Rosenberger

For High Density Applications to 100 GHz

WSMP[®] Coaxial RF Connectors and RF Coaxial Cable Assemblies

ROSENBERGER NORTH AMERICA



WSMP[®] Coaxial RF Connectors and RF Coaxial Cable Assemblies

Provides:

- Signal Integrity to 100 GHz
- Center to Center Spacing 0.085" [2.15 mm]
- Board to Board Height of 0.198" [5.03mm] (0.120" [3.05mm] possible)
- 45% Smaller than SMP; 35% Smaller than Mini SMP (SMPM)
- Custom Footprints for Optimized RF Performance on Your PC Board
- Custom RF Cable Assemblies for Your Application

Company Profile

Rosenberger is one of the worldwide leading suppliers of controlled impedance and optical connectivity solutions, system components for mobile communications networks, data centers and test and measurement as well as high voltage contact systems.

The Rosenberger group operates manufacturing and assembly locations in over 10 countries as well as a global sales network.





Rosenberger North America

Rosenberger Akron is a center of excellence for standard and custom RF cable assemblies and connectors. Our advanced technology, reputation for innovation and commitment to our customers has enabled our rapid-turn production as well as our ability to meet and exceed the demands of the North American marketplace.

Rosenberger North America is ISO 9001 and AS9100 certified.

Quality & Environment

Rosenberger's quality philosophy is not just to optimize components and products, but to continuously improve and optimize all processes to ensure customer satisfaction. From product development, planning, procurement, production, sales, logistics and services to environmental policy. In summary, to offer maximum benefits to our customers all over the world. Our quality responsibility includes being proactive in protecting our environment and natural resources. We endeavour to avoid any environmental pollution, even beyond the requirements of legal regulations whenever possible.



Connectors

Specifications

Interface		Mechanical data				
According to Rosen	berger WSMP [®] Interface standards	Engagement force (typical)				
		Full Detent (FD)	11 N	2.47 Lbs.		
Material and platin	g	Smooth Bore (SB)	5.3 N	1.19 Lbs.		
Connector parts	Material Plating	Disengagement force (typical)				
Center contact	Kovar [®] or CuBe Gold	Full Detent (FD)	20 N	4.5 Lbs.		
Outer contact	Kovar [®] or CuBe Gold	Smooth Bore (SB)	4.45 N	1.0 Lbs.		
Dielectric PTFE, Polyimide, or Corning 7070 [™] Glass*		Axial Misalignment	.000005 inc	.000005 inches [0.00-0.13 mm]		
		Radial Misalignment	±.010 inches	±.010 inches [±0.25mm]		
Electrical data						
Impedance	50 Ω	Environmental data				
Frequency	DC to 100 GHz	Temperature range	-55° C to +10	-55° C to +165° C		
Return loss (typical) ≥ 26 dB, DC to 26.5 GHz ≥ 19 dB, 26.5 to 65 GHz		Thermal shock	MIL-STD-202	MIL-STD-202, Meth. 107, Cond. B		
		Corrosion	MIL-STD-202, Meth. 101			
Insertion loss	≤ 0.12 x √f(GHz) dB	Vibration	MIL-STD-202	MIL-STD-202, Meth. 204, Cond. D		
Insulation resistance $\geq 3.5 \times 10^3 M\Omega$		Shock	MIL-STD-202, Meth. 213, Cond. I			
Outer contact resista	ance $\leq 2.0 \text{ m}\Omega$	Moisture resistance	MIL-STD-202, Meth. 106, except Step 7B			
Center contact resis	tance $\leq 6.0 \text{ m}\Omega$	Max. soldering temperatu	ure			
Test voltage (at sea level) 250 Vrms		(optional)	IEC 61760-1, +260°C for 10 sec.			
RF High Potential		RoHS	Compliant	Compliant		
(at sea level)	150 V rms @ 5 MHz	Hermetically-sealed to				
RF-leakage (optiona	I) \geq -80 dB (typical mated pair)	1 x 10 ⁻⁸ cc/sec	On Request			
Mechanical data		Tooling				
Mating cycles		WSMP Cable Connecto	tor Prvbar W1W001-000			
Full Detent (FD)	≥ 100	WSMP Right Angle Prybar Extraction Tool W1W005-000 WSMP Bullet Insertion/ Extraction Tool W1W002-000				
Smooth Bore (SB) ≥ 500					

Cable Connectors

Description WSMP Female Straight for .047 Cable

Part Number W1K101-270D3



Description WSMP Male Straight for .047 Cable





Description

WSMP Female Right Angle for .047 Cable



Description WSMP Male Straight Bulkhead for .047 Cable



Part Number W1K201-270D3



Part Number FD: W1S501-270D3 SB: W1S541-270D3



Status March 2017 - Rosenberger reserves the right to make modifications to products. Images are similar but may not be exact. Please consult the data sheets for details. Rosenberger North America I www.rosenbergerna.com

Connectors

PCB Connectors

Description WSMP Male PCB, Straight, SMT, J-Lead





Part Number



Description WSMP Male PCB Edge Mount

_ 2.39mm _____ [.094] ___



Part Number

FD: W1S204-40ML5

Hermetic

Description

WSMP Straight, PCB plug, solder-in hermetic







Description WSMP Male PCB, Straight,

SMT, J-Lead, Multiport Arrays





FD: 2 Port: W1S12A 40ML5

Part Number





Shroud/Pin

Description WSMP Straight, PCB plug, pin/shroud kit

Part Number

FD: W1S104-40ML5 SB: W1S144-40ML5





Description

Compressible Bullet, 0.5"





Adapters

Description

WSMP Female Blindmate Interconnect (Bullet)



Part Number	A (mm) A (in)	Part Number A	(mm)	A (in)
W1K10A-K00D	3 2.49	0.098	W1K10J-K00D3	7.62	0.300
W1K10C-K00D	3 3.18	0.125	W1K10M-K00D3	10.16	0.400
W1K10F-K00D	3 3.81	0.150	W1K10N-K00D3	12.70	0.500
W1K10G-K00D	3 5.08	0.200	W1K10P-K00D3	15.24	0.600
W1K10H-K00D	3 6.35	0.250			

Additional lengths available on request

Connectors

Between Series Test Adapters

Description

WSMP Male Full Detent to RPC-2.92 Female Adapter RPC-1.85 Female Adapter RPC-1.00 Male Adapter RPC-1.00 Female Adapter

Part Number

W1S102-K00S3 to 40 GHz W1S108-K00S3 to 67 GHz W1S101-S00D3 to 110 GHz W1S101-K00D3 to 110 GHz



WSMP Female to RPC-2.92 Female Adapter RPC-1.85 Female Adapter **RPC-1.00** Female Adapter

Part Number

W1K102-K00D3 to 40 GHz W1K108-K00D3 to 67 GHz W1K101-K00D3 to 110 GHz



Cable Assemblies

WSMP Cable Assemblies

Description

WSMP on .047 Flexible, Formable, or Semi-Rigid Cable to SMA, RPC-2.92, RPC-2.40, and RPC-1.85



Tools. Custom for your needs





H70W-W16-W16-00305





Website

For more information, refer to our website www.rosenberger.com

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