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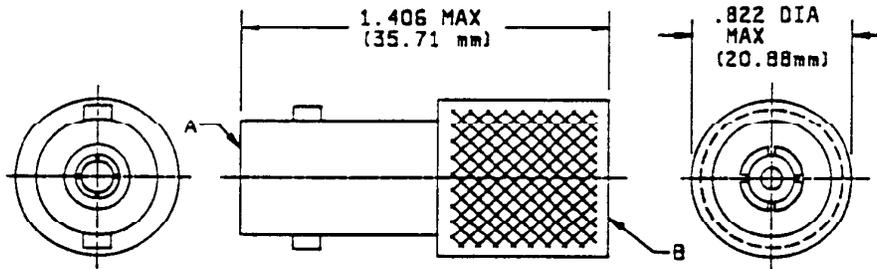
MIL-PRF-55339/21
 6 May 1975
 SUPERSEDING
 MIL-A-27434/1
 10 May 1960

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY,
 (BETWEEN SERIES C TO 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 adapters described herein shall consist of this specification and the latest issue of Specification MIL-PRF-55339.

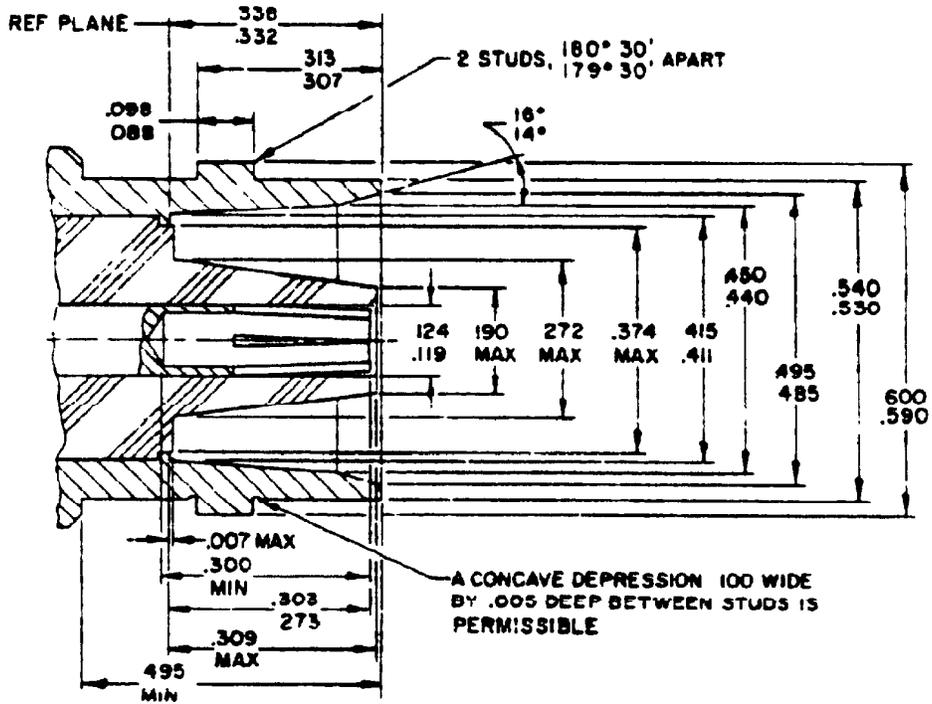


Reference	Series	Contact	Figure
A	C	Socket	2
B	N	Pin	3

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.

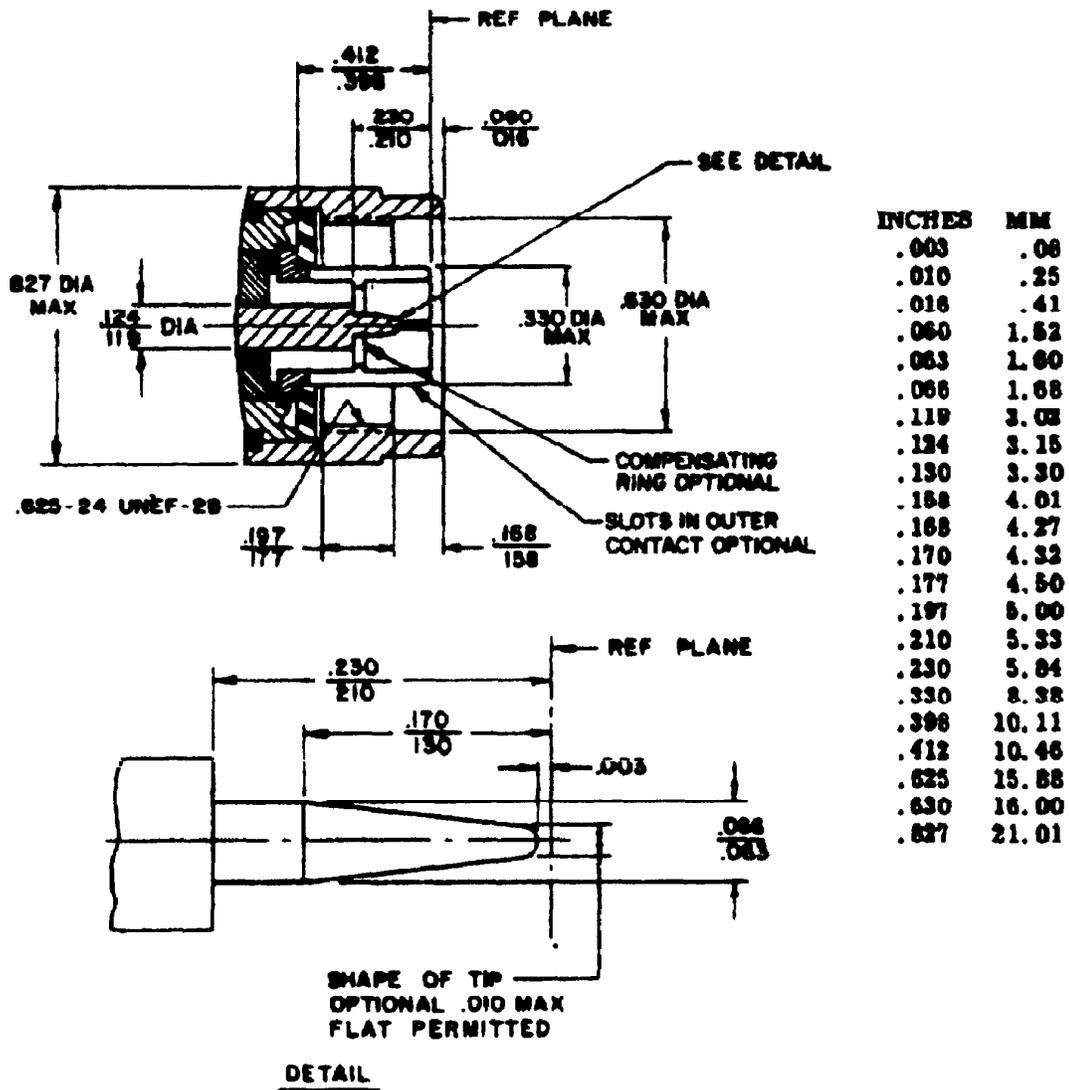


INCHES	MM	INCHES	MM	INCHES	MM
.005	.13	.273	6.93	.411	10.44
.007	.18	.300	7.62	.415	10.54
.088	2.24	.303	7.70	.440	11.18
.098	2.49	.307	7.80	.450	11.43
.100	2.54	.309	7.85	.485	12.32
.119	3.02	.313	7.95	.495	12.57
.124	3.15	.332	8.43	.530	13.46
.190	4.83	.338	8.59	.540	13.72
.272	6.91	.374	9.50	.590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



NOTES:

1. Dimensions are in inches.
2. Three holes .027 (.69 mm) minimum diameter, equally spaced, are required for safety wiring after mating. Location on coupling nut optional.
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.
5. Outer contact shall have a minimum of four slots.

FIGURE 3. Mating dimensions for N pin contact terminations

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DESIGN AND CONSTRUCTION:

General configuration: See figure 1.

Impedance: 50 ohms, nom.

Working voltage: See 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, series N).

Dimensions: See figures 1, 2, and 3.

	<u>Series C</u>	<u>Series N</u>
Center contact retention:		
Axial force (lb, min) - - - - -	6	6
Torque (in. oz, min) - - - - -	N/A	N/A
Force to engage and disengage:	<u>Series C</u>	<u>Series N</u>
Longitudinal force (lb, max) - - -	4.5	3.0
Torque (in. lb, max) - - - - -	4.0	6.0

Coupling proof torque: 15 in. lb, min, series N.

Mating characteristics, series C:

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), series C:

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), series C:

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

Pin finish - 16 microinches.

Withdrawal force - 2 oz, min.

No. of withdrawals - 1.

Outer contact, series N:

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 11 GHz.

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

RF insertion loss: .2 dB, max, 9 GHz
 (.05 \sqrt{f} (GHz) dB max tested at 3 to 6 GHz).

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

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

Contact resistance (milliohms, max):

Contact	Initial	After
Center	1.5	2.0
Outer	2.0	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, series N.

MARKING: As specified in NIL-A-55339.
 Part No. M55339/21-00564.

TABLE I. Cross reference of part numbers.

Part number	Superseded part number or type designation <u>1/</u>
M55339/21-00564	M535321 RRB49247 UC-564/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 M55339/21-00564 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 5935-1918-19)

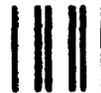
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