



High Power Card Edge (HPCE™) Connector

For Next Generation Power Applications

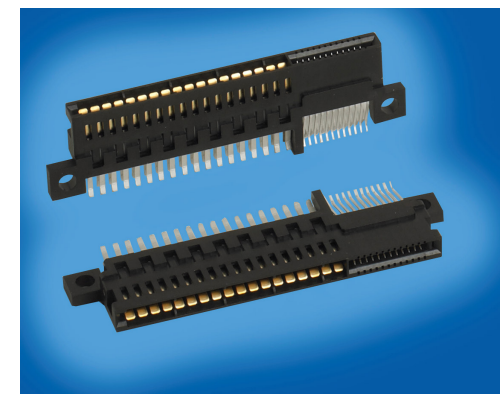
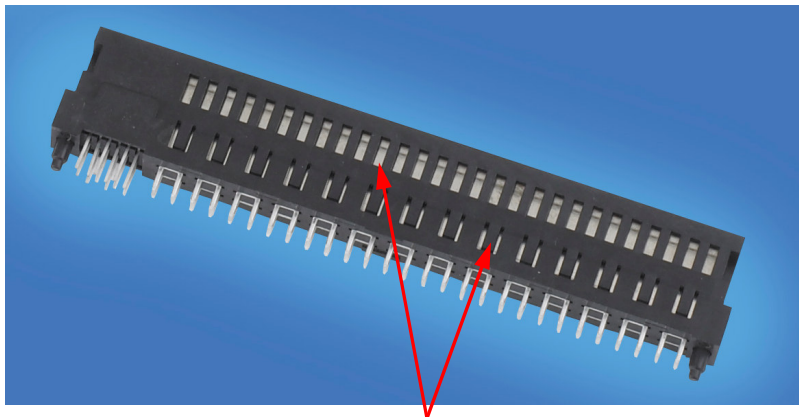


High Power Card Edge (HPCE™) Connector



- Increased linear current density (9A/power contact beam with $\leq 30\text{ }^{\circ}\text{C}$ T-rise in still air); ~ 30% improvement versus existing PCE
- Offers the highest current density & lowest contact resistance (reduced power loss through the connector) in the PCE market
- Aimed at 1U & 2U server/storage power supply applications where current density, power efficiency and airflow are key design considerations
- Mold tooling is highly configurable in terms of the number and placement of power and signal contacts for custom power needs
- Reduced product height (2.8mm for straddle mount; 7.5mm for R/A) versus existing R/A product (9.0mm) allows for increased airflow
- Highly vented housing design enhances heat dissipation effects
- Vertical, R/A & straddle mount parts from production tooling are available

www.fci.com/hpce

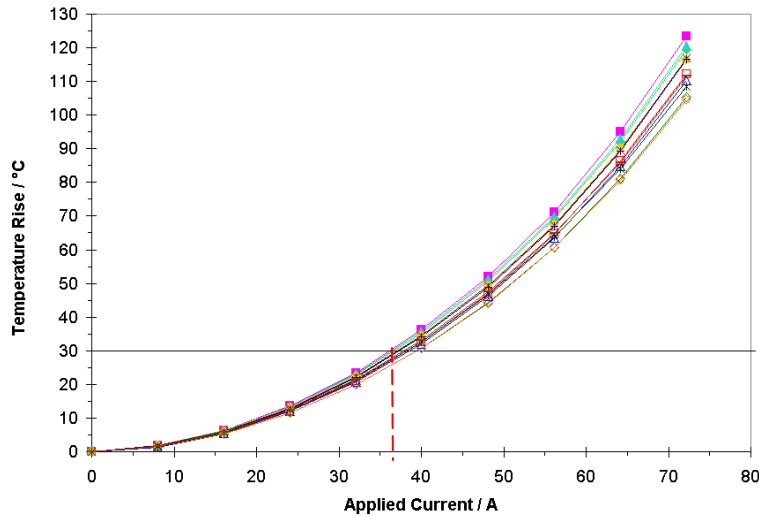


Vented housing design enhances heat dissipation effects

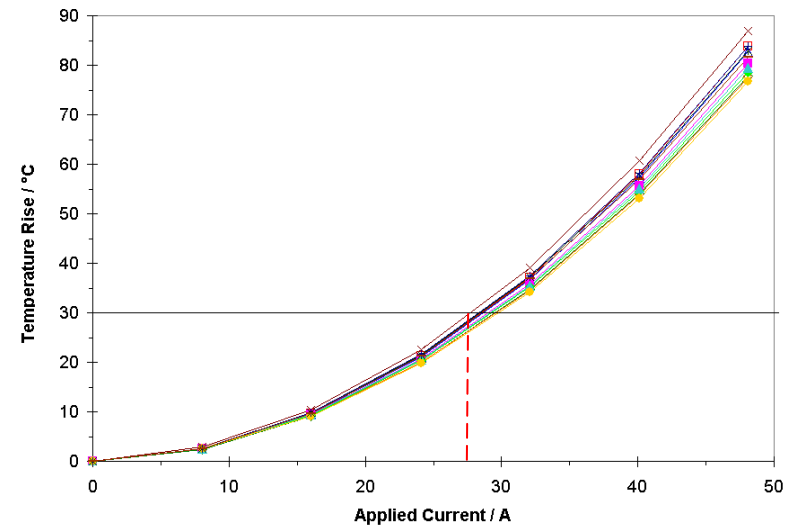
HPCE vs. Existing PCE (T-Rise – Still Air)



HPCE

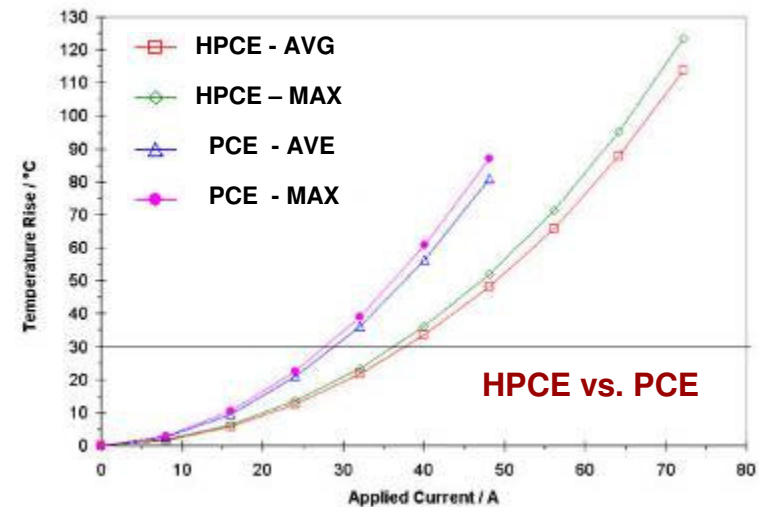


EXISTING PCE



NOTE :

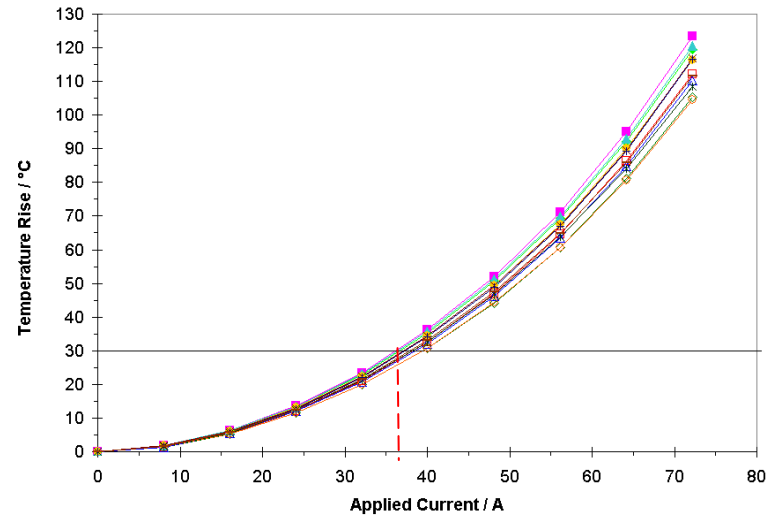
1. Temperature start at ambient
2. Current starts at 0 Amp and increases 8Amp each time
3. Still Air
4. Current rating result is for 4 contacts (1 quad contact)
5. ~36A/quad contact for HPCE (**9A/beam**);
~28A/four contacts for standard PCE (**7A/beam**)



HPCE – Linear Current Density (Still Air)



HPCE



→ ← 10.16mm/contact

Linear Current Density :

36A/contact x 2 contacts / 10.16mm board space

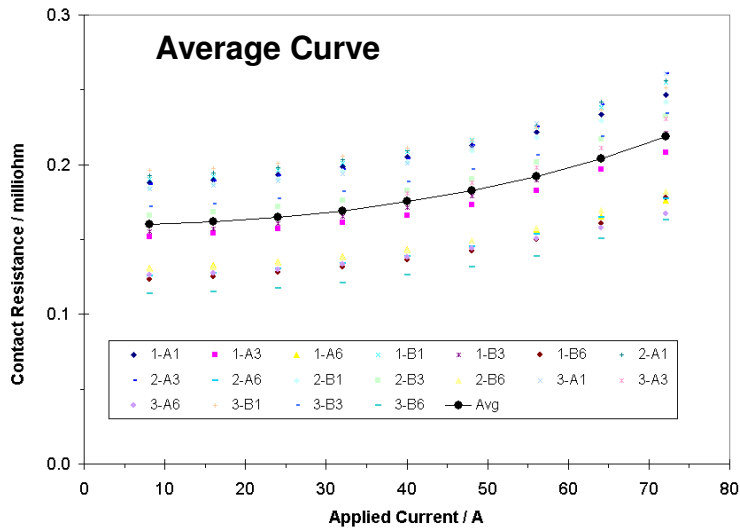
= 180 A/linear inch of board space

12 total quad contacts energized simultaneously to 36A/contact

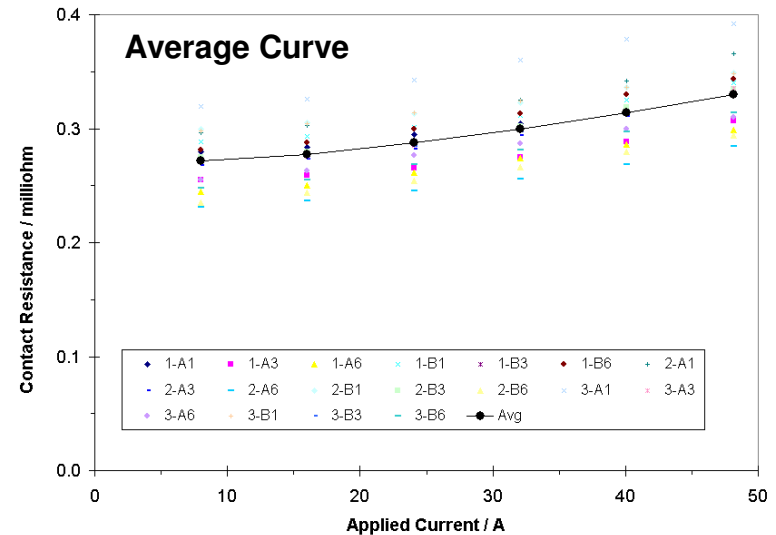
HPCE Contact Resistance (Still Air)



HPCE

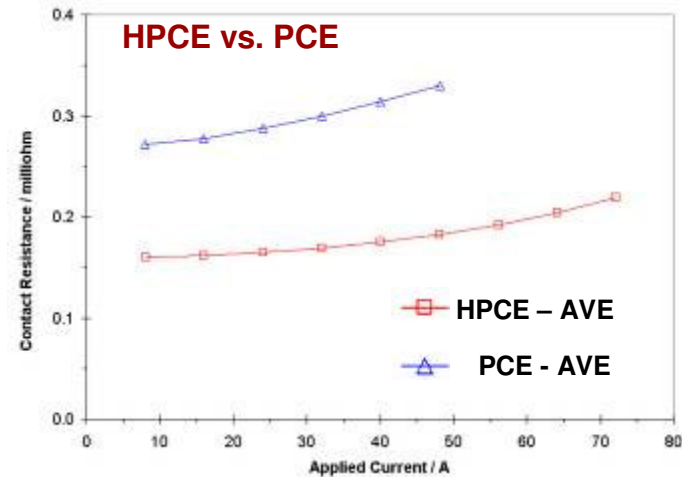


EXISTING PCE



HPCE Contact Resistance:

0.16 mΩ average for 12 total contacts energized

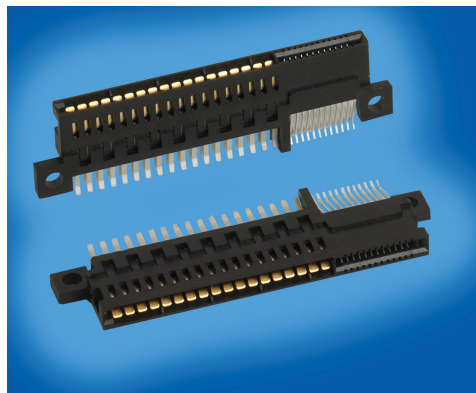


HPCE – Competitive Advantages



Why chose HPCE vs competition?

- *Much lower contact resistance for improved power supply efficiency (reduced power loss through the connector)*
- *Much higher linear current density*
- *Very low profile height (2.8mm for straddle mount; 7.5mm for R/A) for improved airflow capabilities*
- *Mold tooling is highly configurable in terms of number and placement of power and signal contacts for custom power needs*
- *Additional current carrying headroom for next generation power requirements*
- *FCI has a proven power connector track record at major OEM accounts*
- *FCI is an industry leader in stamped-and-formed power contact technology; HPCE offers a very cost effective solution for next generation power supplies in server/storage applications*





Thank You