


IDEAL FOR HIGH-DENSITY APPLICATIONS AND FREQUENCIES UP TO 100 GHz.

Rosenberger's new WSMP™ ultra high-density, push-on interconnect system offers superior flexibility and high-frequency performance to meet a range of standard and custom configurations in space, military and commercial applications.

- Broad RF frequency range through 100 GHz
 - Available in multiport versions
 - Insertion and extraction tools facilitate assembly
 - Full detent and smooth bore push-on captivation
 - Center-to-center spacing of 2.16 mm (0.085") and board-to-board height of 3.05 mm (0.120") increase package density
 - Bullets in different lengths accommodate axial and radial misalignments
 - Adapters available to 2.92 mm, 2.40 mm and 1.85 mm series
 - 45% smaller than SMP, 30% smaller than mini SMP
- 

SPECIFICATIONS

Interface

According to Rosenberger WSMP™ Interface standards

Material and plating

Connector parts	Material	Plating
Center contact	CuBe	Gold
Outer contact	CuBe	Gold
Dielectric	PTFE, Polyimide, or Corning 7070™ Glass*	

Electrical data

Impedance	50 Ω
Frequency	DC to 100 GHz
Return loss (typical)	≥ 26 dB, DC to 26.5 GHz ≥ 19 dB, 26.5 to 65 GHz
Insertion loss	≤ 0.12 x √f(GHz) dB
Insulation resistance	≥ 3.5 x 10 ⁹ MΩ
Center contact resistance	≤ 2.0 mΩ
Outer contact resistance	≤ 6.0 mΩ
Test voltage (at sea level)	250 V rms
RF High Potential (at sea level)	150 V rms @ 5 MHz
RF-leakage (optional)	≥ -80 dB (typical mated pair)

Mechanical data

Mating cycle	
Full Detent (FD)	≥ 100
Smooth Bore (SB)	≥ 500

Mechanical data

Engagement force (typical)	
Full Detent (FD)	15.6 N
Smooth Bore (SB)	7.1 N
Disengagement force (typical)	
Full Detent (FD)	26.7 N
Smooth Bore (SB)	11.1 N

Environmental data

Temperature range	-55° C to +165° C
Thermal shock	MIL-STD-202, Meth. 107, Cond. B
Corrosion	MIL-STD-202, Meth. 101
Vibration	MIL-STD-202, Meth. 204, Cond. D
Shock	MIL-STD-202, Meth. 213, Cond. I
Moisture resistance	MIL-STD-202, Meth. 106, except Step 7B
Max. soldering temperature (optional)	IEC 61760-1, +260°C for 10 sec.
(only for PCB connectors, such as -400, -40M, -40T, -410 and -440 connectors, except the pressfit connectors -40P, -41P)	
2002/95/EC (RoHS)	Compliant
*Hermetically-sealed to 1 x 10 ⁻⁸ cc/sec	

Tooling

WSMP Cable Connector Prybar	W1W001-000
Extraction Tool	
WSMP Bullet Insertion/ Extraction Tool Low Profile	W1W002-000

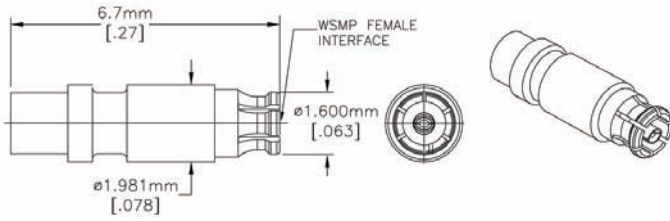
WSMP™ Series Miniature Connectors Cable Connectors

Description

WSMP Female Straight
for .047 S/R Cable

Part Number

W1K101-270D3

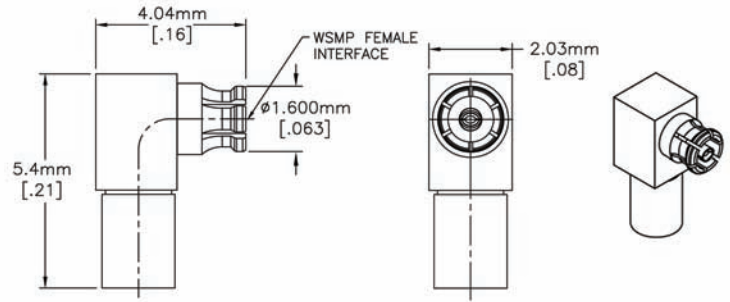


Description

WSMP Female Right Angle
for .047 S/R Cable

Part Number

W1K201-270D3

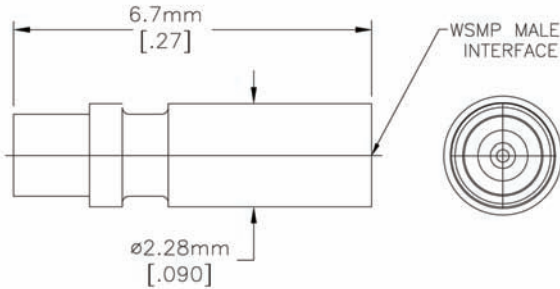


Description

WSMP Male Straight
for .047 S/R Cable

Part Number

FD: W1S101-270D3
SB: W1S141-270D3

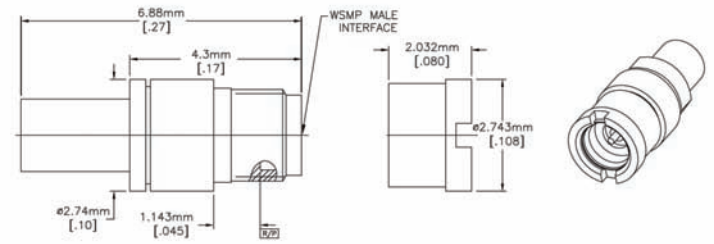


Description

WSMP Male Straight Bulkhead
for .047 S/R Cable

Part Number

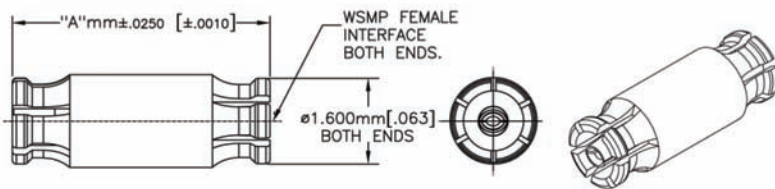
FD: W1S501-270D3
SB: W1S541-270D3



Adapters

Description

WSMP Female Blindmate Interconnect (Bullet)



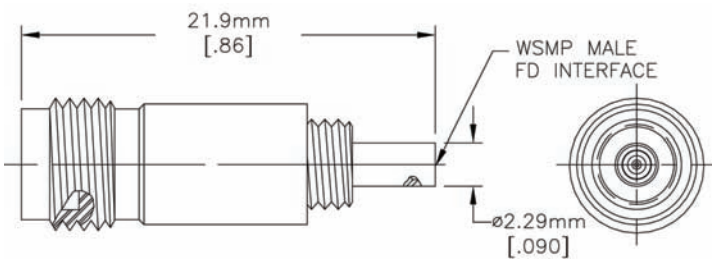
Part Number	A (mm)	A (in)	Part Number	A (mm)	A (in)
W1K10A-K00D3	2.49	0.098	W1K10K-K00D3	8.31	0.327
W1K10B-K00D3	3.00	0.118	W1K10L-K00D3	8.89	0.350
W1K10C-K00D3	3.18	0.125	W1K10M-K00D3	10.16	0.400
W1K10D-K00D3	3.28	0.129	W1K10N-K00D3	12.70	0.500
W1K10E-K00D3	3.48	0.137	W1K10P-K00D3	15.24	0.600
W1K10F-K00D3	3.81	0.150	W1K10R-K00D3	21.59	0.850
W1K10G-K00D3	5.08	0.200	W1K10S-K00D3	25.40	1.000
W1K10H-K00D3	6.35	0.250	W1K10T-K00D3	27.18	1.070
W1K10J-K00D3	7.62	0.300			

Description

WSMP Male Full Detent
to RPC-2.40 Female Test Adapter

Part Number

W1S109-K00D3

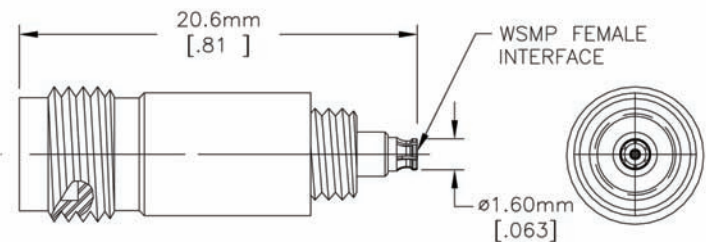


Description

WSMP Female to RPC-2.40
Female Test Adapter

Part Number

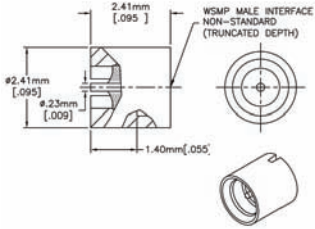
W1K109-K00D3



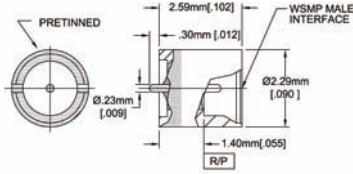
Description

WSMP Male PCB Straight, SMT Vertical Launch, High Temp

Microstrip
 FD: W1S101-40ML5
 SB: W1S141-40ML5



Stripline
 W1S102-40ML5
 W1S142-40ML5

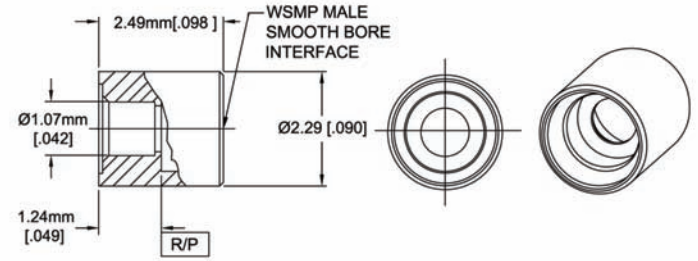


Description

WSMP Male PCB Straight, SMT Vertical Launch, Shroud Kits, Microstrip

Part Number

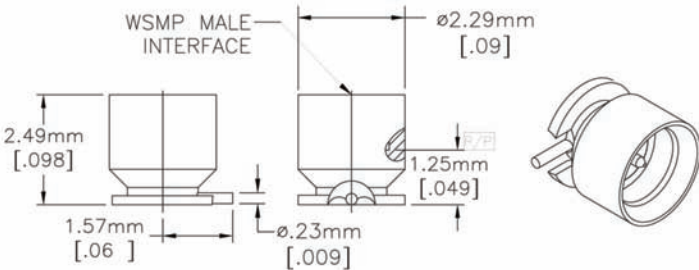
FD: W1S104-40ML5
 SB: W1S144-40ML5



Description

WSMP Male PCB Straight SMT J-Lead
 SMT High Temp
 FD: W1S103-40ML5
 SB: W1S143-40ML5

SMT Economy
 W1S105-40ML5
 W1S145-40ML5

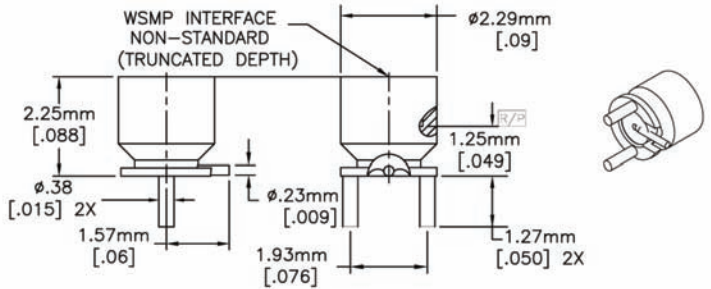


Description

WSMP Male PCB Straight SMT J-Lead, Pin-In-Paste, High Temp

Part Number

FD: W1S103-40ML5
 SB: W1S143-40ML5

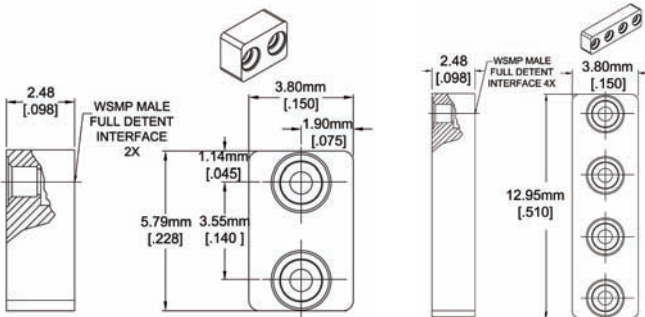


Description

WSMP Male PCB Straight, SMT Vertical Launch, Shroud Kits, Multiport
 2-port FD: W1S10A-40ML5
 SB: W1S14A-40ML5
 4-port W1S10B-40ML5
 W1S14B-40ML5

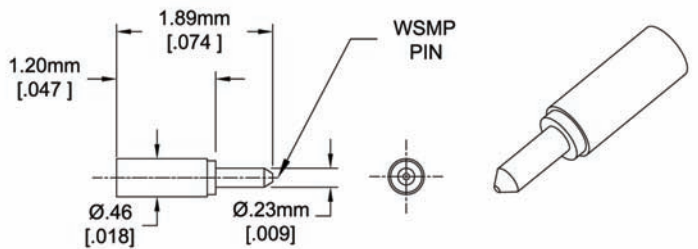
Part Number

W1S104-40M/20L



Description

WSMP Male PCB SMT Pin



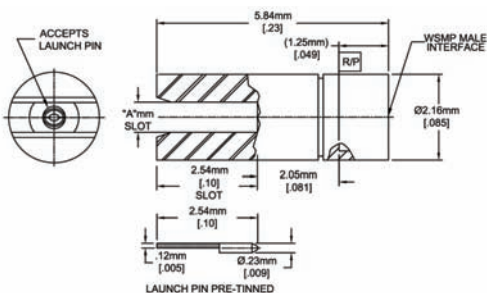
Spare Pins for:
 W1S104-40ML5, W1S144-40ML5, W1S10A-40ML5,
 W1S14A-40ML5, W1S10B-40ML5, W1S14B-40ML5

Description

WSMP Male PCB Edge Launch, Microstrip, Cantilevered
 0.76mm slot
 FD: W1S201-40ML5
 SB: W1S241-40ML5
 0.51mm slot
 W1S202-40ML5
 W1S242-40ML5

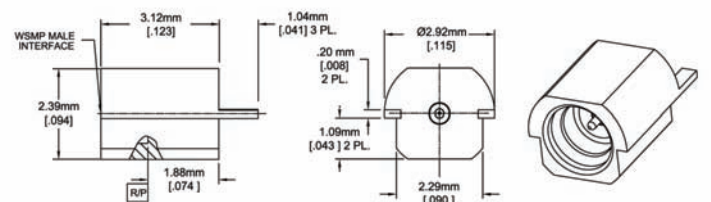
Part Number

FD: W1S203-40ML5
 SB: W1S243-40ML5



Description

WSMP Male PCB Edge Launch, Microstrip, Recessed



WSMP™ Series Miniature Connectors Terminations

Description

WSMP Male 50 Ohm Termination,
Full Detent, 0.25 W

Part Number

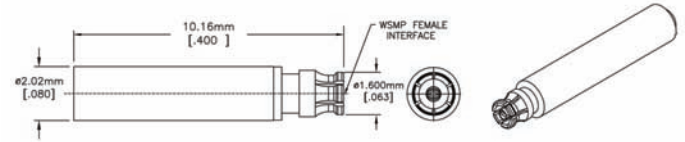
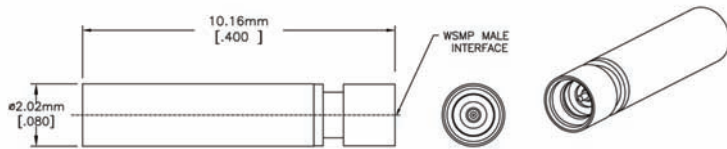
W1S15T-0.2D3

Description

WSMP Female 50 Ohm
Termination, 0.25 W

Part Number

W1K15T-0.2D3



Tools and Accessories

Description

WSMP Cable Connector Prybar
Extraction Tool

Part Number

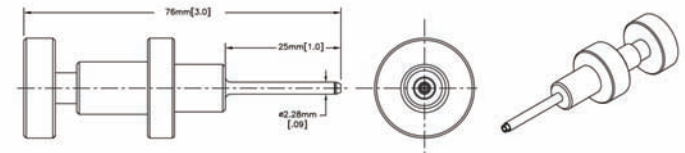
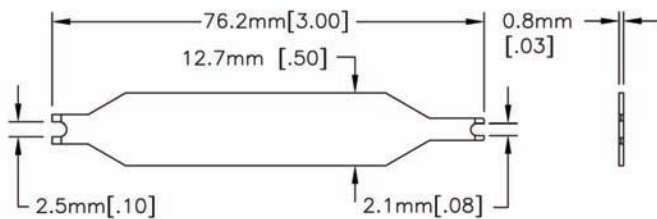
W1W001-000

Description

WSMP Bullet Insertion/
Extraction Tool, Low Profile

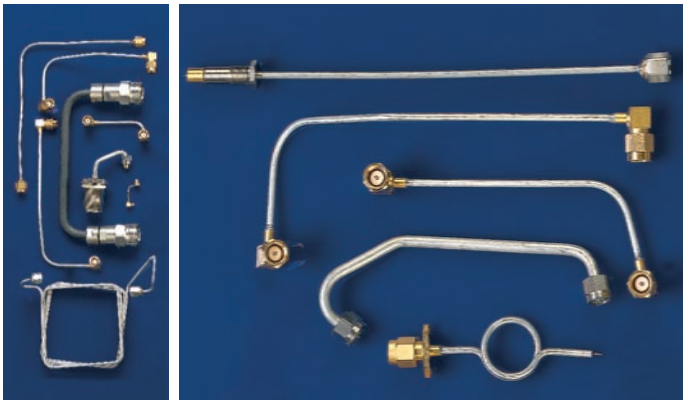
Part Number

W1W002-000



Rosenberger® Semi-Rigid (Hard-Line) Cables

If your application needs semi-rigid cable...demand Rosenberger performance.



Whether you need one piece or thousands, turn to Rosenberger for reliable S/R cable performance. With 15 CNC bending machines located strategically around the world — four in the USA — Rosenberger provides complex S/R configurations to exacting tolerances. We also assure repeatable performance to your specifications — to 70 GHz. RoHS-compliant assemblies are available. Rosenberger S/R cables can be specified in diameters from .020"-.250", with phase-matching by pair or lot. Need S/R? Demand Rosenberger performance.

- No NRE or set-up costs
- Your design to finished parts in days... not weeks!
- 3-D drawings supplied at no extra cost

Rosenberger®

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Other plating configurations are available upon request.
WSMP cable assemblies are also available upon request.

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