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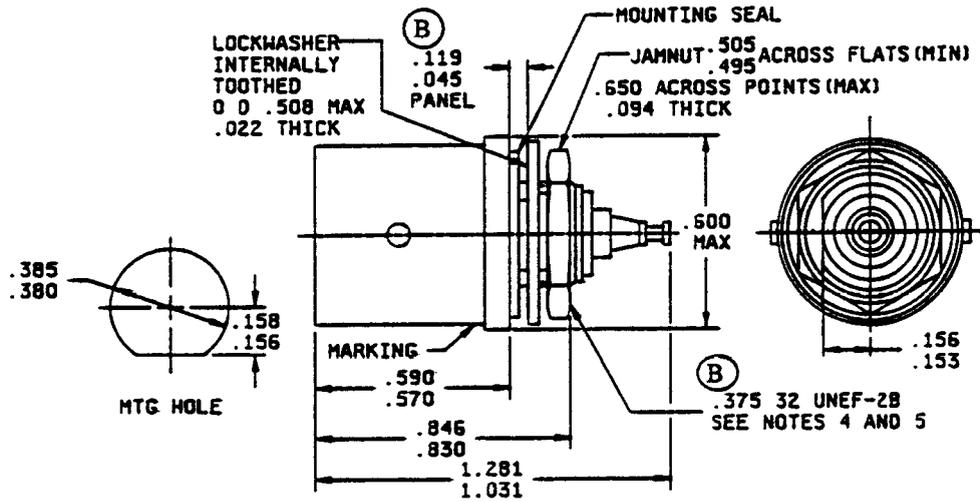
MIL-PRF-39012/13B
 18 September 1977
 SUPERSEDING
 MIL-C-39012/13A
 26 March 1971

PERFORMANCE SPECIFICATION SHEET

CONNECTORS, COAXIAL, RADIO FREQUENCY, SERIES C (UNCABLED-RECEPTACLE, FEMALE, JAM NUT MOUNTED, FRONT MOUNTED, PRESSURIZED, CLASS 2)

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

The complete requirements for procuring the connectors described herein shall consist of this document and the latest issue of Specification MIL-PRF-39012.



INCHES	MM	INCHES	MM	INCHES	MM
.022	.56	.375	9.52	.590	14.99
.045	1.14	.380	9.65	.600	15.24
.094	2.39	.385	9.78	.650	16.51
.119	3.02	.495	12.57	.830	21.08
.153	3.89	.505	12.83	.846	21.49
.156	3.96	.508	12.90	1.231	31.27
.158	4.01	.570	14.48	1.281	32.54

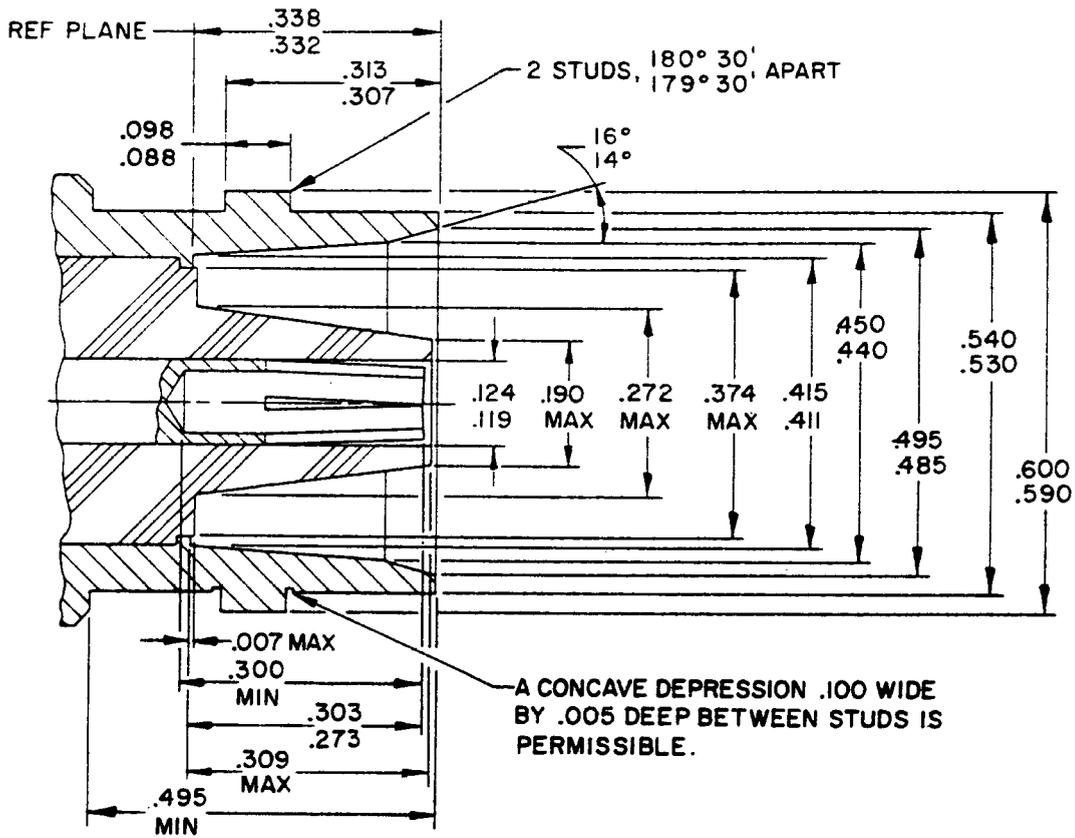
NOTES:

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. All undimensioned pictorial configurations are for reference purposes only.
4. Full threads to within .063 (1.60 mm) of shoulder; 1 1/2 maximum uneven threads to shoulder.
5. Orientation of bayonet studs and mounting flats shall be within 3° of that shown.

(B)
(B)

FIGURE 1. General configuration.

(B) denotes changes



INCHES	MM	INCHES	MM
.005	.13	.313	7.95
.007	.18	.332	8.43
.088	2.24	.338	8.59
.098	2.49	.374	9.50
.100	2.54	.411	10.44
.119	3.02	.415	10.54
.124	3.15	.440	11.18
.190	4.83	.450	11.43
.272	6.91	.485	12.32
.273	6.93	.495	12.57
.300	7.62	.530	13.46
.303	7.70	.540	13.72
.307	7.80	.590	14.99
.309	7.85	.600	15.24

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. All undimensioned pictorial configurations are for reference purposes only.

FIGURE 2. Mating dimensions for female terminations.

TABLE I. Group qualification.

Group	Submission and qualification of the following connector	Qualifies the following connector
I	M39012/13-0001	M39012/13-0001

ENGINEERING DATA:

Nominal impedance: 50 ohms.

Frequency range: 0 to 11,000 MHz.

Voltage rating: 1,000 volts rms maximum working voltage at sea level. 250 volts rms maximum at 70,000 feet.

Temperature rating: -65°C to +165°C.

REQUIREMENTS:

Dimensions and configuration: See figure 1.

Force to engage and disengage:

Longitudinal force - 4-1/2 lbs maximum.

Torque - 4 inch pounds maximum.

Coupling proof torque: Not applicable.

Inspection conditions: Coupling torque not applicable.

Mating characteristics:

See figure 2 for dimensions.

Center contact (female):

Oversize test pin - .098 diameter minimum (non-closed entry contacts only).

Insertion depth - .125 minimum.

Number of insertions - 1.

Insertion force test - Steel test pin dia .092 minimum.

Test pin finish - 16 microinches.

Insertion force - 2 lbs maximum.

Withdrawal force test: Steel test pin dia .090 maximum.

(B) Withdrawal force - 2 ounces minimum.

Test pin finish - 16 microinches.

Hermetic seal: Not applicable.

Leakage (pressurized connectors):

Connectors shall be mounted in mounting hole shown on figure 1 with mating end capped. Test applicable to mounting seal only. Air pressure - 30 psi. Duration - 30 seconds minimum, 2 minutes maximum.

Insulation resistance: Method 302, test condition B, MIL-STD-202. 5,000 megohms minimum.

Center contact retention: 6 lbs minimum axial force.

Corrosion (salt spray): Method 101, test condition B, MIL-STD-202.

Voltage standing wave ratio (VSWR): Not applicable.

Swept frequency VSWR test setup: Not applicable.

Connector durability:

500 cycles at 12 cycles/minute maximum.

The connector shall meet mating characteristics and force to engage and disengage requirements.

Contact resistance: In milliohms maximum.

	<u>Initial</u>	<u>After environment</u>
Center contact	1.0	1.5
Outer contact	.15	Not applicable

Dielectric withstanding voltage: Method 301 of MIL-STD-202. 3,000 volts rms at sea level.

Vibration, high frequency: Method 204, test condition B, MIL-STD-202.

Shock: Method 213 of MIL-STD-202, test condition I.

Temperature cycling: Method 102, test condition C, MIL-STD-202, except test high temperature shall be +200°C.

Thermal shock: Not applicable.

Moisture resistance: Method 106 of MIL-STD-202. No measurements at high humidity. Insulation resistance shall be at least 200 megohms within 5 minutes after removal from humidity.

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Corona level:
Altitude - 70,000 feet.
Voltage - 750 volts rms minimum.

Coupling mechanism retention force:
Not applicable.

RF high potential withstanding voltage:
Voltage and frequency - 2,500 volts rms
at 5 to 7.5 MHz.
Leakage current - Not applicable.

RF leakage: Not applicable.

Insertion loss: Not applicable.

Cable retention force: Not applicable.

Part number: M39012/13-0001.

TABLE II. Cross reference of part numbers.

Part number	Substitute for part number or type designation ^{1/}
M39012/13-0001	UG-706/U

^{1/} The superseded part number or the type designation is for cross reference only. The part number M39012/13-~~XXXX~~ shall be used in all cases for marking and identifying the connector.

Custodians:
Army - EL
Navy - EC
Air Force - 85

Preparing activity:
Army - EL

Review activities:
Army - MI, AR, EL
Navy - OS
Air Force - 11, 17, 99
DLA - ES

Agent:
DLA - ES

(Project 5935-3019-8)

User activities:
Army - AT, AV, ME
Navy - AS, MC, SH
Air Force - 19

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