

Delta Mini-SMPM

MINI SMPM Connectors DC-18 GHz (Economical Line) DC - 65 GHz (High Frequency Line)

Similar in functionality to the SMPM series, the MINI-SMPM series is 30% smaller than the SMPM series. While the Mini-SMPM construction allows for higher frequencies up to 65 GHz, Delta recognized applications where low interface board-board interconnects were in demand typically did not range above 18 GHz. For this reason Delta has developed 2 lines – The Economical Line (E-Line) and HF Line of Mini-SMPM. For higher frequency applications ranging above 40 GHz, tightly tolerance components and extreme handling and processing is required. The end result is a higher manufacturing cost.

The Mini-SMPM series has a center to center mounting spacing of .078 of an inch and a minimum board to board spacing of .125” when utilizing its smallest bullet adapter (.098”) and shrouds (.015 board to reference plane). Board mounts are supplied in numerous configurations – surface mount, thru mount and edge mount and bullets lengths range from .098 to .500” in length for the standard product offerings. Contact Delta today with your design requirements and our engineering team will offer you to most cost effective solution.



Electrical and Mechanical Specifications*

Electrical Specifications:

Nominal Impedance: 50 ohms

Frequency Range: DC-65 GHz

Typical VSWR: 1.20 Max thru 26.5 GHz ; 1.5 Max thru 65 GHz

Insulation Resistance: 3,500 megohms

DWV (@sea level): 250 Vrms

RF Leakage: -80db to 3 GHz, -65db from 3 to 65 GHz

Mechanical Specifications:

Durability: 100 min (FD) ; 250 min (LD) ; 500 (SB & CM)

Force to Engage: 4 lbs typ (FD) ; 2 lbs typ (SB & CM)

Force to Disengage: 6.0 lbs typ (FD) ; 3 lbs typ (SB & CM)

Contact Retention: 1.5 lbs min.

Minimum Center Line to Center Line Spacing: .078"

Radial Misalignment: +/- .010"

Axial Misalignment: .010" Max

Materials:

Bodies/Shrouds: Beryllium Copper Per ASTM B196 and/or ASTM B197 or Stainless Steel type 303, Condition A

Outer Contacts: Beryllium Copper Per ASTM B196 or ASTM B197

Center Contacts: Beryllium Copper Per ASTM B196 or ASTM B197

Insulators: PTFE Fluorocarbon per ASTM D1710 or Torlon per MIL-P-46179

Finishes:

Bodies: Gold Plate per MIL-G-45204, over Nickel Plate per SAE AMS-QQ-N-290 or Passivated per AMS-QQ-P-35

Contacts: Gold Plate per MIL-G-45204, over Nickel Plate per SAE AMS-QQ-N-290

Environmental Specifications:

Temperature Range: -65° C to +165° C

Shock: Meets MIL-STD-202 Method 213, Condition I

Vibration: Meets MIL-STD-202 Method 204, Condition D

Altitude: Meets MIL-STD-202, Method 105 Condition C

Thermal Shock: Meets MIL-STD-202, Method 107 Condition B

*These specifications are typical and may not apply to all connectors. Detailed specifications for individual connectors are available upon request.

Finishes:

Bodies: Gold Plate per MIL-G-45204, over Nickel Plate per SAE AMS-QQ-N-290 or Passivated per AMS-QQ-P-35

Contacts: Gold Plate per MIL-G-45204, over Nickel Plate per SAE AMS-QQ-N-290

Environmental Specifications:

Temperature Range: -65° C to +165° C

Shock: Meets MIL-STD-202 Method 213, Condition I **Vibration:** Meets MIL-STD-202 Method 204,

Condition D **Altitude:** Meets MIL-STD-202, Method 105 Condition C **Thermal Shock:** Meets MIL-STD-202, Method 107

Condition B

Delta Electronics Manufacturing's SMPM interfaces conform to MIL-STD-348A as well as industry standards for this series and are completely intermateable with other manufacturers SMPM series connectors.

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