

MULTI-BEAM XLE POWER CONNECTORS



TE Connectivity's MULTI-BEAM XLE connectors are the latest addition to the MULTI-BEAM XL power connector product family. MULTI-BEAM XLE connectors feature a new 3-beam contact, made from a thicker (higher) conductivity material than the original single-beam or 4-beam designs. The new 3-beam design allows for a greater angular mis-alignment between mating connectors and offers a lower mating force.

In addition, MULTI-BEAM XLE connectors offer a slimmer housing design that reduces the overall PCB footprint and has the option of using a low power contact—the industry proven Universal Power Module (UPM) contact. The new contact and housing design allows more power in the same footprint—over 40% more current in the same space. MULTI-BEAM XLE connectors are as modular as the original MULTI-BEAM XL connectors in that they can be designed to fit specific customer needs. MULTI-BEAM XLE connectors are also available as pre-assembled cable assemblies.

Applications

- Modular hot-swappable power supplies
- 1U / 2U servers
- High-end computer & telecommunications equipment
- Power distribution circuit boards
- Power distribution cable assemblies

Electrical

- Current carrying capacity:
 - 43 Amp high power contact (over 40% increase compared to MULTI-BEAM XL product)
 - 20 Amp low power contact (occupies 50% pcb space than MULTI-BEAM XL power contact)
- Contact resistance: 0.7 milliohm per contact at rated current

Mechanical

- Mis-alignment / gatherability: +/- 2mm radial misalignment
- Mating Force:
 - High Power: 5N max. per contact
 - Low Power: 2N max. per contact
 - Signal: 1.7N max. per contact

Product Dimensions

- Overall housing envelope dimensions similar to MULTI-BEAM XL connectors
- Length expandable depending on number of contacts
- Depth: 0.930" [23.6mm]
- Height at mating face: 0.574" [14.6mm]

Contact Spacing

- High power:
 - 0.300" [7.62mm] - up to 300 VAC
 - 0.250" [6.35mm] - up to 150 VDC
 - 0.200" [5.08mm] - for connection to same voltage
- Low power: 0.115" [2.92mm] - up to 300 VDC applications (in groups of 2 contacts)
- Signal: 0.100" [2.54mm] grid

Application Tooling

- Right angle plugs: Flat-rock seating tools (no unique tools required)
- Right angle receptacles: Flat-rock seating tools (no unique tools required)
- Vertical plugs: Contact TE for required seating tools
- Vertical receptacles: Flat-rock seating tools (no unique tools required)



Features

- Two hot-pluggable power contacts to choose from:
 - 50 Amp high power contact
 - 20 Amp low power contact
- Over 40% lower mating force than original MULTI-BEAM XL connectors
- Over 40% more current in the same overall PCB space
- Low-wear contact design passes Telcordia environmental exposure requirements
- New design allows more angular mis-alignment

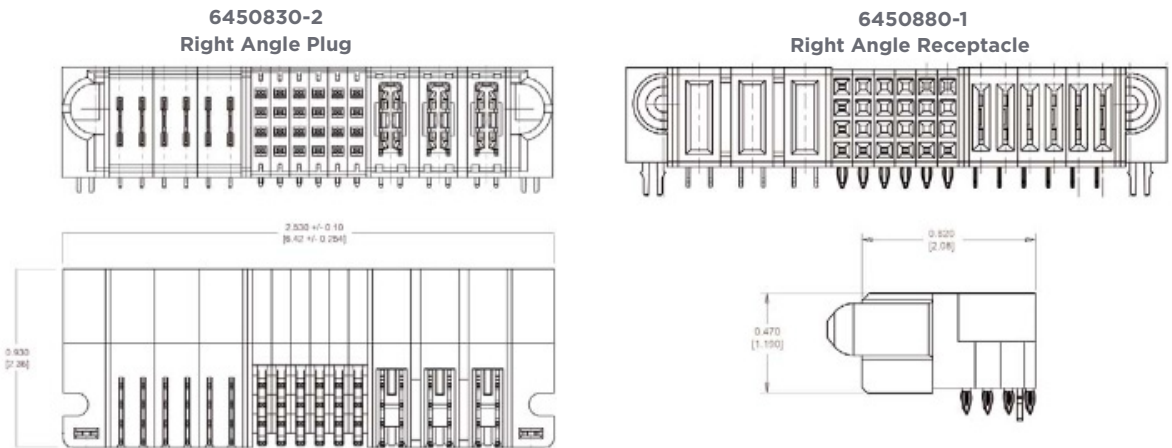
Material

All materials meet RoHS requirements.

Technical Documents

- Product Specification: 108-2292
- Application Specification: 114-13036

Part Numbers



Available Configurations	Part Numbers		Overall Length of Plug	Mating Part Numbers	
	Right Angle Plugs	Vertical Plugs		Right Angle Receptacle	Vertical Receptacle
1P/24S/1P	--	6450820-1	1.1715" [43.56mm]	6450870-2	--
2LP/8S/2LP	6450830-1	--	1.175" [29.84mm]	--	6450860-1
6LP/24S/3P	6450830-2	--	2.555" [64.89mm]	6450880-1	6450850-2
2P/32S/2LP	6450830-4	--	2.020" [51.30mm]	6450870-1	--
2P/24S/2P	6450830-5	--	2.040" [51.81mm]	6450870-3	--
32S/4LP	6450831-1	--	1.750" [44.45mm]	6450871-1	--
12P/48S/8LP	6450840-3	--	5.600" [142.24mm]	6450880-4	6450860-3
4ACP/48S/12HDP	6450840-4	6450810-1	5.390" [136.90mm]	6450880-3	6450860-2

Configuration Description

ACP	P	LP	S
.300" [7.62mm] spacing	0.250" [6.35mm] spacing	0.150" [3.81mm] spacing	0.100" [2.54mm] spacing
300 Volts	200 Volts	200 Volts	60 Volts

ACP indicates the high power contact on 300 VAC spacing.

P indicates the high power contact on 200 VDC spacing.

LP indicates the low power contact on 200 VDC spacing.

S indicates the signal contact on 200 VDC spacing.

For More Information

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