

Technical drawing of a SMA Female Connector Assembly, showing two views: a top view and a side view.

Top View Dimensions:

- Overall width: .500 SQ.
- Distance from center to mounting holes: .340 TYP.
- Mounting hole diameter: (Ø .162)
- Center hole diameter: (Ø .050)
- Connector body diameter: (4X Ø .102)

Side View Dimensions:

- Overall height: .705 ± .015
- Distance from base to mounting holes: .590 ± .015
- Base diameter: .460
- Mounting hole diameter: (Ø .162)
- Connector body diameter: (Ø .050)
- Connector body length: .312
- Connector body diameter: (Ø .065)

Labels and Notes:

- R.P. (Reference Plane) is indicated at the base and the connector body.
- EPOXY CAPTIVATION ** is indicated on the base.
- SMA FEMALE INTERFACE PER MIL-STD-348 is indicated on the connector body.
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Revisions Table:

ZONE	REV	DESCRIPTION	DATE	BY
-	A	ECO 20030	05.22.07	DKN

Environmental Test Conditions:

- Temperature Range: -62°C to +125°C.
- Thermal Shock: Mil-Std-202, Method 107, Test Cond. B.
- Moisture Resistance: Mil-Std-202, Method 106, Insulation resistance at least 200 MegOhms within 5 minutes after removal from humidity.
- Corrosion: Mil-Std-202, Method 101, Test Cond. B.
- Vibration: Mil-Std-202, Method 204, Test Cond. D.
- Shock: Mil-Std-202, Method 213, Test Cond. I.

MATERIAL:

Body: 304L sst per AMS-5511.
Center Conductor: BeCu alloy per ASTM B-196.
Dielectric: PTFE per ASTM D-1710.
Epoxy: (for CC, CCSF, CCCE & CCCESF)
Sigma VF Type HV.
Conductive Epoxy: (for CCCE & CCCESF)
Eccobond 56C.

ELECTRICAL:

Impedance: 50 Ohms nominal.
Frequency Range: DC to 18.0 GHz.
VSWR: 1.06 + .005 (fGHz).
Insertion Loss: .07 √f GHz.
Working Voltage: 335 Vrms max @ sea level.
Dielectric Withstanding Voltage: 1500 Vrms min.
R.F. HiPot Voltage: 1000 Vrms min @ 5MHz.
Corona Level: 375 Vrms @ 70,000 ft.
Insulation Resistance: 5000 MegOhms min.
R.F. Leakage: -(60 - fGHz) dB min. for CC & CCSF
-(90 - fGHz) dB min. for Basic, SF, CCCE & CCCESF
Contact Resistance:
Initial: Center Contact: 3.0 Milliohm max.
Outer Contact: 2.0 Milliohm max.
After Environment: Center Contact: 4.0 Milliohm max.
Outer Contact: NA.

MECHANICAL:

Mating Characteristics:
Interface per Mil-Std-348.
Force To Engage & Disengage: Torque: 2 inch-pounds max.
Longitudinal Force: NA.
Center Contact Retention: Axial Force: 6 lbs min.
Connector Durability: 500 cycles min @ 12 cycles/minute max.
*Center Contact Captivation: Axial Force: 6 lbs min.
Radial Torque: N/A
Permeability: Less than 2.0 mu.

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FINISH:

Body: (for SF, CCSF & CCCESF)
Passivated per AMS-QQ-N-290.
Body: (for Basic, CC & CCCE)
Gold plate per ASTM B-488, over nickel under plate per AMS-QQ-N-290.
Center Conductor: Gold plate per ASTM B-488, over nickel under plate per AMS-QQ-N-290.

APPLICABLE TENSOLITE DOCUMENTS

WORK STD	PROD INST	ASST INST
NA	NA	NA

TOLERANCES AND NOTES

DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED
FRACTION ± 1/32
DECIMAL ± .005
ANGULAR ± 1/2°
1. MACHINE FINISH
2. BREAK ALL SHARP EDGES .003 MAX.
3. MACHINED FLUTES .005 MAX.
4. MACHINED SURFACES SQUARE TO RESPECTIVE AXIS WITHIN .005 INCHES PER INCH
5. .002 T.I.D. DIAMETERS CONCERNING WITHIN .005 INCHES PER INCH
6. DIMENSIONS TO BE MET BEFORE PLATING.
7. REMOVE PLATING FROM ALL SURFACES.
8. THREADS PER H-28.
9. REMOVE PLATING FROM ALL SURFACES.
10. REMOVE ALL BURRS.

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DRAWING NO. 5450