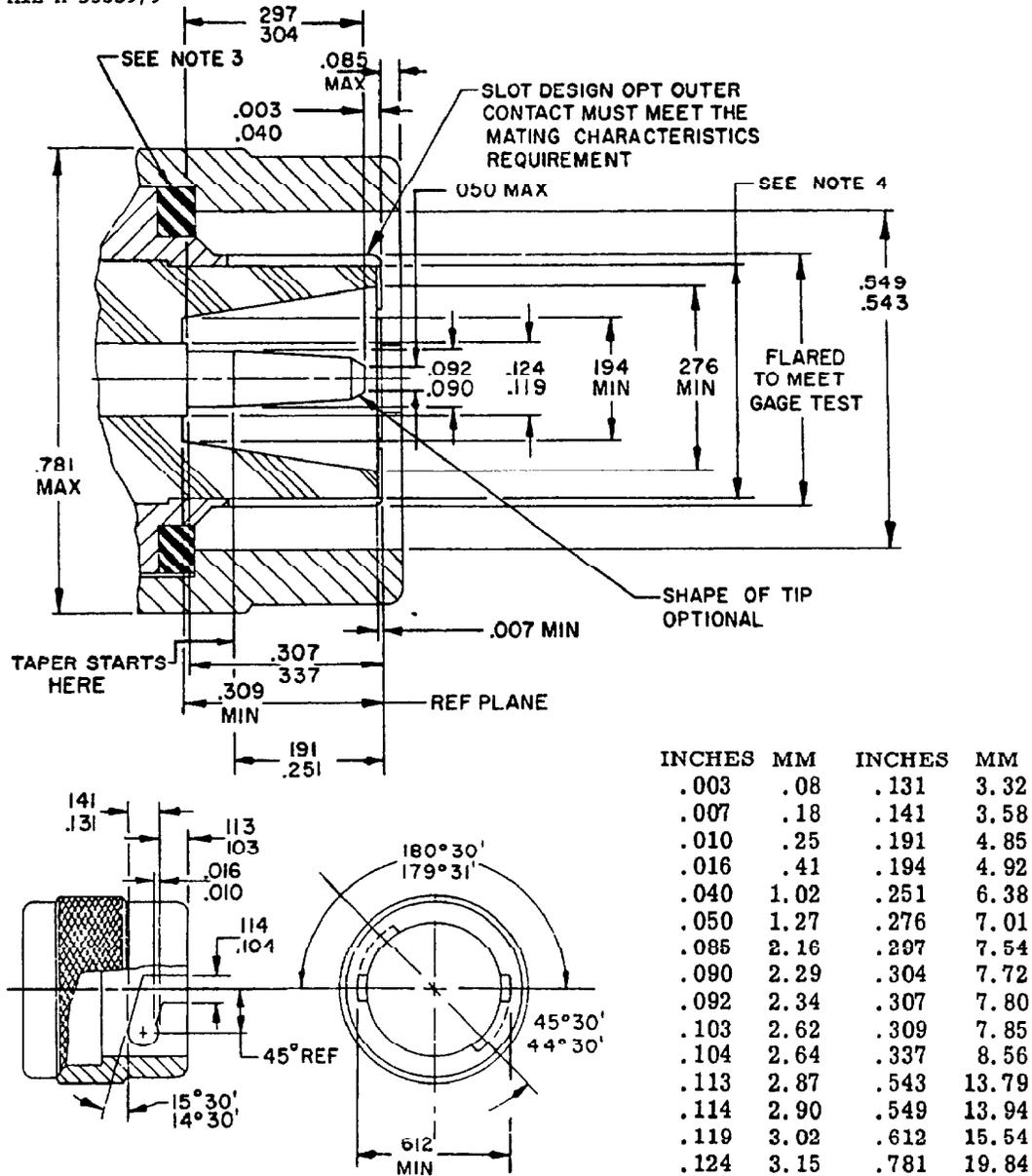
Reference	Series	Contact	Figure
A & B	C	Pin	2

INCHES	MM
.781	19.84
1.490	37.85

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.



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.

## 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 and 2.

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

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): Not applicable.

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: 1.35, max at .5 to 11 GHz.

RF leakage (total): -55 dB, min, 2 to 3 GHz.

RF insertion loss: .20 dB, max, 6 GHz  
(.082  $\sqrt{F}$  (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):

Contact	Initial	After
Center	1.5	2.0
Outer	0.30	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. M55339/09-00642.

TABLE I. Cross reference of part numbers.

Part number	Superseded part number or type designation <u>1/</u>
M55339/09-00642	MS35287 UG-642A/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 M55339/09-00642 shall be used in all cases for marking and identifying the adapter.

Custodians:  
Army - EL  
Navy - EC  
Air Force - 85

Preparing activity:  
Army - EL

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

Agent:  
DSA - ES

(Project 5935-1918-7)

User activities:  
Army - AT  
Navy - AS, MC  
Air Force - 19

**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-55339/9 ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, (WITHIN 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

**DD FORM 1426**  
1 JAN 66

REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED

**ESC-FM 1068-68**

---

FOLD

---

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

POSTAGE AND FEES PAID

---

OFFICIAL BUSINESS

Commanding General  
U.S. Army Electronics Command  
ATTN: AMSEL- RD-TS  
Fort Monmouth, New Jersey 07703

---

FOLD