


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

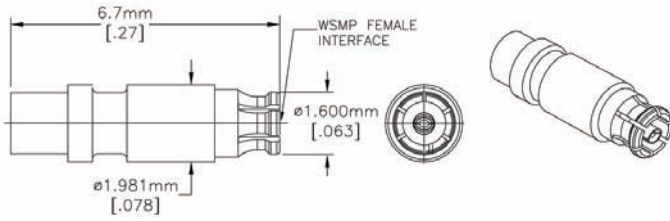
WSMP™ Series Miniature Connectors Cable Connectors

Description

WSMP Female Straight
for .047 S/R Cable

Part Number

W1K101-270D3

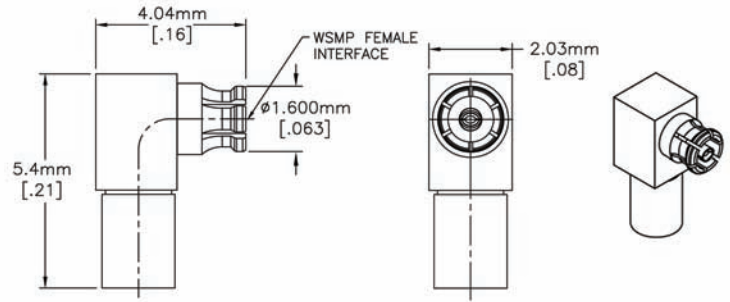


Description

WSMP Female Right Angle
for .047 S/R Cable

Part Number

W1K201-270D3

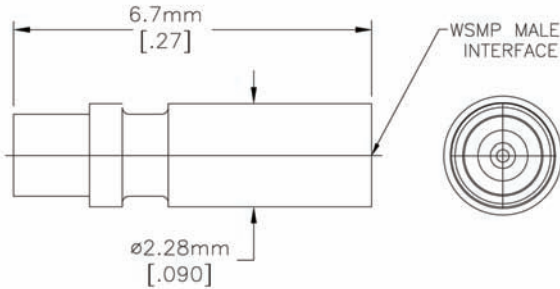


Description

WSMP Male Straight
for .047 S/R Cable

Part Number

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

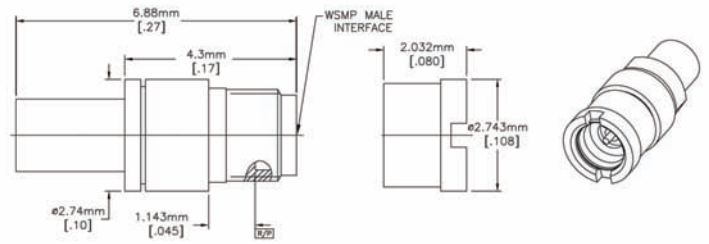


Description

WSMP Male Straight Bulkhead
for .047 S/R Cable

Part Number

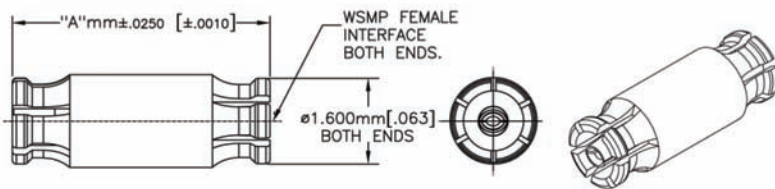
FD: W1S501-270D3
SB: W1S541-270D3



Adapters

Description

WSMP Female Blindmate Interconnect (Bullet)



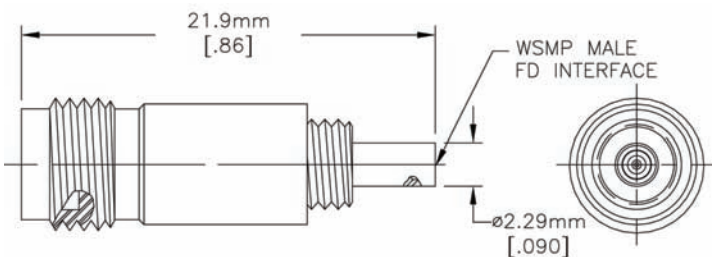
Part Number	A (mm)	A (in)	Part Number	A (mm)	A (in)
W1K10A-K00D3	2.49	0.098	W1K10K-K00D3	8.31	0.327
W1K10B-K00D3	3.00	0.118	W1K10L-K00D3	8.89	0.350
W1K10C-K00D3	3.18	0.125	W1K10M-K00D3	10.16	0.400
W1K10D-K00D3	3.28	0.129	W1K10N-K00D3	12.70	0.500
W1K10E-K00D3	3.48	0.137	W1K10P-K00D3	15.24	0.600
W1K10F-K00D3	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

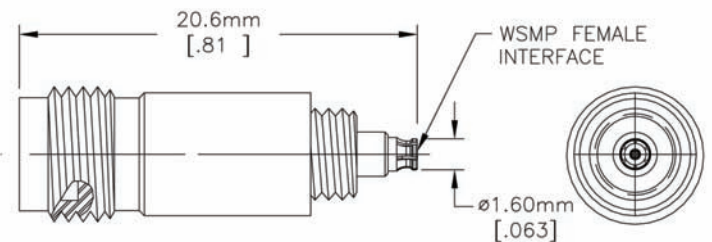


Description

WSMP Female to RPC-2.40
Female Test Adapter

Part Number

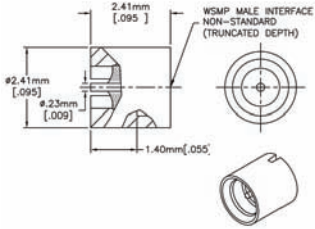
W1K109-K00D3



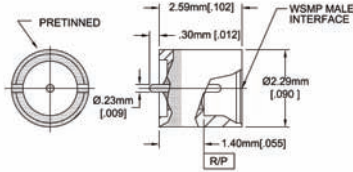
Description

WSMP Male PCB Straight, SMT Vertical Launch, High Temp

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



Stripline
 W1S102-40ML5
 W1S142-40ML5

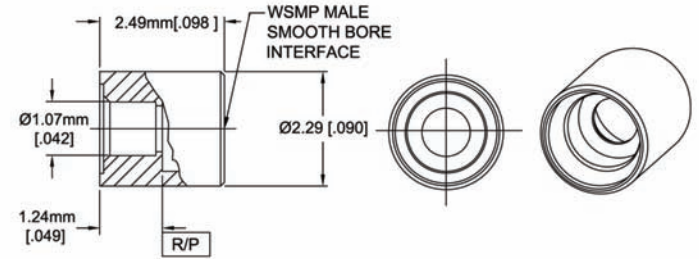


Description

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

Part Number

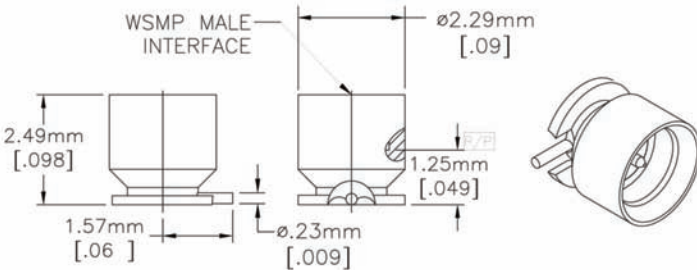
FD: W1S104-40ML5
 SB: W1S144-40ML5



Description

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

SMT Economy
 W1S105-40ML5
 W1S145-40ML5

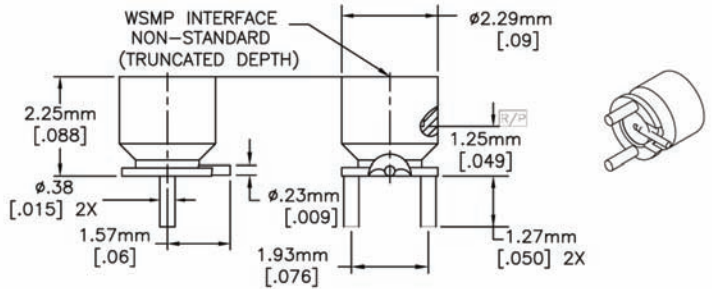


Description

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

Part Number

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

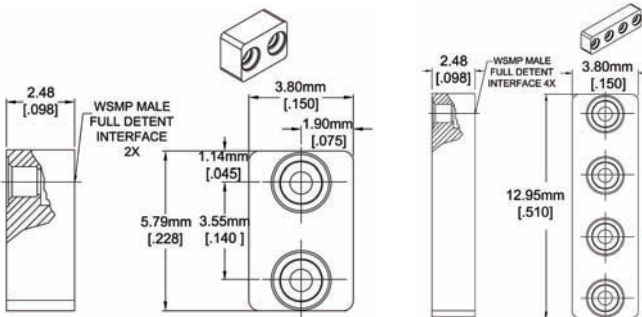


Description

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

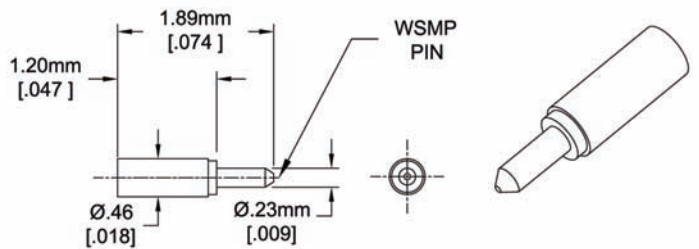
Part Number

W1S104-40M/20L



Description

WSMP Male PCB SMT Pin



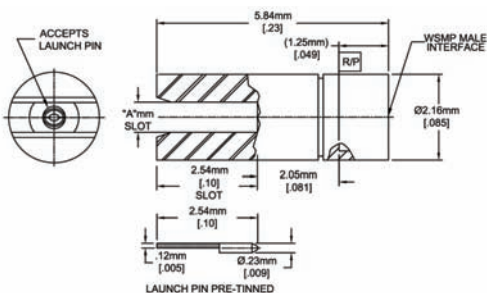
Spare Pins for:
 W1S104-40ML5, W1S144-40ML5, W1S10A-40ML5,
 W1S14A-40ML5, W1S10B-40ML5, W1S14B-40ML5

Description

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

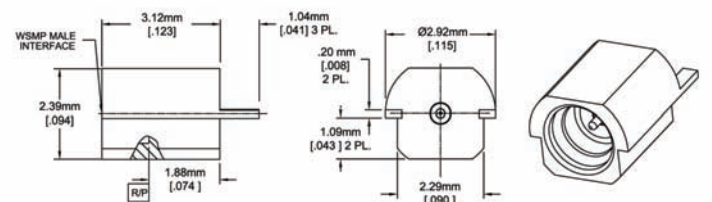
Part Number

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

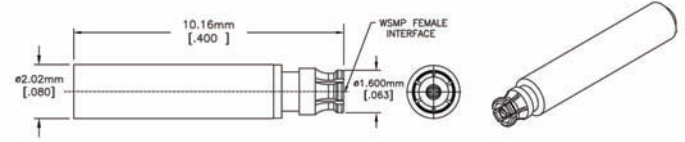
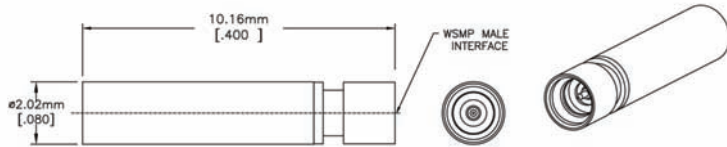
W1S15T-0.2D3

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

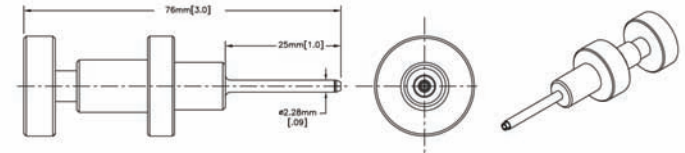
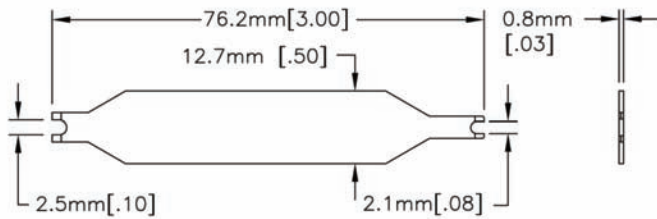
W1W001-000

Description

WSMP Bullet Insertion/
Extraction Tool, Low Profile

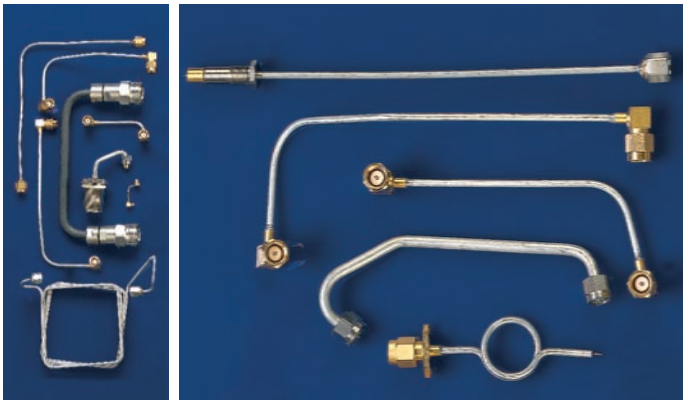
Part Number

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®

Rosenberger of North America, LLC
P.O. Box 309 Akron, PA 17501
Telephone: +1.717.859.8900 Fax: +1.717.859.7044
Email: info@rosenbergerna.com

© 2011, Rosenberger NA

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

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.