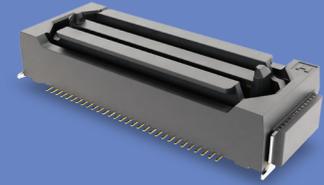
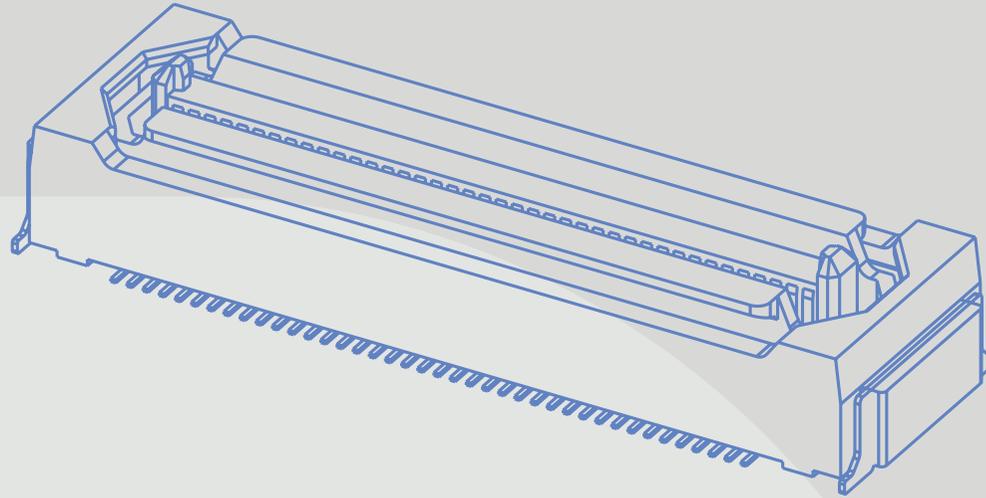


# HARWIN

CONNECT TECHNOLOGY  
WITH CONFIDENCE



DEPENDABLE  
CONNECTIVITY  
ACROSS THE BOARD

## FLECTO FLOATING CONNECTORS

FINE PITCH BOARD-TO-BOARD CONNECTORS WITH HIGH PIN COUNT

**BBi**  
RANGE

# HARWIN



# BBi CONNECTORS FROM HARWIN.

## Fine Pitch Board-To-Board Connectors with High Pin Count

Floating connectors with reduced requirement for positional accuracy during mating. Multiple board-to-board interconnection in one assembled PCB stack. Easy mating with lower stress on miniature contacts.

Flecto is designed to provide movement in the X, Y and Z axes of the male connector. The movement allows for added location tolerance, which is required when multiple connectors are used to connect the same two PCBs.

The mating area of the male connector can move by up to  $\pm 0.8\text{mm}$  from the centerline. This compensates for positional mis-alignment across multiple connectors. It also eases any stresses from misaligned connections, helping maintain the contact force over time.

Gull-wing SMT terminations on the signal contacts allow easy solder inspection. Additional SMT hold-downs on the signal-only connectors give increased peel strength on the PCB. Location pegs or throughboard power pins provide assembly aids for PCB placement.

Up to 160 contacts in a symmetrical double-row layout. Wide range of board-to-board heights, with an additional horizontal option for 90° daughterboards. Three choices of miniature pitches: 0.5mm (.0197"), 0.635mm (.025") and 0.8mm (0.0315"). Additional power pins with a current rating of 3A in the 0.5mm pitch range.

## FEATURES

- Movement in X, Y and Z axes during and after mating for multiple board-to-board connections
- Low-stress mated connections with mated heights up to 29.9mm nominal
- Supplied in tape & reel for high volume surface mount assembly

## APPLICATIONS

- Factory automation
- Electric vehicles
- LED Displays
- Security Cameras





## SPECIFICATIONS

MATERIALS	ELECTRICAL	MECHANICAL	ENVIRONMENTAL
Housings: <b>High Temperature LCP, UL94V-0</b>	Current per contact: <b>Up to 0.5A (signal)</b> <b>3.0A max (power)</b>	Durability: <b>Up to 100 operations</b>	Operating temperature: <b>-55°C to +105°C (signal+power)</b> <b>-40°C to +105°C (signal only)</b>
Contacts: <b>Copper alloy</b>	Maximum voltage: <b>Up to 250V AC/DC</b>	X / Y / Z axis misalignment: <b>Up to ±0.8mm</b>	Vibration resistance: <b>10-55Hz, 1.5mm pk-pk for 6 hrs</b>
Contact Finish: <b>Gold on contact area</b> <b>Gold or tin on terminations</b>	Data rate: <b>Up to 8Gb/s (0.50mm pitch)</b> <b>Up to 12Gb/s (0.635mm pitch)</b> <b>Up to 5Gb/s (0.80mm pitch)</b>	Pitch: <b>0.50mm (.0197")</b> <b>0.635mm (.025")</b> <b>0.80mm (.0315")</b>	Shock resistance: <b>50G (490m/s<sup>2</sup>)</b>
SMT Retention Tabs: <b>Brass, Tin finish</b>	Insulation resistance: <b>100MΩ min</b>	Board-to-Board height (vertical): <b>5.98mm to 29.90mm nominal</b>	Compliance: <b>RoHS Compliant</b> <b>REACH / CMRT statements</b>

Specifications are subject to change.

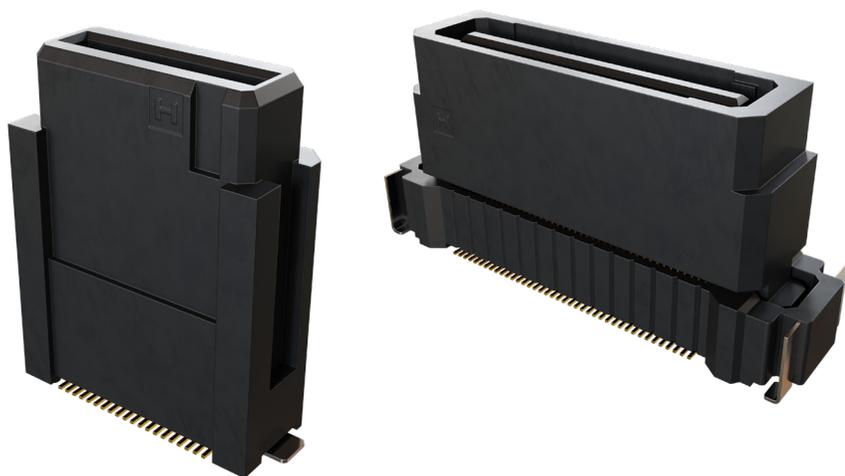


# FLECTO

## PRODUCT CATEGORIES

### 0.5mm pitch SMT Connectors – Signal only

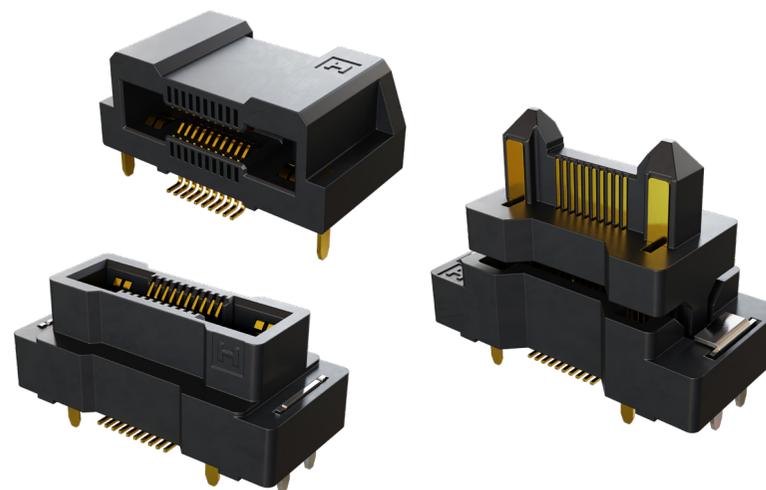
Male connectors provide floating mechanism with  $\pm 0.5\text{mm}$  movement in X and Y axes. Fully shrouded & polarized (except for F12 connectors), SMT hold-down solder tabs and location pegs. Three heights available for female connectors, giving a selection of board-to-board heights between 7.65mm and 29.90mm nominal.



[VIEW F10 / F12 SERIES HERE](#)

### 0.5mm pitch SMT Connectors – Signal + Power

3A power contacts, two at each end located on large guide pegs. Male connectors provide floating mechanism with  $\pm 0.6\text{mm}$  movement in X and Y axes. SMT terminations for signal contacts, throughboard terminations on power contacts. Hold-down solderable location pegs. Two heights available for male connectors, for 15mm or 20mm nominal board-to-board heights. Female connectors in vertical or horizontal configurations.



[VIEW F11 SERIES HERE](#)

Specifications are subject to change.

# FLECTO

## PRODUCT CATEGORIES

### 0.635mm pitch SMT Connectors – Signal only

Fully shrouded, SMT hold-down solder tabs and location pegs. Male connectors provide floating mechanism with  $\pm 0.7\text{mm}$  movement in X and Y axes. Three heights available for female connectors, giving a selection of board-to-board heights between 5.98mm and 14.88mm nominal.



[VIEW F20 SERIES HERE](#)

### 0.8mm pitch SMT Connectors – Signal only

Male connectors provide floating mechanism with up to  $\pm 0.8\text{mm}$  movement in X and Y axes. Three heights available for male connectors, two heights for female connectors; selection of board-to-board heights between 8mm and 24.7mm nominal. SMT hold-down solder tabs and location pegs.



[VIEW F30 SERIES HERE](#)

Specifications are subject to change.



[VIEW FULL SERIES & SPECIFICATIONS HERE](#)





## DOWNLOADS

### Technical Documents

Component Specification



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### Product Training

Product Training Module (PTM)



### Test Reports

**HT090** – Flecto General Testing



Specifications are subject to change.



VIEW FULL SERIES & SPECIFICATIONS **HERE**



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CONNECT TECHNOLOGY  
WITH CONFIDENCE



HIGH RELIABILITY  
WITH SUPREME  
PERFORMANCE



DEPENDABLE  
CONNECTIVITY  
ACROSS THE BOARD



INNOVATIVE  
DESIGNS FOR  
EASY ASSEMBLY

**HRI**  
RANGE

**BBi**  
RANGE

**Ezi**  
RANGE

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