

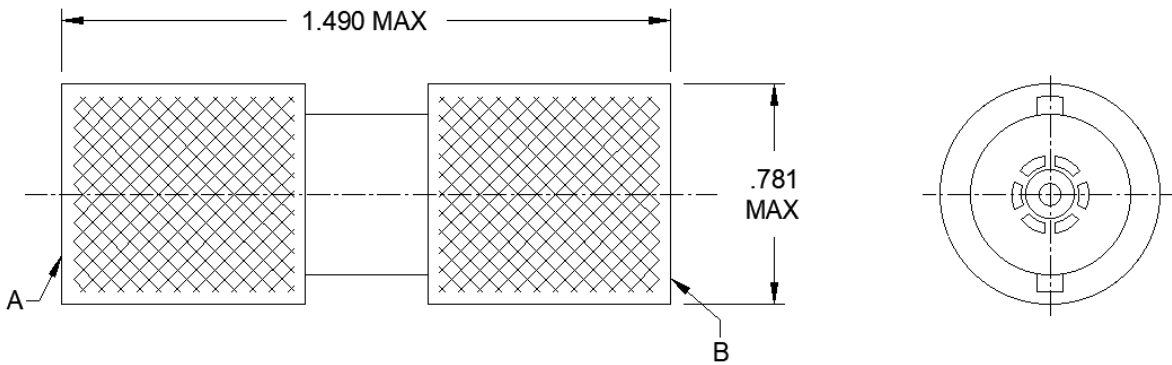
MIL-PRF-55339/9A
w/AMENDMENT 2
8 March 2023
SUPERSEDING
MIL-PRF-55339/9A
w/AMENDMENT 1
20 February 2018

PERFORMANCE SPECIFICATION SHEET

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY,
(WITHIN SERIES C), CLASS 2, STRAIGHT PLUG

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.



Reference	Series	Contact
A and B	C	Pin

- NOTES:
1. Dimensions are in inches.
 2. All undimensioned pictorial representations are for reference purposes only.
 3. Interface dimensions to be in accordance with MIL-STD-348, series C pin contact.

FIGURE 1. General configuration.



DESIGN AND CONSTRUCTION

General configuration: See figure 1.

Impedance: 50 ohms, nominal.

Working voltage: Sea level – 1,000 V rms.
70,000 feet (4.437 kPa) – 250 V rms.

Frequency range: 0 to 11 GHz.

Temperature range: -65° to +165°C.

PERFORMANCE (installation torque is not applicable)

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

Center contact retention: Axial force – 6 lb., min.
Torque – Not applicable.

Force to engage and disengage: Longitudinal force – 4.5 lb., max.
Torque – 4 in-lb., max.

Coupling proof torque: Not applicable.

Mating characteristics:

Center contact (socket): Not applicable.

Outer contact:

Min test ring ID - .411 inch, max.

Ring finish – 16 microinches.

Insertion force – 7 lb., max.

Insertion depth - .125 inch, min.

Number of insertions – Not applicable.

Max test ring ID - .419 inch, min.

Test ring finish – Not applicable.

Insertion depth - .031 inch, max.

Number of insertions – Not applicable.

Permeability: <2.0.

Seal: Hermetic – Not applicable.

Pressurized – Not applicable.

Weatherproof – Not applicable.

Insulation resistance: 5,000 megohms, min.

VSWR: 1.35, max .5 to 11 GHz.

RF leakage (total): -55 dB, min, 2 to 3 GHz.

RF insertion loss: .20 dB, max, 6 GHz ($.082\sqrt{F \text{ (GHz)}} \text{ dB}$ max tested at 3 and 6 GHz).

Durability: 500 cycles minimum at 12 cycles/min, maximum. The connector shall meet the mating characteristics and force to engage and disengage requirements.

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Dielectric withstanding: Test voltage – 3,000 V rms, min (sea level).

Contact resistance (milliohms, max).

<u>Contact</u>	<u>Initial</u>	<u>After Environmental</u>
Center	1.5	2.0
Outer	0.30	N/A
Outer (-70001)	0.6	N/A

Vibration, high frequency: Interruptions – 1 μ s, max.

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, min.

Corona level: Voltage – 750 V, min.
Altitude - 70,000 feet (4.437 kPa), min.

RF high potential withstanding voltage: RF voltage – 2,500 V rms. min.
Frequency – 5 MHz, min.

Salt spray (corrosion): Applicable.

Coupling mechanism retention force: 100 lb., min.

Part or Identifying Number (PIN): M55339/09-00642 or M55339/09-70001.

PIN: M55339/09-70001. **CAUTION: THIS PART HAS A NICKEL PLATED BODY AND IS NOT FOR USE IN APPLICATIONS WHERE PASSIVE INTERMODULATION GENERATION (PIM) MAY BE A CONCERN.**

Cross reference: See table I.

TABLE I. Cross reference of PIN.

<u>PIN</u>	<u>Superseded PIN or type designation</u> <u>1/</u>
M55339/09-00642	MS35287 UG-642A/U

1/ The superseded PIN or the type designation is for cross reference only. Where a superseded PIN or type designation is not given, none was assigned or will be assigned. The PIN M55339/09-00642 shall be used in all cases for marking and identifying the adapter.

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.

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

MIL-STD-348

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:
DLA - CC

(Project 5935-2022-240)

Review activities:

Army - AR, AT, EA
Navy - AS, MC, OS
Air Force - 19

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>.