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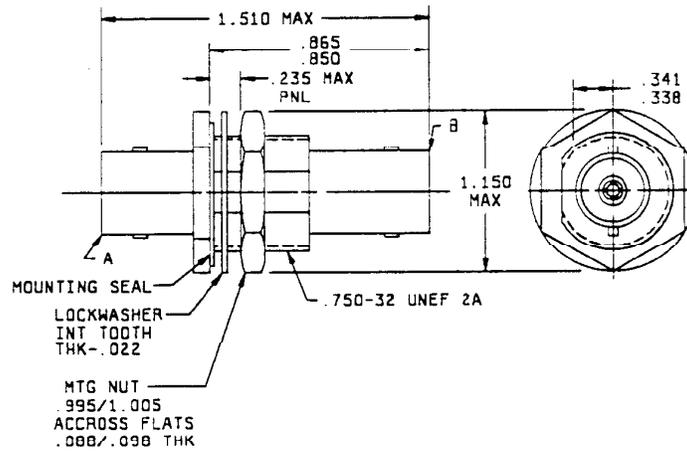
MIL-PRF-55339/12  
6 May 1975  
SUPERSEDING  
MS90554  
2 December 1966

PERFORMANCE SPECIFICATION

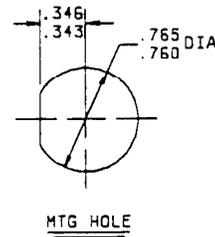
ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY,  
(WITHIN SERIES C (HERMETIC)), CLASS 2, STRAIGHT RECEPTACLE

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.



INCHES	MM	INCHES	MM
.022	.56	.760	19.30
.088	2.24	.765	19.43
.098	2.49	.850	21.59
.235	5.97	.865	21.97
.338	8.59	.995	25.27
.341	8.66	1.005	25.53
.343	8.71	1.150	29.21
.346	8.79	1.510	38.35
.750	19.05		

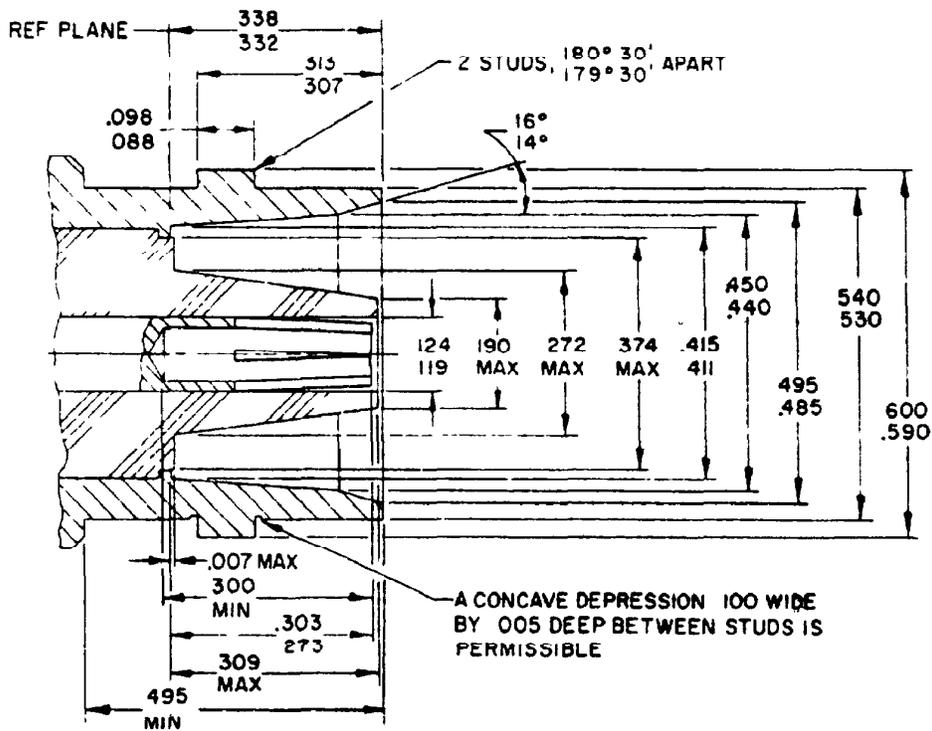


Reference	Series	Contact	Figure
A & B	C	Socket	2

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	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.
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 2. Mating dimensions for socket 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):**

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: Not applicable.

Permeability: <2.0.

Seal: Hermetic -  $1 \times 10^{-7}$  atm cc/sec (center contact to body).

Pressurized - Not applicable.

Weatherproof - 39 psi (mounting seal).

Insulation resistance: 5,000 megohms, min.

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

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

RF insertion loss: .25 dB, max, 6 GHz  
(.102  $\sqrt{F}$  (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	2.0	2.5
Outer	0.3	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: Not applicable.

MARKING: As specified in MIL-A-55339.  
Part No. M55339/12-01138.

TABLE I. Cross reference of part numbers.

Part number	Superseded part number or type designation <u>1/</u>
M55339/12-01138	MS90554 MS90266 REB49272 UG-701A/U UG-1138A/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 M55339/12-01138 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 5935-1918-10)

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U.S. Army Electronics Command  
Fort Monmouth, New Jersey 07703

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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-55339/12 ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, (WITHIN SERIES C(HERMETIC)), CLASS 2, STRAIGHT RECEPTACLE

**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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1 JAN 66

REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED

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