

INCH-POUND

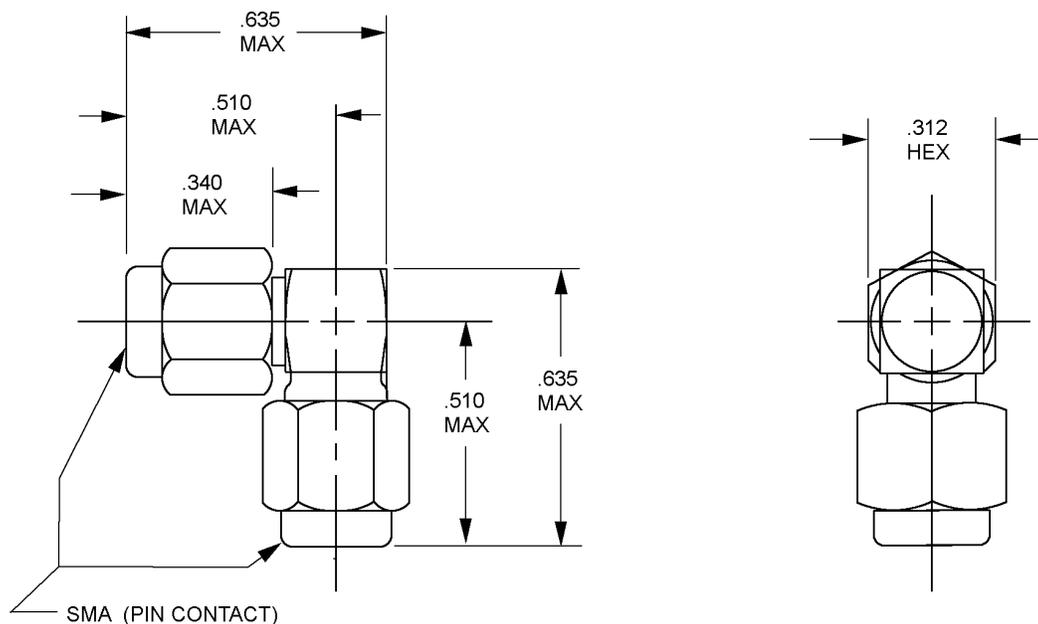
MIL-PRF-55339/53A
30 April 2015
SUPERSEDING
MIL-PRF-55339/53
8 February 1989

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, ELECTRICAL, COAXIAL, RADIO FREQUENCY, PIN CONTACT (WITHIN SERIES SMA), RIGHT ANGLE

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-55339.



Inches	mm
.312	7.92
.340	8.64
.510	12.95
.635	16.13

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. Unless otherwise specified, tolerance is $\pm .015$ (0.38mm).
5. Interfaces shall be in accordance with MIL-STD-348.

FIGURE 1. General configuration.



ENGINEERING DATA:

Impedance: 50 ohms, nominal.

Working voltage:

Sea level: 335 V rms.

70,000 feet: 85 V rms.

Frequency range: 0 to 12.4 GHz.

Temperature range: -65° to +165°C.

REQUIREMENTS:

Performance (for each test of a threaded coupling connector where the test is performed on mated pairs, the pairs shall be torqued 7 to 10 inch-pounds (.791 to 1.13 nm)).

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

Center contact retention:

Axial force: 6 pounds, minimum.

Torque: 4 inch-ounces, minimum.

Force to engage and disengage:

Longitudinal force: Not applicable.

Torque: 2 inch-pounds, maximum.

Coupling proof torque: 15 inch-pounds, minimum.

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

Permeability: Less than 2.0.

Seal (hermetic, pressurized, and weatherproof): Not applicable.

Insulation resistance: 5,000 megohms, minimum.

Voltage standing wave ratio: $1.05 + .010 F$, (F in GHz) maximum, at .5 to 12.4 GHz.

RF leakage (total): -60 dB, minimum, at 2 to 3 GHz.

RF insertion loss: $(.05 \sqrt{F(\text{GHz})})$ dB, maximum, tested at 6 GHz).

Durability: 500 cycles, minimum, at 12 cycles per minute, maximum.

Dielectric withstanding voltage: Method 301 of MIL-STD-202.

Test voltage: 1,000 V rms, minimum, at sea level.

Contact resistance (in milliohms, maximum):

Contact	Initial	After environmental
Center	4.0	6.0
Outer	2.0	N/A

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

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

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

Moisture resistance: Method 106 of MIL-STD-202.

Insulation resistance: 200 megohms, minimum, within 5 minutes after removal from humidity.

Corona level: 250 V, minimum.

Altitude: 70,000 feet.

RF high potential withstanding voltage:

RF voltage: 670 V rms.

Frequency: 5 MHz.

Salt spray (corrosion): Method 101 of MIL-STD-202, test condition B.

Coupling mechanism retention force: 60 pounds, minimum.

Group qualification: See table I.

MARKING: As specified in MIL-PRF-55339.

Part or Identifying Number (PIN): M55339/53-30001
M55339/53-40001

TABLE I. Group qualification.

Group	Submission and qualification of any of the following connectors	Qualifies the following connectors
1	M55339/02-30001 M55339/53-30001	M55339/02-30001 M55339/53-30001
2	M55339/02-40001 M55339/53-40001	M55339/02-40001 M55339-53-40001

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Referenced documents: In addition to MIL-PRF-55339, this document references the following:

- MIL-STD-202
- MIL-STD-348

CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA – CC

Preparing activity:

DLA - CC

(Project 5935-2015-029)

Review activities:

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

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 information above using the ASSIST Online database at <https://assist.dla.mil>.