



HSEC8-125-01-L-DV-A

HSEC8-149-01-L-DV-A

HSEC8-DV SERIES

(0.80 mm) .0315"

# VERTICAL EDGE RATE® CARD SOCKET

## SPECIFICATIONS

For complete specifications and recommended PCB layouts see [www.samtec.com/HSEC8-DV](http://www.samtec.com/HSEC8-DV)

### Insulator Material:

Black Liquid Crystal Polymer

### Contact:

BeCu

Plating: Au or Sn over

50µ" (1.27 µm) Ni

Current Rating: 2.8 A per pin

(2 adjacent pins powered)

### Operating Temp:

-55°C to +125°C

### Card Insertion Depth:

(3.15 mm) .125" nominal

RoHS Compliant: Yes

### Processing:

Lead-Free Solderable: Yes

SMT Lead Coplanarity:

(0.10 mm) .004" max (10-60)

## RECOGNITIONS

For complete scope of recognitions see [www.samtec.com/quality](http://www.samtec.com/quality)



FILE NO. 600271\_0\_000

## OTHER SOLUTIONS

- Standard high speed interface cards for 19 mm, 25 mm & 30 mm mated heights, single-ended & differential applications. See HSC8 Series.

## ALSO AVAILABLE (MOQ Required)

- Guide rails
  - Pass-through options
  - Other platings
  - Custom cards for low-cost stack height customization
  - Samtec supplied card layout/artwork to make your own cards
  - Specialty card shapes
- Contact Samtec.

| CABLE   | CONNECTOR    |
|---------|--------------|
| ECDP-04 | HSEC8-109-L2 |
| ECDP-08 | HSEC8-113-L2 |
| ECDP-16 | HSEC8-125-L2 |
| ECDP-32 | HSEC8-149-L2 |

### Notes:

While optimized for 50Ω applications, this connector with alternative signal/ground patterns may also perform well in certain 75Ω applications. Contact Samtec for further information.

Some lengths, styles and options are non-standard, non-returnable.

Mates with:  
(1.60 mm) .062" card,  
(2.36 mm) .093" card,  
ECDP, HSC8



## HIGH SPEED CABLE APPLICATIONS



| HSEC8                       | Rated @ 3dB Insertion Loss |                    |
|-----------------------------|----------------------------|--------------------|
|                             | with PCB effects*          | w/o PCB effects**  |
| 7.98 mm Stack Height        |                            |                    |
| Single-Ended Signaling      | 8 GHz / 16 Gbps            | 17 GHz / 34 Gbps   |
| Differential Pair Signaling | 10.5 GHz / 21 Gbps         | 15.5 GHz / 31 Gbps |

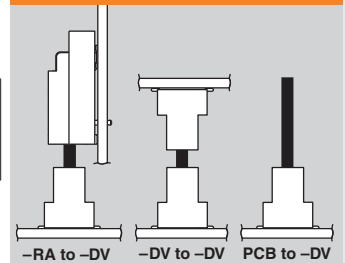
\*Performance data includes effects of a non-optimized PCB.

\*\*Test board losses de-embedded from performance data.

Complete test data available at [www.samtec.com/HSEC8-DV](http://www.samtec.com/HSEC8-DV) or contact sig@samtec.com

Mates with (1.60 mm) .062"  
or (2.36 mm) .093" cards

## BOARD-TO-BOARD APPLICATIONS



**Finalinch** 28+  
CERTIFIED Gbps

| HSEC8                                                                                                                                                                                          | 1 | POSITIONS PER ROW | CARD THICKNESS                                                                               | PLATING OPTION                                                                                                                           | DV                                                                                                                                                          | A                                                                                                              | OTHER OPTION                                                             |                                                                                             |                          |                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------|--------------------------------------------|
| <b>09, 10, 13, 20, 25, 30, 37, 40, 49, 50, 60, 70, 80, 100</b><br>(13, 25, 49 only available with -L or -L2 option;<br>09 only available with -L2 option;<br>37 only available with -L option) |   |                   | <b>-01</b><br>= (1.60 mm) .062" thick card<br><br><b>-03</b><br>= (2.36 mm) .093" thick card | <b>-L</b><br>= 10µ" (0.25 µm) Gold on contact, Matte Tin on tail<br><br><b>-S</b><br>= 30µ" (0.76 µm) Gold on contact, Matte Tin on tail | <b>-K</b><br>= (7.01 mm) .276" DIA Polyimide Film Pick & Place Pad (with -01 card)<br>= (6.25 mm) .246" DIA Polyimide Film Pick & Place Pad (with -03 card) | <b>-BL</b><br>= Board Locks (40, 50, 60, 80 only) (Other sizes available. Contact Samtec.) (Weld tab standard) | <b>-L</b><br>= Latching Option (13, 25, 37, 49 only) (Weld tab standard) | <b>-L2</b><br>= ECDP Latching (09, 13, 25, 49 only) (For use with ECDP) (Weld tab standard) | <b>-WT</b><br>= Weld tab | <b>-TR</b><br>= Tape & Reel (09 - 70 only) |

| POSITIONS PER ROW | A             | B             |
|-------------------|---------------|---------------|
| 09††              | (4.50) .177   | (11.80) .465  |
| 13††              | (6.10) .240   | (15.00) .591  |
| 25††              | (6.10) .240   | (24.60) .969  |
| 37†               | (18.10) .713  | (34.20) 1.346 |
| 40                | (18.90) .744  | (36.60) 1.441 |
| 49††              | (22.90) .902  | (43.80) 1.724 |
| 50                | (22.90) .902  | (44.60) 1.756 |
| 60                | (26.90) 1.059 | (52.60) 2.071 |
| 70†               | (26.90) 1.059 | (60.60) 2.386 |
| 80†               | (26.90) 1.059 | (68.60) 2.701 |
| 100†              | (26.90) 1.059 | (84.60) 3.331 |

Positions where no dimensions are given do not have keying feature.  
 \* Mates with ECDP Series.  
 † Available with -01 Card Only.

No. of Positions x (0.80) .0315 + (7.80) .307

A

B

(1.32) .052

(No. of Positions + 6) x (0.80) .0315 + (0.60) .024

**09, 13, 25, 37-100**

No. of Positions x (0.80) .0315 + (4.60) .181

(7.00) (5.60) .276 .220

(7.80) .307

(1.75) .070

(1.12) .044 DIA

No. of Positions x (0.80) .0315 + (2.20) .087

**10, 20 & 30**