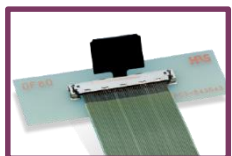
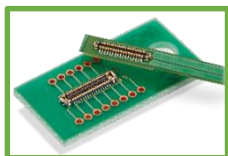
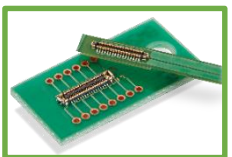
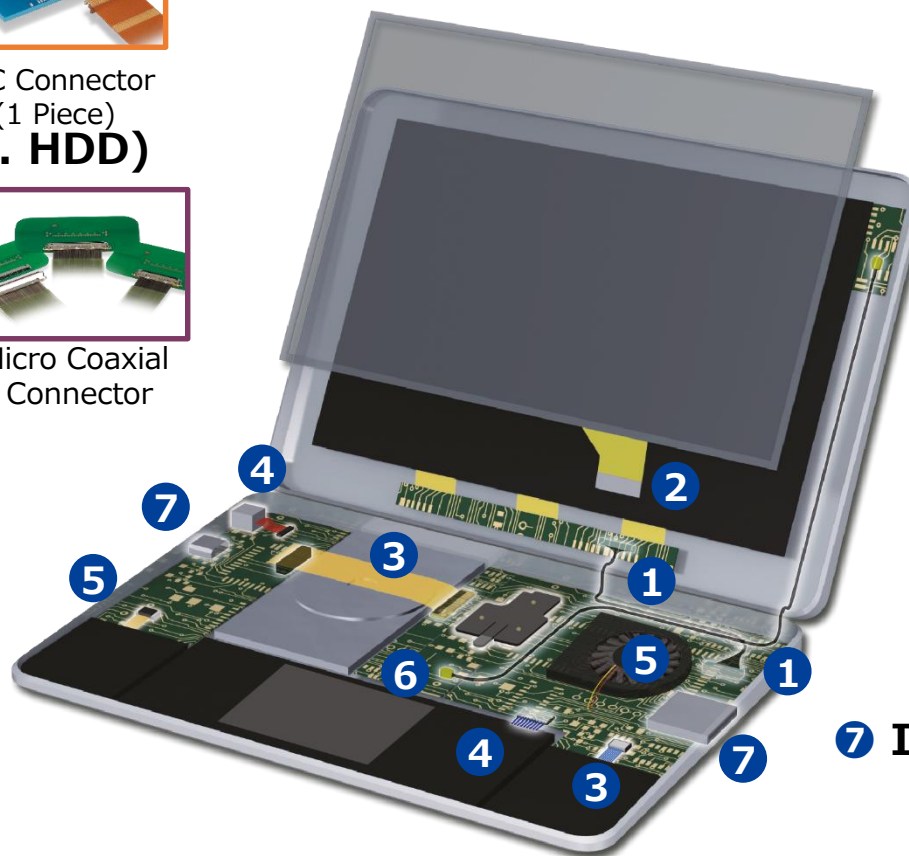


① LCD ConnectionMicro Coaxial
Connector**② Touch Panel Connection**FPC Connector
(1 Piece)**③ Module Connection(Incl. HDD)**FPC Connector
(1 Piece)FPC-to-Board
(2 Piece)Micro Coaxial
Connector**④ High Power Connection
(Battery/DC Jack)**FPC-to-Board
(2 Piece)

Wire-to-Board

**⑤ Speaker/Microphone/
Fan Connection**FPC Connector
(1 Piece)

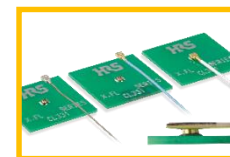
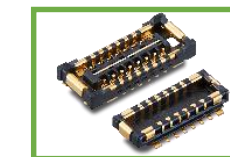
Wire-to-Board



⑥

⑥ Antenna Connection

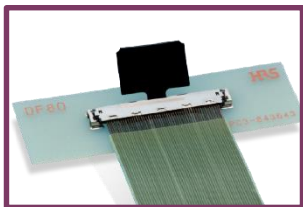
HRS 5G

Miniature
RF ConnectorFPC-to-Board
(2 Piece)**⑦ Interface Connection**

I/O Connector

1. LCD Connection

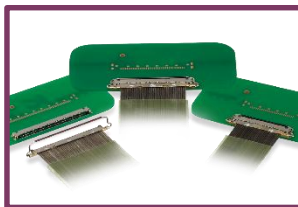
Micro Coaxial Connector



**Type-C
LVDS
eDP**

DF80

Space-Saving, User-Friendly Operation
Pitch : 0.5mm
Mated Height : 1.72mm
Mated Depth : 5.1mm
Pin Count : 30, 40, 45, 50pos.
AWG Wire : 40-46
Discrete Wire :
32 & 36 AWG, ϕ 0.5mm Max.
Rated Current : 0.1-0.5A



**Type-C
LVDS
eDP
MIPI**

DF81

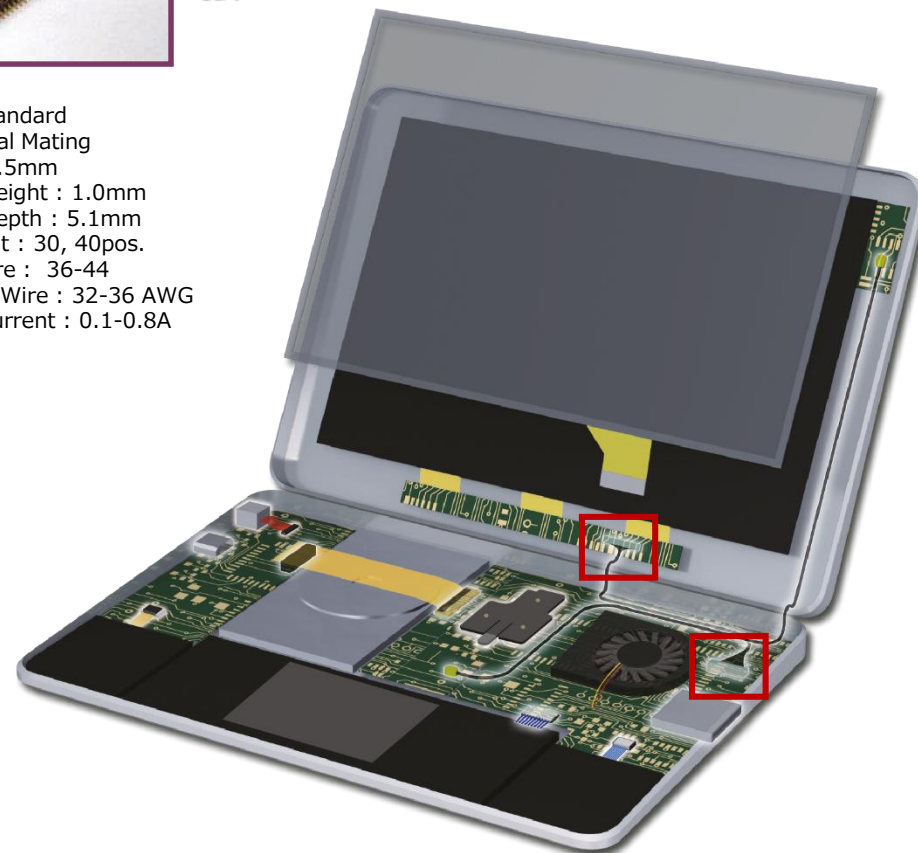
Space-Saving with Rotary Latch,
Horizontal Mating
Pitch : 0.4mm
Mated Height : 0.9mm
Mated Depth : 4.4mm
Pin Count : 30, 40, 50pos.
AWG Wire : 36-46
Discrete Wire :
34-36 AWG, ϕ 0.54mm Max.
Rated Current : 0.1-0.8A



**LVDS
eDP**

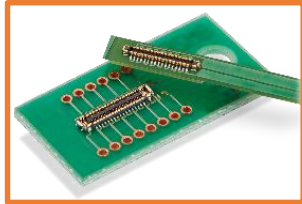
KN38

VESA Standard
Horizontal Mating
Pitch : 0.5mm
Mated Height : 1.0mm
Mated Depth : 5.1mm
Pin Count : 30, 40pos.
AWG Wire : 36-44
Discrete Wire : 32-36 AWG
Rated Current : 0.1-0.8A



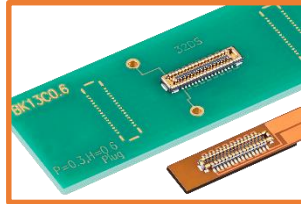
2. Touch Panel Connection

FPC Connectors (1 Piece)



BM28

Low Profile, Space-Saving
Hybrid Connector up to 5A
Pitch : 0.35mm
Stacking Height : 0.6mm
Depth : 1.7mm
Pin Count : 6-60+2pos.
Rated Current : 5A for power
0.3A for signal



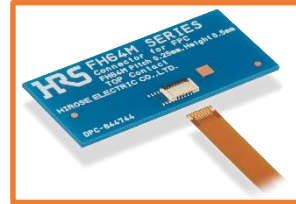
BK13

Low Height,
Hybrid Connector up to 5A
Pitch : 0.35mm
Stacking Height : 0.6mm
Depth : Plug 1.8mm
Receptacle 1.9mm
Pin Count : 10-60pos.
Rated Current : 5A for power
0.3A for signal



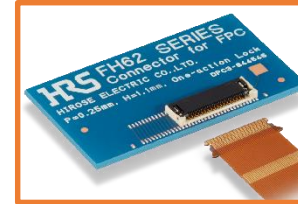
FH58/FH58M

Space-Saving,
Top/Bottom Contact
Pitch : 0.2mm
(FH58M : 0.25mm)
Height : 0.9mm
Depth : 3.1mm
(FH58A : 3.4mm)
Pin Count : 7-71pos.
(Under Development : 81pos.)
Rated Current : 0.2A



FH64MA

World's Lowest Profile
Top Contact
Pitch : 0.25mm
Height : 0.5mm
Depth : 3.15mm
Pin Count : 5-25pos.
Rated Current : 0.2A



FH62

Superior Operability
(One Action)
Top Contact
Pitch : 0.25mm
Height : 1.1mm
Depth : 4.0mm
Pin Count : 13-61pos.
Rated Current : 0.3A



FH72

Superior Operability
(One Action)
Top Contact
Pitch : 0.3mm
Height : 0.9mm
Depth : 3.5mm
Pin Count : 11-31pos.
(Planned Development : 7-31)
Rated Current : 0.3A



3. Module Connection

FPC Connectors (1 Piece)

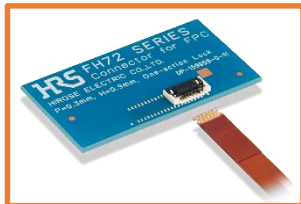
OneAction **FH**



FH62

Superior Operability
(One Action)
Top Contact
Pitch : 0.25mm
Height : 1.1mm
Depth : 4.0mm
Pin Count : 13-61pos.
Rated Current : 0.3A

OneAction **FH**



FH72

Superior Operability
(One Action)
Top Contact
Pitch : 0.3mm
Height : 0.9mm
Pin Count : 11-31pos.
(Planned Development : 7-31)
Rated Current : 0.3A

FH



FH34

High Retention Force,
Ideal Low Pin Count
Top/Bottom Contact
Pitch : 0.5mm
Height : 1.0mm
Depth : 3.8mm
Pin Count : 4-50pos.
Rated Current : 0.5A

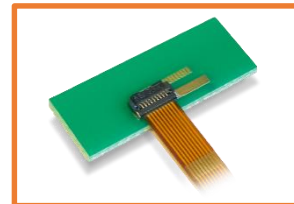
FH



TF42

Back Flip,
Actuator Breakage Prevention
Bottom Contact
Pitch : 0.35mm
Height : 0.9mm
Depth : 3.0mm
Pin Count : 13-24pos.
Rated Current : 0.4A

FH



TF13BA/TF13BSA

Back flip,
Space-saving,
High Retention Force
Bottom Contact
Pitch : 0.4mm
Height : 0.9mm
Depth : 3.0mm
Pin Count : 6-20pos.
Rated Current : 0.5A

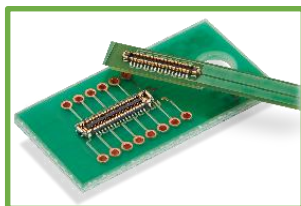
FH



TF31

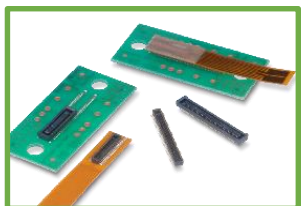
FPC/FFC Connector
Bottom Contact
Pitch : 0.5/1.0mm
Height : 1.75/2.0mm
Depth : 5.7mm
Pin Count : 4-60pos.
Rated Current : 0.5A

FPC-to-Board (2 Piece)



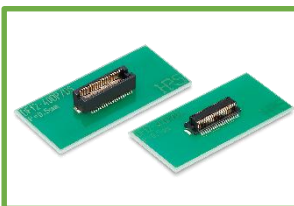
BM28

Low Profile, Space-Saving
Hybrid Connector up to 5A
Pitch : 0.35mm
Stacking Height : 0.6mm
Depth : 1.7mm
Pin Count : 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
Pin Count : 10-120pos.
Rated Current : 0.3A



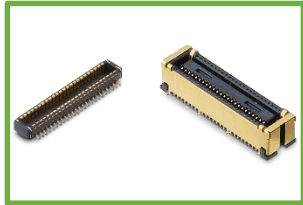
DF12N

Wide Stacking Height Variety
Pitch : 0.5mm
Stacking Height : 3.0-5.0mm
Depth : 4.6mm
Pin Count : 10-80pos.
Rated Current : 0.3A



3. Module Connection (High Speed)

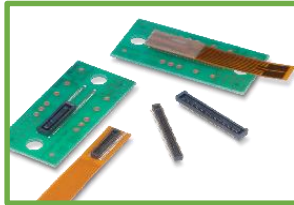
FPC-to-Board (2 Piece)



**USB Type-C
10Gbps
SATA 3.0**

DF40G

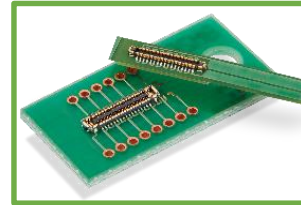
EMI Prevention with Shield
Pitch : 0.4mm
Mated Height : 1.5/3.0/3.5mm
Depth : 3.68mm
Pin Count : 10-70pos.
Rated Current : 0.3A



**USB Type-C
10Gbps
MIPI
eDP 1.3**

DF40

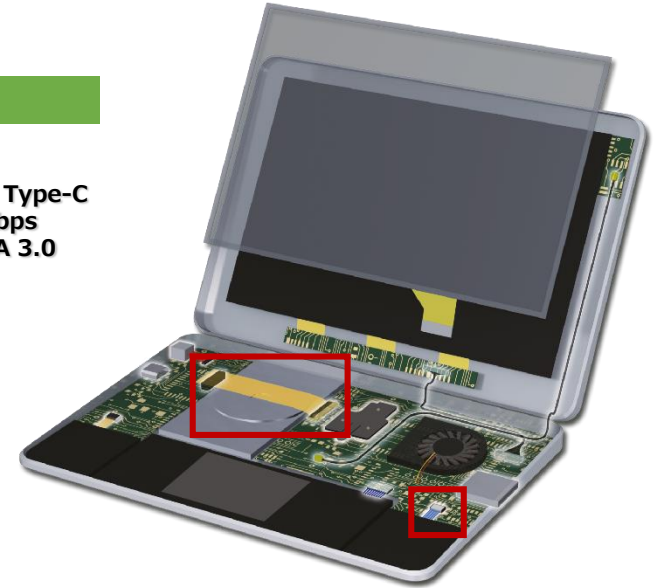
Wide Stacking Height Variety
Pitch : 0.4mm
Stacking Height : 1.5-4.0mm
Depth : 3.38mm
Pin Count : 10-120pos.
Rated Current : 0.3A



**USB Type-C
10Gbps
SATA 3.0**

BM28

Low Profile, Space-Saving
Hybrid Connector up to 5A
Pitch : 0.35mm
Stacking Height : 0.6mm
Depth : 1.7mm
Pin Count : 6-60+2pos.
Rated Current : 5A for Power
0.3A for Signal



FPC Connectors (1 Piece)



**USB Type-C
10+Gbps
SATA Gen.3
PCIe Gen.2**

FH55/FH55M

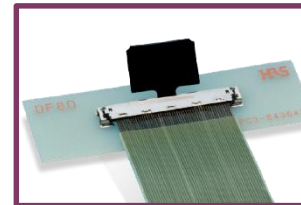
10+Gbps High Speed Transmission
Bottom Contact
Pitch : 0.5/0.4mm
Height : 1.5mm
Depth : 4.0mm
Pin Counts : 10, 22, 31, 40pos.
Rated Current : 0.5/0.4A



**USB3.1
eDP 1.3
MIPI D-PHY 1.1**

FH34

High Retention Force,
Ideal Low Pin Count
Top/Bottom Contact
Pitch : 0.5mm
Height : 1.0mm
Depth : 3.8mm
Pin Count : 4-50pos.
Rated Current : 0.5A



**USB Type-C
10Gbps
LVDS
eDP 1.3**

DF80

Space-Saving, User-Friendly Operation
Pitch : 0.5mm
Mated Height : 1.72mm
Mated Depth : 5.1mm
Pin Count : 30, 40, 45, 50pos.
AWG Wire : 40-46
Discrete Wire :
32 & 36 AWG, \varnothing 0.5mm Max.
Rated Current : 0.1-0.5A



**USB Type-C
10Gbps
LVDS
eDP 1.3**

DF81

Space-Saving with Rotary Latch,
Horizontal Mating
Pitch : 0.4mm
Mated Height : 0.9mm
Mated Depth : 4.4mm
Pin Count : 30, 40, 50pos.
AWG Wire : 36-46
Discrete Wire :
34-36 AWG, \varnothing 0.54mm Max.
Rated Current : 0.1-0.8A

4. High Power Connection (Battery/DC Jack)

Wire-to-Board



DF52

Small, High Current Capacity
Pitch : 0.8mm
Mated Height : 1.75mm
Depth : 4.10mm
Pin Count : 2-20pos
AWG Wire : 28-32
Rated Current : 0.8-2.5A



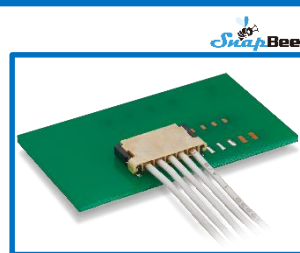
DF53

Small, Low Profile
Pitch : 0.6mm
Mated Height : 1.45mm
Depth : 3.55mm
Pin Counts : 14pos.
AWG Wire : 32
Rated Current : 1.3A Max.



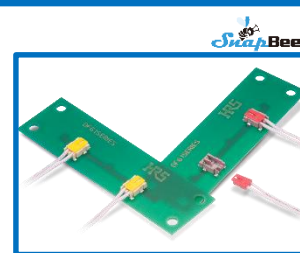
DF59

3Way System Connector
Pitch : 2.0mm
Mated Height : 2.48mm
Mated Depth : 8.15mm
Pin Count : 2-4pos.
AWG Wire : 22
Rated Current : 3A



DF65

Small, High Current Capacity
Pitch : 1.7mm
Mated Height : 1.8mm
Mated Depth : 6.3mm
Pin Count : 3-7pos.
AWG Wire : 24-28
Rated Current : 2-4A



DF61

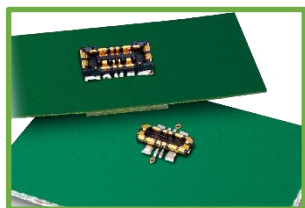
Low Profile, Snap Lock Design
Pitch : 2.2mm
Mated Height : 2.38mm
Mated Depth : 7.35mm
Pin Count : 2pos.
AWG Wire : 22-28
Rated Current : 3-5A



DF61Y

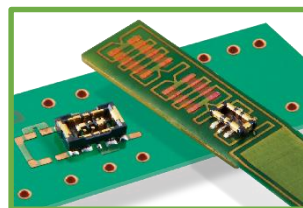
Small Size, Snap Lock Design
Pitch : 2.2mm
Mated Height : 2.0mm
Mated Depth : 7.35mm
Pin Count : 2pos.
AWG Wire : 24-28
Rated Current : 3-4A.

FPC-to-Board (2 Piece)



BM25

Ideal for Quick Charge
Power Connector
Pitch : 0.4mm
Mated Height : 0.7mm
Mated Depth : 2.6mm
Pin Count : 4+2pos.
Rated Current : 10A for power
0.3A for signal



BM29

Ultra Small Hybrid Connector
Pitch : 0.35mm
Mated Height : 0.6mm
Depth : 1.5mm
Pin Count : 2-24+2pos.
Rated Current : 3A for power
0.3A for signal



5. Speaker/Microphone/Fan Connection

Wire-to-Board



DF57H

Low Profile, Snap Lock Design
Pitch : 1.2mm
Mated Height : 1.4mm
Depth : 4.65mm
Pin Count : 2-6pos.
AWG Wire : 28-34
Rated Current : 0.5-3A



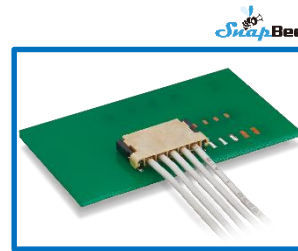
DF52

Small, High Current Capacity
Pitch : 0.8mm
Mated Height : 1.75mm
Depth : 4.10mm
Pin Count : 2-20pos.
AWG Wire : 28-32
Rated Current : 0.8-2.5A



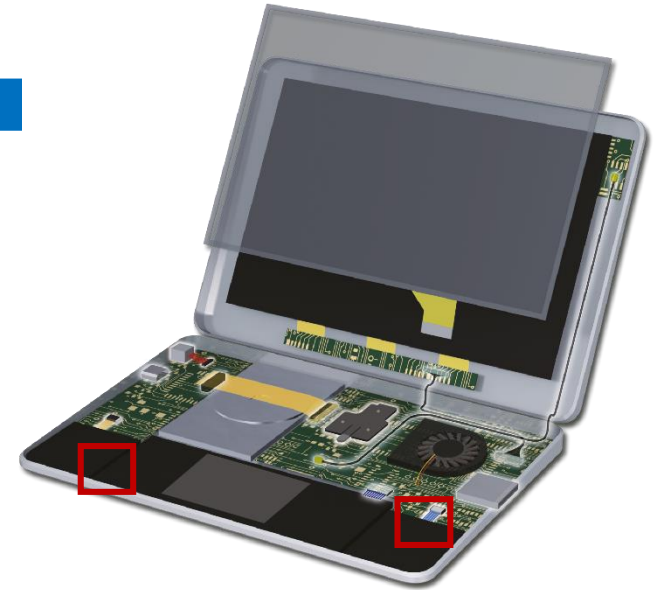
DF53

Small, Low Profile
Pitch : 0.6mm
Mated Height : 1.45mm
Depth : 3.55mm
Pin Counts : 14pos.
AWG Wire : 32
Rated Current : 1.3A Max.



DF65

Small, High Current Capacity
Pitch : 1.7mm
Mated Height : 1.8mm
Mated Depth : 6.3mm
Pin Count : 3-7pos.
AWG Wire : 24-28
Rated Current : 2-4A



FPC Connectors (1 Piece)



FH62

Superior Operability
(One Action)
Top Contact
Pitch : 0.25mm
Height : 1.1mm
Depth : 4.0mm
Pin Count : 13-61pos.
Rated Current : 0.3A



FH72

Superior Operability
(One Action)
Top Contact
Pitch : 0.3mm
Height : 0.9mm
Depth : 3.5mm
Pin Count : 11-31pos.
Rated Current : 0.3A



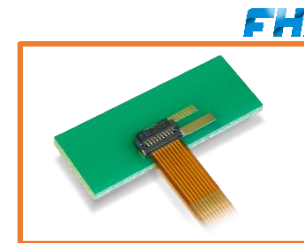
FH34

High Retention Force,
Ideal Low Pin Count
Top/Bottom Contact
Pitch : 0.5mm
Height : 1.0mm
Depth : 3.8mm
Pin Count : 4-50pos.
Rated Current : 0.5A



TF31

FPC/FFC Connector
Pitch : 0.5/1.0mm
Height : 1.75/2.0mm
Depth : 5.7mm
Pin Count : 4-60pos.
Rated Current : 0.5A

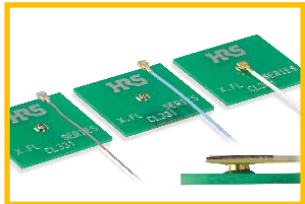


TF13BA/TF13BSA

Back Flip, Space-Saving,
High Retention Force
Bottom Contact
Pitch : 0.4mm
Height : 0.9mm
Depth : 3.0mm
Pin Count : 6-20pos.
Rated Current : 0.5A

6. Antenna Connection (5G/UWB/Wi-Fi/Bluetooth)

Miniature RF Connector



X.FL

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



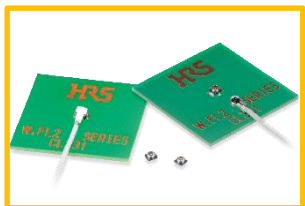
X.FL (Low Loss Type)

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



K.FL2

Wi-Fi Standard
Mated Height : 1.2mm Max.
Frequency : 0 to 8GHz
V.S.W.R. : 1.6 Max.



W.FL2

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



U.FL

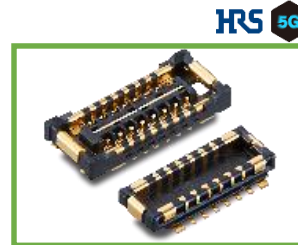
Widely Used RF Connector
Mated Height : 2.0mm Max.
or 2.4-2.5 Max.
Frequency : 0 to 6GHz
V.S.W.R. : 1.5 Max.



C.FL

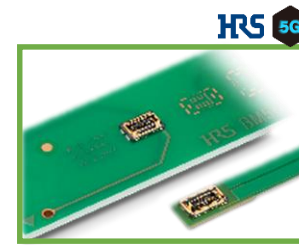
Micro RF Connector
Mated Height : 0.92mm
Frequency : 0 to 30GHz
V.S.W.R. : 1.6 Max.

FPC-to-Board (2 Piece)



BM46

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



BM56G

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



7. Interface Connection

I/O Connector



CX90M-16P

USB Type-C Connector
USB 2.0, Supports 6A
Mid-Mount, 16pos.



CX90B-16P

USB Type-C Connector
USB2.0, 5A
On-board, 16pos.



CX90MWD2G-24P

Waterproof Type-C Connector
USB3.2 Gen1, 5A
IPX8, 24pos., Mid-Mount



CX90MWP1-24P

USB Type-C Connector
USB3.2 Gen1
Mid-Mount, 24pos.
Space-Saving



CX60

USB Type-C Connector
USB4 Gen2
Space-Saving,
Short Circuit Prevention Design



LX

0.5mm Pitch
Ultra-Low Profile
12, 16, 20pos.



ZX

Micro-USB2.0 Connector
12, 16, 20pos.



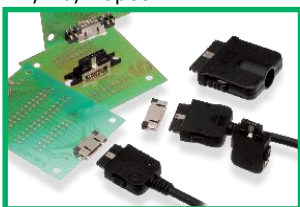
ZX62W

Micro-USB2.0
Overmolded Type
Splash Resistant Receptacle



ZX360

Micro-USB3.0 Connector



ST

0.5mm Pitch, Space-Saving
10, 18, 24, 36pos.

