

INCH-POUND

NOTE: The document identifier and heading has been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

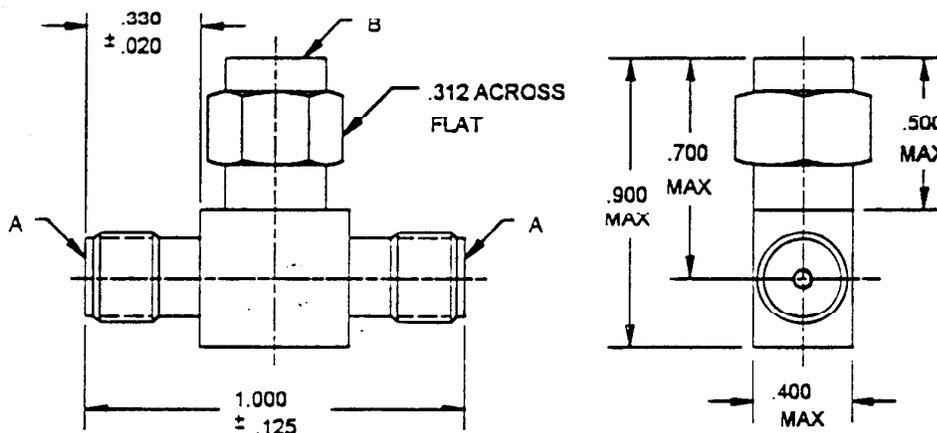
MIL-PRF-55339/30B  
8 February 1979  
SUPERSEDING  
MIL-A-55339/30A  
28 February 1979

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 complete requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-PRF-55339



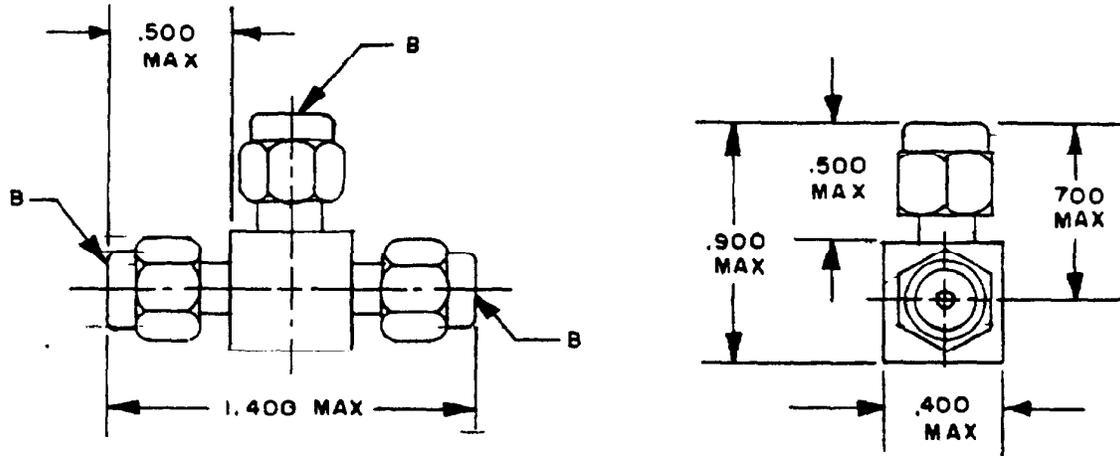
Reference	Series	Contact
A	SMA	Socket
B	SMA	Pin

M55339/30-30101 | without safety wire holes  
/30-40101

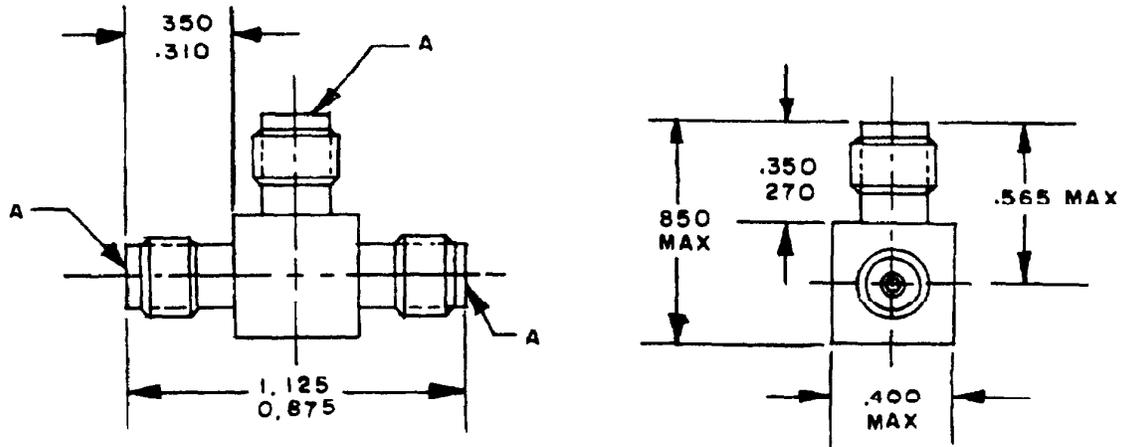
M55339/30-30001 | with safety wire holes  
/30-40001

FIGURE 1. General configuration, jack-plug-jack.

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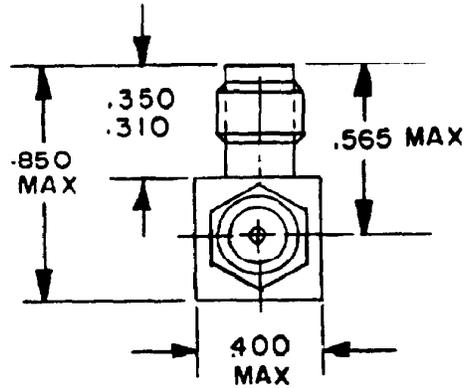
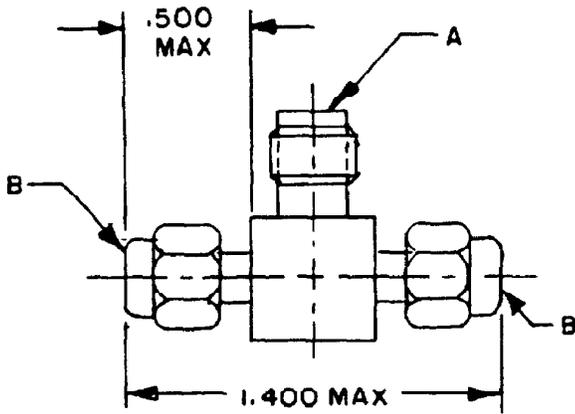


M55339/30-30102 } without safety wire holes  
/30-40102 }  
M55339/30-30002 } with safety wire holes  
/30-40002 }

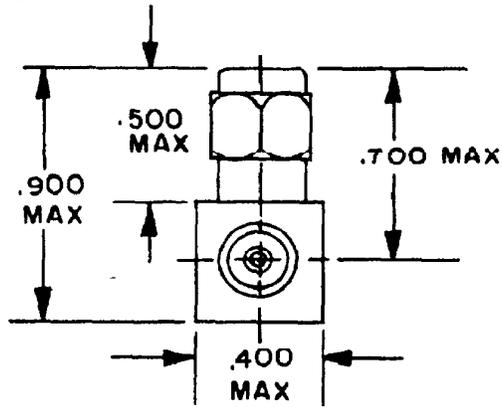
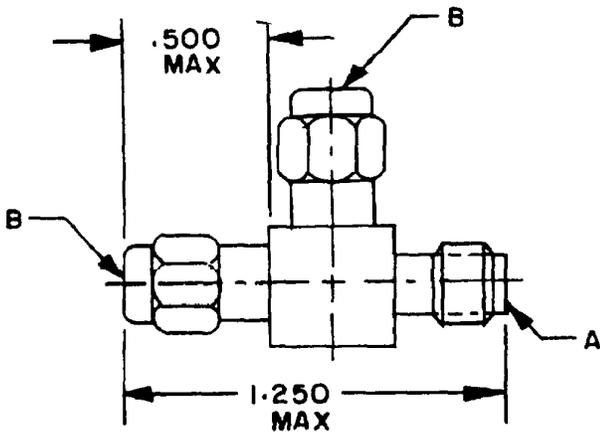


M55339/30-30003  
/30-40003

FIGURE 1. General configurations - Continued



M55339/30-30104 } without safety wire holes  
 /30-40104 }  
 M55339/30-30004 } with safety wire holes  
 /30-40004 }



M55339/30-30105 } without safety wire holes  
 /30-40105 }  
 M55339/30-30005 } with safety wire holes  
 /30-40005 }

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.

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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.

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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):

<u>Contact</u>	<u>Initial</u>	<u>After environmental</u>
Center	6.0	8.0
Outer	2.0	Not applicable

Vibration, high frequency:

Interruptions: 1  $\mu$ s, maximum. Test condition D.

Shock: Test condition I.

Thermal shock: 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.

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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 1.

Part or identifying numbers (PIN). See figure 1.

Marking: As specified in MIL-A-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

NOTE: When QPL sources are obtained for the new configurations, DESC drawing 87028 will be canceled.

Revision letters are not used to denote changes due to the extensiveness of the changes.

CONCLUDING MATERIAL

Custodians:

Army - CR  
Navy - EC  
Air Force - 85  
NASA - NA

Review activities:

Army - AR, MI  
Navy - OS, SH  
Air Force - 11, 99  
DLA - ES

User activities:

Army - AT  
Navy - AS, MC, SH  
Air Force - 19

Preparing activity:

Army - CR

Agent:

DLA - ES

(Project 5935-3664-01)