

MIL-PRF-39012/134B  
w/AMENDMENT 1  
15 July 2016  
SUPERSEDING  
MIL-PRF-39012/134B  
2 July 2012

PERFORMANCE SPECIFICATION SHEET

CONNECTORS, RECEPTACLE, ELECTRICAL, COAXIAL, RADIO FREQUENCY,  
SERIES SMC, PRINTED CIRCUIT BOARD MOUNT, RIGHT ANGLE

Inactive for new design after, 02 July 2012.

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

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

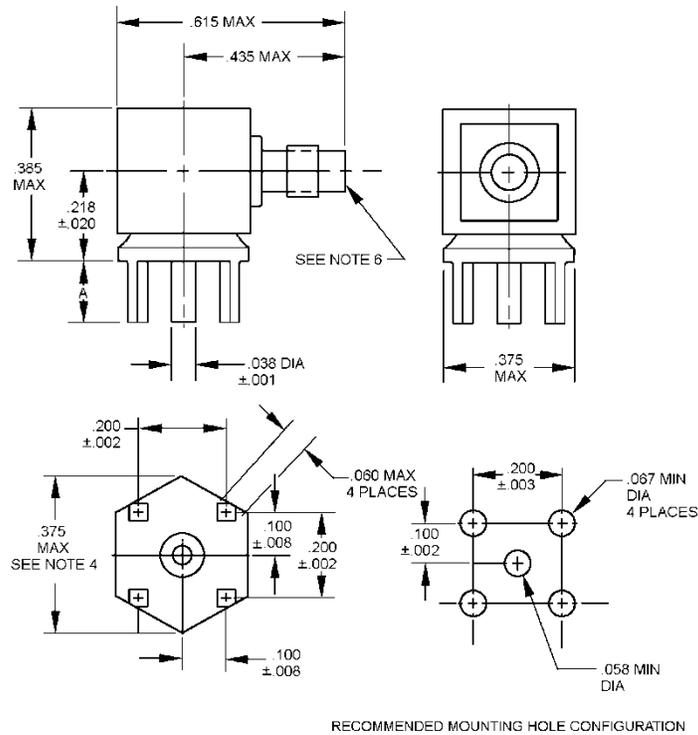


FIGURE 1. General configuration.



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Dash number	Dimension A	Inches	mm	Inches	mm
0001 (see note 5)	.155(3.94) ± .010 (0.25)	.001	0.02	.067	1.70
0002 (see note 5)	.125 (3.18) ± .010 (0.25)	.002	0.05	.100	2.54
0003 (see note 5)	.093 (2.36) ± .010 (0.25)	.003	0.08	.200	5.08
0004 (see note 7)	.155 (3.94) ± .010 (0.25)	.008	0.20	.218	5.54
0005 (see note 7)	.125 (3.18) ± .010 (0.25)	.020	0.51	.375	9.52
0006 (see note 7)	.093 (2.36) ± .010 (0.25)	.038	0.97	.385	9.78
		.058	1.47	.435	11.05
		.060	1.52	.615	15.62

NOTES:

1. Dimensions are in inches
2. Metric equivalents are given for general information only.
3. All undimensioned pictorial configurations are for reference purposes only.
4. Configuration of base optional. Dimension specified in the maximum envelope diameter of feature.
5. Connector bodies shall be gold plated in accordance with ASTM B488, type II, code C, class 1.27.
6. Series SMC interface shall be in accordance with MIL-STD-348.
7. Connector bodies shall be silver plated in accordance with MIL-PRF-39012.
8. Center contact shall be one piece or shall be manufactured in such a way that it is not damaged during normal manufacturing operations when the connector is soldered to a printed wiring board.

FIGURE 1. General configuration – Continued.

ENGINEERING DATA:

Nominal impedance: 50 ohms.

Frequency range: 0 to 4 GHz.

Voltage rating:

335 volts rms, maximum working voltage at sea level.

85 volts rms, maximum at 70,000 feet (4.437 kPa).

Temperature rating: - 65°C to + 165°C.

REQUIREMENTS:

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

Force to engage and disengage:

Longitudinal force: Not applicable.

Torque – 16 inch-ounces , maximum.

Coupling proof torque: Not applicable.

Inspection conditions:

Coupling torque: 35 – 50 inch-ounces.

Mating characteristics: In accordance with MIL-STD-348.

Hermetic seal: Not applicable.

Leakage (pressurized connector): Not applicable.

Insulation resistance: In accordance with MIL-STD-202-302. 1,000 Mega ohms minimum.

Center contact retention:

Minimum axial force : 6 pounds from mating end. 4 pounds from opposite end.

Torque: 3 inch-ounces.

Solderability: For quality conformance inspection, the test shall be performed in group B following VSWR; test 5 samples with no failures permitted. In accordance with MIL-STD-202-208.

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

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Voltage standing wave ratio (VSWR): Not applicable.

Connector durability:

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

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

Dielectric withstanding voltage: In accordance with MIL-STD-202-301. 1,000 volts rms minimum at sea level.

Vibration, high frequency: In accordance with MIL-STD-202-204, test condition D.

Shock: In accordance with MIL-STD-202-213, test condition C.

Thermal shock: In accordance with MIL-STD-202-107, test condition B.

Moisture resistance: Not applicable.

Corona Level: Not applicable.

RF high potential withstanding voltage:

Voltage and frequency: 600 volts rms at a frequency 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 or Identifying Number (PIN): M39012/134 – (dash number from figure 1).

Group qualification: See table I.

TABLE I. Group qualification and retention testing.

Group	Submission and qualification of any of the following connectors <sup>1/</sup>	Qualifies the following connectors
I	M39012/133-0001 M39012/133-0002 M39012/133-0003 M39012/134-0001 M39012/134-0002 M39012/134-0003	M39012/133-0001 M39012/133-0002 M39012/133-0003 M39012/134-0001 M39012/134-0002 M39012/134-0003
II	M39012/133-0004 M39012/133-0005 M39012/133-0006 M39012/134-0004 M39012/134-0005 M39012/134-0006	M39012/133-0004 M39012/133-0005 M39012/133-0006 M39012/134-0004 M39012/134-0005 M39012/134-0006

<sup>1/</sup> For qualification retention, where more than one part is listed in a group in this column, data may be supplied on any of these parts in order to retain qualification for those parts in the corresponding right hand column. The part used for qualification retention does not have to be the part initially qualified.

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Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Referenced documents. In addition to MIL-PRF-39012, this document references the following:

MIL-STD-348	MIL-STD-202-204	MIL-STD-202-301
MIL-STD-202-101	MIL-STD-202-208	MIL-STD-202-302
MIL-STD-202-107	MIL-STD-202-213	ASTM B488

CONCLUDING MATERIAL

Custodians:

Army - CR  
Navy - EC  
Air Force - 85  
NASA - NA  
DLA - CC

Preparing activity:

DLA - CC

(Project 5935-2016-107)

Review activities:

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

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.