

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.

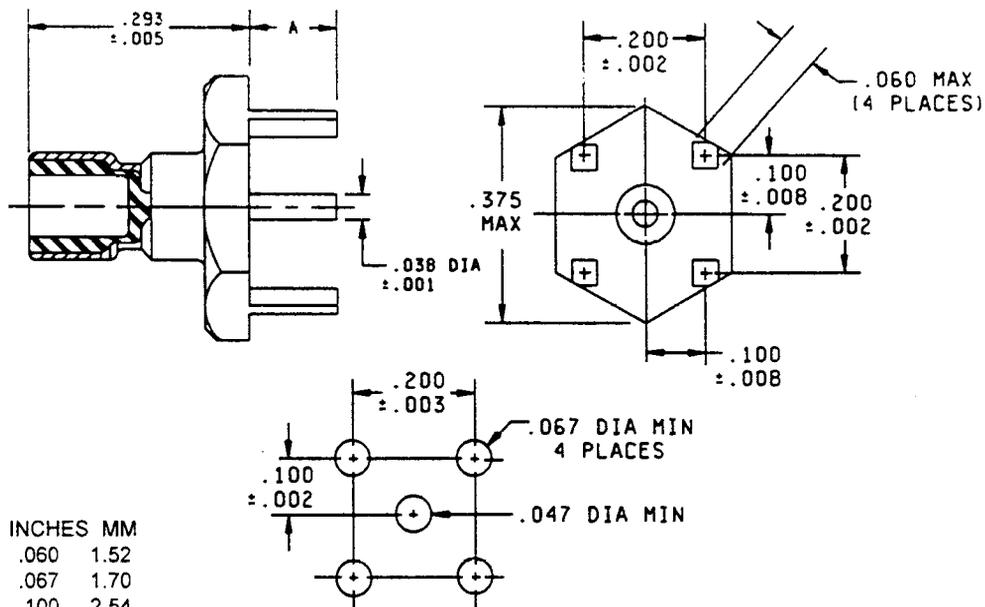
MIL-PRF-39012/95A
 24 September 1986
 SUPERSEDING
 MIL-C-39012/95
 13 June 1977

PERFORMANCE SPECIFICATION

CONNECTORS, RECEPTACLE, ELECTRICAL, COAXIAL, RADIO FREQUENCY, SERIES SMB (UNCABLED, MALE, PRINTED CIRCUIT, 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.



INCHES	MM	INCHES	MM
.001	.02	.060	1.52
.002	.05	.067	1.70
.003	.08	.100	2.54
.005	.13	.200	5.08
.008	.20	.293	7.44
.038	.97	.375	9.52
.047	1.19		

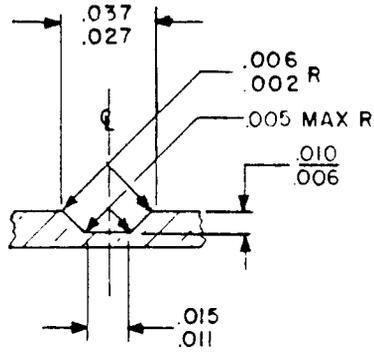
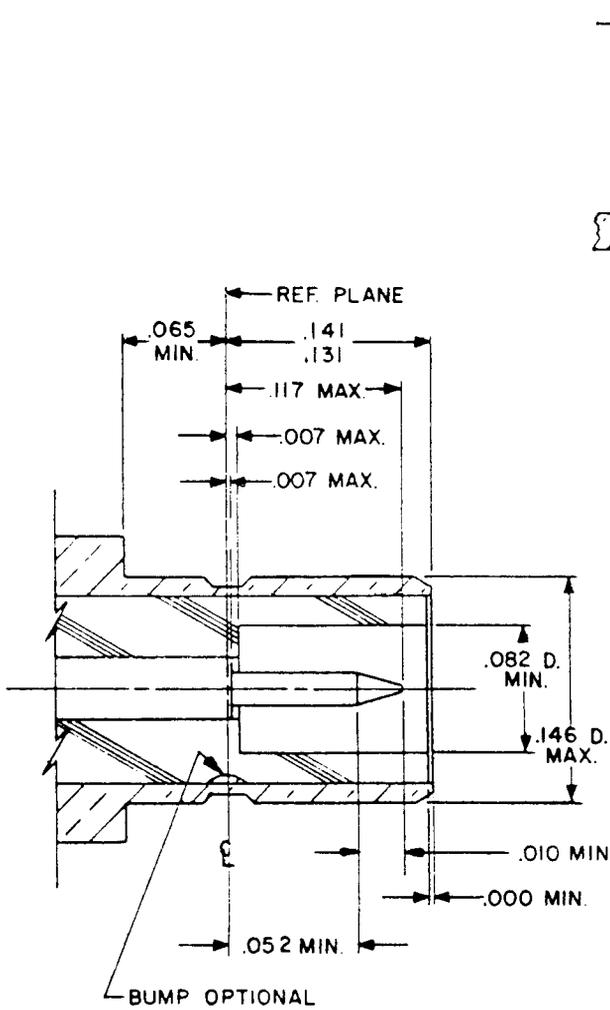
MOUNTING HOLE CONFIGURATION

Dash number		Dimension A
0001(see note 6)	0004	.155 (3.94) ±.010 (.25)
0002(see note 6)	0005	.125 (3.18) ±.010 (.25)
0003(see note 6)	0006	.093 (2.36) ±.010 (.25)

NOTES:

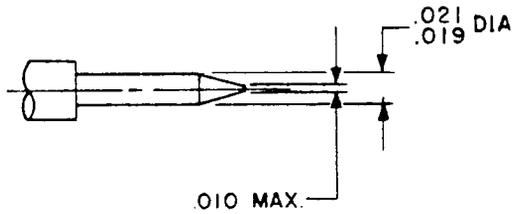
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. All undimensioned pictorial representations are for reference purposes only.
4. Configuration optional. Dimension .375 (9.52 mm) is the maximum envelope diameter.
5. Not for NAVAIR use.
6. Connector bodies shall be gold-plated per MIL-G-45204, type II, class I.

FIGURE 1. General configuration.



GROOVE DETAIL

INCHES	MM	INCHES	MM
.002	.05	.027	.69
.005	.13	.037	.94
.006	.15	.052	1.32
.007	.18	.065	1.65
.010	.25	.082	2.08
.011	.28	.117	2.97
.015	.38	.131	3.33
.019	.48	.141	3.58
.021	.53	.146	3.71



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. 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 4 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: 14 pounds maximum engage, 2 pounds minimum disengage.

Torque: Not applicable.

Coupling proof torque: Not applicable.

Inspection conditions: Not applicable.

Mating characteristics: See figure 2 for dimensions.

Hermetic seal: Not applicable.

Leakage (pressurized connectors): Not applicable.

Insulation resistance: Method 302, test condition B of 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.

Solderability 1/: Method 208 of MIL-STD-202.

Salt spray (corrosion): 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 mating force shall meet the mating characteristics requirements.

Initial: 14 pounds maximum.

Final: 14 pounds maximum engage and disengage; 2 pounds minimum disengagement.

Contact resistance: In milliohms maximum:

	<u>Initial</u>	<u>After environment</u>
Center contact:	6.0	8.0
Outer contact:	1.0	1.5
Braid to body:	Not applicable	Not applicable

1/ For quality conformance inspection, the test shall be performed in group B following VSWR; inspection level shall be S-1 of MIL-STD-105 and AQL 10 percent defective.

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

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

Shock (specified pulse): Method 213, test condition H, 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.

Group qualification: See table I.

Part number: M39012/95- (dash number from figure 1).

TABLE I. Group qualification.

Group	Submission and qualification of any of the following connectors	Qualifies the following connectors
I	M39012/95-0001 M39012/95-0002 M39012/95-0003	M39012/95-0001, M39012/95-0004 <u>1/</u> M39012/95-0002, M39012/95-0005 <u>I/</u> M39012/95-0003, M39012/95-0006 <u>I/</u>

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

NOTE: If a connector manufacturer produces a connector which meets all the requirements for two or more connector types (within the same series), the manufacturer may receive qualification approval for the two or more connector types by qualifying the one connector. It is not necessary that such connectors be in the same group. Each connector, however, must be marked with its own appropriate part number.

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

Custodians:

Army - CR
Navy - EC
Air Force - 85

Review activities:

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

User activities:

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

Preparing activity:
Army - CR

Agent:
DLA - ES

(Project 5935-3553-11)