## **Hirose's Connectors for Smart Watch**



## **1** LCD Connection

## **2** Touch Panel Connection



FPC Connector (1 Piece)



FPC-to-Board (2 Piece)

# **Speaker/**Microphone Connection



FPC Connector (1 Piece)



FPC-to-Board (2 Piece)



Wire-to-Board

## Battery Connection



FPC-to-Board (2 Piece)



Wire-to-Board

## **6** Antenna Connection



RF Switch



Miniature RF Connector



FPC-to-Board (2 Piece)



## **1** Interface Connection



I/O Connector



## 1. LCD/ 2. Touch Panel Connection (High Pin Count)

#### **FPC Connectors**



#### FH58/M

Space-Saving,
Top/Bottom Contact
Pitch: 0.2mm (FH58M: 0.25)
Height: 0.9mm

Depth: 3.1mm (FH58A: 3.4) Pin Count: 7-71pos. (Under Development: 81) 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



#### FH72 OneAction FH.

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



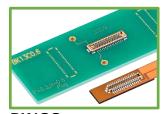
#### FH35C

0.3mm Pitch Standard Connector Top/Bottom Contact Pitch: 0.3mm

Height: 0.9mm Depth: 4.2mm Pin Count: 9-61pos. Rated Current: 0.2A



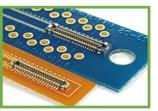
#### FPC-to-Board (2 Piece)



#### BK13C

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



#### BM23PF

Small, Hybrid Connector Pitch: 0.35mm

Stacking Height: 0.8mm Depth: 1.98mm Pin Count: 10-64+2pos.

Rated Current: 5A for power 0.3A for signal



#### **BM28**

Low Profile, Space-Saving Hybrid Connector up to 5A Pitch: 0.35mm

Stacking Height: 0.6mm Depth: 1.7mm

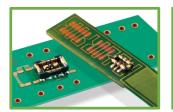
Pin Count: 6-60+2pos. Rated Current: 5A for power 0.3A for signal





## 3. Speaker/ Microphone Connection (Low Pin Count)

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



## Ultra Small Hybrid Connector

Pitch: 0.35mm Mated Height: 0.6mm Depth: 1.5mm

Pin Count: 2-24 + 2pos. Rated Current: 3A for power

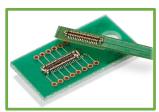
0.3A for signal



#### BM23PF

Small, Hybrid Connector Pitch: 0.35mm Stacking Height: 0.8mm

Depth: 1.98mm Pin Count: 10-64 + 2pos. Rated Current: 5A for power



#### **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. 0.3A for signal Rated Current: 5A for power 0.3A for signal



#### **FPC Connectors (1 Piece)**



FH72 OneAction FH

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



#### FH64MA

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

#### Wire-to-Board



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

Rated Current: 1.3A Max.



**DF58** 

World's Lowest Profile with 28 AWG Pitch: 1.2mm Mated Height: 1.0mm Depth: 4.97mm Pin Counts: 2-6pos. AWG Wire: 28-30

Rated Current: 1.5-3A



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





### 4. Battery Connection

#### Board-to-FPC (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

#### **BM28**

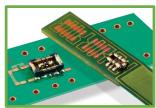
Low Profile, Space-Saving Hybrid Connector up to 5A Pitch: 0.35mm

Stacking Height: 0.6mm

Depth: 1.7mm Pin Count: 6-60+2pos.

Rated Current: 5A for power

0.3A for signal



#### **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

#### 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



#### **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.



#### **DF58**



World's Lowest Profile with 28 AWG

Pitch: 1.2mm Mated Height: 1.0mm Depth: 4.97mm Pin Counts: 2-6pos. AWG Wire: 28-30 Rated Current: 1.5-3A





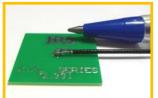


#### 5. Antenna Connection

#### **Miniature RF Connectors**



X.FL Superior High Frequency Mated Height: 1.0mm Max. Frequency: DC-6GHz V.S.W.R.: 1.4 Max.



X.FL (Low Loss Type) WiGig Standard Mated Height: 1.3mm Max. Frequency: DC-12GHz V.S.W.R.: 1.7 Max. Intel WiGig recommended



X.FL (Board-to-FPC) Ultra Low profile connector for FPC Micro RF Connector Mated Height: 0.89mm Max. Frequency: DC-6GHz V.S.W.R.: 1.5 Max.



C.FL HS 50 Mated Height: 0.92mm Frequency: DC-30GHz V.S.W.R.: 1.6 Max.



U.FL Widely Used RF Connector Mated Height: 2.0mm Max. or 2.4-2.5 Max. Frequency: DC-6GHz

V.S.W.R.: 1.5 Max.



FPC-to-Board (2 Piece)

**BM46** Multi-RF Board-to-Board Connector HS 56 Pitch: 0.35mm Stacking Height: 0.6mm Frequency: DC-12GHz V.S.W.R.: 1.6 Max.

#### **RF Switch**



Widely Used RF Switch Height: 1.35mm Frequency: DC-11GHz V.S.W.R.: 1.8 Max.



Small Switch for Checking Terminal Height: 0.85mm Frequency: DC-11GHz V.S.W.R.: 1.4 Max.







#### **6. Interface Connection**

#### I/O



CX90M-16P

USB Type-C Connector USB2.0, 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



ZX

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



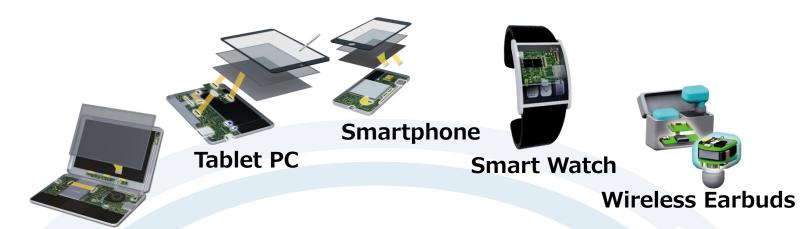
ZX62W

Micro-USB2.0 Connector Overmolded Type Splash Resistant Receptacle













DSC/DVC

## Hirose **Customer Electronics Solutions Please Click Each Picture**





**Smart Glasses** 



**Gaming Devices** 



TV





**Smart Home** 

