

MILITARY SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL  
RADIOFREQUENCY, BETWEEN SERIES,  
TYPE UG-691/U

*This specification has been approved by the Department of Defense and is mandatory for use by the Departments of the Army, the Navy, and the Air Force*

1. SCOPE

1.1 This specification covers the detail requirements for type UG-691/U, between series (series BNC to series SM), radiofrequency, coaxial connector adapter

2. APPLICABLE DOCUMENTS

2.1 The following documents, of the issue in effect on date of invitation for bids, form a part of this specification to the extent specified herein

SPECIFICATION

MILITARY

MIL-A-27434 — Adapters, Connector, Coaxial, Radiofrequency Between Series, General Specification for

STANDARD

MILITARY

MS90134 — Gaskets, Part of RF Coaxial Connectors

DRAWINGS

SIGNAL CORPS

SC-C-72209 — Contact Assembly  
SC-B-72212 — Sleeve  
SC-C-72302 — Body  
SC-B-72303 — Insulator

(Copies of specifications, standards, and drawings, required by contractors in connection with specific procurement functions, should be obtained from the procuring agency or as directed by the contracting officer.)

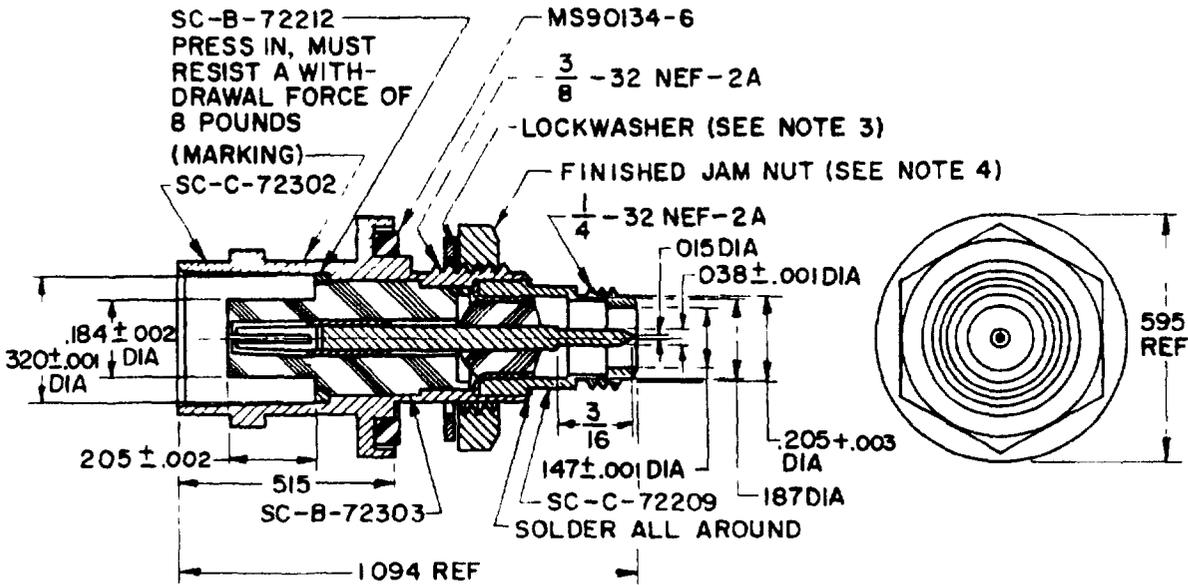
3. REQUIREMENTS

3.1 **Requirements.** Requirements shall be in accordance with Specification MIL-A-27434, and as specified herein

3.2 **Design and construction.** The connector adapter shall be of the design, construction, and physical dimensions specified on figure 1

3.3 **Leakage.** When the connector adapter is tested as specified in 4111, there shall be no evidence of loss of pressure as detected by escaping air bubbles

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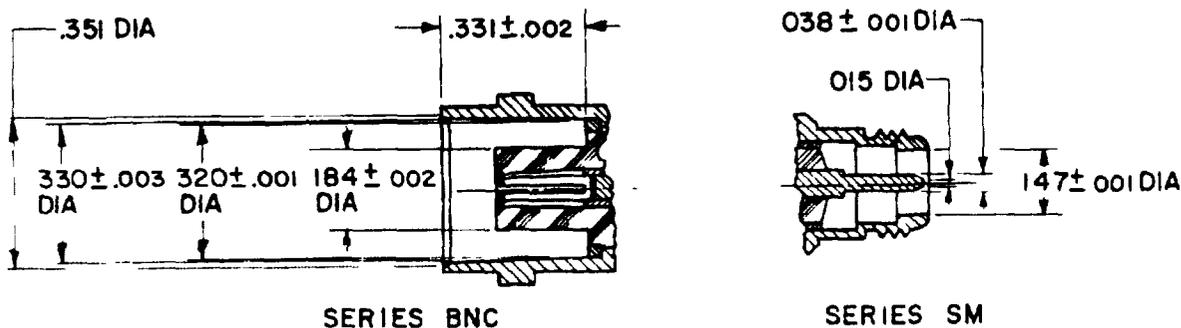
- 1 All dimensions in inches
- 2 Unless otherwise specified, tolerances are  $\pm 1/64$  on fractions and  $\pm 0.005$  on decimals
- 3 The lockwasher shall have the following characteristics: externally toothed, phosphor bronze silver plated, 0.398 maximum and 0.384 minimum inside diameter, 0.694 maximum and 0.670 minimum outside diameter
- 4 The finished jam nut shall have the following characteristics:  $3/8$ -32 NEF-2B, brass, 0.551 minimum across flats,  $3/32$  thick

FIGURE 1 Type U G-691/U connector adapter

#### 4. QUALITY ASSURANCE PROVISIONS

**4.1 Sampling and inspection.** Sampling and inspection shall be in accordance with Specification MIL-A-27434, and as specified herein

**4.1.1 Group B inspection** Group B inspection shall be in accordance with Specification MIL-A-27434 and 4.1.1.1 Mating dimensions shall be as specified in figure 2



- 1 All dimensions in inches
- 2 Unless otherwise specified, tolerances are  $\pm 0.005$  on decimals

FIGURE 2 Dimensional requirements for group B inspection

**4.1.1.1 Leakage** The connector adapter shall be subjected to a gage pressure of 50 pounds per square inch applied to one end, and the whole connector adapter immersed in water at approximately 20°C. The connector adapter shall remain immersed in water for at least 20 seconds (see 3.3)

**4.2. Dielectric withstanding voltage.** The test voltage shall be 100 volts root mean square, instantaneously applied

## 5. PREPARATION FOR DELIVERY

**5.1** Preparation for delivery shall be in accordance with Specification MIL-A-27434

## 6. NOTES

**6.1 Notes.** In addition to the notes specified

herein, the notes specified in Specification MIL-A-27434 are applicable to this specification

**6.2** This specification covers the design of type UG-691/U connector adapter which was previously covered by MS military standard MS35114 (SigC)

**Notice.** When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever, and the fact that the Government may have formulated, furnished or in any way supplied the said drawings, specifications or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto

### Custodians:

Army—Signal Corps  
Navy—Bureau of Ships  
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### Preparing activity:

Army—Signal Corps