

INCH-POUND

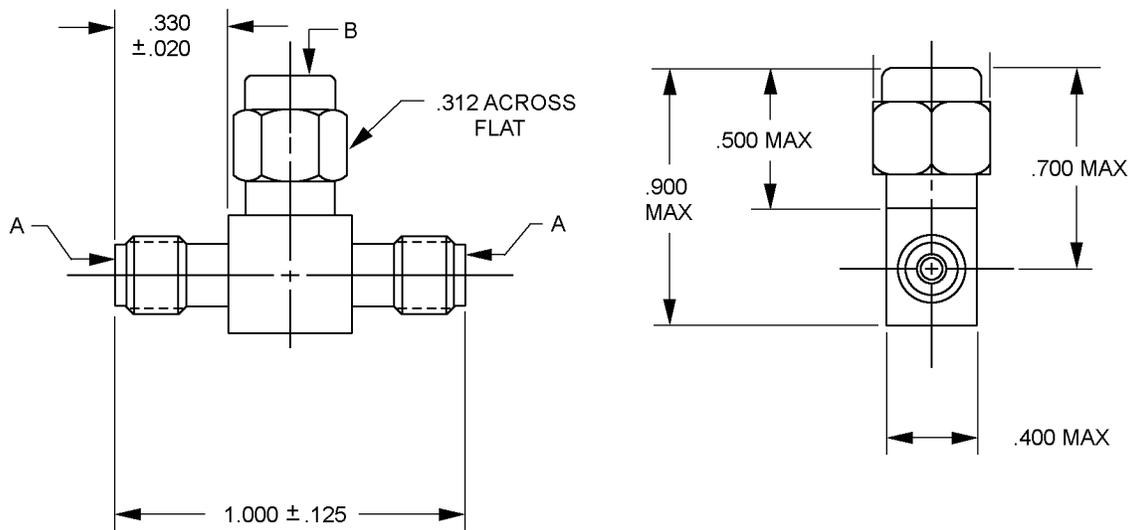
MIL-PRF-55339/30C  
28 January 2015  
SUPERSEDING  
MIL-PRF-55339/30B  
8 February 1989

### PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, "T",  
(WITHIN SERIES SMA PLUG TO TWO SERIES SMA JACKS), 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	SMA	Socket
B	SMA	Pin

FIGURE 1. General configuration jack-plug-jack.



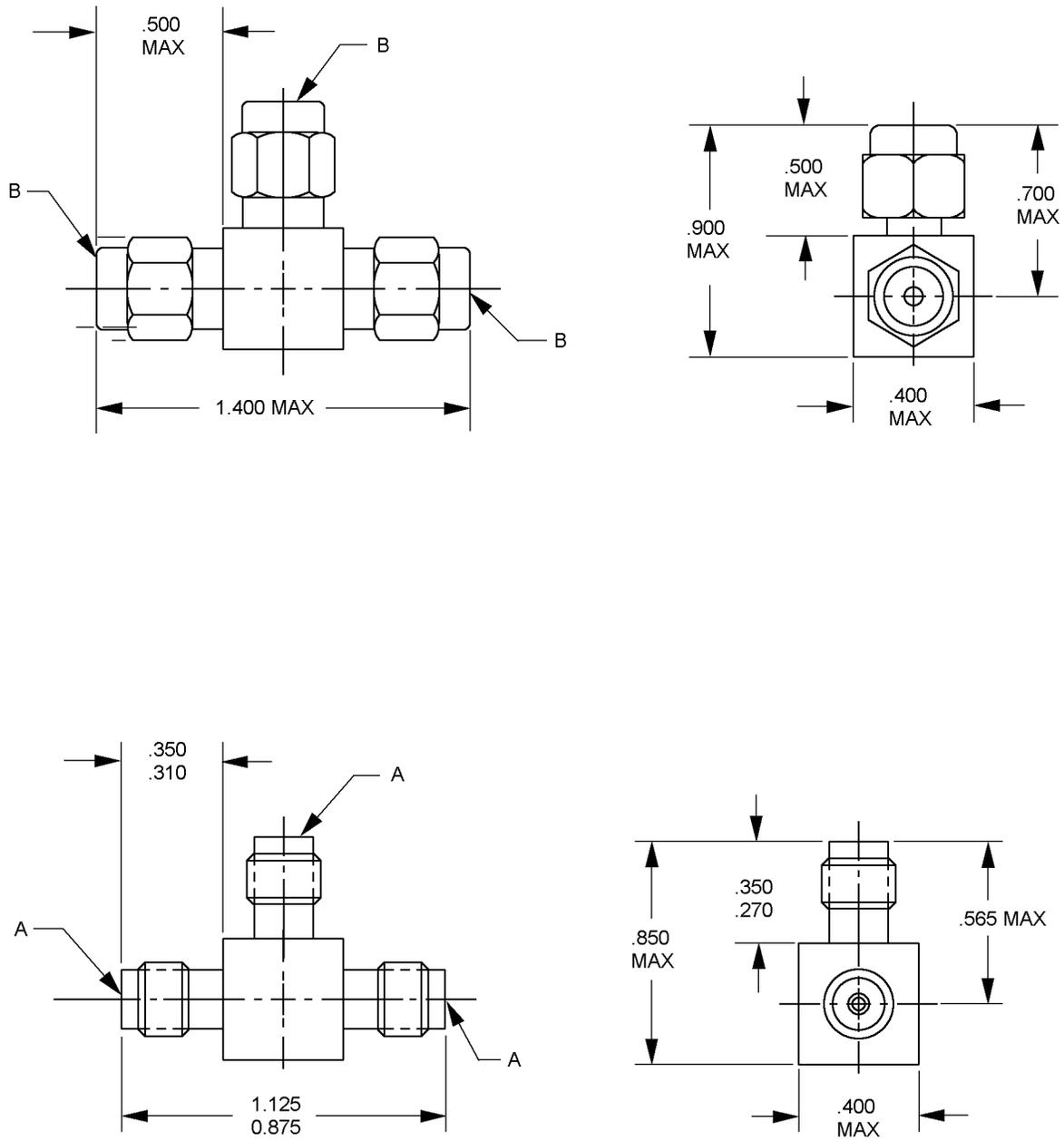
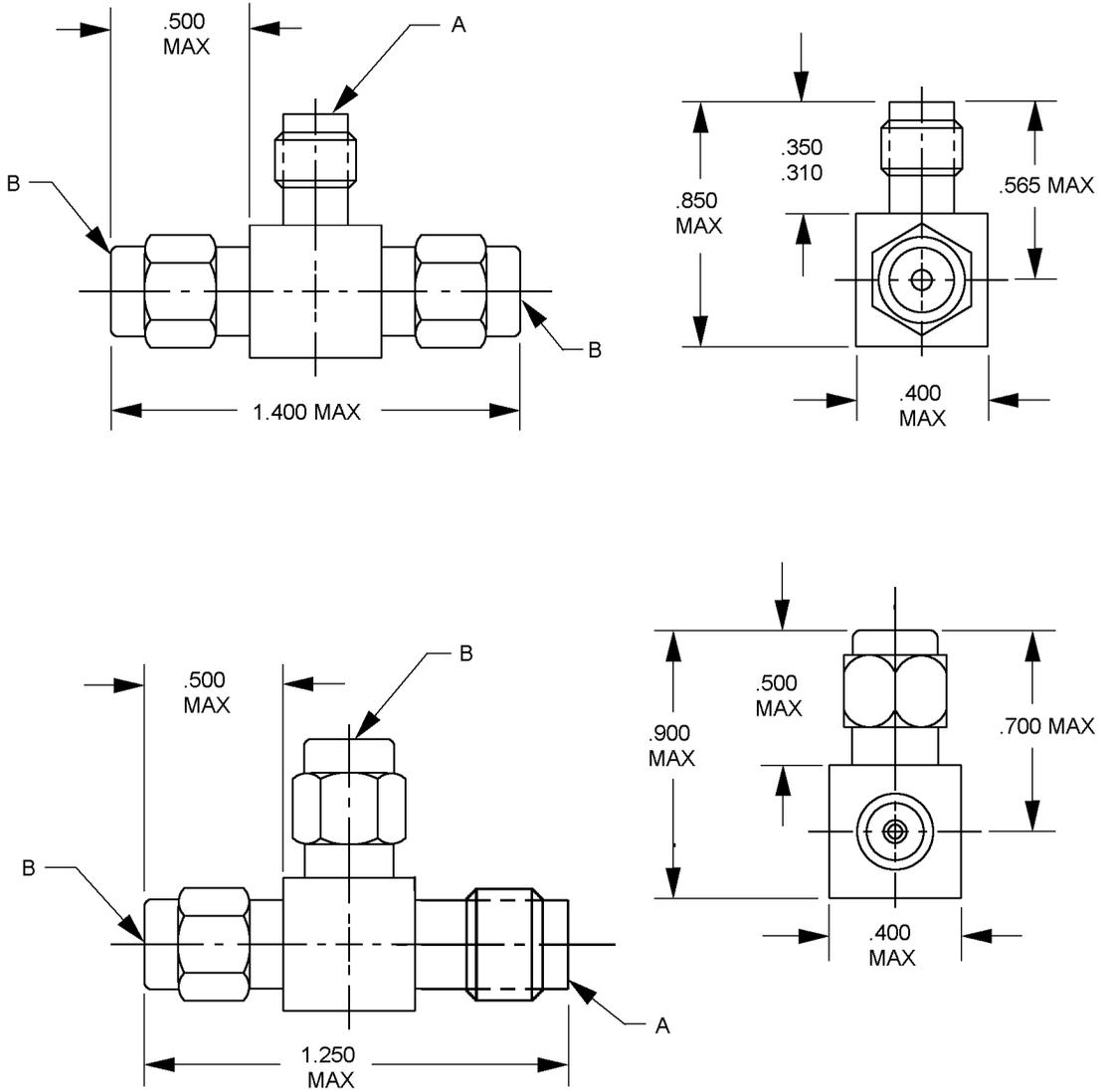


FIGURE 1. General configurations – Continued.



Inches	mm	Inches	mm
.020	0.51	.500	12.70
.125	3.18	.565	14.35
.270	6.86	.700	17.78
.310	7.87	.850	21.59
.312	7.92	.875	22.23
.330	8.38	.900	22.86
.350	8.89	1.000	25.40
.400	10.16	1.125	28.58
		1.400	35.56

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. All undimensioned pictorial configurations are for reference purposes only.
4. Interfaces shall be in accordance with MIL-STD-348.

FIGURE 1. General configurations – Continued.

ENGINEERING DATA:

Impedance: 50 ohms, nominal.

Working voltage:

Sea level: 335 V rms.

70,000 feet: 85 V rms.

Frequency range: 0 to 12.4 GHz.

Temperature range: -65°C to +165°C.

REQUIREMENTS:

Dimensions and configuration: See figure 1 and section 310 of MIL-STD-348.

Center contact retention:

Axial force: 6 pounds, minimum.

Torque: 4 inch-ounces, minimum.

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.

Force to engage and disengage:

Longitudinal force: Not applicable.

Torque: 2 inch-pounds, maximum.

Coupling proof torque: 15 pounds, minimum.

Mating characteristics:

Center contact (socket):

Oversize test pin diameter:  $.0375 + .0001$  inch, minimum.

Pin finish: 16 microinches.

Insertion depth:  $.030/.045$  inch, minimum.

Number of insertions: Three.

Maximum test pin (insertion force test):

Steel test pin diameter:  $.0370 + .0001$  inch, minimum.

Pin finish: 16 microinches.

Insertion depth:  $.050/.075$  inch, minimum.

Insertion force: 3 pounds, maximum.

Number of insertions: One.

Minimum test pin (withdrawal force):

Steel test pin diameter: .0355 - .0001 inch, minimum.

Pin finish: 16 microinches.

Insertion depth: .050/.075 inch, minimum.

Withdrawal force: 1 ounce, minimum.

Number of withdrawals: One.

Permeability: Less than 2.0.

Seal:

Pressurized: Not applicable.

Weatherproof: Not applicable.

Insulation resistance: 5,000 megohms, minimum.

VSWR: Not applicable.

RF leakage (total): Not applicable.

RF insertion loss: Not applicable.

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

Dielectric withstanding:

Test voltage: 1,000 V rms, minimum (sea level).

Contact resistance (milliohms, maximum):

Contact	Initial	After environmental
Center	6.0	8.0
Outer	2.0	Not applicable

Vibration, high frequency: Method 204, MIL-STD-202, test condition D, interruptions – 1  $\mu$ s, maximum.

Shock (specified pulse): Method 213, MIL-STD-202, test condition I.

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

Moisture resistance: 200 megohms, minimum, within 5 minutes after removal from humidity.

Corona level:

Voltage: 250 V, minimum.

Altitude, 70,000 feet, minimum.

RF high potential withstanding voltage:

RF voltage: 670 V rms, minimum.

Frequency: 5 MHz, minimum.

Salt spray (corrosion): Test condition B.

Coupling mechanism retention force: 60 pounds, minimum.

Group qualification: See table I.

Part or Identifying Numbers (PIN):

- M55339- 30101 Without safety holes.  
/30- 40101
- M55339- 30001 With safety holes.  
/30- 40001

Marking: As specified in MIL-PRF-55339.

NOTE: For logistics purposes, only adapters with safety wire hole will be stocked.

TABLE I. Group qualification.

Group	Submission and qualification of any of the following connectors	Qualifies the following connectors
1	M55339/30-30001	M55339/30-30101 M55339/30-30001 M55339/30-30102 M55339/30-30002 M55339/30-30003 M55339/30-30104 M55339/30-30004 M55339/30-30105 M55339/30-30005
2	M55339/30-40001	M55339/30-40101 M55339/30-40001 M55339-30-40102 M55339/30-40002 M55339/30-40003 M55339/30-40104 M55339/30-40004 M55339/30-40105 M55339/30-40005

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-202  
MIL-STD-348

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-2015-018)

Review activities:

Army – AR, AT, 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>.