

eHPCE® Enhanced High Power Card Edge Connectors

Product Presentation

Amphenol Information Communications
and Commercial Products



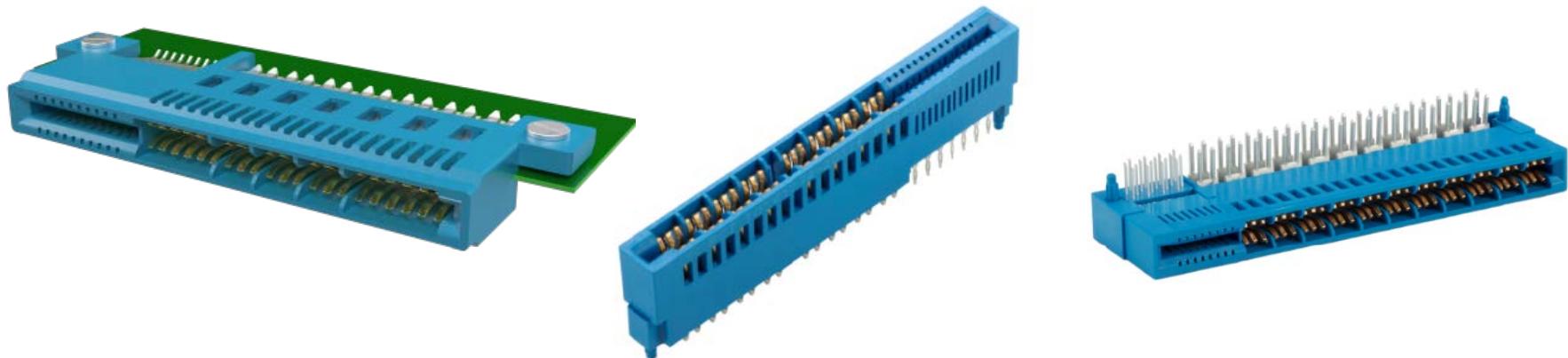
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eHPCE® Connectors

What is it?



- Power Output requirements are continuing to increase
- Originally designed as an output connector for 500-800Watt power supplies – the HPCE®-style connector is now being pushed much further to support 1600W and higher
- eHPCE® connectors are designed to extend the life of power supplies using card edge output power connectors

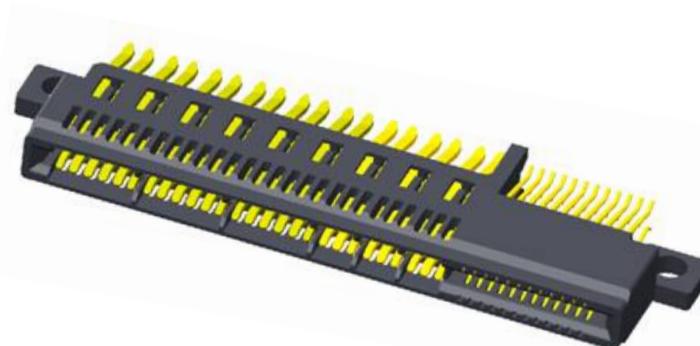
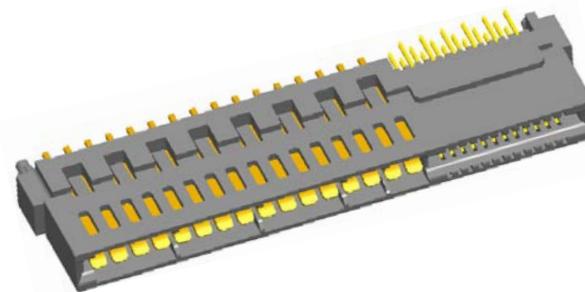


eHPCE® Connectors

What is it?



- Original HPCE® product
 - 4 beams per power contact
 - Wide acceptance in the market since 2009
- eHPCE® product
 - 6-beam “Ultra-Power” contact
 - 3-beam “Mid-Power” contact
 - Less contact resistance
 - Higher current carrying capacity
 - Higher continuous operating temperature



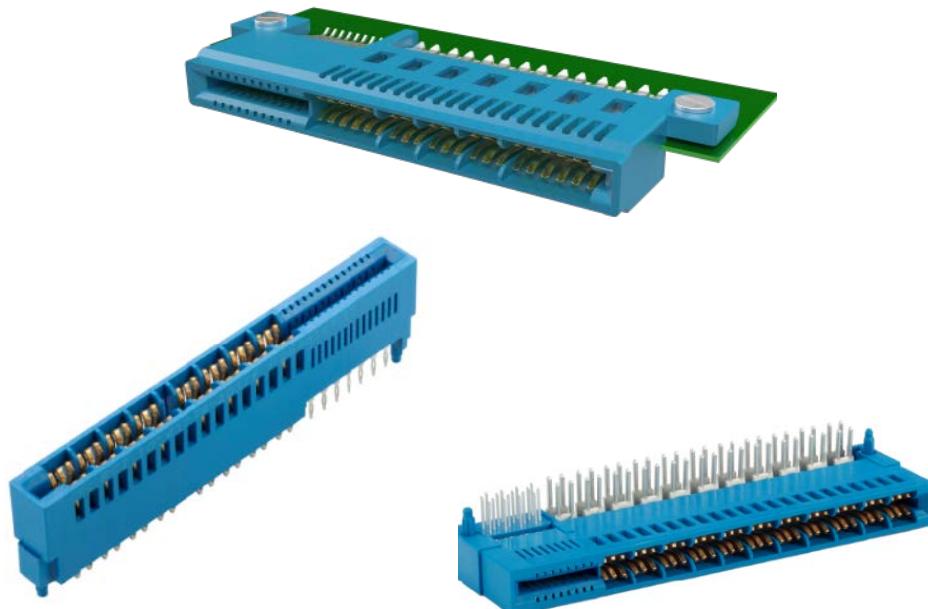
Features	Benefits
▪ GCS® plating technology	▪ Provides lower resistance
▪ Current rating up to 42A per contact at 30°C temperature rise in still air	▪ Higher performance with same mating footprint as classic HPCE®
▪ 20% thicker contact material ▪ 50% more points of contact	▪ Enables 15% increase in power density
▪ Enhanced housing design	▪ Better mechanical alignment and increased robustness
▪ Low-halogen housing	▪ Meets JEDEC JS709 Electronic Industry Standard
▪ Vertical, right angle and straddle mount configurations available	▪ Suitable for a wide variety of application requirements
▪ High temperature thermoplastic housing	▪ Wide operating temperature from - 55°C to 105°C

eHPCE® Connectors

Typical Applications



- Mates with existing power supplies
- No change to gold finger footprint



- Housing Material: High Temperature Thermoplastic, UL 94V-0, Blue
- Current Rating: Up to 42A per contact (30°C T-rise in still air)
- Operating Voltage: 250V (power), 30V (signal)
- Dielectric Withstanding Voltage: 1000V
- Contact Wipe Distance: 4.8mm (power), 3.5mm (signal)
- Durability: 200 mating cycles
- Mating Force:
 - 10N per Ultra-Power contact
 - 5N per Mid-Power contact
- Operating Temperature: -55°C to 105°C
- RoHS Information: this product is compatible according to the European Union Directive 2011/65/EU
- Meets low halogen requirement of JEDEC JS709

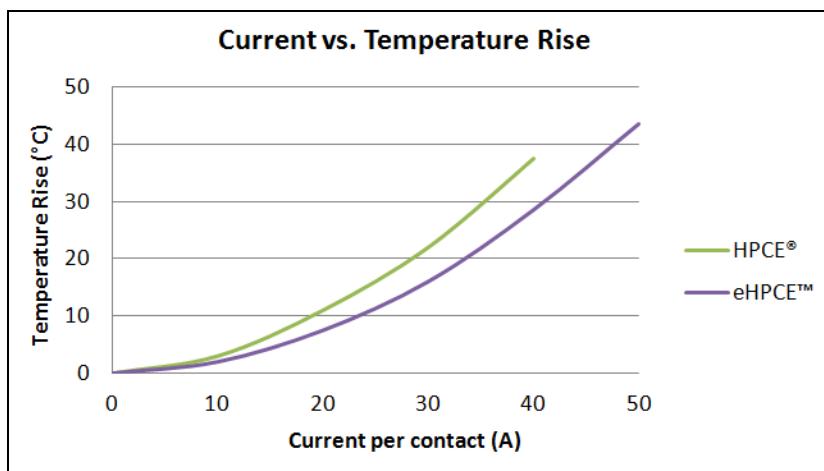
eHPCE® Connectors

Test Results



Performance

- Lower resistance = Higher current carrying capacity
- Less stress relaxation at higher temperatures
- Overall, enables 15% upgrade in power delivery – within the same form factor



Contact Style	Current @ 30°C T-Rise
HPCE® <u>High Power contact</u>	36 Amps
eHPCE® <u>Ultra -Power contact</u>	42 Amps

eHPCE® Connectors

Part Numbers



Description	Part Number
eHPCE® right angle, 22MP16S	10139371-2216GLF
eHPCE® vertical, press-fit, 16MP28S	10141274-001LF
eHPCE® vertical, press-fit, 6MP12S	10141274-002LF

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Thank You!