

# HIGH POWER CARD EDGE (HPCE®) MEZZANINE

## OVERVIEW

The HPCE® Mezzanine is a next-generation power board-to-board for demanding applications requiring variable stack heights and high linear current density. It offers both receptacle and recommended PCB Bridge. Both are based on very cost effective and highly reliable stamped-and-formed power contact technology similar to other power solutions from FCI.

The HPCE® Mezzanine incorporates a 20AMP/40AMP power contact, a ventilated housing design, and a PCB Bridge that permits a more compact and flexible stack height package for demanding DC power distribution applications.

HPCE® Mezzanine offers flexible stack height, significantly increasing linear current density and latching design on the recommended solid PCB Bridge. This feature makes it ideal for next generation 1U/2U servers, storage enclosures, telecommunications and datacom/networking equipment.



## FEATURES

- Stack height varies from 32mm to 42mm, highly configurable for different height by adjusting the PCB
- Current rating of 20A/low power contact, and 40A/high power contact without exceeding a 30°C temperature rise in still air
- Highly vented housing design
- Current rating of 1.5A/signal contact
- Stacked height determined by adjusting the PCB Bridge design
- Positive Retention of PCB Bridge to one connector half
- Two beams per power contact

## BENEFITS

- High flexibility to satisfy a wide range of applications
- High power density
- Maximizes heat dissipation
- Custom stack heights achieved with minimal expense
- Standard stack heights available from FCI
- No loose parts
- Reduced resistance, improved reliability



## TECHNICAL INFORMATION

### MATERIALS

- Contacts: High Performance Copper Alloy
- Plating of contact area: GXT (TM) over Nickel
- Plating of Solder tail area: matted Tin over Nickel
- Housings: High temperature thermoplastic, UL 94-V0

### ELECTRICAL PERFORMANCE

- Electrical withstanding voltage: 1800V DC for power contact and 500VDC for signal contact (Per EIA 364-20)
- Insulation resistance : 5000 M  $\Omega$  for power contact, 500 M  $\Omega$  for signal
- Contact resistance :
  - Signal contact: 25 m  $\Omega$  max. initial, 10 m  $\Omega$  after test
  - Power contact: 0.6 m  $\Omega$  max.

### ENVIRONMENTAL

- Operating temperature: -40°C to + 125°C

### MECHANICAL PERFORMANCE

- Durability: 200 cycles
- Shock: Acceleration 50 G, 3 shocks per axis, no more than 1  $\mu$  sec discontinuity
- Vibration: 10~500 Hz, acceleration 4.9 RMS G, 1.5 hour per axis, no more than 1  $\mu$  sec discontinuity

### SPECIFICATIONS

- Product specification: GS-12-604
- Application specification: GS-20-128

### APPROVALS AND CERTIFICATIONS

- UL and CSA Approval: E66906
- TUV Approval: 090-1103488

### PACKAGING

- Soft Trays

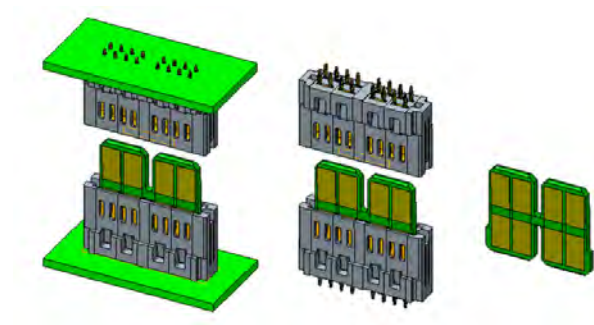
### TARGET MARKET/ APPLICATIONS

- Data
  - AC/DC pluggable power supplies
  - Servers
  - Storage
- Communications
  - AC/DC pluggable power supplies
  - Switches
- Industrial & Instrumentation

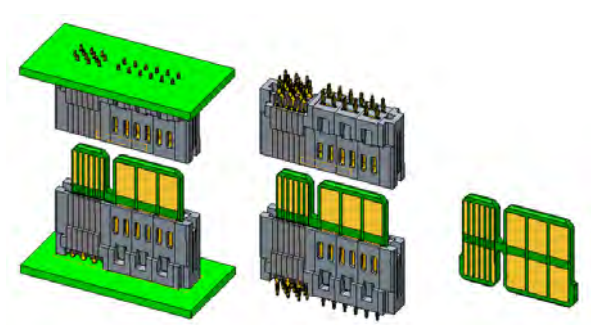
# **HIGH POWER CARD EDGE (HPCE®) MEZZANINE**



## **PRODUCT ILLUSTRATION**



HPCE® Mezzanine 8P



HPCE® Mezzanine 6P12S

## **PART NUMBERS**

Description	Part Numbers				
	Connector	32 mm Bridge PCB	36 mm Bridge PCB	39 mm Bridge PCB	42 mm Bridge PCB
4P + 12S	10129784-001LF	10129786-001LF	10129786-005LF	10129786-008LF	10129786-011LF
6P + 16S	10129787-001LF	10129789-001LF	10129789-005LF	10129789-008LF	10129789-011LF
8P + 24S	10129790-001LF	10129792-001LF	10129792-005LF	10129792-008LF	10129792-011LF
6P	10129793-001LF	10129795-001LF	10129795-005LF	10129795-008LF	10129795-011LF
8P	10127272-001LF	10127274-001LF	10127274-005LF	10127274-008LF	10127274-011LF
10P	10129796-001LF	10129798-001LF	10129798-005LF	10129798-008LF	10129798-011LF
12P	10129799-001LF	10129801-001LF	10129801-005LF	10129801-008LF	10129801-011LF