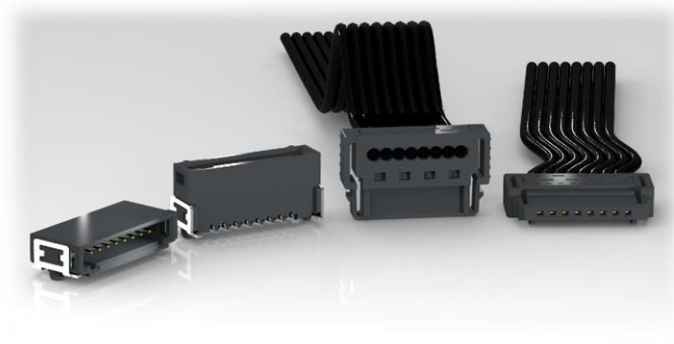


Specifications

■ Introduction



LS Powerlite series 1.27 mm single row connector provide High reliability board to line connection solution:

- Compact structure design, with high current transmission capacity, excellent heat resistance and vibration resistance, and function of avoiding misinsertion.
- Excellent terminal design ensures stable current transmission.

Powerlite series connector is designed base on VW 75174 (LV 214) /USCAR technical requirements for vehicle connector, It is mainly suitable for new energy vehicle (NEV) / electric vehicle (EV) powertrain and LED / laser headlamp etc. applications.

■ Feature

Description	Powerlite Series
Pitch	1.27mm
Rated current (Per contact)	Up to 8A (depends on cable and operation environment)
Pin quantity	2, 3, 4, 6, 8, 10, 12,14,16,18
Termination type	Male connector SMT. female connector IDC
Suitable wire/cable specification	Ribbon cable and discrete wire AWG 22 / 7
Variants	Vertical male connector type V
	Right angle male connector type A
	Female connector type A with 90° cable outlet
	Female connector type S with 180° cable outlet
Latch	Double side unlock feature without unlocking tool

1.27 mm single row board to wire connector

■ Parameter

Parameter	Standard	Powerlite
Temperature Range		-55°C~150°C
Current Rating (Single Pin)	IEC60512/GBT5095	7.8A 20°C
		6.1A 70°C
		4.8A 100°C
Creepage distance		>0.4mm
Rated voltage	IEC 60664	Suggest < 150V
Dielectric strength (Pin to Pin)	IEC60512/GBT5095	>500V
Contact resistance	IEC60512/GBT5095	<25mΩ
Insulator resistance	IEC60512/GBT5095	>10000MΩ
Vibration half sine	IEC60512/GBT5095	20g/10~2000Hz
Shock	IEC60512/GBT5095	<7Ω,1us
Mechanical operation	IEC60512/GBT5095	500 times
Insertion&Withdrawal force	IEC60512/GBT5095	<1N per pin
Gauge retention force	IEC60512/GBT5095	>0.1N per pin
Hand soldering temperature	IEC 68-2-20	350°C, less than 3.5s
Reflow soldering temperature	JEDEC / J-STD-020	260°C, less than 30s
Coplanarity		<0.1mm
Connector plastic		LCP
CTI Value		175
UL flaming rating		UL94 V-0
Contact base material		Cu alloy
Termination area (PCB)		Sn plated
Mating area		Au plated
Environment compatibility		RoHS/REACH

Powerlite series

Linksolution

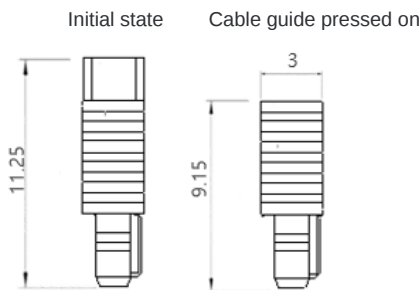
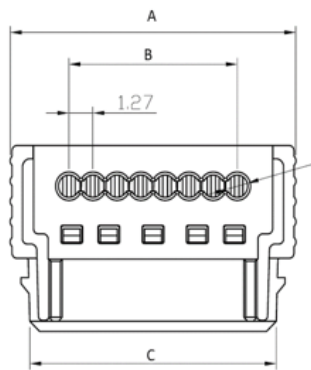
1.27 mm single row board to wire connector

Female connector

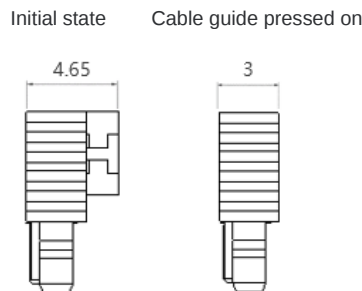
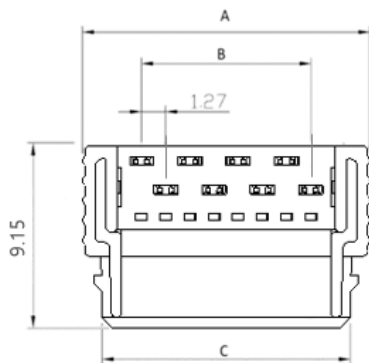


- Two wire connection type: 90° cable outlet(both side) and 180° cable outlet
- IDC termination type
- Error proof feature, effectively protect the terminal
- Double side unlock feature without unlocking tool, Provide high reliable connection and plug flexibility.
- Tray Packing.

Dimensions



A	B	C	Pin
7.47	1.27	5.40	2
8.74	2.54	6.67	3
10.01	3.81	7.94	4
12.55	6.35	10.48	6
15.09	8.89	13.02	8
17.63	11.43	15.56	10
20.17	13.97	18.10	12
22.71	16.51	20.64	14
25.25	19.05	23.18	16
27.79	21.59	25.72	18



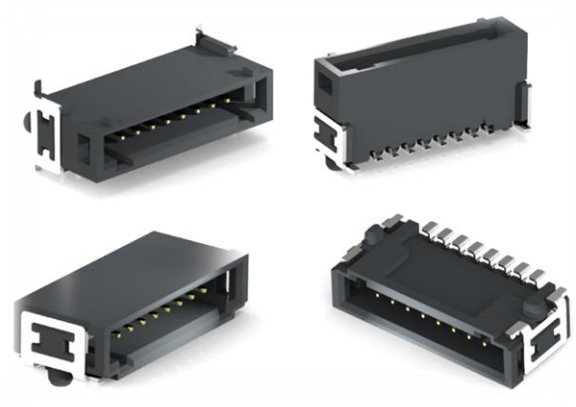
A	B	C	Pin
7.47	1.27	5.40	2
8.74	2.54	6.67	3
10.01	3.81	7.94	4
12.55	6.35	10.48	6
15.09	8.89	13.02	8
17.63	11.43	15.56	10
20.17	13.97	18.10	12
22.71	16.51	20.64	14
25.25	19.05	23.18	16
27.79	21.59	25.72	18

Powerlite series

Linksolution

1.27 mm single row board to wire connector

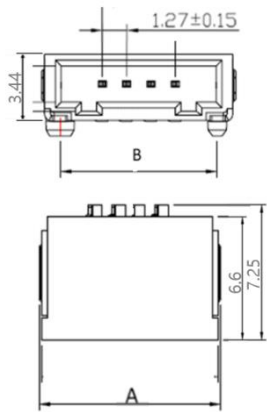
Male connector



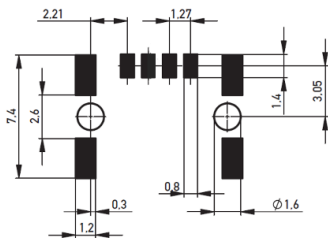
- Powerlite offers 2 kinds of male connectors, Angle and Vertical
- SMT Termination
- Reflow soldering is suggested
- Reel package with tape for SMT

Dimensions

Angle:

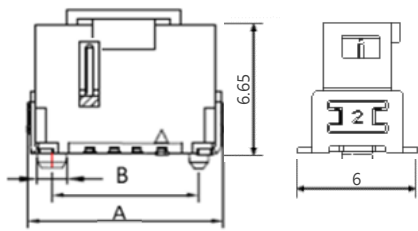


PCB Layout

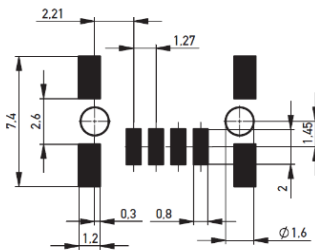


Pin No	A	B
2	7.62	5.69
3	8.89	6.96
4	10.16	8.23
6	12.70	10.77
8	15.24	13.31
10	17.78	15.85
12	20.32	18.39
14	22.86	20.93
16	25.4	23.47
18	27.94	26.01

Vertical



PCB Layout



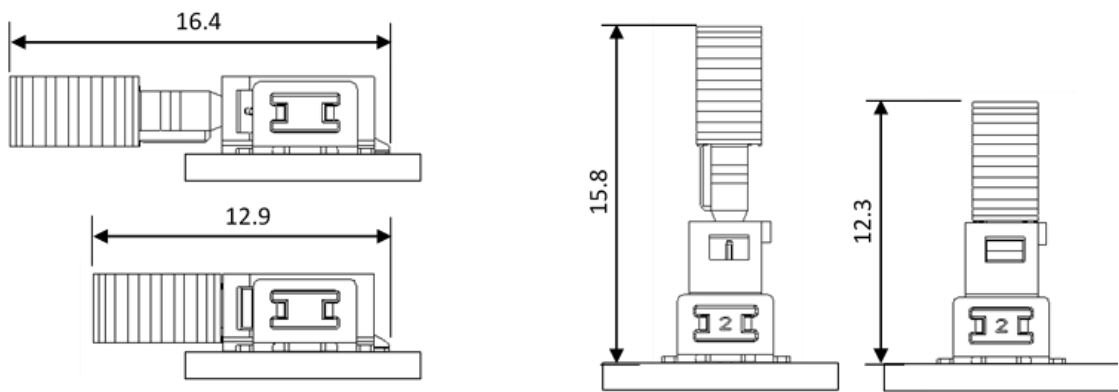
Pin No	A	B
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16	25.4	23.47
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Powerlite series

Linksolution

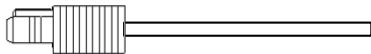
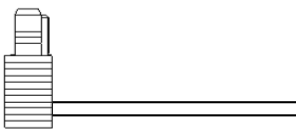
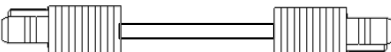
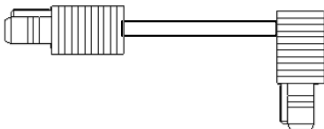
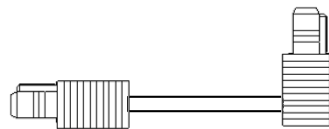
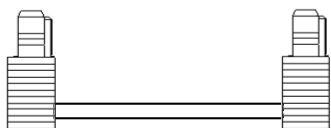
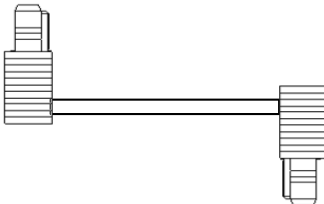
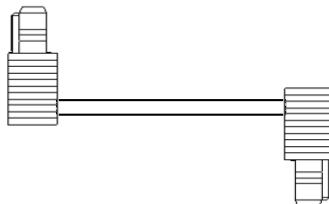
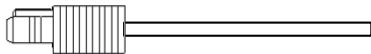
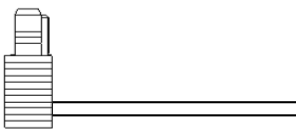
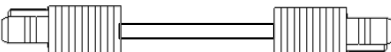
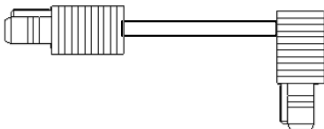
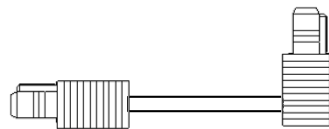
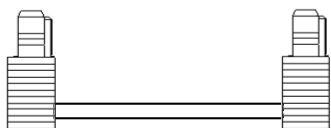
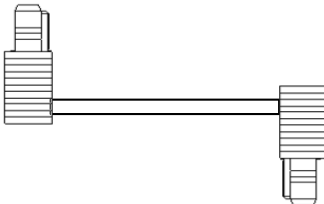
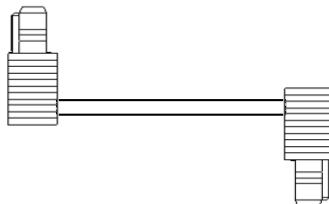
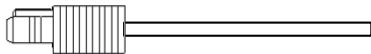
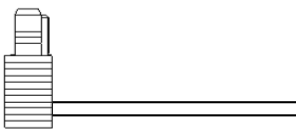
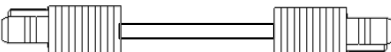
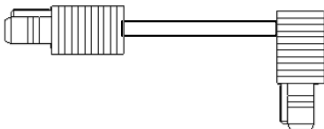
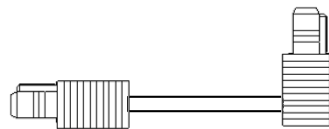
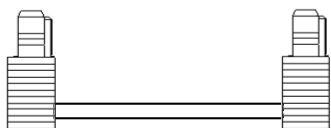
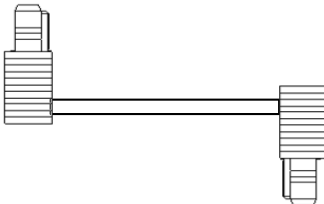
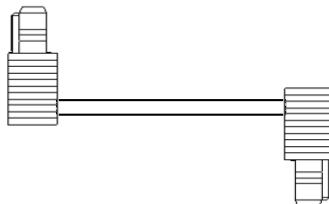
1.27 mm single row board to wire connector

■ Matching state



■ Cable assembly type

Example: PLcable-08-5-100-R-2

PLcable	No. of Pins	Connection type	Length	Cable type	线缆材质									
	0.2/03/04/06/08/10/12		Without connector(mm)	R: Ribbon D:	1: PVC(-20~105℃) 2: TPE(-40~125/150℃)									
<table><tr><td> 1 </td><td> 2 </td><td> 3 </td></tr><tr><td> 4 </td><td> 5 </td><td> 6 </td></tr><tr><td> 7 </td><td> 8 </td><td> 9 </td></tr></table>						 1	 2	 3	 4	 5	 6	 7	 8	 9
 1	 2	 3												
 4	 5	 6												
 7	 8	 9												
PS: Above connection type just shows pin position one-to-one correspondence. Other connection type follow customer requirements.														

Powerlite series

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1.27 mm single row board to wire connector

Order code

Powerlite series code description :

Series	Female/Male	Variants	No. of pins	Plating	Special code
PL	X	X	XX	X	XX
①	②	③	④	⑤	⑥
①:	PL				
②:	Female/Male: F-Female, M-Male.				
③:	Variants: Male: A- right angle, V-vertical. Female: A-90 ° outlet, S-180 ° outlet				
④:	No. of pins				
⑤:	Plating spec code: 1-5u", 2-G/F.				
⑥:	Special code				

Male connector (Tape packing)							
Variants	No. of	Part No.	SPQ/pcs	Variants	No. of	Part No.	SPQ/pcs
Right angle male connector	2	PL-MA02101	1200	Vertical male connector	2	PL-MV02101	600
	3	PL-MA03101	1200		3	PL-MV03101	600
	4	PL-MA04101	1200		4	PL-MV04101	600
	6	PL-MA06101	1200		6	PL-MV06101	600
	8	PL-MA08101	1200		8	PL-MV08101	600
	10	PL-MA10101	1200		10	PL-MV10101	600
	12	PL-MA12101	1200		12	PL-MV12101	600
	14	PL-MA14101	1200		14	PL-MV14101	600
	16	PL-MA16101	1200		16	PL-MV16101	600
	18	PL-MA18101	1200		18	PL-MV18101	600

Female connector (tray packing)							
Variants	No. of	Part No.	SPQ/pcs	Variants	No. of	Part No.	SPQ/pcs
90°outlet female connector	2	PL-FA02101	280	180°outlet female connector	2	PL-FS02101	240
	3	PL-FA03101	238		3	PL-FS03101	204
	4	PL-FA04101	210		4	PL-FS04101	180
	6	PL-FA06101	168		6	PL-FS06101	144
	8	PL-FA08101	140		8	PL-FS08101	120
	10	PL-FA10101	119		10	PL-FS10101	102
	12	PL-FA12101	105		12	PL-FS12101	90
	14	PL-FA14101	91		14	PL-FS14101	78
	16	PL-FA16101	77		16	PL-FS16101	66
	18	PL-FA18101	63		18	PL-FS18101	54