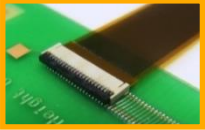


Hirose's Connectors for Smart Glass & Head Mount Display

1. Display/Projection/Camera Connection

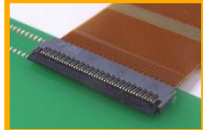
FH58 Series

0.2mm Pitch, 0.9mm Height, Top/Bottom Contact



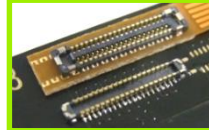
FH35C Series

0.3mm Pitch, Top & Bottom Contact



BM23FR Series

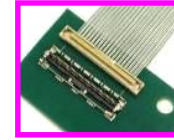
0.6mm Height, 1.98mm Depth, 0.35mm Pitch, Board-FPC Connector



3. Main and I/O Board Connection

DF36 Series

0.4mm Pitch, Vertical Mating Micro-Coaxial Connector



DF81 Series

0.4mm Pitch, 0.9mm Height, Horizontal Mating Micro-Coaxial Connector with Rotary Latch



4. Interface Connection

CX Series

USB Type C connector



3. Module & Main board Connection

DF49 Series

0.4mm Pitch, 0.7mm Height, Horizontal Mating Micro-Coaxial Connector



DF56 Series

0.3mm Pitch, Vertical Mating Micro-Coaxial Connector



2. Speaker/Micro Phone Connection

DF57H Series

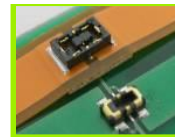
Swing Lock, Low Profile Connector



6. Battery Connection

BM22 Series

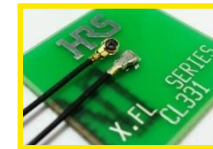
Micro Hybrid Board-FPC Connector Up to 4A



5. Wireless Module Connection

X.FL Series

Ultra Low Profile 0.94mm Miniature RF Connector



MS-180 Series

Ultra Low Profile 0.85mm RF Switch for Checking Terminal



1. Connectors for Display/Projection/Camera Connection (High-Pin-Count)

Board-FPC (1-Piece)

FH29DJ



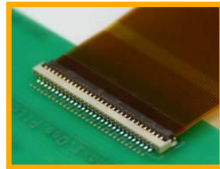
Small, High pin count
Bottom Contact
Pitch: 0.2mm
Height: 1.2mm
Depth: 4.5mm
Pin Counts: 44 to 120pos.
Rated Current: 0.25A

FH35C



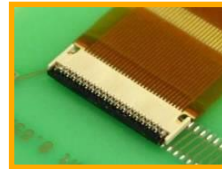
Commonly used for
FPC connection
Top/Bottom Contact
Pitch: 0.3mm
Height: 0.9mm
Depth: 3.2mm
Pin Counts: 9 to 61pos.
Rated Current: 0.2A

FH36W



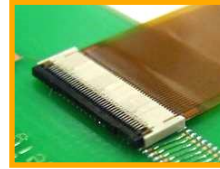
Saves size in depth,
High retention force
Bottom Contact
Pitch: 0.3mm
Height: 0.95mm
Depth: 2.7mm
Pin Counts: 11 to 61pos.
Rated Current: 0.2A

FH42



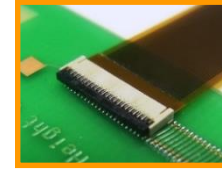
Ultra low profile connector
Top Contact
Pitch: 0.3mm
Height: 0.65mm
Depth: 3.08mm
Pin Counts: 7 to 51pos.
Rated Current: 0.2A

FH53



Ultra low-profile,
High density connector
Top Contact
Pitch: 0.2/0.25/0.3mm
Height: 0.65mm
Depth: 3.2mm
Pin Counts: 7 to 51pos.
Rated Current: 0.2A

FH58



Space saving,
Multipurpose connector
Top/Bottom Contact
Pitch: 0.2/0.25mm
Height: 0.9mm
Depth: 3.1mm
Pin Counts: 7 to 71pos.
Rated Current: 0.2A

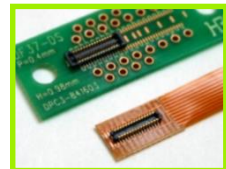
FH62



One action lock
FPC connector
Top Contact
Pitch: 0.25mm
Height: 1.1mm
Depth: 4.0mm
Pin Counts: 35pos.
Rated Current: 0.2A

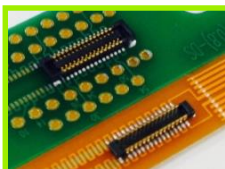
Board-FPC (2-Piece)

DF37



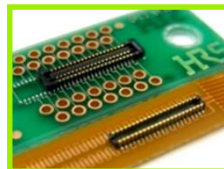
Wide pin count variation
Pitch: 0.4mm
Stacking Height:
0.98/1.5mm
Depth: 2.98mm
Pin Counts: 10 to 80pos.
Rated Current: 0.3A

KN13



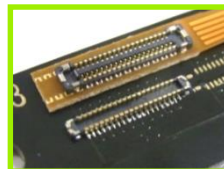
High retention force
User-friendly design
Pitch: 0.4mm
Stacking Height: 0.8mm
Depth: 2.5mm
Pin Counts: 10, 24, 30pos.
Rated Current: 0.3A

BM20



Commonly used for
FPC connection
Pitch: 0.4mm
Stacking Height: 0.8mm
Depth: 2.3mm
Pin Counts: 10 to 60pos.
Rated Current: 0.3A

BM23FR



Small,
Multipurpose connector
Pitch: 0.35mm
Stacking Height: 0.6mm
Depth: 1.98mm
Pin Counts: 6 to 60pos.
Rated Current: 0.3A

DF57H



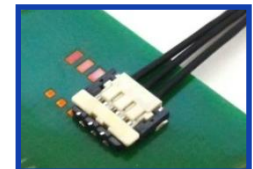
Low profile, Swing lock
Pitch: 1.2mm
Mated Height: 1.4mm
Depth: 4.35mm
Pin Counts: 2 to 6pos.
AWG wire: 28 to 34
Rated Current: 0.5 to 2.5A

DF52



Small,
High current capability
Pitch: 0.8mm
Stacking Height: 1.75mm
Depth: 4.1mm
Pin Counts: 2 to 20pos.
AWG wire: 28 to 32
Rated Current: 0.8 to 2.5A

DF58



The world's lowest profile
with 28 AWG
Pitch: 1.2mm
Stacking Height: 1.0mm
Depth: 4.72mm
Pin Counts: 2 to 6pos.
AWG wire: 28 to 30
Rated Current: 1 to 3A

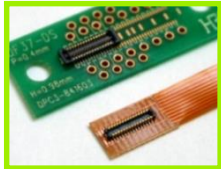
Board-Wire

※Variations under development are included. Confirm the latest information through your HRS contact person. (As of Nov, 2017)

2. Connectors for Speaker/Microphone Connection (Low-Pin-Count)

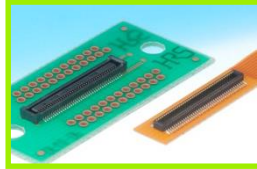
Board-FPC (2-Piece)

DF37



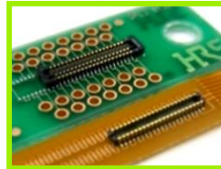
Wide pin count variation
Pitch: 0.4mm
Stacking Height: 0.98/1.5mm
Depth: 2.98mm
Pin Counts: 10 to 80pos.
Rated Current: 0.3A

DF40



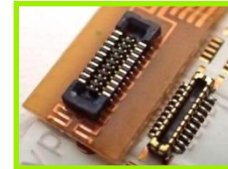
Wide varieties of stacking height
Pitch: 0.4mm
Stacking Height: 1.5 to 4.0mm
Depth: 2.98/3.38mm
Pin Counts: 10 to 100pos.
Rated Current: 0.3A

BM20



Commonly used for FPC connection
Pitch: 0.4mm
Stacking Height: 0.6/0.8mm
Depth: 2.30mm
Pin Counts: 10 to 60pos.
Rated Current: 0.3A

BM15FR



Space saving,
Wide varieties of stacking height
Pitch: 0.35mm
Stacking Height: 0.7/0.8/1.0mm
Depth: 1.98mm
Pin Counts: 10 to 30pos.
Rated Current: 0.3A

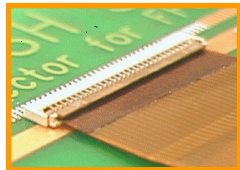
BM29



Ultra small hybrid connector
Pitch: 0.35mm
Stacking Height: 0.6mm
Depth: 1.5mm
Pin Counts: 2+2pos.
Rated Current: 3A for power
0.3A for signal

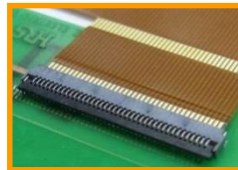
Board-FPC (1-Piece)

FH19C



Commonly used for FPC connection
Bottom Contact
Pitch: 0.5mm
Height: 0.9mm
Depth: 3.0mm
Pin Counts: 4 to 50pos.
Rated Current: 0.5A

FH34SRJ



High retention force,
Ideal less pin connection
Top/Bottom Contact
Pitch: 0.5mm
Height: 1.0mm
Depth: 3.2mm
Pin Counts: 4 to 50pos.
Rated Current: 0.5A

Board-Wire

DF57H



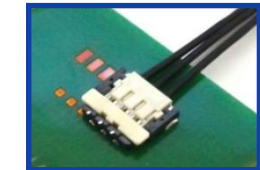
Low profile, Swing lock
Pitch: 1.2mm
Mated Height: 1.4mm
Depth: 4.35mm
Pin Counts: 2 to 6pos.
AWG wire: 28 to 34
Rated Current: 0.5 to 2.5A

DF52



Small,
High current capability
Pitch: 0.8mm
Stacking Height: 1.75mm
Depth: 4.1mm
Pin Counts: 2 to 20pos.
AWG wire: 28 to 32
Rated Current: 0.8 to 2.5A

DF58



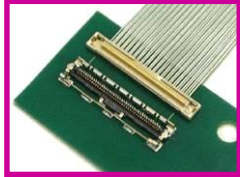
The world's lowest profile with AWG 28
Pitch: 1.2mm
Stacking Height: 1.0mm
Depth: 4.72mm
Pin Counts: 2 to 6pos.
AWG wire: 28 to 30
Rated Current: 1 to 3A

※Variations under development are included. Confirm the latest information through your HRS contact person. (As of Nov, 2017)

3. Connector for Module, Main and I/O Board Connection

Board-Micro Coaxial Cable

DF36



**LVDS
eDP**

0.4mm pitch space saving connector
Pitch: 0.4mm
Mated Height: 1.5mm
Mated Depth: 2.8/4.4mm
Pin Counts: 15 to 50pos.
AWG wire: 42 to 46
(Discrete: AWG wire 34, 36, ϕ 0.33 Max.)
Rated Current: 0.2 to 0.25A

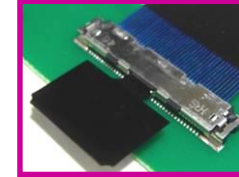
DF56



LVDS

Vertical mating, Space saving
Pitch: 0.3mm (Staggered)
Mated Height: 1.25mm
Mated Depth: 2.6mm
Pin Counts: 40, 50pos.
AWG wire: 42 to 46
(Discrete: AWG wire 36, ϕ 0.42 Max.)
Rated Current: 0.1 to 0.2A

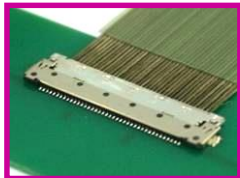
DF80



**Type C
LVDS
eDP**

Space saving,
User-friendly operation
Vertical Mating
Pitch: 0.5mm
Mated Height: 1.72mm
Mated Depth: 5.1mm
Pin Counts: 30, 40, 45, 50pos.
AWG wire: 40 to 46
(Discrete: AWG wire 32, 36, ϕ 0.5mm Max.)
Rated Current: 0.1 to 0.5A

DF49



**LVDS
eDP**

Ultra low-profile connector
Pitch: 0.4mm
Mated Height: 0.7mm
Mated Depth: 4.83mm
Pin Counts: 20, 40pos.
AWG wire: 42 to 46
(Discrete: AWG wire 34, 36, ϕ 0.37mm Max.)
Rated Current: 0.15 to 0.25A

DF81



**Type C
LVDS
eDP
MIPI**

Space saving with rotary latch
Horizontal Mating
Pitch: 0.4mm
Mated Height: 0.9mm
Mated Depth: 4.4mm
Pin Counts: 30, 40, 50pos.
AWG wire: 36 to 46
(Discrete: AWG wire 34, 36, 40, ϕ 0.4mm Max.)
Rated Current: 0.15 to 0.8A

※Variations under development are included. Confirm the latest information through your HRS contact person. (As of Nov, 2017)

4. Connectors for Interface Connection

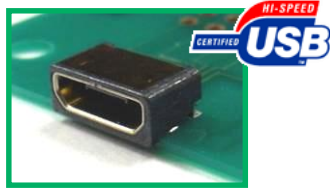
I/O

ZX



Micro-USB2.0 connector

ZX62W



Micro-USB2.0
Overmolded type
Splash resistance

ZX360



Micro-USB3.0 connector

CX70M



USB Type-C connector
USB3.1 Gen1
Mid-mount
Space saving

CX90B1



USB Type-C connector
USB3.1 Gen2
On-board
Robust

LX



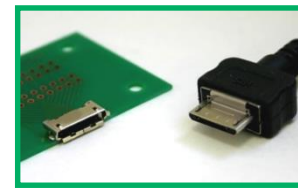
0.5mm pitch ultra-low profile
12, 16, and 20pos.

ST



0.5mm pitch space saving
10, 18, 24 and 36pos.

GX



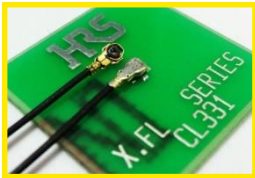
0.4mm pitch space-saving
18pos.

※Variations under development are included. Confirm the latest information through your HRS contact person. (As of Nov, 2017)

5. Connectors for Wireless module Connection

Miniature RF

X.FL



Ultra small connector
Mated Height: 0.94mm Max.
Frequency: 0 to 12GHz
V.S.W.R.: 1.7 Max.

X.FL (Low Loss)

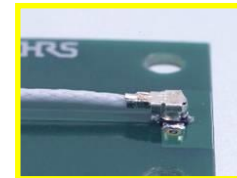


WiGig standard
Mated Height: 1.3mm Max.
Frequency: 0 to 12GHz
V.S.W.R.: 1.7 Max.
Intel WiGig Recommended

X.FL (FPC-to-Board) W.FL2

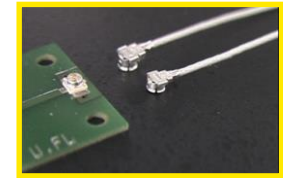


Ultra low profile connector
for FPC connector
Mated Height: 0.89 mm Max.
Frequency: 0 to 6GHz
V.S.W.R.: 1.5 Max.



Ultra small connector
Mated Height: 1.18mm Max.
Frequency: 0 to 6GHz
V.S.W.R.: 1.6 Max.

U.FL



Excellent high frequency
characteristics.
Mated Height: 1.9mm Max.
Frequency: 0 to 6GHz
V.S.W.R.: 1.5 Max.

RF Switch

MS-156C3



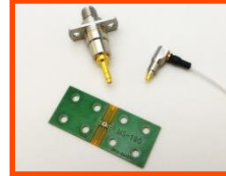
Commonly used
for FPC connection
Height: 1.35mm
Frequency: 0 to 11GHz
V.S.W.R.: 1.5 Max.

MS-180



Small switch
for checking terminal
Height: 0.85mm
Frequency: 0 to 11GHz
V.S.W.R.: 1.4 Max.

MS-190



The world's smallest,
Ultra low-profile
Height: 0.68mm
Frequency: 0 to 11GHz
V.S.W.R. : 1.4 Max.

※Variations under development are included. Confirm the latest information through your HRS contact person. (As of Nov, 2017)

6. Connectors for Battery Connection

Board-Wire

DF57H



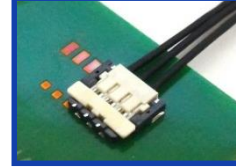
Low profile, Swing lock
Pitch: 1.2mm
Mated Height: 1.4mm
Depth: 4.35mm
Pin Counts: 2 to 6pos.
AWG wire: 28 to 34
Rated Current: 0.5 to 2.5A

DF52



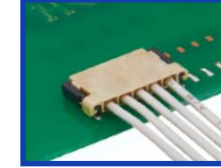
Small, High current capability
Pitch: 0.8mm
Stacking Height: 1.75mm
Depth: 4.1mm
Pin Counts: 2 to 20pos.
AWG wire: 28 to 32
Rated Current: 0.8 to 2.5A

DF58



The world's lowest profile
with 28 AWG
Pitch: 1.2mm
Stacking Height: 1.0mm
Depth: 4.72mm
Pin Counts: 2 to 6pos.
AWG wire: 28 to 30
Rated Current: 1.0 to 3.0A

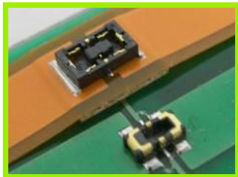
DF65



Small, High current capability
Pitch: 0.7mm
Stacking Height: 1.8mm
Depth: 6.0mm
Pin Counts: 3 to 7pos.
AWG wire: 24 to 28
Rated Current: 2.0 to 4.0A

Board-FPC (2-Piece)

BM22



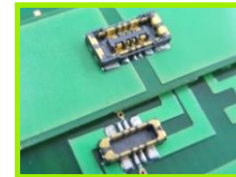
Commonly used for FPC connection
Power/Signal Hybrid Connector
Mated Height: 0.9mm
Mated Depth: 2.64mm
Pin Counts: 2+2, 4+2pos.
Rated Current:
4A for power
0.3A for signal

BM24



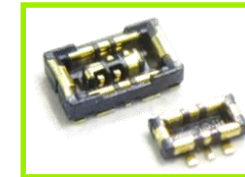
Hybrid connector up to 5A
Power/Signal Hybrid Connector
Mated Height: 0.8mm
Mated Depth: 2.3mm
Pin Counts: 10 to 50+2pos.
Rated Current:
5A for power
0.25A for signal

BM25



Ideal for the quick charge
Power/Signal Hybrid Connector
Mated Height: 0.7mm
Mated Depth: 2.6mm
Pin Counts: 4+2pos.
Rated Current:
9A for power
1A for signal

BM29



Ultra small hybrid connector
Power/Signal Hybrid Connector
Pitch: 0.35mm
Stacking Height: 0.6mm
Depth: 1.5mm
Pin Counts: 2+2pos.
Rated Current:
3A for power
0.3A for signal

※Variations under development are included. Confirm the latest information through your HRS contact person. (As of Nov, 2017)