

# eHPCE<sup>®</sup> Enhanced High Power Card Edge Connectors

*Product Presentation*

Amphenol Information Communications  
and Commercial Products



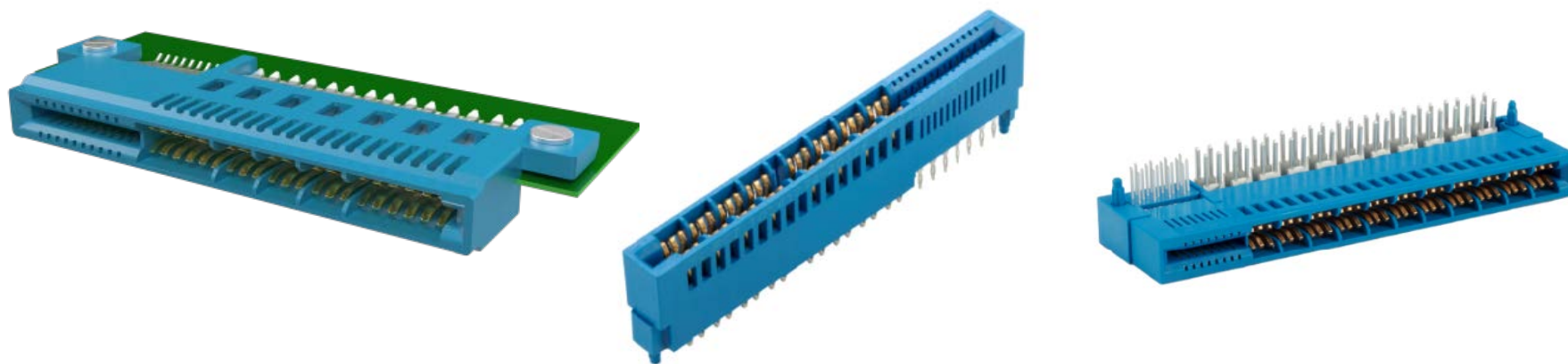
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# eHPCE<sup>®</sup> Connectors

What is it?



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

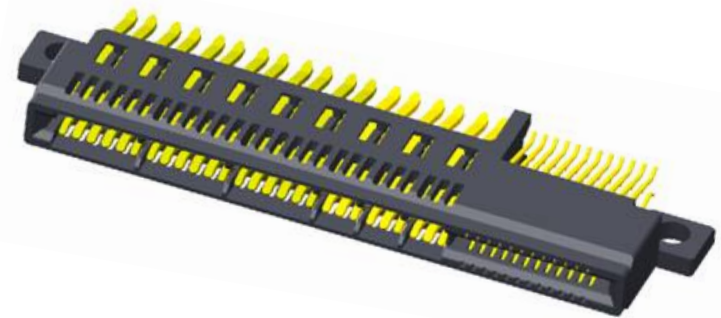
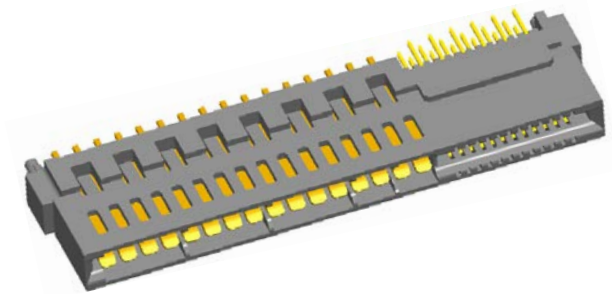


# eHPCE<sup>®</sup> Connectors

What is it?



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



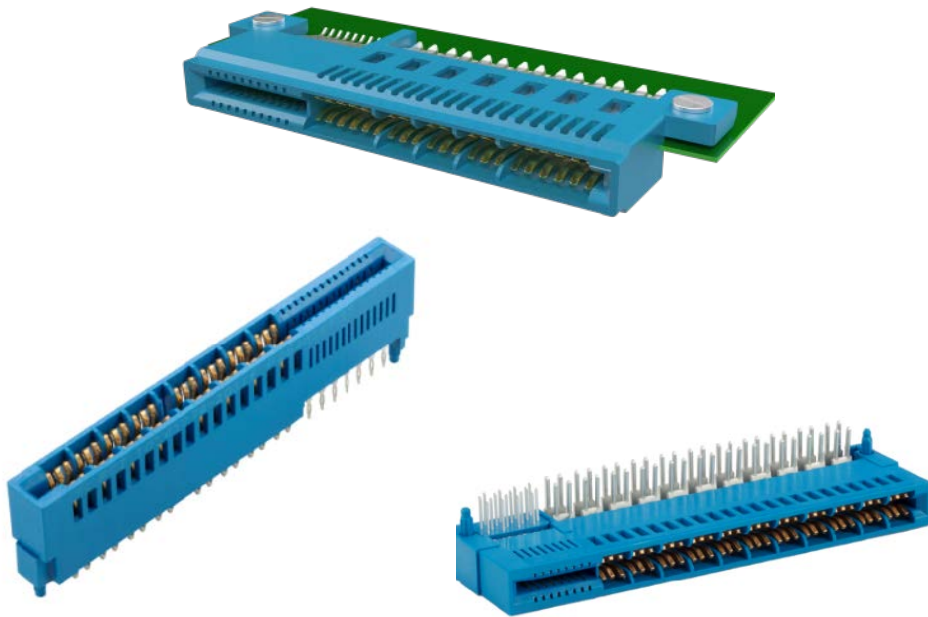
Features	Benefits
<ul style="list-style-type: none"><li>▪ GCS® plating technology</li></ul>	<ul style="list-style-type: none"><li>▪ Provides lower resistance</li></ul>
<ul style="list-style-type: none"><li>▪ Current rating up to 42A per contact at 30°C temperature rise in still air</li></ul>	<ul style="list-style-type: none"><li>▪ Higher performance with same mating footprint as classic HPCE®</li></ul>
<ul style="list-style-type: none"><li>▪ 20% thicker contact material</li><li>▪ 50% more points of contact</li></ul>	<ul style="list-style-type: none"><li>▪ Enables 15% increase in power density</li></ul>
<ul style="list-style-type: none"><li>▪ Enhanced housing design</li></ul>	<ul style="list-style-type: none"><li>▪ Better mechanical alignment and increased robustness</li></ul>
<ul style="list-style-type: none"><li>▪ Low-halogen housing</li></ul>	<ul style="list-style-type: none"><li>▪ Meets JEDEC JS709 Electronic Industry Standard</li></ul>
<ul style="list-style-type: none"><li>▪ Vertical, right angle and straddle mount configurations available</li></ul>	<ul style="list-style-type: none"><li>▪ Suitable for a wide variety of application requirements</li></ul>
<ul style="list-style-type: none"><li>▪ High temperature thermoplastic housing</li></ul>	<ul style="list-style-type: none"><li>▪ Wide operating temperature from -55°C to 105°C</li></ul>

# eHPCE® Connectors

## Typical Applications



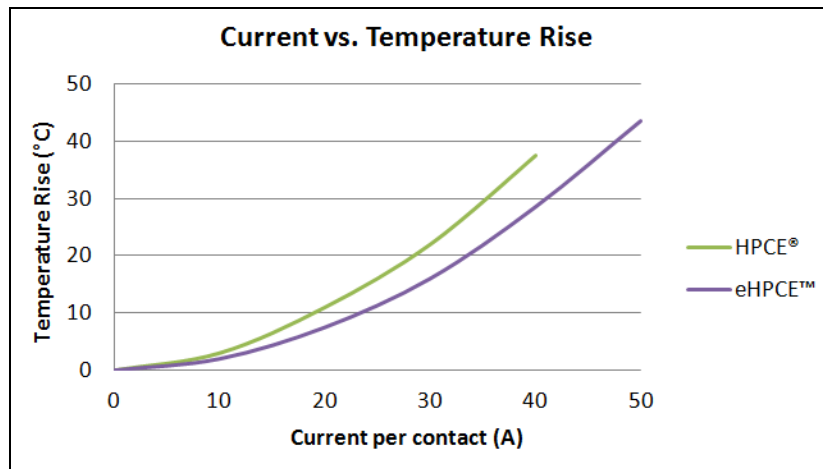
- Mates with existing power supplies
- No change to gold finger footprint



- 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

### ■ 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</u> contact	36 Amps
eHPCE® <u>Ultra -Power</u> contact	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!