



DEFENSE LOGISTICS AGENCY
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November 10, 2016

MEMORANDUM FOR MILITARY/INDUSTRY DISTRIBUTION

SUBJECT: Initial Draft(s) of: MIL-PRF-55339/54.
Project Number(s): 5935-2017-023

The initial draft(s) for the subject document(s), is now available for viewing and downloading from the DLA Land and Maritime-VA Web site:

<https://landandmaritimeapps.dla.mil/programs/milspec/default.aspx>

Major changes to this document(s) include corrected figure 1 PIN errors and updated MIL-STD-202 test requirements.

Concurrence or comments are required at this Center within 45 days from the date of this letter. Late comments will be held for the next coordination of the document. Comments from military departments must be identified as either "Essential" or "Suggested". Essential comments must be justified with supporting data. Military review activities should forward comments to their custodians of this office, as applicable, in sufficient time to allow for consolidating the department reply. Lack of response to this draft will be construed as concurrence.

If this document(s) is of interest to you, please provide your comments or suggested changes. The point of contact for this document is Mr. Funk, phone number 614-692-6608, facsimile transmission, 614-692-6939, e-mail Jeremy.Funk@dla.mil, or may be mailed via the US Postal Service to DLA LAND AND MARITIME, ATTN: VAI (Attention: Jeremy Funk), P.O. Box 3990, Columbus, OH 43218-3990.

Sincerely,

/ *SIGNED* /

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cc:
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Note: This draft dated 15 November 2016, prepared by DLA Land and Maritime (DLA-VAI) has not been approved and is subject to modification. DO NOT USE PRIOR TO APPROVAL. (Project 5935-2017-023)

INCH-POUND

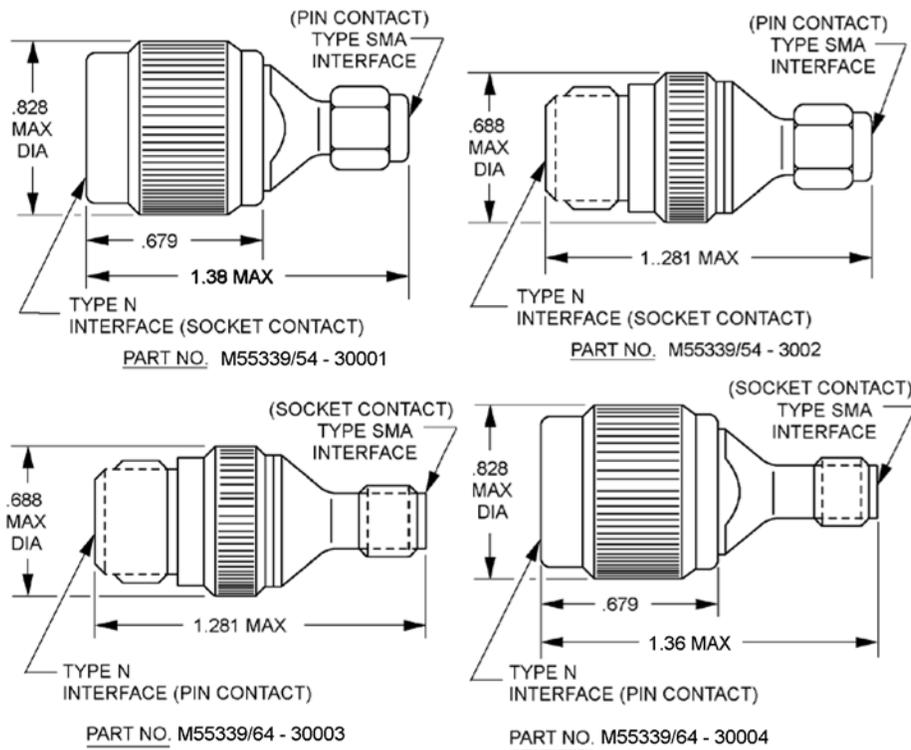
MIL-PRF-55339/54B
DRAFT
 SUPERSEDING
 MIL-PRF-55339/54A
 30 April 2015

PERFORMANCE SPECIFICATION

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

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.



NOTES:

1. Dimensions are in inches. Metric equivalents are given for general information only.
2. Unless otherwise specified, tolerance is $\pm .015$ (0.38 mm).
3. All undimensioned pictorial configurations are for reference purposes only.
4. 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: 355 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

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

Vibration, high frequency: Interruptions, 1 μ s maximum. MIL-STD-202-204, test condition D.

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

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

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

MIL-PRF-55339/54B
DRAFT DATED 15 NOVEMBER 2016

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: MIL-STD-202-101, test condition B.

Center contact retention:

Axial force: 6 pounds, minimum.

Torque: Not applicable.

Force to engage and disengage:

	<u>Series N</u>	<u>Series SMA</u>
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.

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	M55339/54-30001 M55339/54-30002 M55339/54-30004	M55339/54-30001 M55339/54-30002 M55339/54-30003 M55339/54-30004

Revision notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this revision. 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-55339, this document references the following:

MIL-STD-202-101
MIL-STD-202-106
MIL-STD-202-107
MIL-STD-202-204
MIL-STD-202-213
MIL-STD-348

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-2017-023)

Review activities:

Army - AR, AT, EA, 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>.