

INCH-POUND

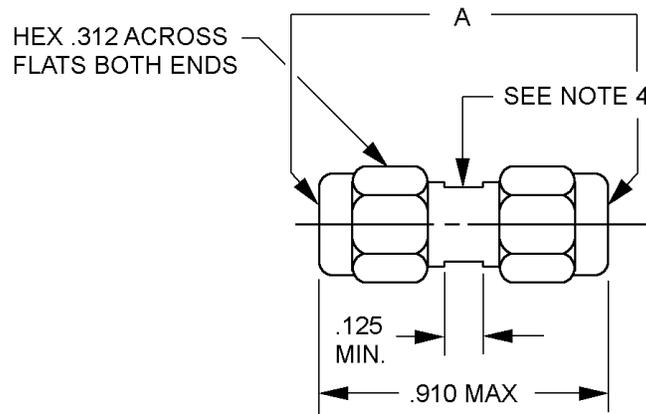
MIL-PRF-55339/29B
17 January 2015
SUPERSEDING
MIL-A-55339/29A
28 February 1979

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, IN-LINE,
(WITHIN SERIES SMA PLUG TO SMA PLUG), CLASS 2

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
.125	3.18
.312	7.92
.910	23.11

Reference	Series	Contact
A	SMA	Pin

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1 inch=25.4 mm.
3. All undimensioned pictorial representations are for reference purposes only.
4. Interface dimensions shall be in accordance with MIL-STD-348.

FIGURE 1. General configuration jack-plug-jack.

AMSC N/A

FSC 5935



DESIGN AND CONSTRUCTION:

General configuration: See figure 1.

Impedance: 50 ohms, nom.

Working voltage: Sea level – 335 Vrms.
70,000 feet – 85 Vrms.

Frequency range: 0 to 18.0 GHz.

Temperature range: -65° to +165°c.

PERFORMANCE

Dimensions: See figures 1.

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

Force to engagement and disengage: Longitudinal force – Not applicable.
Torque – 2 in. lb, max.

Coupling proof torque: 15 in, lbs, min.

Mating characteristics: Not applicable.

Permeability: <2.0.

Seal:

Pressurized – Not applicable.

Weatherproof – Not applicable.

Insulation resistance: 5,000 megohms, min.

VSWR: $1.10 + .008 F(\text{GHz})$ at .5 to 18.0 GHz.

RF leakage (total): -60 dB, max, between 2 to 3 GHz, min $(.06 \sqrt{F} (\text{GHz}))$ dB max tested at 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.

Dielectric withstanding: Test voltage -1,500 Vrms, min (sea level).

Contact resistance (milliohms, max)

Contact	Initial	After
Center	4.0	6.0
Outer	2.0	Not applicable

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

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, min.

Corona level: Voltage – 250 V, min.
Altitude – 70,000 feet, min.

RF high potential withstanding voltage: RF voltage – 670 Vrms, min.
Frequency – 5 MHz, min.

Salt spray (corrosion): Test condition B.

Coupling mechanism retention force: 60 lb, min.

Marking: As specified in MIL-PRF-55339.

Part or Identifying Number (PIN):

M55339/29-30101 without safety wire holes, -30001 with safety wire holes
M55339/29-40101 without safety wire holes, -40001 with safety wire holes

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-DTL-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

Review activities:
Army – AR, AT, EA, MI
Navy – AS, MC, OS, SH
Air Force – 19, 99

(Project 5935-2015-017)

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>.