

NOTE: The document identifier and heading has been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

MIL-PRF-39012/77A
 24 September 1986
 SUPERSEDING
 MIL-C-39012/77
 22 June 1971

PERFORMANCE SPECIFICATION

CONNECTORS, RECEPTACLE, ELECTRICAL, COAXIAL, RADIO FREQUENCY, SERIES SMC (UNCABLED, MALE, JAMNUT MOUNTED, CLASS 2)

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

The requirements for acquiring the connectors described herein shall consist of this specification sheet and the latest issue of MIL-PRF-39012.

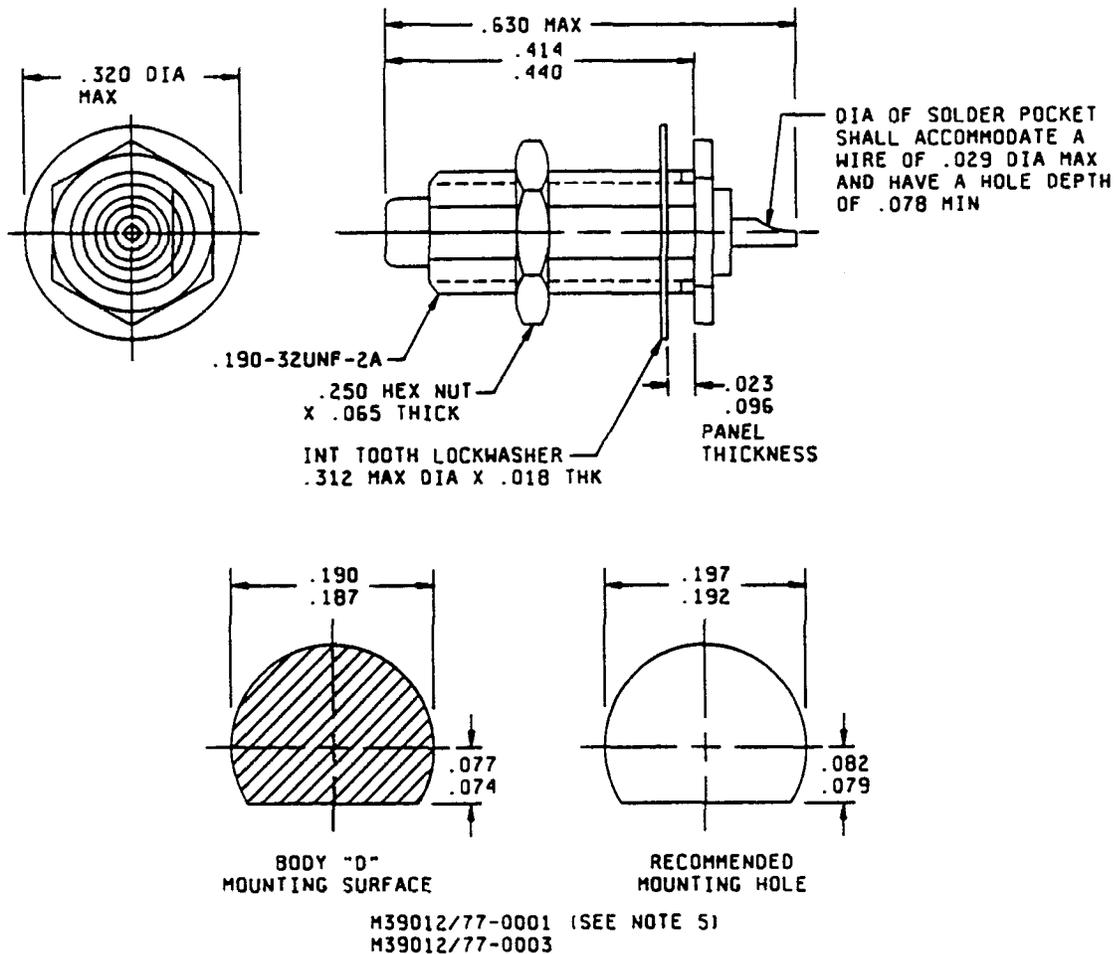
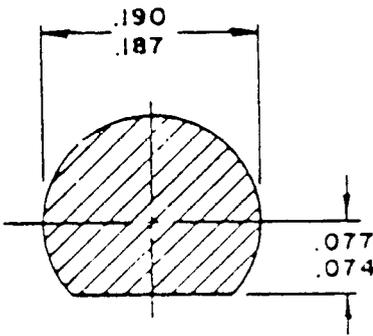
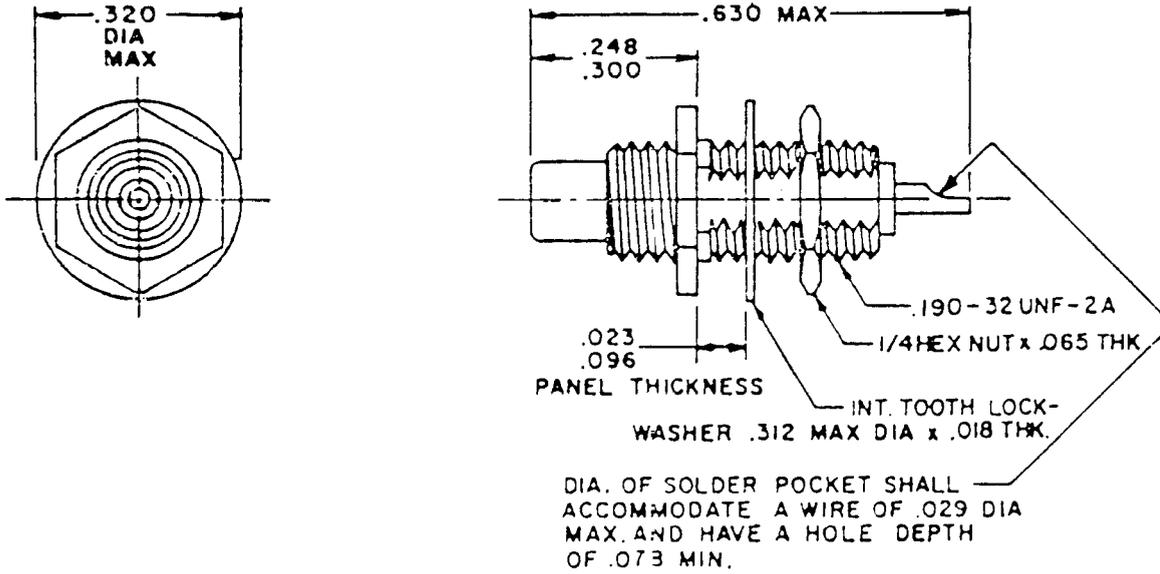
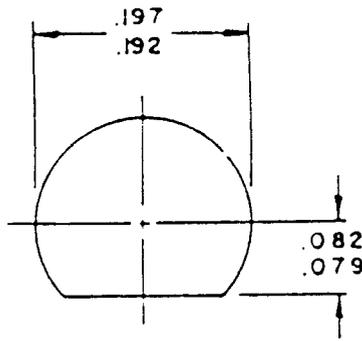


FIGURE 1. General configuration.



BODY "D"
MOUNTING SURFACE



RECOMMENDED
MOUNTING HOLE

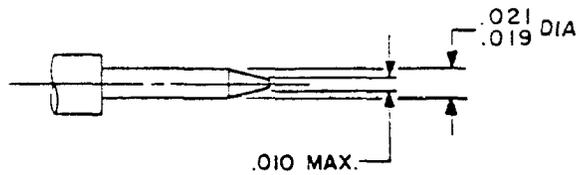
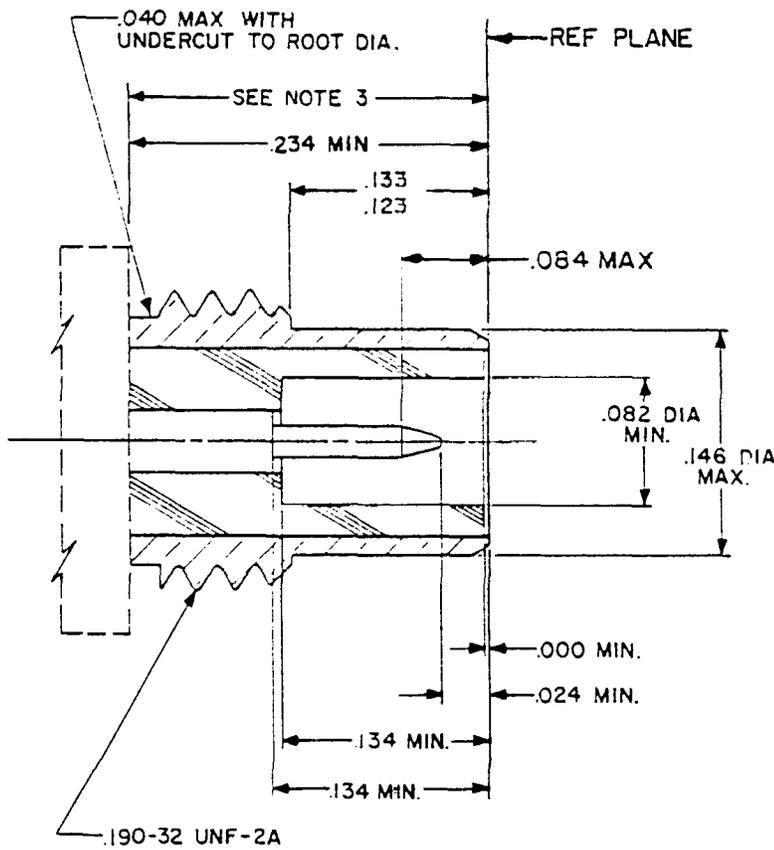
M39012/77-0002 (SEE NOTE 5)
M39012/77-0004

INCHES	MM	INCHES	MM	INCHES	MM
.018	.46	.079	2.01	.248	6.30
.023	.58	.082	2.08	.300	7.62
.029	.74	.096	2.44	.312	7.92
.065	1.65	.187	4.75	.320	8.13
.074	1.88	.190	4.83	.414	10.52
.077	1.96	.192	4.88	.440	11.18
.078	1.98	.197	5.00	.630	16.00

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Wrench flats to accommodate standard wrench per FED-STD-H28, appendix 10.
4. All undimensioned pictorial representations are for reference purposes only.
5. Connector bodies shall be gold-plated per MIL-G-45204, type II, class 1.

FIGURE 1. General configuration - Continued.



INCHES	MM	INCHES	MM
.010	.25	.084	2.13
.019	.48	.123	3.12
.021	.53	.133	3.38
.024	.61	.134	3.40
.040	1.02	.146	3.71
.082	2.08	.234	5.94

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Thread gage must go .234 minimum (5.94 mm) from reference plane.
4. All undimensioned pictorial representations are for reference purposes only.

FIGURE 2. Mating dimensions for male terminations.

ENGINEERING DATA:

Nominal impedance: 50 ohms.
 Frequency range: 0 to 10 GHz.
 Voltage rating: 335 V rms maximum at sea level; 85 V 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: Not applicable.

Torque: 16 inch-ounces maximum.

Coupling proof torque: Not applicable.

Inspection conditions:

Torque: 35 to 50 inch-ounces.

Mating characteristics: See figure 2 for dimensions.

Hermetic seal: Not applicable.

Leakage (pressurized connectors): Not applicable.

Insulation resistance: Method 302, test condition B, MIL-STD-202. 1,000 megohms minimum.

Center contact retention:

Minimum axial force: 6.0 pounds from mating end; 4.0 pounds from opposite end.

Torque: 3 inch-ounces.

Resistance to test prod damage: Not applicable.

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:

Insertion and withdrawal force: 500 cycles minimum at 12 cycles per minute maximum. The connector shall meet the mating characteristics and force to engage and disengage requirements.

Contact resistance: In milliohms maximum:

	<u>Initial</u>	<u>After environment</u>
Center contact:	6.0	8.0
Outer contact:	1.0	Not applicable
Braid to body:	Not applicable	Not applicable

Dielectric withstanding voltage: Method 301 of MIL-STD-202. 1,000 V rms at sea level.

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

Shock (specified pulse): Method 213, test condition C, MIL-STD-202.

Thermal shock: Method 107, test condition B, MIL-STD-202.

Moisture resistance: Not applicable.

Corona level: Not applicable.

RF high potential withstanding voltage:

Voltage and frequency: 600 V rms at 5 MHz.

Leakage current: Not applicable.

Cable retention force: Not applicable.

Coupling mechanism retention force: Not applicable.

RF leakage: Not applicable.

Insertion loss: Not applicable.

Part number: M39012/77- (dash number from table I).

TABLE I. Part number.

Part number 39012/77-
0001
0002
0003
0004

Group qualification: See table II.

Cross-reference of part numbers: See table III.

TABLE II. Group qualification.

Group	Submission and qualification of any of the following connectors	Qualifies the following connectors
I	M39012/77-0001 M39012/77-0002	M39012/77-0001, M39012/77-0003 1/ M39012/77-0002, M39012/77-0004 I/

1/ Corrosion (salt spray) and contact resistance data must be submitted to DESC-EQP before qualification approval may be granted.

TABLE III. Cross-reference of part numbers.

Part number	Superseded type designation <u>1/</u>
M39012/77-0001	UG-1619/U
M39012/77-0002	UG-1464/U

1/ The superseded type designation is for cross-reference only. The part number M39012/77-XXXX shall be used in all cases for marking and identifying the connector.

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

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
DLA - ES

(Project 5935-355j-10)

User activities:

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