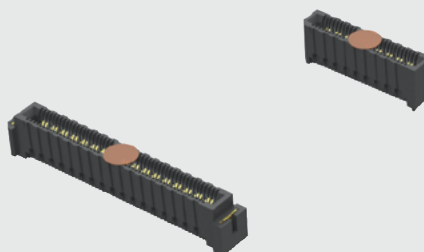


(0.80 mm) .0315"

HSEC8-116-01-L-DP-A-K



HSEC8-108-01-L-DP-A-K



HSEC8-132-01-L-DP-A-WT-K

HSEC8-DP SERIES

DIFFERENTIAL PAIR EDGE CARD SOCKET

SPECIFICATIONS

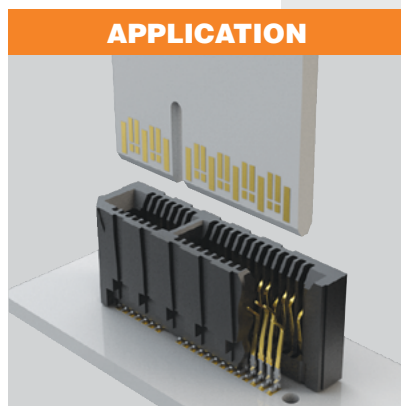
Insulator Material:
Black Liquid Crystal Polymer
Contact:
Copper Alloy
Plating:
Au or Sn over
50 µ" (1.27 µm) Ni
Operating Temp:
Testing Now!
RoHS Compliant:
Yes

PROCESSING

Lead-Free Solderable:
Yes
SMT Lead Coplanarity:
(0.10 mm) .004" max

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

APPLICATION



High-Speed
Edge Rate®
Contacts

*Designed for
high-speed
differential pair
applications*

Optional
weld tab
available

HIGH-SPEED CHANNEL PERFORMANCE

HSEC8-DP

Rating based on Samtec
reference channel

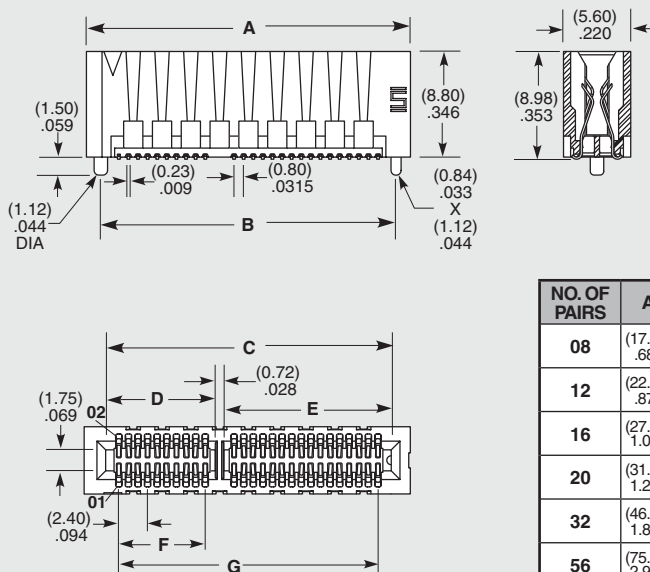
PAM4

56
Gbps

HSEC8	1	NO. OF PAIRS	01	PLATING OPTION	DP	A	OPTION	K
08, 12, 16, 20, 32, 56 (Total Pairs)		-L = 10 μ" (0.25 μm) Gold on contact, Matte Tin on tail		(Leave blank for no weld tab) -WT = Weld Tab		-K = (6.25 mm) .246" DIA Polyimide Film Pick & Place Pad		

ALSO AVAILABLE
(MOQ Required)

- Other platings
- Other pin counts



HSEC8-16-01-L-DP-A SHOWN

NO. OF PAIRS	A	B	C	D	E	F	G
08	(17.40) .685	(15.00) .591	(14.20) .559	(4.34) .171	(9.14) .360	(2.94) .040	(12.00) .472
12	(22.20) .874	(19.80) .780	(19.00) .748	(6.74) .265	(11.54) .454	(4.80) .189	(16.80) .661
16	(27.00) 1.063	(24.60) .969	(23.80) .937	(9.14) .360	(13.94) .549	(7.20) .283	(21.60) .850
20	(31.80) 1.252	(29.40) 1.157	(28.60) 1.126	(11.54) .454	(16.34) .643	(9.60) .378	(26.40) 1.039
32	(46.20) 1.819	(43.80) 1.724	(43.00) 1.693	(18.74) .738	(23.54) .927	(16.80) .661	(40.80) 1.606
56	(75.00) 2.953	(72.60) 2.858	(71.80) 2.827	(33.14) 1.305	(37.94) 1.494	(31.20) 1.228	(69.60) 2.740

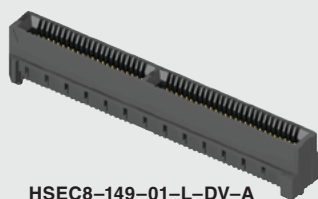
Note:
Some sizes, styles and options are non-standard, non-returnable.

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.TOBY.CO.UK

All parts within this catalog are built to Samtec's specifications.

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.



HSEC8-149-01-L-DV-A



HSEC8-DV SERIES

(0.80 mm) .0315"

VERTICAL EDGE RATE® CARD SOCKET

SPECIFICATIONS

Insulator Material:
Black Liquid Crystal Polymer
Contact:
BeCu
Plating:
Au or Sn over
50 μ" (1.27 μm) Ni
Current Rating:
2.8 A per pin
(2 adjacent pins powered)
Operating Temp:
-55 °C to +125 °C
RoHS Compliant:
Yes

PROCESSING

Lead-Free Solderable:
Yes
SMT Lead Coplanarity:
(0.10 mm) .004" max (10-60)

RECOGNITIONS

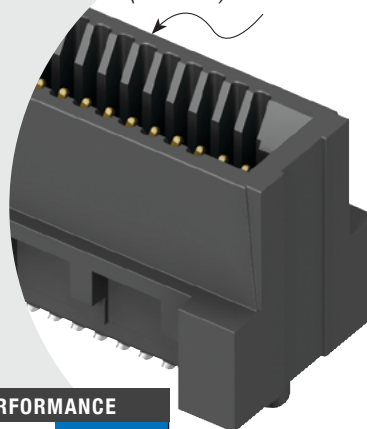


Card Mates:
(1.60 mm) .062" card,
(2.36 mm) .093" card,
HSC8

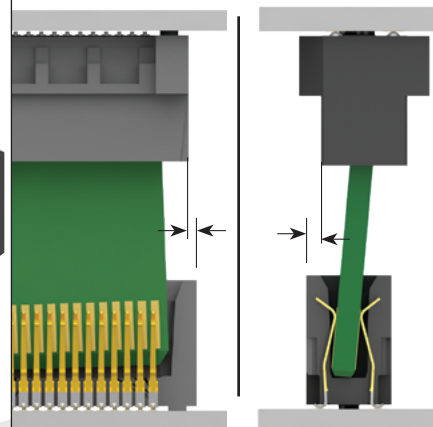
Cable Mates:
ECDP



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



MISALIGNMENT MITIGATION



Custom designs compensate for misalignment.

HIGH-SPEED CHANNEL PERFORMANCE

HSEC8-DV

Rating based on Samtec reference channel.

28
Gbps

HSEC8

1 POSITIONS PER ROW

CARD THICKNESS

PLATING OPTION

DV

A

OTHER OPTION

09, 10, 13, 20,
25, 30, 37, 40, 49,
50, 60, 70, 80, 100
(13, 25, 49 only available
with -L or -L2 option;
09 only available with -L2 option;
37 only available with -L option)

-01
= (1.60 mm) .062"
thick card
-03
= (2.36 mm) .093"
thick card

-L
= 10 μ" (0.25 μm) Gold on contact,
Matte Tin on tail
-S
= 30 μ" (0.76 μm) Gold on contact,
Matte Tin on tail

-K
= (7.01 mm) .276" DIA
Polyimide Film
Pick & Place Pad
(with -01 card)
= (6.25 mm) .246" DIA
Polyimide Film
Pick & Place Pad
(with -03 card)

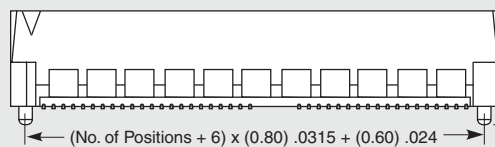
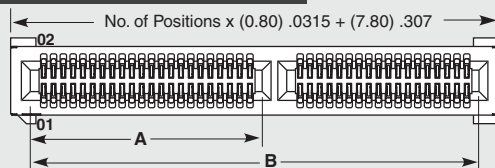
-BL
= Board Locks
(-01 card only)
(Weld tab standard)

-L
= Latching Option
(-01 card only)
(13, 25, 37, 49 only)
(Weld tab standard)

-L2
= ECDP Latching
(-01 card only)
(09, 13, 25, 49 only)
(For use with ECDP)
(Weld tab standard)

-WT
= Weld tab

-TR
= Tape & Reel
(09 - 70 only)



09, 13, 25, 37, 100

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

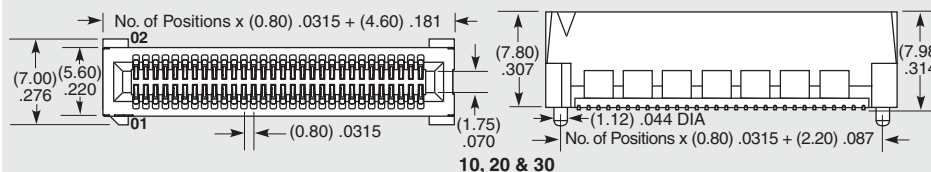
Positions where no dimensions are given do not have keying feature.
* Mates with ECDP Series.
† Available with -01 Card Only.

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 50 Ω applications, this connector with alternative signal/ground patterns may also perform well in certain 75 Ω applications.

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



Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.TOBY.CO.UK

All parts within this catalog are built to Samtec's specifications.

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.



HSEC8-130-01-S-D-EM2

HSEC8-140-01-L-D-EM2

HSEC8-EM SERIES**(0.80 mm) .0315"**

EDGE MOUNT EDGE RATE® CARD SOCKET

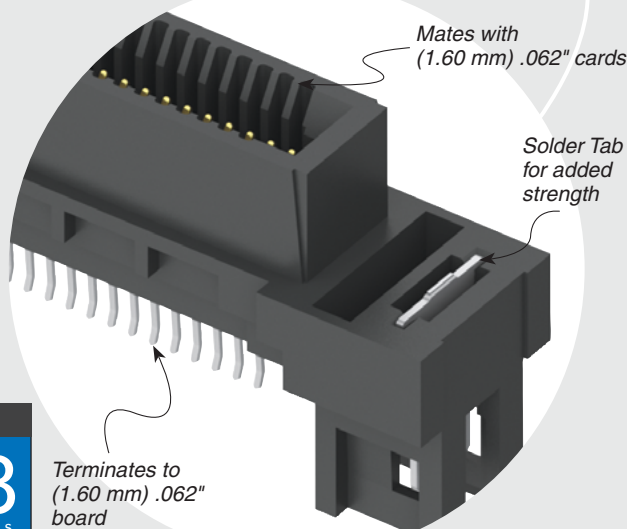
SPECIFICATIONS

Insulator Material:
Liquid Crystal Polymer
Contact:
BeCu
Plating:
Au or Sn over
50 μ" (1.27 μm) Ni
Operating Temp:
-55 °C to +125 °C
Lead-Free Solderable:
Yes
RoHS Compliant:
Yes

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

Cable Mates:
ECDP

**EDGE
RATE®
CONTACT**

**RECOGNITIONS****HIGH-SPEED CHANNEL PERFORMANCE**

HSEC8-EM

Rating based on Samtec reference channel.

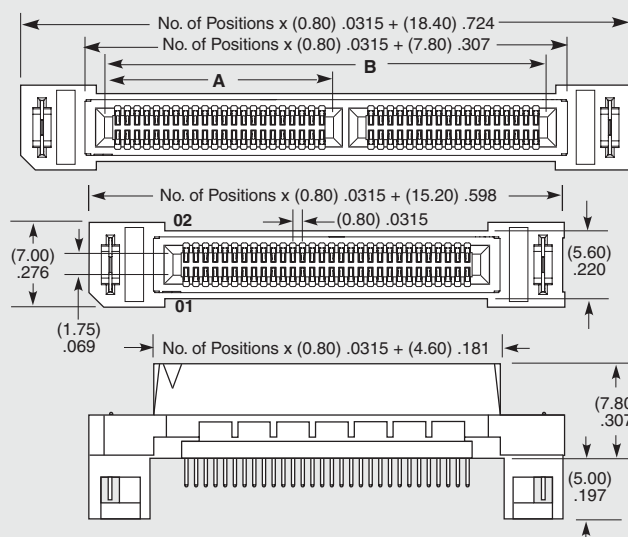
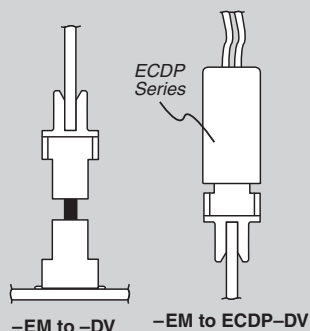
28
G b p s

ALSO AVAILABLE
(MOQ Required)

- Other platings

HSEC8**1****POSITIONS
PER ROW****01****PLATING
OPTION****D****EM2****10, 20, 30, 40, 50, 60**

POSITIONS PER ROW	A	B
40	(18.90) .744	(36.60) 1.441
50	(22.90) .902	(44.60) 1.756
60	(26.90) 1.059	(52.60) 2.071

-L= 10 μ" (0.25 μm) Gold on contact,
Matte Tin on tail**-S**= 30 μ" (0.76 μm) Gold on contact,
Matte Tin on tail**-EM2**= (1.60 mm) .062"
thick PCB**APPLICATIONS****OTHER
SOLUTIONS**

Polarized mates for
ECDP Series twinax cables

CONNECTOR	CABLE
HSEC8-113	ECDP-08
HSEC8-125	ECDP-16
HSEC8-137	ECDP-24
HSEC8-149	ECDP-32

Note:
While optimized for
50 Ω applications, this
connector with alternative
signal/ground patterns may
also perform well in certain
75 Ω applications.

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.TOBY.CO.UK

All parts within this catalog are built to Samtec's specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.



(0.80 mm) .0315"

HSEC8-120-01-L-DV-A-PE

HSEC8-110-01-L-DV-A-PE

HSEC8-PE SERIES

PASS-THROUGH EDGE RATE® CARD SOCKET

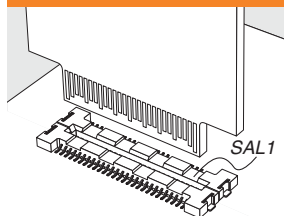
SPECIFICATIONS

Insulator Material:
Black Liquid Crystal Polymer
Contact:
BeCu
Plating:
Au or Sn over 50 μ" (1.27 μm) Ni
Operating Temp:
-55 °C to +125 °C
RoHS Compliant:
Yes

PROCESSING

Lead-Free Solderable:
Yes
SMT Lead Coplanarity:
(0.10 mm) .004" max (10-20)

OTHER SOLUTIONS



- Other card pass-through options. See SAL1 Series.

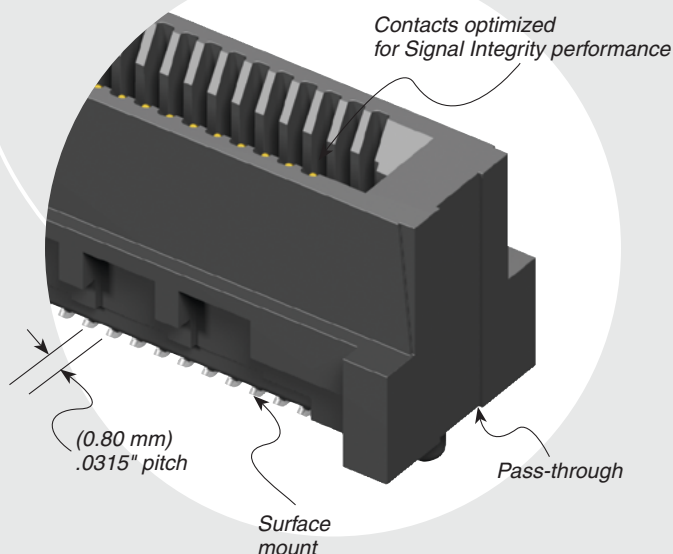
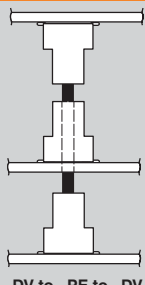
ALSO AVAILABLE (MOQ Required)

- Other platings

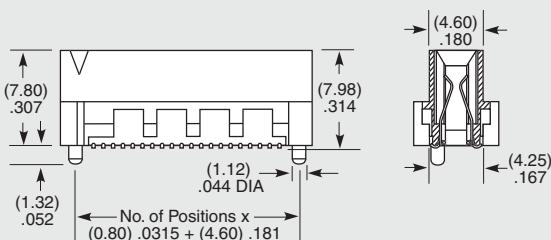
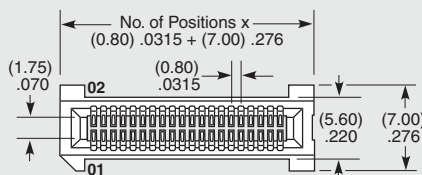
Mates with:
(1.60 mm) .062" thick card, HSC8

EDGE RATE
CONTACT

BOARD-TO-BOARD APPLICATIONS



HSEC8	1	POSITIONS PER ROW	CARD THICKNESS	PLATING OPTION	DV	A	PE	OTHER OPTION
		10, 13, 20	-01 = (1.60 mm) .062" thick card	-L = 10 μ" (0.25 μm) Gold on contact, Matte Tin on tail -S = 30 μ" (0.76 μm) Gold on contact, Matte Tin on tail				-K = (5.50 mm) .217" DIA Polyimide Film Pick & Place Pad -TR = Tape & Reel Packaging



Notes:
While optimized for 50 Ω applications, this connector with alternative signal/ground patterns may also perform well in certain 75 Ω applications.

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

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.TOBY.CO.UK

All parts within this catalog are built to Samtec's specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.



(0.80 mm) .0315"

HSEC8-140-01-L-PV-4-1-WT

HSEC8-120-01-S-PV-2-1

HSEC8-PV SERIES

POWER/HIGH-SPEED EDGE CARD COMBO

SPECIFICATIONS

Insulator Material:
Black Liquid Crystal Polymer
Signal Contact:
BeCu
Power Contact:
Phosphor Bronze
Plating:
Au or Sn over
50 μ" (1.27 μm) Ni
Operating Temp:
-55 °C to +125 °C
Current Rating:
Signal Pin: 3.2 A per pin
(2 pins powered)
Power Pin: 27.5 A per pin
(2 pins powered)
RoHS Compliant:
Yes

PROCESSING

Lead-Free Solderable:
Yes

RECOGNITIONS



Mates with:
(1.60 mm) .062" thick card

Rated up to
60 A per
power bank

1 or 2 banks,
2 or 4 positions

**EDGE
RATE[®]**
CONTACT

Mates with
(1.60 mm)
.062" card

HIGH-SPEED CHANNEL PERFORMANCE

HSEC8-PV

Rating based on Samtec reference channel.

28
Gbps

HSEC8 - 1 SIG POS - CARD THICKNESS - PLATING OPTION - PV - PWR POS - POWER TAIL - OTHER OPTION

20, 30, 40
(Signal positions per row)

-01
= (1.60 mm) .062"
Thick Card

-L
= 10 μ" (0.25 μm)
Gold on contact,
Matte Tin on tail

-2, -4
(Total, 2 per
power bank)

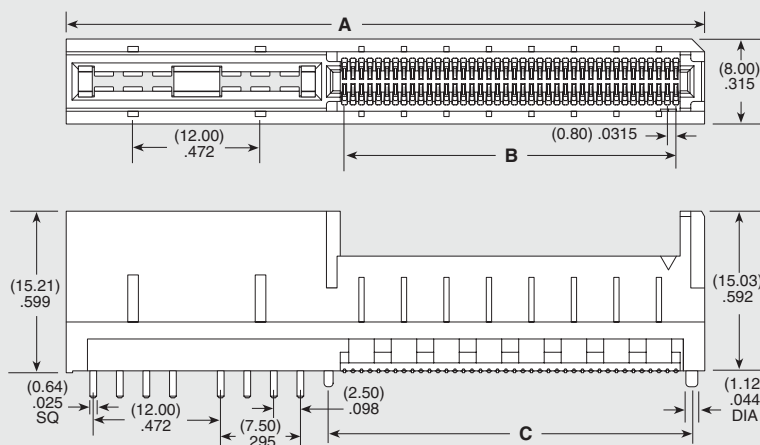
1
= Use with
(1.60 mm)
.062"
Thick PCB

-WT
= Weld
Tab

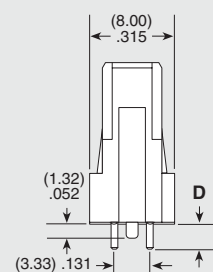
-S
= 30 μ" (0.76 μm)
Gold on contact,
Matte Tin on tail

-2
= Use with
(2.36 mm)
.093"
Thick PCB

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

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.TOBY.CO.UK

All parts within this catalog are built to Samtec's specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.



(0.80 mm) .0315"

HSEC8-120-01-L-RA

HSEC8-160-01-L-RA-BL

HSEC8-RA SERIES

RIGHT-ANGLE EDGE RATE® CARD SOCKET

SPECIFICATIONS

Insulator Material:
Black Liquid Crystal Polymer
Contact:
BeCu
Plating:
Au or Sn over
50 μ" (1.27 μm) Ni
Current Rating:
2.6 A per pin
(2 adjacent pins powered)
Operating Temp:
-55 °C to +125 °C
RoHS Compliant:
Yes

PROCESSING

Lead-Free Solderable:
Yes
SMT Lead Coplanarity:
(0.10 mm) .004" max (10-60)

RECOGNITIONS



FILE NO. E111594

ALSO AVAILABLE (MOQ Required)

- Other platings

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

Cable Mates:
ECDP

**EDGE
RATE®
CONTACT**



Rugged
Edge Rate®
contacts
designed for
Signal Integrity

HIGH-SPEED CHANNEL PERFORMANCE

HSEC8-RA

Rating based on Samtec reference channel.

28
Gbps

Accepts (1.60 mm) .062"
PCB thicknesses

Optional
Board
Locks

RUGGEDIZED
BY SAMTEC

- Board lock option

HSEC8

1

POSITIONS
PER ROWCARD
THICKNESSPLATING
OPTION

RA

OTHER
OPTION

09, 10, 13, 20, 25,
30, 40, 49, 50, 60

—01
= (1.60 mm) .062"
thick card

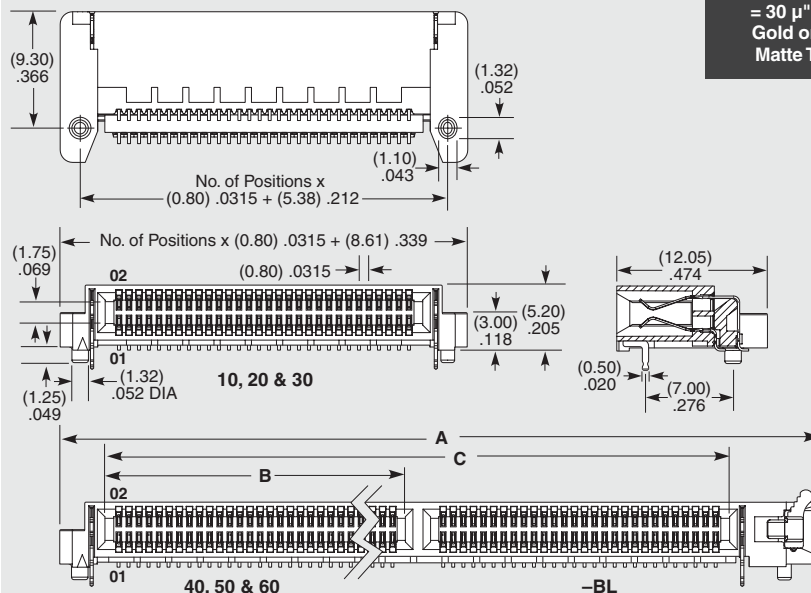
—L
= 10 μ" (0.25 μm)
Gold on contact,
Matte Tin on tail

—S
= 30 μ" (0.76 μm)
Gold on contact,
Matte Tin on tail

—BL
= Board Locks
(09, 13, 25, 40,
49, 50, 60 only)

—L2
= ECDP Latching
(09, 13, 25,
49 only)
(For use with
ECDP)

—TR
= Tape & Reel
Packaging
(10 thru 60
positions only)



POSITIONS PER ROW	A	B	C
40	(43.80) 1.724	(18.90) .744	(36.60) 1.441
50	(51.80) 2.039	(22.90) .902	(44.60) 1.756
60	(59.80) 2.354	(26.90) 1.059	(52.60) 2.071
40-BL	(51.30) 2.020	(18.90) .744	(36.60) 1.441
50-BL	(59.30) 2.335	(22.90) .902	(44.60) 1.756
60-BL	(67.30) 2.650	(26.90) 1.059	(52.60) 2.071

Notes:
While optimized for 50 Ω applications, this connector with alternative signal/ground patterns may also perform well in certain 75 Ω applications.

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

Due to technical progress, all designs, specifications and components are subject to change without notice.

WWW.TOBY.CO.UK

All parts within this catalog are built to Samtec's specifications.
Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.