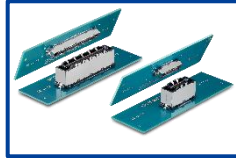


## 1 Main to Sub Board Connection

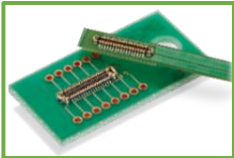


High-Speed Board-to-Board, Floating



High-Speed Shield, Board-to-Board, Floating

## 2 LED Connection

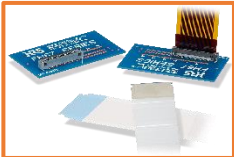


Ultra Small Power/Signal, Board-to-Board

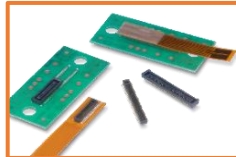


Standard FPC, Low Pitch

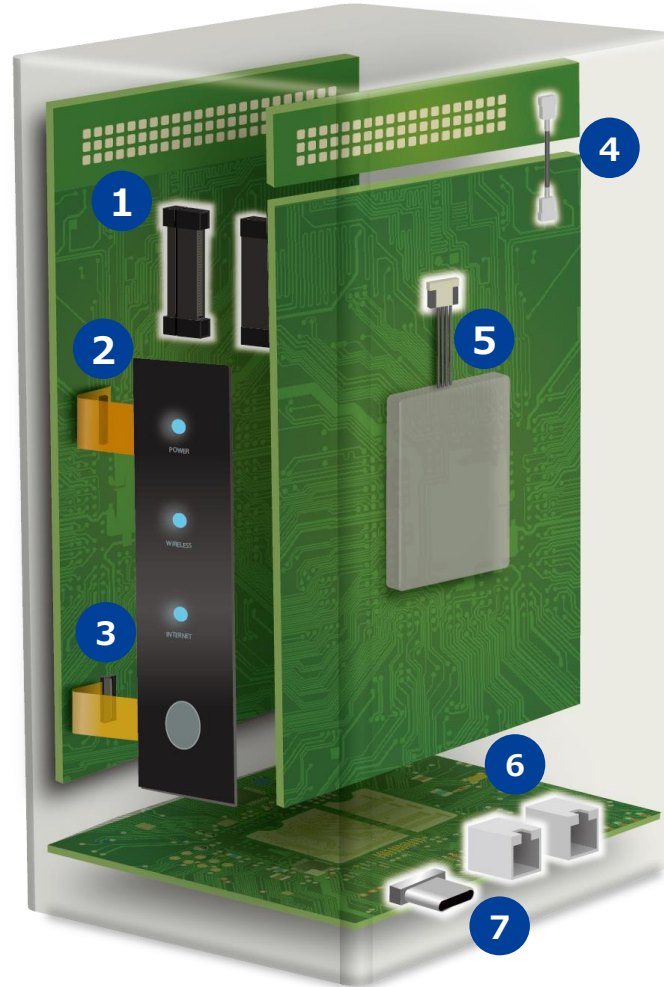
## 3 Switch Connection



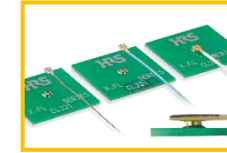
One Action, Vertical/Shield FFC



Wide Stacking Height Variations FFC



## 4 Antenna Connection



RF Connector



Multi-RF Board-to-Board

## 5 Battery Connection

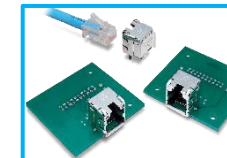


Compact & Robust Board-to-Wire

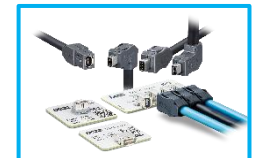


Low Profile Board-to-Wire

## 6 Ethernet Connection



High-Speed Standard Ethernet



Next Generation Ethernet Connector

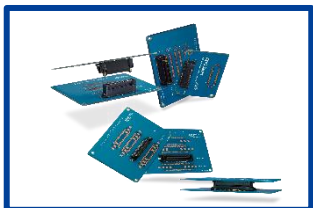
## 7 I/O



Type-C Connector

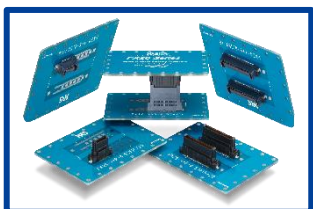
# 1. Main to Sub Board Connection

## High Speed



### FX23/FX23L

High-Speed Transmission  
Pitch : 0.5mm  
Board-to Board  
Floating Design  
No. of Pos.: 20, 40, 60, 80,  
100,120.  
Rated Current : 3A/Power Pin



### FX20

Board to Board  
Floating Design  
Pitch: 0.5mm  
Floating Range:  $\pm 0.6$  to  
 $0.8$ mm in the X direction and  
 $\pm 0.6$ mm in the Y direction  
No. of Pos.: 20, 40, 60, 80,  
100, 120 and 140



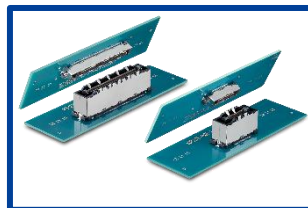
### FX18

High-Speed Transmission  
0.8mmPitch  
Straight/Right Angle  
No. of Pos.: 40, 60, 80, 100,  
120,140.  
Rated Current : 3A/Power Pin



### ER8

10+Gbps.High Speed Transmission  
Pitch: 0.8mm  
Smooth Insertion&  
High Mating Reliability  
Stacking Height: 7-12mm  
No. of Pos.: 10-140  
Variations: Right Angle/Parallel /Coplanar



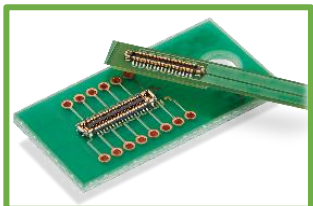
### KP27F

125°C High Heat Resistance  
Floating Range:  
 $\pm 0.8$ mm in X&Y Direction  
Board-to-Board  
Pitch : 0.5mm  
Mated Height :21mm  
No. of Pos.: 60, 170pos.  
Rated Current : 3A/Power Pin



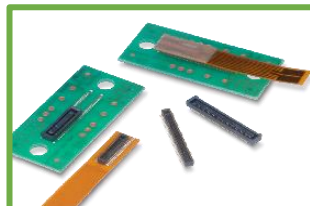
## 2. LED Connection

### FPC-to-Board (2 Piece)



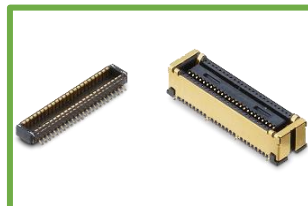
#### BM28

Low Profile, Space-Saving  
Hybrid Connector up to 5A  
Pitch : 0.35mm  
Stacking Height : 0.6mm  
Depth : 1.7mm  
No. of Pos.: 6-60+2pos.  
Rated Current : 5A for power  
0.3A for signal



#### DF40

Wide Stacking Height Variety  
Pitch : 0.4mm  
Stacking Height : 1.5-4.0mm  
Depth : 3.38mm  
No. of Pos.: 10-120pos.  
Rated Current : 0.3A  
USB4 Gen.2 (10Gbps)



#### DF40GB

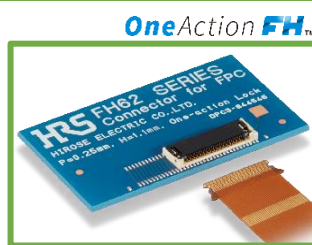
EMI Prevention with Shield  
Pitch : 0.4mm  
Mated Height : 1.5/3.0/3.5mm  
Depth : 3.68mm  
No. of Pos.: 10-70pos.  
Rated Current : 0.3A

### FPC (1 Piece)



#### FH34

Top & Bottom Contact  
Back Flip FPC/FFC  
Pitch : 0.5mm  
Height : 1.0mm  
Depth : 3.8mm  
No. of Pos.: 4-50pos.  
Rated Current : 0.5A



#### FH62

Superior Operability  
(One Action)  
Top Contact  
Pitch : 0.25mm  
Height : 1.1mm  
Depth : 4.0mm  
No. of Pos.: 13-61pos.  
Rated Current : 0.3A



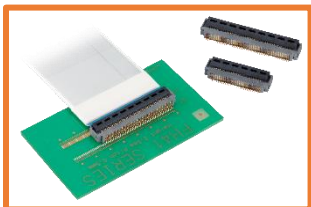
#### FH72

Superior Operability  
(One Action)  
Top Contact  
Pitch : 0.3mm  
Height : 0.9mm  
Depth : 3.5mm  
No. of Pos.: 11-31pos.  
(Planned Development : 7-31)  
Rated Current : 0.3A



### 3. Switch Connection

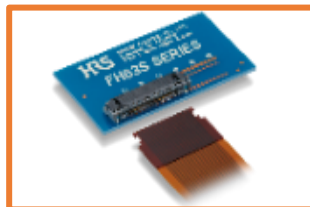
#### FPC (1 Piece)



##### **FH41**

Shielded FFC Connectors  
for High Speed  
Pitch : 0.5mm  
Height : 2.5mm  
Depth : 6.2mm  
No. of Pos.: 15-68pos.  
Rated Current : 0.5A

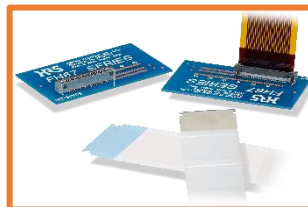
##### **OneAction FH™**



##### **FH63S**

One Action  
Pitch : 0.5mm  
Height : 2.8mm  
Depth : 5.15mm  
No. of Pos. : 10,20,30,40Pos  
Rated Current : 0.5A

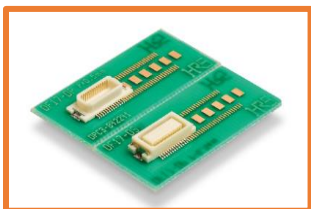
##### **OneAction FH™**



##### **FH67**

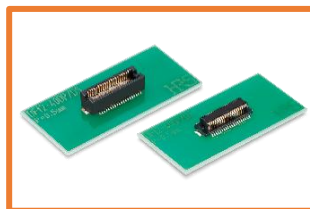
One Action  
Pitch : 0.5mm  
Height : 5.2mm  
Depth : 3.57mm  
No. of Pos. : 10-40  
Rated Current : 0.5A

#### FPC-to-Board (2 Piece)



##### **DF17**

Wide Stacking Height Variety  
Pitch : 0.5mm  
Stacking Height : 4.0-8.0mm  
Depth : 5.7mm  
No. of Pos.: 20-80pos.  
Rated Current : 0.3A



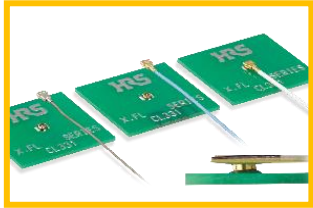
##### **DF12N**

Wide Stacking Height Variety  
Pitch : 0.5mm  
Stacking Height : 3.0-5.0mm  
Depth : 4.6mm  
No. of Pos.: 10-80pos.  
Rated Current : 0.3A



## 4. Antenna Connection (5G/AIP/Wi-Fi)

### Miniature RF Connector



#### X.FL

Superior High Frequency  
Mated Height: 1.0mm Max.  
Frequency: 0 to 6GHz  
V.S.W.R.: 1.4 Max.



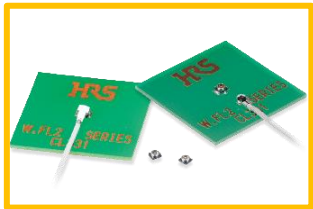
#### X.FL (Low Loss Type)

WiGig Standard  
Mated Height: 1.3mm Max.  
Frequency: 0 to 12GHz  
V.S.W.R.: 1.7 Max.  
Intel WiGig Recommended



#### C.FL

Micro RF  
Mated Height: 0.92mm  
Frequency: 0 to 30GHz  
V.S.W.R.: 1.6 Max.



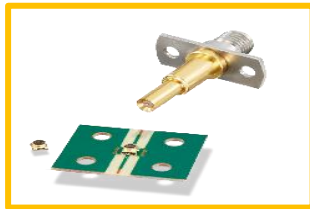
#### W.FL2

Small  
Mated Height: 1.3mm Max.  
Frequency: 0 to 6GHz  
V.S.W.R.: 1.5 Max.



#### U.FL(A)

Widely Used RF Connector  
Mated Height: 2.0mm Max.  
or 2.4-2.5 Max.  
Frequency: 0 to 6GHz  
V.S.W.R.: 1.5 Max.



#### MS-156C

Switch for Module Functionality  
Inspection  
Height: 1.35mm  
Frequency: DC-11GHz  
V.S.W.R.: 1.5 Max.



## 4. Antenna Connection (5G/AIP/Wi-Fi)

### FPC-to-Board (2 Piece)

HRS 5G



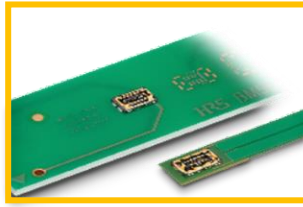
#### BM46

Multi-RF  
Board-to-Board  
Pitch: 0.35mm  
Stacking Height: 0.6mm  
Frequency: 0 to 12GHz  
V.S.W.R.: 1.6 Max.



This product  
was selected as a  
CES  
Innovation  
Awards  
Honoree \*

HRS 5G



#### BM56G

Multi-RF  
Board-to-Board  
Pitch: 0.35mm  
Stacking Height: 0.6mm  
Frequency: 0 to 20GHz  
V.S.W.R.: 1.5 Max.



## 5. Battery Connection

### Wire-to-Board



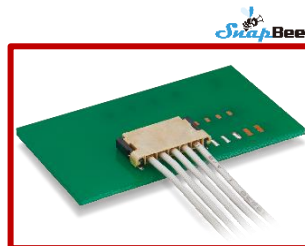
#### DF52

Small, High Current Capacity  
Pitch : 0.8mm  
Mated Height : 1.75mm  
Depth : 4.10mm  
No. of Pos.: 2-20pos  
AWG Wire : 28-32  
Rated Current : 2.5A Max.



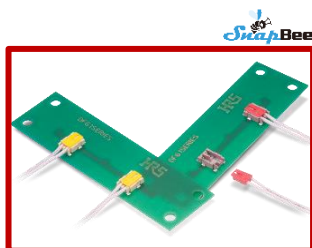
#### DF59

3Way System Connector  
Pitch : 2.0mm  
Mated Height : 2.48mm  
Depth : 8.15mm  
No. of Pos.: 2-4pos.  
AWG Wire : 22  
Rated Current : 3A Max.



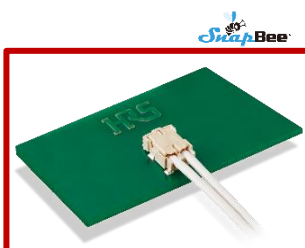
#### DF65

Small, High Current Capacity  
Pitch : 1.7mm  
Mated Height : 1.8mm  
Depth : 6.3mm  
No. of Pos.: 3-7pos.  
AWG Wire : 24-28  
Rated Current : 4A Max.



#### DF61

Low Profile, Snap Lock Design  
Pitch : 2.2mm  
Mated Height : 2.38mm  
Depth : 7.35mm  
No. of Pos.: 2pos.  
AWG Wire : 22-28  
Rated Current : 5A Max.



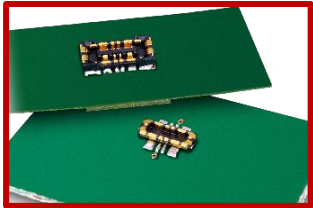
#### DF61Y

Small, Snap Lock Design  
Pitch : 2.2mm  
Mated Height : 2.0mm  
Depth : 7.35mm  
No. of Pos.: 2pos.  
AWG Wire : 24-28  
Rated Current : 4A Max.



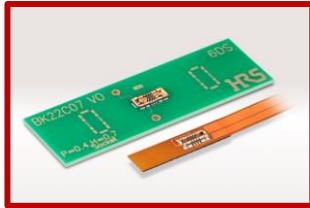
## 5. Battery Connection

### FPC-to-Board (2 Piece)



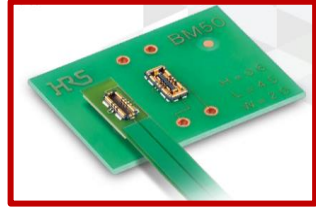
#### BM25

Ideal for Quick Charge  
Power Connector  
Pitch : 0.4mm  
Mated Height : 0.7mm  
Depth : 2.6mm  
No. of Pos.: 4+2pos.  
Rated Current : 10A for power  
0.3A for signal



#### BK22

15A Rated Current, Power/Signal  
Hybrid FPC-to-Board Connector  
Pitch : 0.4mm  
Mated Height : 0.7mm  
No. of Pos.: 4+2pos.6+2Pos  
Rated Current : 15A for power



#### BM50

15A Rated Current, Power/Signal  
Hybrid FPC-to-Board Connector  
Pitch : 0.35mm  
Mated Height : 0.6mm  
No. of Pos.: 4+2pos  
Rated Current : 15A for power



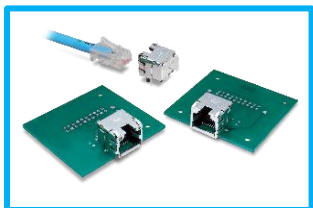
This product  
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Awards  
Honoree \*





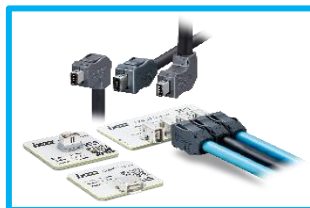
## 6. Ethernet Connection

### Ethernet Connection



#### **TM11R**

RJ45  
EMI Modular Jack



#### **ix Industrial™**

Cat.6A Ethernet  
Small and Robust  
Next Generation  
Ethernet Connector

## 7. Interface Connection

### I/O Connector



#### **CX90B2-24P**

USB Type-C  
Top-Mount  
Right Angle SMT Double-row  
24pos.



#### **CX90B-16P**

USB Type-C  
USB2.0, 6A  
Top-Mount, 16pos.



#### **CX80B2-24P**

Top Mount  
Vertical SMT  
24Pos.

