

INCH-POUND

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.

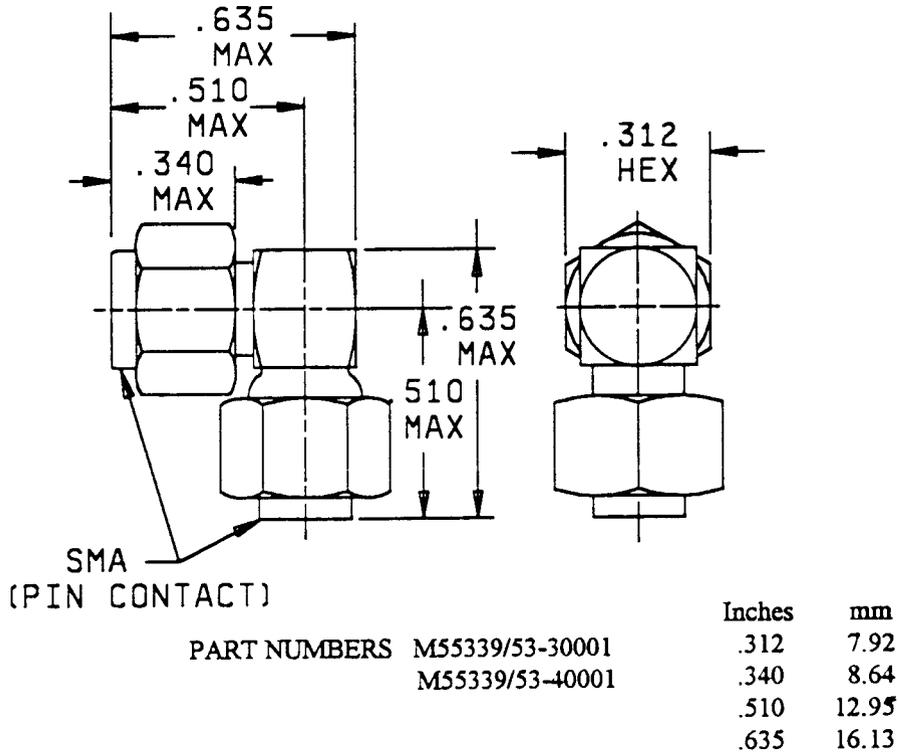
MIL-PRF-55339/53
8 February 1989

PERFORMANCE SPECIFICATION

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

This specification sheet 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 the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-PRF-55339.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Wrench flats are to accommodate standard wrench in accordance with FED-STD-H28, appendix 10.
4. All undimensioned pictorial configurations are for reference purposes only.
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.

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Contact resistance (in milliohms, maximum):

<u>Contact</u>	<u>Initial</u>	<u>After environmental</u>
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.

Part or identifying number (PIN) See figure 1.

Marking: As specified in MIL-A-55339.

NOTE: These parts are for use in general radio frequency applications.

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

NOTE: When a QPL source is obtained, DESC drawing 86026 will be canceled.

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CONCLUDING MATERIAL

Custodians:

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

Review activities:

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

User activities:

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

Preparing activity:

Army - CR

Agent:

DLA - ES

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