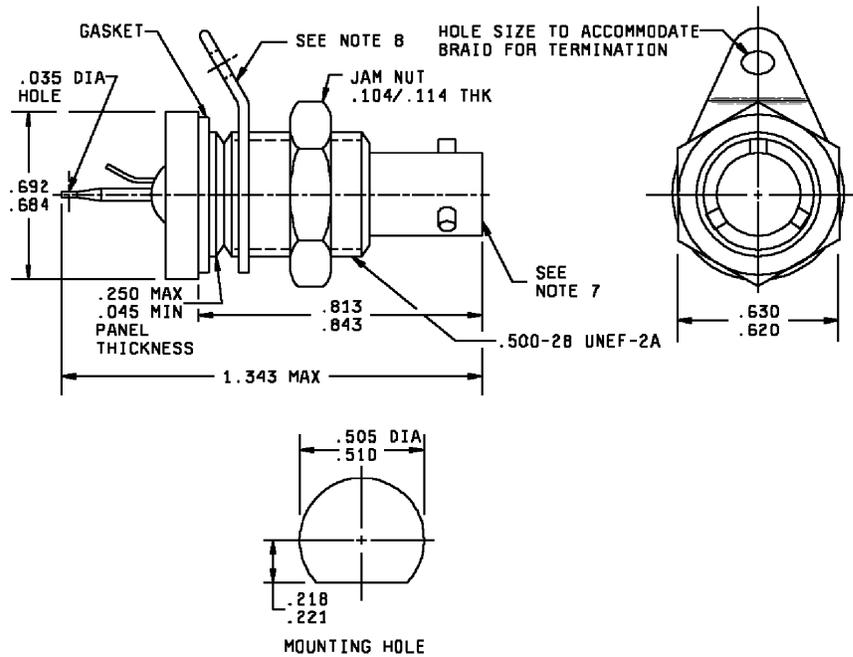


PERFORMANCE SPECIFICATION SHEET

CONNECTORS, RECEPTACLE, ELECTRICAL, TRIAXIAL,  
 RADIO FREQUENCY, UNCABLED, (SERIES TRB, SOCKET CONTACT,  
 JAMNUT MOUNTED, CLASS 2) HERMETIC AND NONHERMETIC

This specification is approved for use by all Departments  
 and Agencies of the Department of Defense.



Inches	mm	Inches	mm
.022	.56	.505	12.71
.035	.88	.510	12.95
.045	1.14	.620	15.75
.104	2.64	.630	16.00
.114	2.90	.684	17.37
.218	5.54	.692	17.58
.221	5.61	.813	20.65
.250	6.35	.843	21.41
.500	12.70	1.343	34.11

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Wrench flats are to accommodate standard wrench openings in accordance with H-28, appendix 10.
4. All undimensioned pictorial representations are for reference purposed only.
5. Panel thickness, .045 (1.14 mm) minimum, .250 (6.35 mm) maximum.
6. Unless otherwise specified, all tolerances are ±.005 inch (0.13 mm).
7. Interface as specified in MIL-STD-348, series TRB, socket contact.
8. Other dash numbers-\*\*\*6 and -\*\*\*7 are supplied with braid termination lock washer rings. All previous dash numbers are supplied with standard lock washers (internal tooth .630 max d. x .022 thick).

FIGURE 1. General configuration.

MIL-PRF-49142/4G

ENGINEERING DATA:

Nominal impedance: Nonconstant.

Frequency range: 0 to 500 MHz minimum.

Voltage rating: 400 V rms maximum working voltage at sea level. 100 V rms maximum working voltage at 70,000 feet.

Temperature range: -65°C to +165°C.

REQUIREMENTS:

Dimensions and configuration: See figure 1 and MIL-STD-348.

Force to engage and disengage:

Longitudinal force: 4 pounds maximum.

Torque: 2.5 inch-pounds maximum.

Coupling proof torque: Not applicable.

Mating characteristics: See figure 1 and MIL-STD-348 for dimensions.

Center contact (socket):

Oversize test pin: .040 inch diameter minimum (nonclosed entry contacts only).

Insertion depth: .125 inch minimum.

Number of insertions: 1

Insertion force test:

Steel test pin finish: 16 microinches.

Insertion depth: 2 pounds, maximum.

Steel test pin diameter: .039 minimum +.001 inch.

Withdrawal force test:

Steel test pin diameter: .037 maximum-.001 inch.

Withdrawal force: 2 ounces minimum.

Test pin finish: 16 microinches.

Permeability: Applicable.

Hermetic seal: See table I.

Leakage: Connector shall be mounted in mounting hole shown on figure 1 with mating end capped.

Air pressure: 30lbf/in/in.

Insulation resistance: 5,000 megohms.

Conductor retention: 6 pounds, minimum, axial force.

Dielectric withstanding voltage: At sea level, 1,200 V rms, between center conductor and intermediate conductor. 500 V rms, between intermediate conductor and outer conductor.

Corrosion (salt spray): Applicable.

Vibration: Applicable.

Shock: Applicable.

Thermal shock: Applicable.

Moisture resistance: Applicable.

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Conductor resistance: In milliohms, maximum.

	<u>Connector dash number</u>	<u>Initial</u>	<u>After environment</u>
Center conductor:	All non-hermetic connectors	2.0	2.5
	All hermetic connectors	12.0	12.5
Intermediate conductor	All non-hermetic connectors	0.5	0.6
	All hermetic connectors	1.0	1.5
Outer conductor	All non-hermetic connectors	0.5	0.6
	All hermetic connectors	0.5	0.6

Corona level:

Altitude: 70,000 feet.

Voltage: 200 V rms, minimum.

RF high potential withstanding voltage:

800 V rms, between center conductor and intermediate conductor.

200 V rms, between intermediate conductor and outer conductor at 5 to 7.5 MHz.

Leakage current: Not applicable.

Cable retention: Not applicable.

Coupling mechanism: Not applicable.

Rise time degradation: Not applicable.

Connector durability: 500 cycles minimum at 12 cycles per minute, maximum.

Part or Identifying Number (PIN): M49142/04- (dash number from table I).

Not for Naval Air Systems Command (AS) use.

Retention of qualification: See table II.

TABLE I. Cross reference of PIN.

Dash number	Superseding PIN
-0004 <u>1/</u> -0006 <u>1/ 2/</u> -0104, -0106 <u>2/</u> -0204, -0206 <u>2/</u> -3004, -3006 <u>2/</u> -3104, -3106 <u>2/</u> -3204, -3206 <u>2/</u>	M49142/04-0001, -0002  Non-hermetic
-0005 <u>1/</u> -0007 <u>1/ 2/</u> -0105, -0107 <u>2/</u> -0205, -0207 <u>2/</u> -3005, -3007 <u>2/</u> -3105, -3107 <u>2/</u> -3205, -3207 <u>2/</u>	M49142/04-0003  Hermetic

1/ Preferred keying.

2/ These connectors supplied with braid termination lock washer rings.

TABLE II. Retention of qualification.

Subgroup	/3 & /8		/4 & /10	/5 & /9		/6 & /11	
1	/3-0008	---	/4-0004	---	---	---	---
2	/3-0008	/8-0006	/4-0004	---	---	---	/11-0006
3	/3-0008	/8-0006	---	---	---	---	---
4	/3-0008	/8-0006	---	---	---	/6-0007	/11-0006
5	/3-0008	---	/4-0004	---	---	---	---
Units	15	9	9	0	0	3	6

NOTE: Revision letters are not used to denote changes due to the extensiveness of the changes.

CONCLUDING MATERIAL

Custodians:

Army - CR  
 Navy - EC  
 Air Force - 11  
 NASA - NA  
 DLA - CC

Preparing activity:

DLA - CC  
 (Project 5935-4550-001)

Review activities:

Army - AR, AT, MI  
 Navy - AS, MC, OS, SH  
 Air Force - 19, 99