

MILITARY SPECIFICATION SHEET

CONNECTOR ADAPTER, CLASS I

(COAXIAL, SERIES TWIN), TYPE UG-493A/U

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-C-3655.

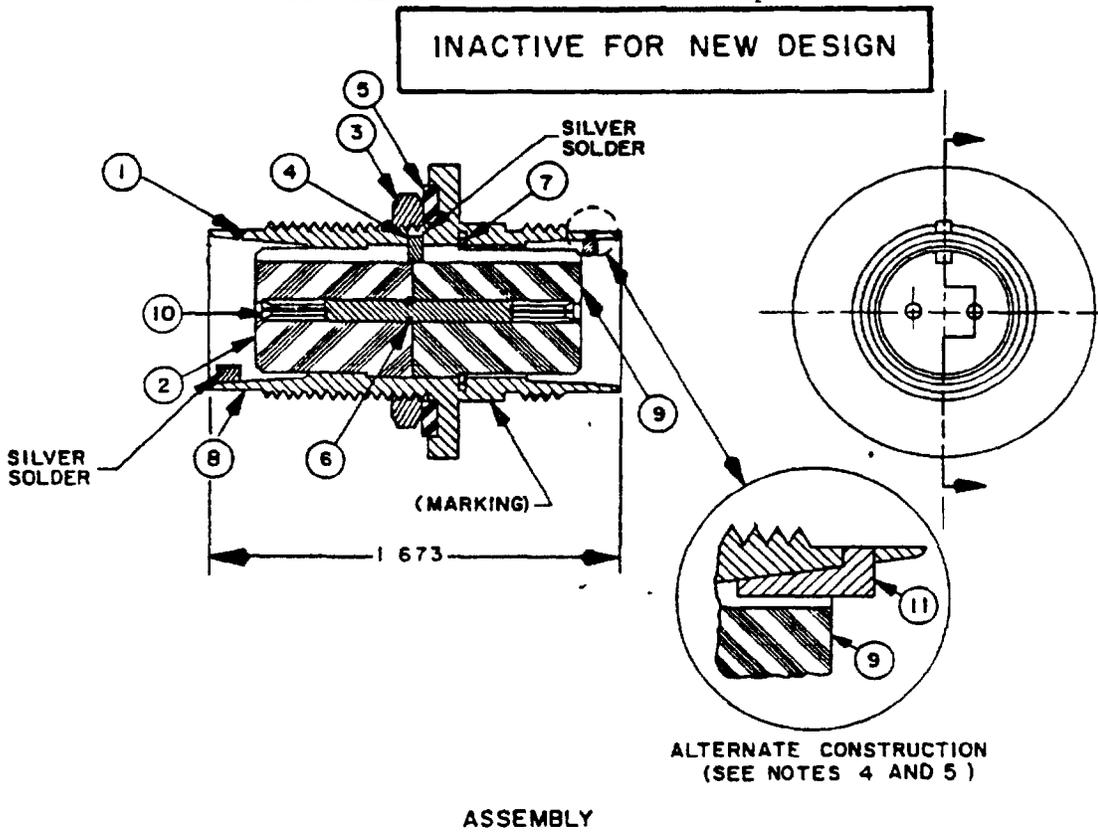


FIGURE 1. Type UG-493A/U connector adapter.

ⓑ denotes changes

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Item	Description	Material	Quantity
1	Body	Brass	1
2	Insulator	Plastic	1
3	Nut	Brass	1
4	Pin	Brass	1
5	Gasket	Silicone rubber	1
6	Ring	Phosphor bronze	2
7	Spring	Phosphor bronze	1
8	Pin	Copper beryllium	2
9	Insulator	Plastic	1
10	Center contact	Copper beryllium	2
11	Pin	Brass	1

INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
.0005	.013	.030	.76	.090	2.29	.388	9.86	.687	17.45
.001	.03	.031	.79	.092	2.34	.475	12.06	.750	19.05
.002	.05	.032	.81	.093	2.36	.533	13.54	.835	21.21
.003	.08	.040	1.02	.095	2.41	.535	13.59	.881	22.38
.004	.10	.045	1.14	.105	2.67	.562	14.27	1.000	25.40
.005	.13	.055	1.40	.112	2.84	.565	14.35	1.125	28.58
.0075	.190	.059	1.50	.125	3.18	.590	14.99	1.130	28.70
.0095	.241	.060	1.52	.187	4.75	.615	15.62	1.250	31.75
.012	.30	.061	1.55	.218	5.54	.620	15.75	1.308	33.22
.015	.38	.062	1.57	.250	6.35	.648	16.46	1.673	42.49
.020	.51	.0625	1.588	.280	7.11	.654	16.61		
.022	.56	.063	1.60	.341	8.66	.671	17.04		
.025	.64	.070	1.78	.375	9.52	.675	17.14		

NOTES

- 1 Dimensions are in inches
- 2 Metric equivalents are given for general information only and are based upon 1 00 inch = 25.4 mm.
- 3 Unless otherwise specified, tolerance is $\pm .005$ (.13 mm)
- 4 Protruding length of item 8 shall be flush with outside surface of item 1.
5. Item 4 is not used with alternate construction.
6. Polarizing key position on one end must be located 180° from polarizing key on opposite end.

(B)

FIGURE 1. Type UG-493A/U connector adapter - Continued

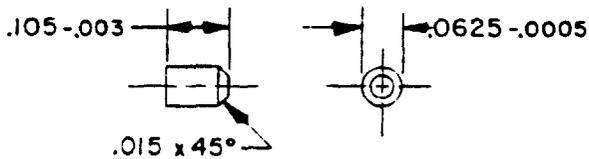
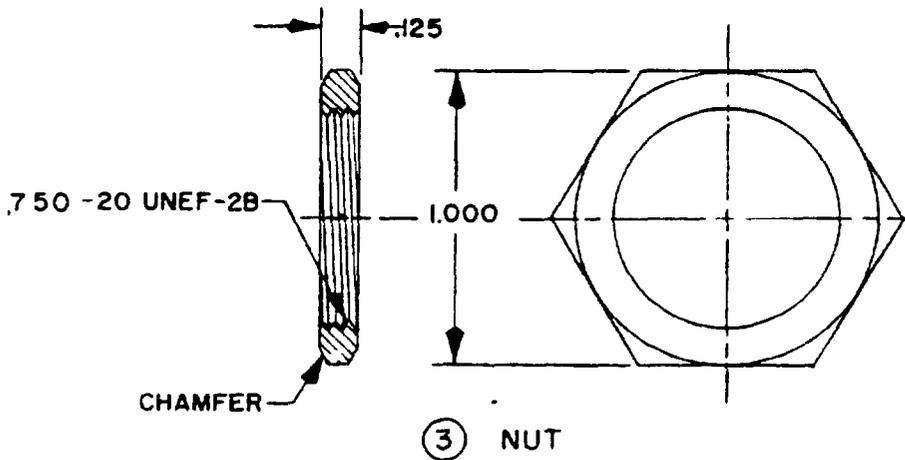
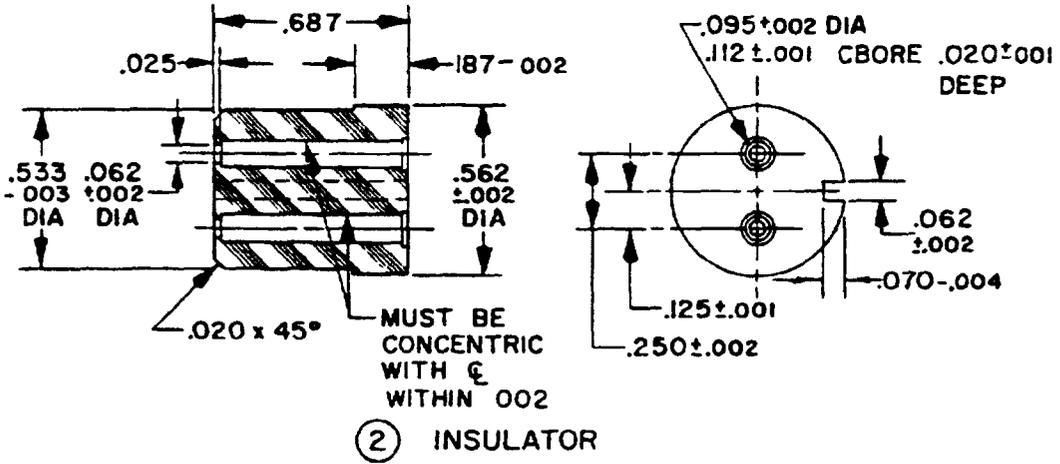
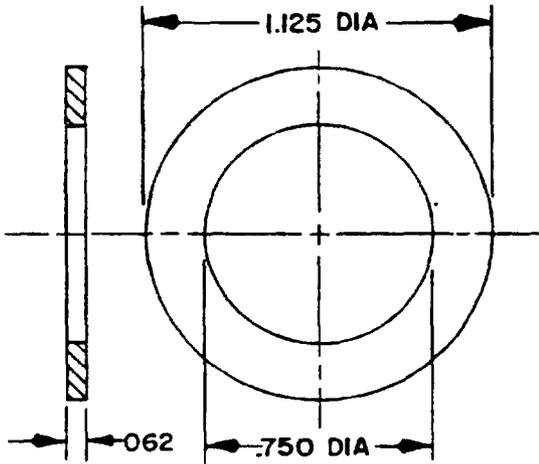
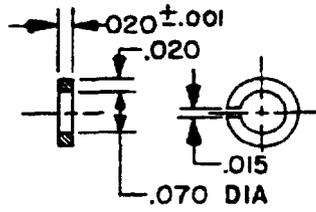


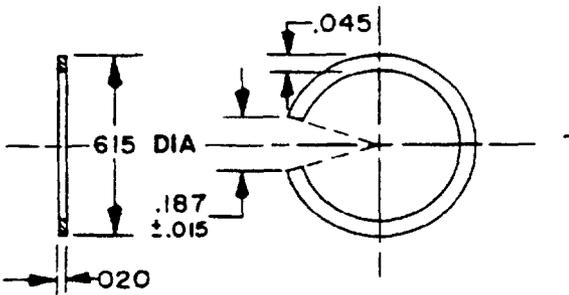
FIGURE 1. Type UG-493A/U connector adapter - Continued.



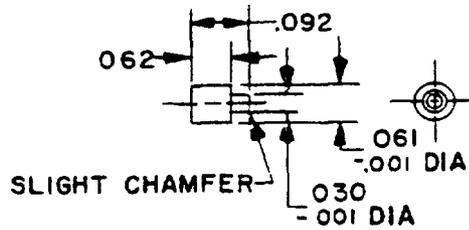
⑤ GASKET



⑥ RING

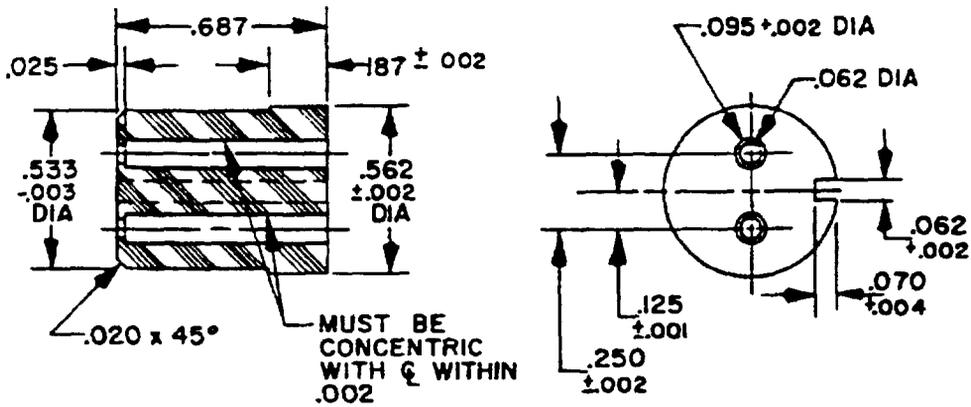


⑦ SPRING

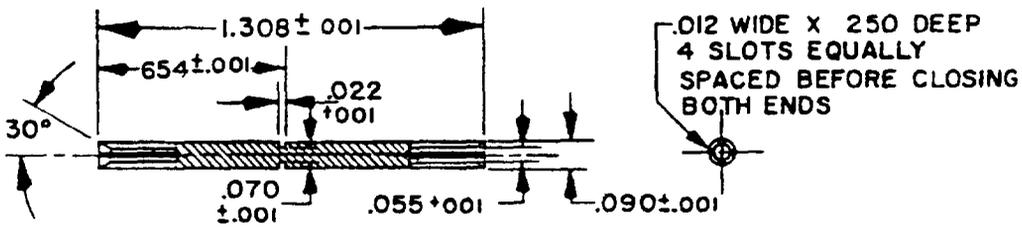


⑧ PIN

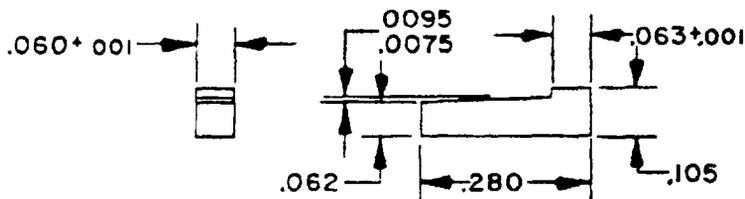
FIGURE 1. Type UG-493A/U connector adapter - Continued.



⑨ INSULATOR

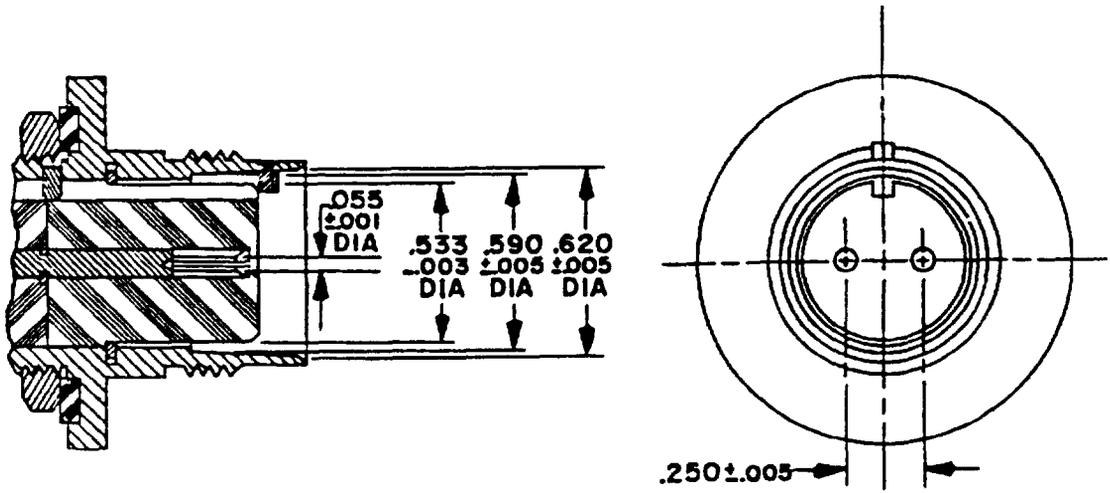


⑩ CENTER CONTACT



⑪ PIN

FIGURE 1. Type UG-493A/U connector adapter - Continued.



INCHES	MM	INCHES	MM
.001	.03	.250	6.35
.003	.08	.533	13.54
.005	.13	.570	14.48
.055	1.40	.620	15.75

NOTES

1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1.00 inch = 25.4 mm

FIGURE 2 Visual mating requirements

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⑧ ENGINEERING DATA.

Nominal impedance. 95 ohms.
 Frequency range DC to 500 MHz, maximum
 Voltage rating 500 volts peak at sea level.
 Mating connector M3655/1-0421.

⑧ REQUIREMENTS

Design and construction: See figures 1 and 2.
 Metal parts All metal parts shall have silver plating of not less than 0.0002 inch thickness and of sufficient smoothness and density to withstand the salt spray (corrosion) test. Silver plating shall be in accordance with QQ-S-365

Force to engage/disengage:
 Torque: Not applicable.
 Longitudinal force: Not applicable.

Coupling proof torque Not applicable.

Mating characteristics (see figures 1 and 2 for dimensions):

Center contact
 Oversize test pin 0.062 inch diameter, minimum (nonclosed entry contact only).
 Test pin finish 16 microinches.
 Insertion depth .093 inch, minimum.
 Number of insertions One.

Insertion force test
 Steel test pin diameter 0.062 inch, minimum.
 Test pin finish 16 microinches.
 Insertion depth .125 inch, minimum.
 Insertion force 2 pounds, maximum.

Withdrawal force test
 Steel test pin diameter: .052 inch, maximum
 Test pin finish 16 microinches.
 Insertion depth .125 inch, minimum.
 Withdrawal force 2 ounces, minimum.

Permeability Applicable

Hermetic seal Not applicable

Leakage Not applicable.

Insulation resistance 5×10^9 ohms, minimum.

Contact insulator captivation Not applicable.

Salt spray (corrosion) Applicable.

Connector durability Applicable.

Contact resistance (millionms, maximum)

	<u>Initial</u>	<u>After environment</u>
Inner conductor contacts	2.67	3.50
Outer conductor contacts	34	Not applicable
Braid to body	20	Not applicable

Dielectric withstanding voltage 1,500 Vrms, minimum, at sea level.

Vibration, high frequency: Applicable.

Shock (specified pulse): Not applicable.

Temperature cycling. Applicable.

Humidity Applicable, but no measurement shall be made at high humidity
Insulation resistance shall be at least 2×10^8 ohms within 5 minutes
after removal from the humidity chamber.

Cable retention force: Not applicable.

Coupling nut retention: Not applicable.

Marking: In accordance with MIL-C-3655.
Part number: M3655/4-0493.

Qualification: Not required.

Custodians.

Army - CR
Navy - EC
Air Force - 85

Preparing activity:
Army - CR

Agent:
DLA - ES

Review activities:

Army - MI
Navy - OS
Air Force - 11, 17, 99
DLA - ES

(Project 5935-3086-4)

User activities

Army - AT
Navy - AS, MC, SH
Air Force - 19

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DOCUMENT IDENTIFIER (Number) AND TITLE

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