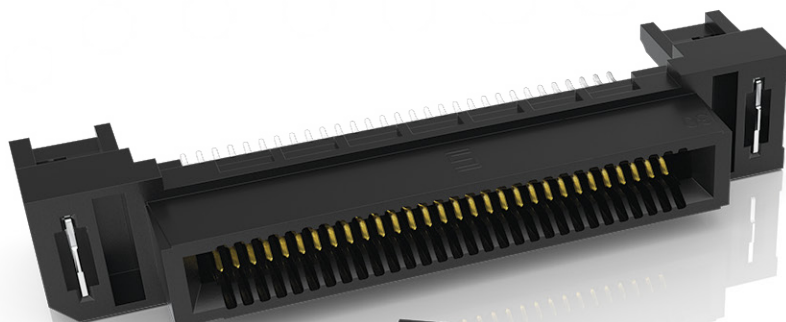


# GENERATE<sup>®</sup>

## HIGH-SPEED EDGE CARD SYSTEMS

0.60 mm, 0.80 mm and 1.00 mm PITCH

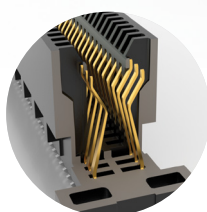
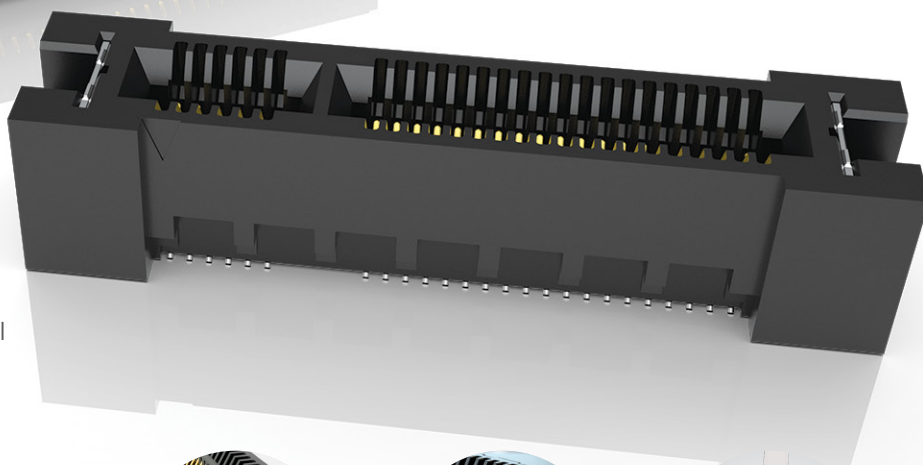


**EDGE  
RATE<sup>®</sup>**  
CONTACT

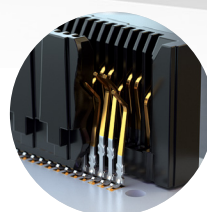
### FEATURES & BENEFITS

- Maximum Design Flexibility
- Up to 64 Gbps PAM4 performance
- PCI Express<sup>®</sup> 3.0, 4.0, 5.0 and 6.0
- Edge Rate<sup>®</sup> contacts optimized for signal integrity performance and high-cycle life
- Up to 200 positions available
- Vertical, right-angle, edge mount, pass-through orientations
- Power/signal combo, press-fit tails, rugged weld tabs, locks and latches
- Mating cable assemblies available

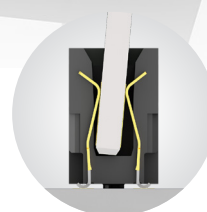
The PCI Express<sup>®</sup> design marks are registered trademarks and/or service marks of PCI-SIG.



Rugged tucked beam technology (HTEC8)



Differential pair for increased speed (HSEC8-DP)



Custom designs allow for misalignment in the X-Y axes (HSEC1)

### KEY SPECIFICATIONS

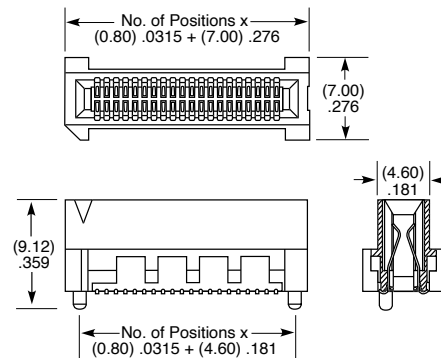
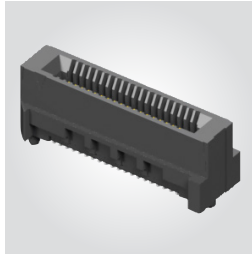
| SERIES   | PITCH   | TOTAL POSITIONS | INSULATOR MATERIAL | CONTACT MATERIAL | OPERATING TEMP RANGE | CURRENT RATING | VOLTAGE RATING  | LEAD-FREE SOLDERABLE |
|----------|---------|-----------------|--------------------|------------------|----------------------|----------------|-----------------|----------------------|
| HSEC6    | 0.60 mm | 56-168          | Black LCP          | Copper Alloy     | -55 °C to +125 °C    | 1.9 A (2 pins) | 240 VAC/339 VDC | Yes                  |
| HTEC8    | 0.80 mm | 20-200          | Black LCP          | Copper Alloy     | -55 °C to +125 °C    | 3.0 A (2 pins) | 215 VAC/304 VDC | Yes                  |
| HSEC8-DV | 0.80 mm | 18-200          | Black LCP          | BeCu             | -55 °C to +125 °C    | 2.8 A (2 pins) | 240 VAC/339 VDC | Yes                  |
| HSEC8-RA | 0.80 mm | 18-120          | Black LCP          | BeCu             | -55 °C to +125 °C    | 2.6 A (2 pins) | 175 VAC/247 VDC | Yes                  |
| HSEC8-EM | 0.80 mm | 20-120          | Black LCP          | BeCu             | -55 °C to +125 °C    | 2.8 A (2 pins) | 240 VAC/339 VDC | Yes                  |
| HSEC8-PE | 0.80 mm | 20-40           | Black LCP          | BeCu             | -55 °C to +125 °C    | 2.8 A (2 pins) | 240 VAC/339 VDC | Yes                  |
| HSEC8-PV | 0.80 mm | 40-80           | Black LCP          | BeCu             | -55 °C to +125 °C    | 3.2 A (2 pins) | 215 VAC/304 VDC | Yes                  |
| HSEC8-DP | 0.80 mm | 16-112          | Black LCP          | BeCu             | -55 °C to +125 °C    | 2.7 A (2 pins) | 235 VAC/332 VDC | Yes                  |
| HSEC1    | 1.00 mm | 20-140          | Black LCP          | Phosphor Bronze  | -55 °C to +125 °C    | 2.2 A (2 pins) | 215 VAC/304 VDC | Yes                  |

**(0.80 mm) .0315" PITCH • PASS-THROUGH & POWER COMBO**

| HSEC8 | 1 | POSITIONS PER ROW | CARD THICKNESS                      | PLATING OPTION                                                     | DV | A | PE | OTHER OPTIONS                                               | "X"R                                                                                                                                                                                          |
|-------|---|-------------------|-------------------------------------|--------------------------------------------------------------------|----|---|----|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |   | 10, 13, 20        | -01<br>= (1.60 mm) .062" thick card | -L<br>= 10 μ" (0.25 μm)<br>Gold on contact area, Matte Tin on tail |    |   |    | -K<br>= (5.50 mm) .217" DIA Polyimide Film Pick & Place Pad | Leave blank for Tray Packaging<br><br>-TR<br>= Tape & Reel Packaging<br><br>-FR<br>= Full Reel Tape & Reel Packaging (Must order max. quantities per reel. Contact Samtec for parts per reel) |

## HSEC8-PE

**Card Mates:**  
(1.60 mm) .062" thick card, HSC8



## OTHER SOLUTIONS

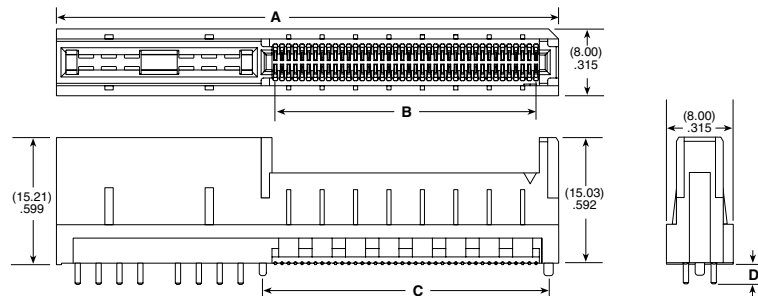
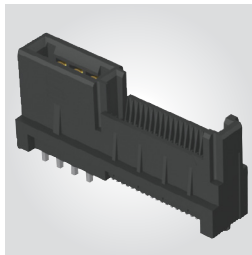
1.00 mm High-Speed Micro Plane Socket.  
View complete specifications at [samtec.com?SAL1](http://samtec.com?SAL1)

View complete specifications at: [samtec.com?HSEC8-DV](http://samtec.com?HSEC8-DV)

| HSEC8 | 1 | SIGNAL POSITIONS                         | CARD THICKNESS                      | PLATING OPTION                                                     | PV | POWER POSITIONS                     | POWER TAIL                                                                                   | OTHER OPTION      |
|-------|---|------------------------------------------|-------------------------------------|--------------------------------------------------------------------|----|-------------------------------------|----------------------------------------------------------------------------------------------|-------------------|
|       |   | 20, 30, 40<br>(Signal positions per row) | -01<br>= (1.60 mm) .062" thick card | -L<br>= 10 μ" (0.25 μm)<br>Gold on contact area, Matte Tin on tail |    | -2, -4<br>(Total, 2 per power bank) | -1<br>= Use with (1.60 mm) .062" Thick PCB<br><br>-2<br>= Use with (2.36 mm) .093" Thick PCB | -WT<br>= Weld Tab |

## HSEC8-PV

**Card Mates:**  
(1.60 mm) .062" thick card



| SIGNAL POSITIONS | POWER POSITIONS |               |               |               |               |               |
|------------------|-----------------|---------------|---------------|---------------|---------------|---------------|
|                  | A (-2)          | B (-2)        | C (-2)        | A (-4)        | B (-4)        | C (-4)        |
| 20               | (32.10) 1.264   | (15.20) .598  | (18.20) .717  | (44.10) 1.736 | (15.20) .598  | (18.20) .717  |
| 30               | (40.10) 1.579   | (23.20) .913  | (26.20) 1.031 | (52.10) 2.051 | (23.20) .913  | (26.20) 1.031 |
| 40               | (48.10) 1.894   | (31.20) 1.228 | (34.20) 1.346 | (60.10) 2.366 | (31.20) 1.228 | (34.20) 1.346 |

| POWER TAIL | D           |
|------------|-------------|
| -1         | (2.35) .093 |
| -2         | (3.13) .123 |

**Note:**  
Some sizes, styles and options are non-standard, non-returnable.

View complete specifications at: [samtec.com?HSEC8-PV](http://samtec.com?HSEC8-PV)