

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.

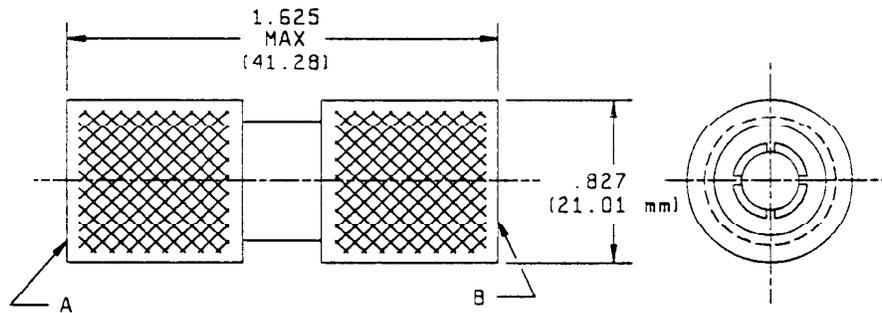
MIL-PRF-55339/5  
 6 May 1975  
 SUPERSEDING  
 MS15507A  
 25 November 1966

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY,  
 (WITHIN SERIES N), 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 document and the latest issue of Specification MIL-PRF-55339.

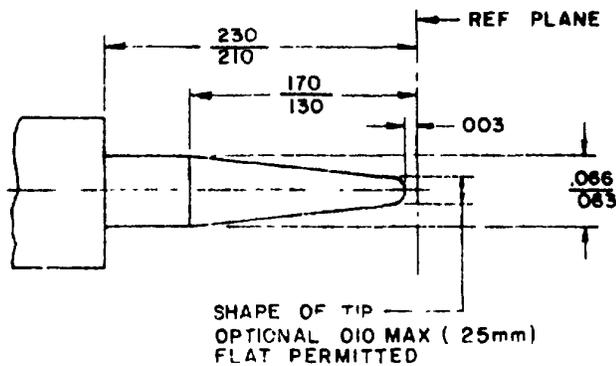
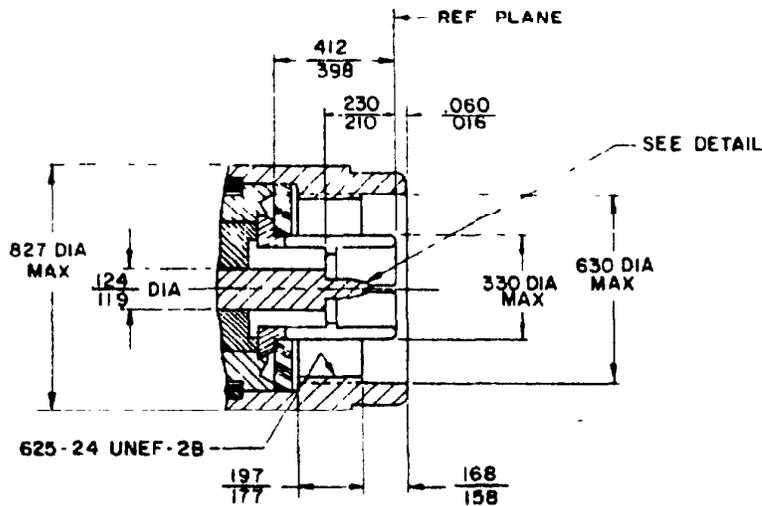


Reference	Series	Contact	Figure
A & B	N	Pin	2

NOTES:

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



DETAIL

INCHES	MM	INCHES	MM	INCHES	MM
.003	.08	.130	3.30	.230	5.84
.016	.41	.158	4.01	.330	8.38
.060	1.52	.168	4.27	.398	10.11
.063	1.60	.170	4.32	.412	10.46
.066	1.68	.177	4.50	.625	15.88
.119	3.02	.197	5.00	.630	16.00
.124	3.15	.210	5.33	.827	21.01

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.

## 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 and 2.

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): Not applicable.

## 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: 1.30, max at .5 to 9 GHz.

RF leakage (total): -90 dB, min, 2 to 3 GHz.

RF insertion loss: .15 dB, max, 9 GHz  
(.050  $\sqrt{F}$  (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).

MIL-A-55339/5

Contact resistance (milliohms, max):

Contact	Initial	After
Center	1.5	2.0
Outer	0.3	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 - 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. M55339/05-00057.

TABLE I. Cross reference of part numbers.

Part number	Superseded part number or type designation <u>1/</u>
M55339/05-00057	MS15507 UG-57B/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 M55339/05-00057 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 5935-1918-3)

**INSTRUCTIONS:** In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (*DO NOT STAPLE*), and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered

**NOTE:** This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

---

(Fold along this line)

---

(Fold along this line)

---

DEPARTMENT OF THE ARMY



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

---

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE \$300

**BUSINESS REPLY MAIL**  
FIRST CLASS PERMIT NO 12062 WASHINGTON D C  
POSTAGE WILL BE PAID BY THE DEPARTMENT OF THE ARMY

Commander  
US Army Communications - Electronics Command  
ATTN: DRSEL-ED-TO  
Fort Monmouth, NJ 07703



**STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL**

*(See Instructions - Reverse Side)*

1. DOCUMENT NUMBER

2. DOCUMENT TITLE

3a. NAME OF SUBMITTING ORGANIZATION

4. TYPE OF ORGANIZATION (Mark one)

VENDOR

USER

MANUFACTURER

OTHER (Specify) \_\_\_\_\_

b. ADDRESS (Street, City, State, ZIP Code)

5. PROBLEM AREAS

a. Paragraph Number and Wording

b. Recommended Wording

c. Reason/Rationale for Recommendation

6. REMARKS

7a. NAME OF SUBMITTER (Last, First, MI) - Optional

b. WORK TELEPHONE NUMBER (Include Area Code) - Optional

c. MAILING ADDRESS (Street, City, State, ZIP Code) - Optional

8. DATE OF SUBMISSION (YYMMDD)