

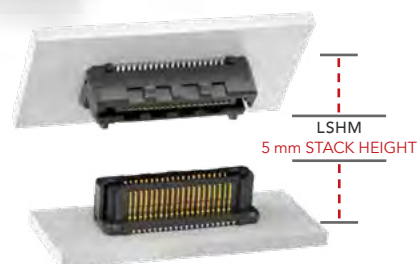
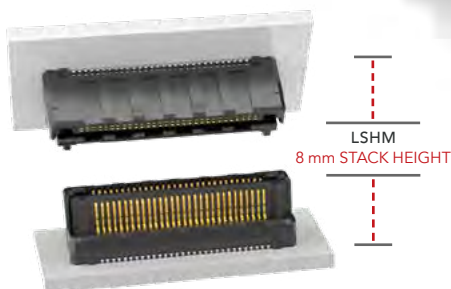
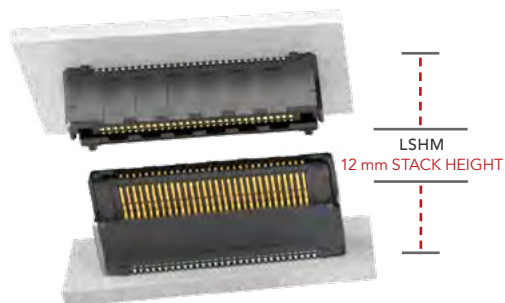
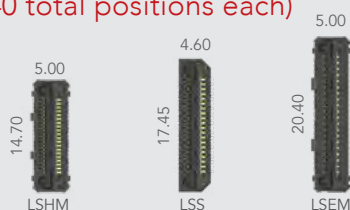
FINE PITCH SELF MATING CONNECTORS

(0.50 mm) .0197" PITCH

FEATURES & BENEFITS

- Ten stack height options from 5.00 mm to 12.00 mm
- 0.50 mm, 0.635 mm or 0.80 mm pitches
- Audible click when mated
- Mating and unmating forces approximately 4-6x greater than typical micro pitch connectors
- Self-mating system reduces inventory cost
- Parallel, perpendicular and coplanar systems
- Shield option
- Lubricated option

ACTUAL SIZE SHOWN SLIM BODY DESIGNS (40 total positions each)



KEY SPECIFICATIONS

| INSULATOR MATERIAL | CONTACT MATERIAL | PLATING | OPERATING TEMP RANGE | CURRENT RATING | SMT COPLANARITY | LEAD-FREE SOLDERABLE |
|--------------------|------------------|--|----------------------|--|---------------------|----------------------|
| Black LCP | Phosphor Bronze | Au or Sn over 50 μ " (1.27 μ m) Ni | -55 °C to +125 °C | LSHM: 2.0 A per pin LSS: 1.7 A per pin LSEM: 1.8 A per pin | (0.10 mm) .004" max | Yes |

(0.50 mm) .0197" PITCH • RUGGED HERMAPHRODITIC CONNECTORS

| LSHM | 1 | NO. PINS PER ROW | LEAD STYLE | PLATING OPTION | TAIL OPTION | A | SHIELD OPTION | K | "X"R |
|------|---|---------------------------|---|--|--|---|---|---|---|
| | | 05, 10, 20, 30, 40, 50 | (Vertical) Specify LEAD STYLE from chart (Right-angle) -01 = Standard (Right-angle) -L1 = Lubricated | -F = Gold flash on contact, Matte Tin on tail -L = 10 μ" (0.25 μm) Gold on contact, Matte Tin on tail | -DV = Vertical -DH = Right-angle (Lead style -01 & -L1 only) -RH = Reverse Right-angle (Lead style -01 & -L1 only) | | -S = With Shield -N = Without Shield | -K = (3.50 mm) .138" DIA Polyimide film Pick & Place Pad | -TR = Tape & Reel -FR = Full Reel Tape & Reel (must order maximum quantity per reel; contact Samtec for quantity breaks) |

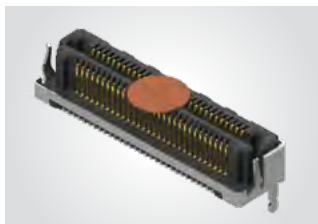
LSHM

Board Mates:

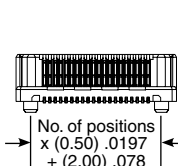
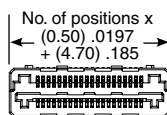
LSHM

Cable Mates:

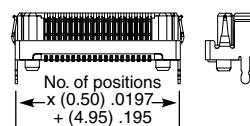
HLCD



| LEAD STYLE (STANDARD) | LEAD STYLE (LUBRICATED) | A | B |
|--------------------------|----------------------------|-------------|-------------|
| -02.5 | -L2.5 | (3.95) .156 | (1.00) .039 |
| -03.0 | -L3.0 | (4.45) .175 | (1.50) .059 |
| -04.0 | -L4.0 | (5.45) .215 | (2.50) .098 |
| -06.0 | -L6.0 | (7.45) .293 | (4.50) .177 |



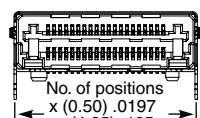
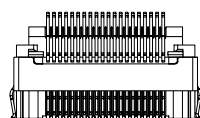
-DV-N



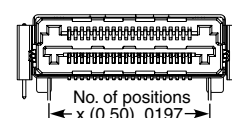
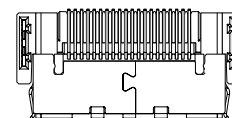
-DV-S

| LEAD STYLE | MATED HEIGHT * |
|---------------|----------------|
| -02.5 & -02.5 | (5.00) .196 |
| -02.5 & -03.0 | (5.50) .217 |
| -03.0 & -03.0 | (6.00) .236 |
| -02.5 & -04.0 | (6.50) .256 |
| -03.0 & -04.0 | (7.00) .276 |
| -04.0 & -04.0 | (8.00) .315 |
| -02.5 & -06.0 | (8.50) .335 |
| -03.0 & -06.0 | (9.00) .354 |
| -04.0 & -06.0 | (10.00) .394 |
| -06.0 & -06.0 | (12.00) .472 |

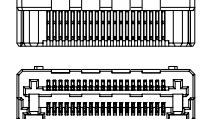
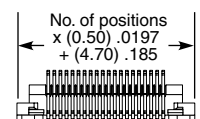
*Processing conditions will affect mated height.



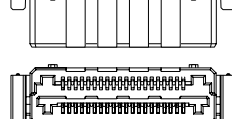
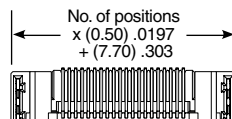
-DH-S



-RH-S



-DH-N



-RH-N

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

View complete specifications at: samtec.com/LSHM

(0.635 mm) .025" PITCH • RUGGED HERMAPHRODITIC CONNECTORS

| LSS | 1 | NO. PINS PER ROW | LEAD STYLE | PLATING OPTION | DV | A | OPTION |
|-----|---|------------------|------------|----------------|----|---|--------|
|-----|---|------------------|------------|----------------|----|---|--------|

10, 20, 30, 40, 50

Specify
LEAD
STYLE
from
chart

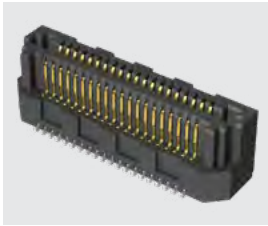
-F
= Gold flash
on contact,
Matte Tin on tail

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

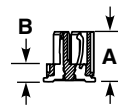
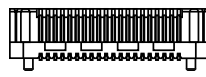
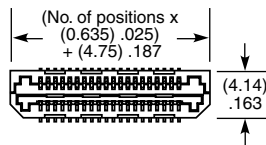
-K
= (3.50 mm) .138" DIA
Polyimide film
Pick & Place Pad

-TR
= Tape & Reel

-FR
= Full Reel Tape & Reel
(must order maximum
quantity per reel; contact
Samtec for quantity breaks)



| LEAD STYLE | A | B |
|------------|--------------|--------------|
| -01 | (4.45) .1752 | (1.59) .0628 |
| -02 | (7.45) .2933 | (4.59) .1808 |
| -03 | (5.45) .2146 | (2.59) .1021 |



| LEAD STYLE | MATED HEIGHT * |
|------------|----------------|
| -01 & -01 | (6.00) .236 |
| -01 & -03 | (7.00) .276 |
| -03 & -03 | (8.00) .315 |
| -01 & -02 | (9.00) .354 |
| -02 & -03 | (10.00) .394 |
| -02 & -02 | (12.00) .472 |

*Processing conditions will
affect mated height.

View complete specifications at: samtec.com?LSS

(0.80 mm) .0315" PITCH • RUGGED HERMAPHRODITIC CONNECTORS

| LSEM | 1 | NO. PINS PER ROW | LEAD STYLE | PLATING OPTION | TAIL OPTION | A | N | K | "X"R |
|------|---|------------------|------------|----------------|-------------|---|---|---|------|
|------|---|------------------|------------|----------------|-------------|---|---|---|------|

10, 20, 30,
40, 50

Specify
LEAD
STYLE
from
chart

-F
= Gold flash
on contact,
Matte Tin on tail

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

-DV
= Vertical

-DH
= Right-angle
(Lead style
-01 only)

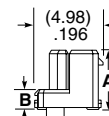
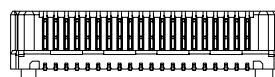
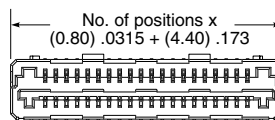
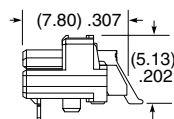
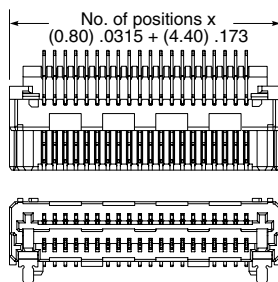
-K
= (3.50 mm)
.138" DIA
Polyimide film
Pick & Place Pad

-TR
= Tape & Reel

-FR
= Full Reel
Tape & Reel
(must order
maximum
quantity
per reel;
contact
Samtec for
quantity
breaks)



| LEAD STYLE | A | B |
|-------------------|-------------|-------------|
| -01 (-DH only) | N/A | NA |
| -03.0 | (4.45) .175 | (1.50) .059 |
| -04.0 | (5.45) .215 | (2.50) .098 |
| -06.0 | (7.45) .293 | (4.50) .177 |



| LEAD STYLE | MATED HEIGHT * |
|---------------|----------------|
| -03.0 & -03.0 | (6.00) .236 |
| -03.0 & -04.0 | (7.00) .276 |
| -04.0 & -04.0 | (8.00) .315 |
| -03.0 & -06.0 | (9.00) .354 |
| -04.0 & -06.0 | (10.00) .394 |
| -06.0 & -06.0 | (12.00) .472 |

*Processing conditions will
affect mated height.

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

-DH

-DV

View complete specifications at: samtec.com?LSEM