INCH-POUND

MIL-PRF-55339/54
8 February 1989

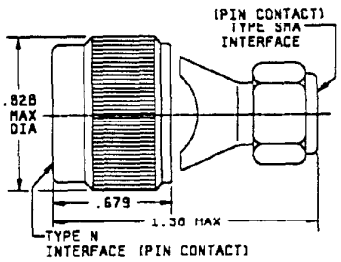
NOTE: The document identifier and heading has been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

PERFORMANCE SPECIFICATION

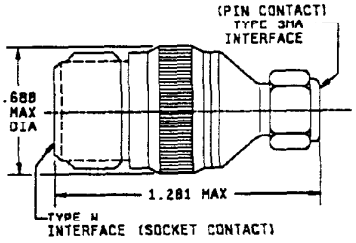
ADAPTER, CONNECTOR, ELECTRICAL, COAXIAL, RADIO FREQUENCY, (BETWEEN SERIES SMA TO N)

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.



PART NO. M55339/54-30001



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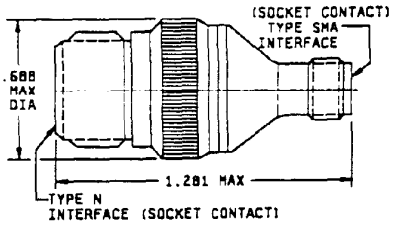

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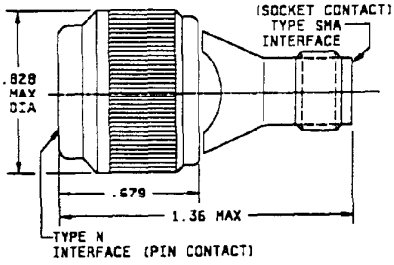

PART NO. M55339/54-30004

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ±.015 (0.38 mm).
4. All undimensioned pictorial configurations are for reference purposes only.
5. Interfaces shall be in accordance with MIL-STD-348.

Inches	mm
.679	17.25
.688	17.48
.828	21.03
1.36	34.5
1.38	35.1

FIGURE 1. General configuration.

ENGINEERING DATA:

Nominal impedance: 50 ohms.

Frequency range: 18 GHz.

Voltage range: 335 V rms at sea level, 85 V rms at 70,000 feet.

Operating temperature range: -65°C to +165°C.

REQUIREMENTS:

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

Inspection conditions: For each test of threaded coupling connectors where the test is performed on mated pairs, the pairs shall be torqued to 7 to 10 inch-pounds.

Permeability: Less than 2.0, air = 1.0.

Seal:

Pressurized: Not applicable.

Weatherproof: Not applicable.

Insulation resistance: 5,000 megohms, minimum.

VSWR:

1.06 + .005 F (GHz); dc to 12.4 GHz.

.83 +.023 F (GHz); 12.4 to 18 GHz.

RF leakage: -65 dB, minimum, 2 to 3 GHz.

RF insertion loss: .18 dB, maximum, at 9 GHz.

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

Contact resistance (milliohms, maximum):

Contact	Initial	After environmental
Center	4.1 1/	6.0
Outer	2.2	Not applicable

Vibration, high frequency: Interruptions, 1 µs maximum. Method 204 of MIL-STD-202, test condition D.

Shock: Method 213 of MIL-STD-202, test condition I.

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

Moisture resistance: 200 megohms, minimum, method 106 of MIL-STD-202 within 5 minutes after removal from humidity.

1/ Two center contacts must be mated to the center conductor under test, therefore doubling "center contact" resistance.

Corona level.

Voltage· 375 V, minimum, at 70,000 feet minimum.

RF high potential withstanding voltage:

RF voltage: 1,000 V rms, minimum at 5 MHz minimum.

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

Center contact retention:

Axial force: 6 pounds, minimum.

Torque: Not applicable.

Force to engage and disengage·	Series N	Series SMA
Longitudinal force:	Not applicable	Not applicable
Torque· (inch-pounds, maximum)	6.0	2.0

Coupling proof torque· 15 inch-pounds, minimum.

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

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.

TABLE I. Group qualification.

Group	Submission and qualification of any of the following connectors	Qualifies the following connectors
1	M55339/54-30001 M55339/54-30002 M55339/54-30004	M55339/54-30001 M55339/54-30002 M55339/54-30003 M55339/54-30004

NOTE When a QPL source is obtained, DESC drawing 86044 will be canceled.

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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