INCH-POUND

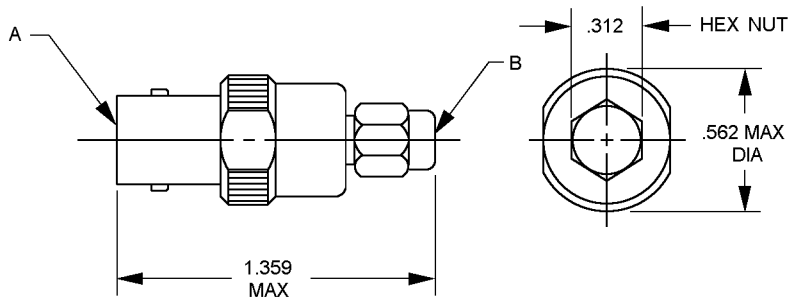
MIL-PRF-55339/47B
30 April 2015
SUPERSEDING
MIL-A-55339/47A
28 February 1979

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, IN-LINE,
(BETWEEN SERIES SMA PLUG TO SERIES BNC JACK), 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.



Reference	Series	Contact
A	BNC	Socket
B	SMA	Pin

Inches	mm
.312	7.92
.562	14.27
1.359	34.52

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. Unless otherwise specified, tolerance is ± .015 (0.38mm).
5. Interface shall be in accordance with MIL-STD-348.

FIGURE 1. General configuration.

DESIGN AND CONSTRUCTION:

General configuration: See figure 1.

Impedance: 50 ohms, nom.

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

Frequency range: 0 to 4 GHz.

Temperature range: -65° to +165°C.

PERFORMANCE (installation torque 4 to 6 in. lbs).

Dimensions: See figure 1.

Center contact retention	Series SMA	Series BNC
Axial force – (lb, min) Torque	6	6

Force to engage and disengage	Series SMA	Series BNC
Longitudinal force – Torque – (in. lb, max)	Not applicable 2	3 2-1/2

Coupling proof torque	Series SMA	Series BNC
	15 in. lbs, min.	Not applicable

Mating characteristics:

Series BNC	
Center contact (socket):	
Oversize test pin dia	.057 in. min.
Insertion depth	.125 in. min.
No. of insertions	1
Pin finish	16 microinches
Max test pin (insertion force test):	
Steel test pin dia	.054 in. min.
Pin finish	16 microinches
Insertion force	2 lbs, max.
No. of insertions	1
Min test pin (withdrawal force):	
Steel test pin dia	.052 max.
Pin finish	16 microseconds
Withdrawal force	2 oz, min.
No. of withdrawals	1

Permeability: <2.0.

Seal:
Pressurized – Not applicable.
Weatherproof – Not applicable.

Insulation resistance: 5,000 megohms, min.

VSWR: 1.30 +0.025 GHz, max. at .5 to 4 GHz.

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

RF insertion loss: .2 dB, max, 3 GHz (.115 $\sqrt{F\ (GHz)}$ dB max tested at 3 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 V rms, min (sea level).

Contact resistance (milliohms, max).

Contact	Initial	After
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 µs, 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 V rms, min. Frequency – 5 MHz, min.

Salt spray (corrosion): Test condition B.

Coupling mechanism retention force: 60 lb, min. series SMA, series BNC not applicable.

MARKING: As specified in MIL-PRF-55339.

Part or Identfying Number (PIN):

M55339/47-30001 Adapter with safety wire hole, 30101 without safety wire hole.
M55339/47-50001 Adapter with safety wire hole, 50101 without safety wire hole.

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-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 5935-2015-026)

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.