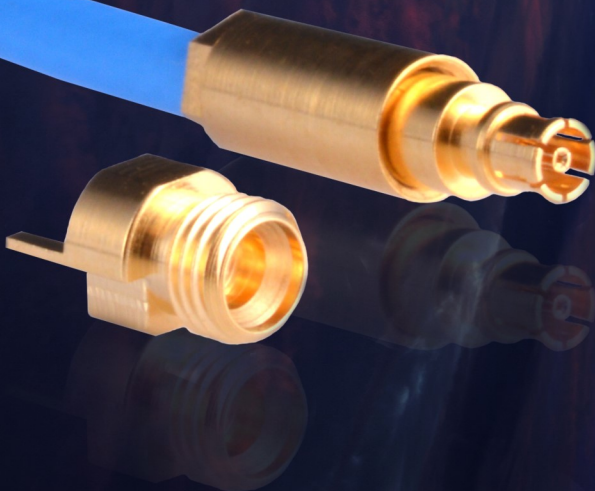




SMPM-T



SMPM-T Design Features

Delta's SMPM-T connectors are the perfect choice for applications requiring high frequencies in demanding environments involving vibration or temperature extremes. They have a threaded retractable nut, combined with SMPM Mil-STD-348 female interface giving these connectors superior mechanical and electrical capabilities. Our SMPM-T connectors have unparalleled mechanical and electrical ability to maintain 65 GHz through severe environmental conditions. Centerline-to-centerline spacing as low as 5mm (0.20 in) is achievable, and Delta's unique tooling options allow for simple mating and unmating of the threaded interface.

Delta's SMPM-T connectors are available for use with Semi Rigid, Conformable and Flexible .047 and .086 cable termination options. The connectors & cable assemblies are both RoHS & REACH compliant. SMPM-T's are compatible with MIL-STD-348, Fig. 328-1 & 328-2 and are the smallest threaded interface available, meeting that standard.



Aerospace



Aviation



Communications



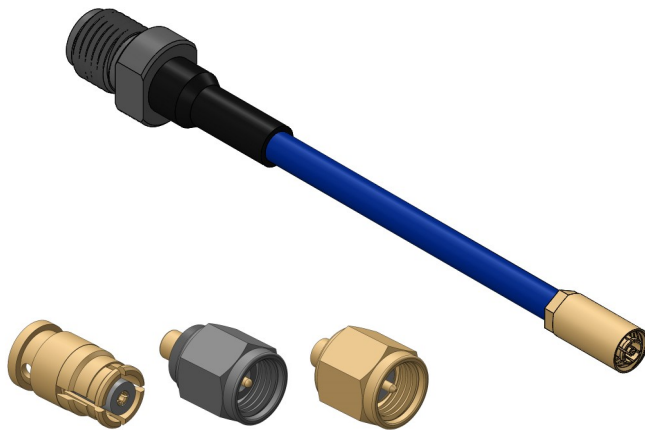
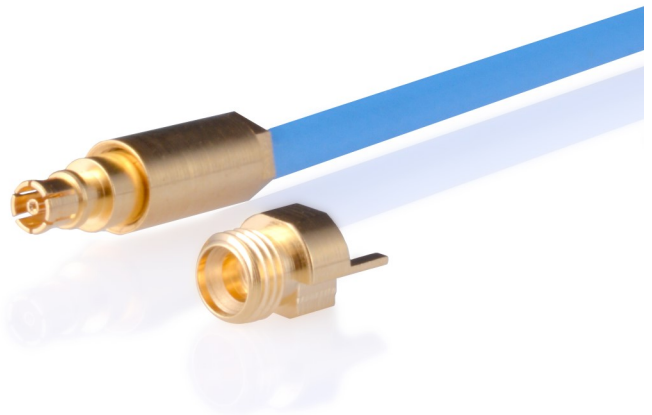
Radar

SMPM-T Cable Assembly Options

SMPM-T's are designed to be terminated to semi-rigid, conformable and flexible .047 and .086 cable types. The interface selected on the opposing end of the assembly will determine the frequency range the assemblies will be rated. The maximum rating is 65 GHz, when matched with another SMPM-T or SMPM. Typical connectors that could be matched to the cable assembly opposing side, include SMA, SMP, SMK {2.92}, etc....

The SMPM-T is compatible with Delta's industry MIL-STD-348 SMPM male receptacles, which includes Corning Gilbert's GPPO®.

Delta's .047 and .086 SMPM-T cable assemblies perform through 65 GHz, with the added benefit of the threaded coupling.



Features & Benefits

If the .047 *flexible* cable option is selected, additional gains will be accomplished. They are:

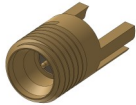
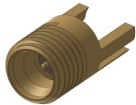
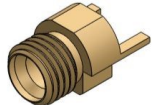
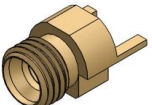
- Guaranteed 15 lbs. minimum pull force
- Minimum bend radius of 1.52mm (0.06 inch)
- 35% lower insertion loss than .047 inch semi-rigid cable
- Eliminates the need for costly right angled connectors
- Triple shielded for high isolation benefit
- Direct replacement for .047 inch semi-rigid cables

The SMPM-T cable assembly opposing end may be matched and terminated, utilizing numerous standard coaxial interfaces: SMA, SMP, SMPM, SMPM-T, SMK (2.92), etc...

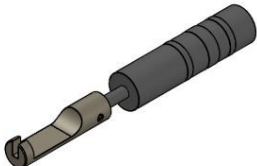


SMPPM-T Connectors

PCB Edge Mount Male Connectors

Part Number	Interface	Contact Length (L)	Image
8867000G91N-001	Smooth Bore With Post Contact	.066 in (1.676 mm)	
8867000G91N-004	Full Detent With Post Contact	.066 in (1.676 mm)	
8867000G91N-002	Smooth Bore With Post Contact	.035 in (0.889 mm)	
8867000G91N-003	Full Detent With Post Contact	.035 in (0.889 mm)	

Straight Vertical Launch PCB Mount Male Connectors

Part Number	Interface	Image
8868000G91P-086	Smooth Bore With Right Angle Post Contact	
8868000G91P-106	Full Detent With Right Angle Post Contact	
T33-88000-01	SMPPM-T Torque Wrench	

More Tool Detail
on the Back Page.

SMPM-T Connectors

Electrical Data

Insulation Resistance	5000 megaohms min.
Contact Resistance	Center conductor 6.0 milliohms max.; outer conductor 2.0 milliohms max.
Frequency Range	DC to 65 GHz
Impedance	50 Ω
Insertion Loss	.05 + .04vf in GHz (non-hermetic connectors); .12vf in GHz (hermetic connectors)
VSWR	1.1:1 to 26.5 GHz; 1.4 to 65 GHz
Corona Levels	125 Vrms at 70000 ft
DWV	335 Vrms at sea level
Magnetic Permeability	<2 Mu
RF High Potential	200 Vrms at 5 MHz
RF Leakage	-80 dB max. at 3 GHz, -65 dB max. at 3 to 26.5 GHz

Mechanical Data

Force To Engage	SMPM full detent – 3.5 lbs. typical; SMPM smooth bore – 1.5 lbs typical
Force To Disengage	SMPM full detent – 5 lbs. typical; SMPM smooth bore – 1.5 lbs typical
Center Contact Retention	1.5 lbs min. (captivated designs)
Durability	100 cycles min. into a full detent shroud; 1000 cycles min. into a smooth bore shroud
Mating Torque	18-22 in-oz
Proof Torque	32 in-oz min.

Environmental Data

Moisture Resistance	MIL-STD-202, method 106
Temperature Range	-65 °C to +165 °C
Thermal Shock	MIL-STD-202, method 107, test condition B
Shock	MIL-STD-202, method 213, 12000 g peak
Random Vibration	MIL-STD-202, method 214, test condition K-I, 46.3 grms
Sine Vibration	MIL-STD-202, method 204, 28 g peak
Corrosion	MIL-STD-202, method 101, test condition B

Material & Finishes

Cable & Board Connectors

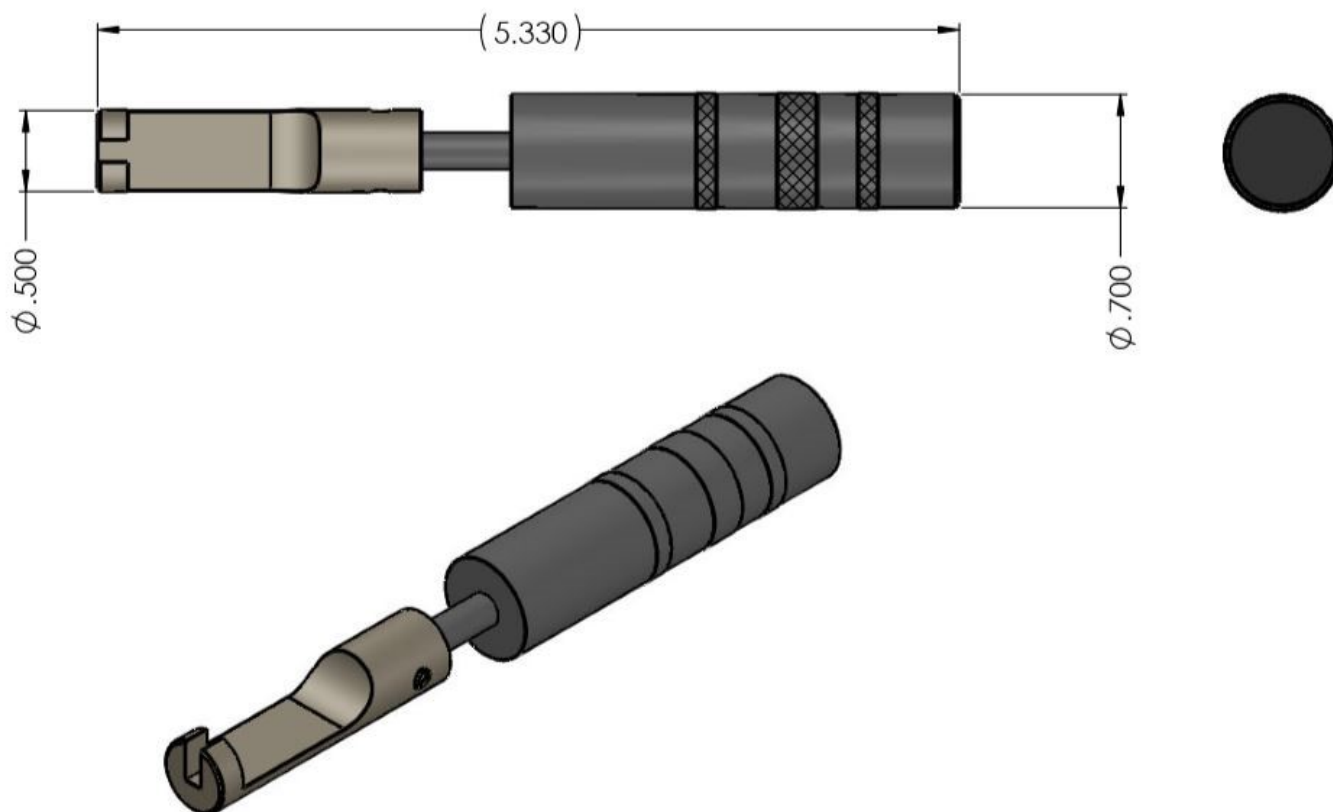
- Body & Contact Beryllium copper per ASTM B-196, gold plate per ASTM B-488, code C, type II over nickel plate per SAE-AMS-QQ-N-290, type 1
- Dielectric PTFE per ASTM D-1710, type I, grade 1, Torlon™ per ASTM D-5204 or Ultem™ per ASTM D-5205

Adapters

- Body & Nut #303 SS per ASTM A-582, gold plate per ASTM B-488, code C, type II over nickel plate per SAE-AMS-QQ-N-290, type 1
- Contact Beryllium copper per ASTM B-196, gold plate per ASTM B-488, code C, type II over nickel plate per SAE-AMS-QQ-N-290, type 1
- Dielectric PTFE per ASTM D-1710, type I, grade 1 and Ultem™ per ASTM D-5205

¹ Performance listed is typical. Individual part configuration may vary. Contact Delta Electronics Mfg. Corp. for more information and specifications by part number. Customer specific factors pertaining to recommended mounting patterns including transmission line topology, substrate thickness and material, board-stackup, operating frequency, etc. must be submitted to Delta Electronics Mfg. Corp. for analysis prior to release of final performance levels and mounting configuration. Waiver - Fact and figures herein are for information only and do not represent any warranty of any kind.

SMPM-T Tooling



T33-88000-01

SMPM-T Torque Wrench

Torque Type: Fixed

Design Type: Screwdriver

Hex Size: .138 Hex

Torque Setting: 32 ± 2 in-oz