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Issued: Nov 10, 2017

### 1. Connectors for LCD Connection

#### Board to 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. Depth: 3.38mm Rated Current: 0.3A

#### **DF40**



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



Small, Wide pin count variations Pitch: 0.35mm Stacking Height: 0.6mm Depth: 2.3mm Depth: 1.98mm Pin Counts: 6 to 60pos. Rated Current: 0.3A

#### **BM24**



Hybrid connector up to 5A Pitch: 0.35mm Stacking Height: 0.8mm Pin Counts: 10 to 50+2pos. Depth: 1.7mm Rated Current: 5A for power

0.25A for signal

#### **BM20**



Commonly used for FPC connection Pitch: 0.4mm Stacking Height: 0.6/0.8mm Depth: 2.3mm Pin Counts: 10 to 60pos. Rated Current: 0.3A

#### **BM28**



Low profile, Space saving hybrid connector up to 5A Pitch: 0.35mm Stacking Height: 0.6mm Pin Counts: 6 to 60+2pos. Height: 0.9mm

Rated Current: 5A for power

0.3A for signal

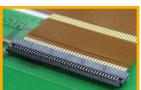
#### FPC Connector (1-Piece)

#### FH35C



0.3mm pitch standard connector Top/Bottom Contact Pitch: 0.3mm Height: 0.9mm Depth: 3.2mm Rated Current: 0.2A

#### FH34SRJ



High retention force, Ideal less pin connection Top/Bottom Contact Pitch: 0.5mm Height: 1.0mm Depth: 3.2mm Pin Counts: 9 to 61pos. Pin Counts: 4 to 50pos. Rated Current: 0.5A

#### FH62

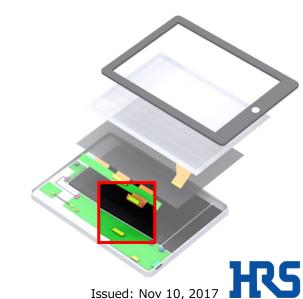


One action lock FPC connector Top Contact Pitch: 0.25mm Height: 1.1mm Depth: 4.0mm Pin Counts: 35pos. Rated Current: 0.2A

#### **FH58**



Space saving, Multipurpose connector Top Contact Pitch: 0.2mm (FH58M: 0.25mm) Depth: 3.1mm Pin Counts: 7 to 71pos. Rated Current: 0.2A



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

# 1. Connectors for LCD Connection (High Speed)

#### Micro Coaxial Connector

#### **DF49**







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: AWE wire 34, 36, Ø0.33mm Max.) Rated Current: 0.2 to 0.25A





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, Ø0.37mm Max.)

Rated Current: 0.15 to 0.25A

### Board to FPC (2-piece)

#### DF40G





EMI prevention with shielding

Pitch: 0.4mm

Stacking Height: 1.5/3.0mm

Depth: 3.68mm

Pin Counts: 10 to 70pos. Rated Current: 0.3A

#### FH55/FH55M





FPC Connector (1-piece)

5+Gbps high speed transmission

Bottom contact Pitch: 0.5/0.4mm Height: 1.5mm Depth: 4.2mm

Pin Counts: 10, 22, 31, 40pos. Rated Current: 0.5/0.4A

#### **DF80**





Space saving, User-friendly operation

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, Ø0.5mm Max.)

Rated Current: 0.1 to 0.5A

#### **DF81**



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: AWE wire 34 to 40,  $\emptyset$ 0.4mm Max.) Rated Current: 0.1 to 0.8A

#### DF40GL

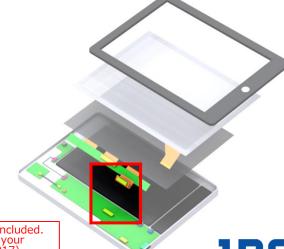


Positive lock Pitch: 0.4mm

Stacking Height: 1.5mm Stacking Height: 3.68mm Pin Counts: 44pos.

Rated Current: 0.35A

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

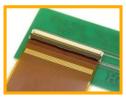


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# 2. Connectors for Touch Panel Connection

### FPC Connector (1-piece)

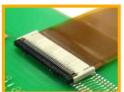
#### FH29DJ



Small, High pin count
Bottom Contact
Pitch: 0.2mm
Height: 1.2mm
Depth: 4.50mm
Pin Counts: 44 to 120pos.

Rated Current: 0.25A

#### **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

#### FH36W



Saves 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

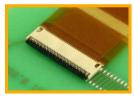
#### FH58



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

#### FH42

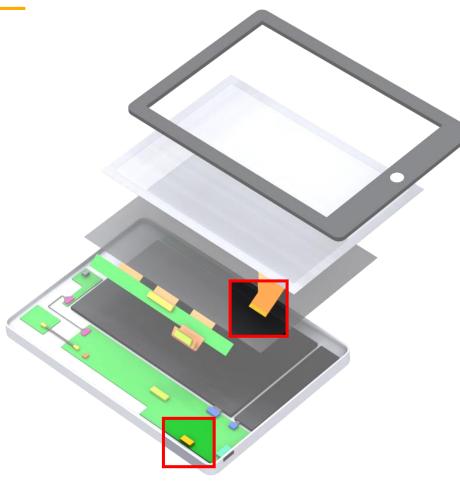


Ultra low profile connector Top Contact Pitch: 0.3mm Height: 0.65mm Depth: 3.08mm Pin Counts: 7 to 51pos. Rated Current: 0.2A

#### FH64MA



The world's lowest profile Top contact Pitch: 0.25mm Height: 0.5mm Depth: 3.15mm Pin Counts: 7 to 21pos. Rated current: 0.2A





# 3. Connectors for LED Backlight Connection

#### FPC Connector (1-piece)

#### FH19C/SC/D/SD



Commonly used for FPC connection **Bottom Contact** 

Pitch: 0.5mm

Height: 0.9/0.93mm Depth: 3.0/3.4mm Pin Counts: 4 to 50pos.



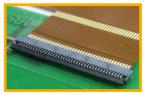
Back flip, Space saving, High retention force **Bottom Contact** 

Pitch: 0.4mm Height: 0.9mm

Depth: 3.0mm

Pin Counts: 6 to 20pos. Rated Current: 0.5A

#### FH34SRJ

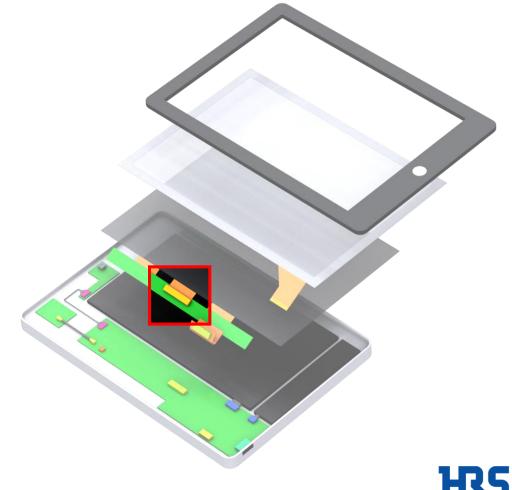


High retention force, Ideal less pin connection **Bottom Contact** Pitch: 0.5mm

Height: 1.0mm Depth: 3.2mm

Rated Current: 0.5A





## 4. Connectors for Camera Connection

#### Board to 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

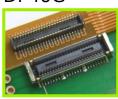
#### **DF40**



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.

#### DF40G



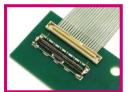
EMI prevention with shielding Pitch: 0.4mm Stacking Height: 1.5/3.0mm Depth: 3.68mm Pin Counts: 10 to 70pos.

Rated Current: 0.3A

Rated Current: 0.3A

Micro Coaxial Connector

#### **DF36**



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, Ø0.33mm Max.)

Rated Current: 0.2 to 0.25A

#### **DF49**



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, Ø0.37mm Max.) Rated Current: 0.15 to 0.25A

**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, Wide pin count variations Pitch: 0.35mm

Depth: 1.98mm Pin Counts: 6 to 60pos. Rated Current: 0.3A

#### **BM28**



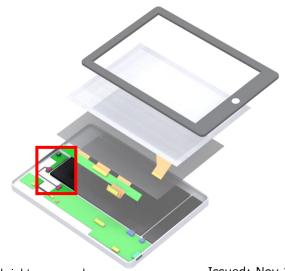
Low profile, Space saving hybrid connector up to 5A Pitch: 0.35mm

Stacking Height: 0.6mm Stacking Height: 0.6mm

Depth: 1.7mm

Pin Counts: 6 to 60+2pos.

Rated Current: 5A for power 0.3A for signal



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# 5. Connectors for Battery Connection

#### Board to 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

#### **DF58**

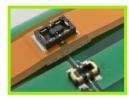


The world's lowest profile with 28 AWG Pitch: 1.2mm Mated Height: 1.0mm Depth: 4.72mm Pin Counts: 2 to 6pos. Rated Current: 0.5 to 2.5A AWG wire: 28 to 30

Rated Current: 1.5 to 3.0A

### Board to FPC (2-piece)

#### **BM22**



Commonly used for FPC connection **Power Connectors** Mated Height: 0.9mm Mated Depth: 2.64mm Pin Counts: 2+2,4+2pos. Rated Current:

> 5A for power 0.25A for signal

#### **DF65**



Small, High current capability

Pitch: 1.7mm

Mated Height: 1.8mm

Depth: 6.3mm

Pin Counts: 3 to 7pos.

AWG wire: 24 Rated Current: 4A

#### **BM25**



Ideal for the quick charge **Power Connectors** Mated Height: 0.7mm Mated Depth: 2.6mm Pin Counts: 4+2pos. Rated Current: 10A for power

0.3A for signal



# 6. Connectors for Speaker/Microphone Connection

#### Board to 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

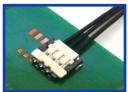
#### **DF52**



Small, High current capability Pitch: 0.8mm Mated 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

Mated Height: 1.0mm Depth: 4.72mm Pin Counts: 2 to 6pos. AWG wire: 28 to 30 Rated Current: 1.0 to 3.0A

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

#### **BM29**



Ultra small hybrid connector Power Hybrid Stacking Height: 0.6mm Depth: 1.5mm Pin Counts: 2+2pos. Rated Current:

3A for power 0.3A for signal

### FPC Connector(1-piece)

#### FH19C/SC/D/SD



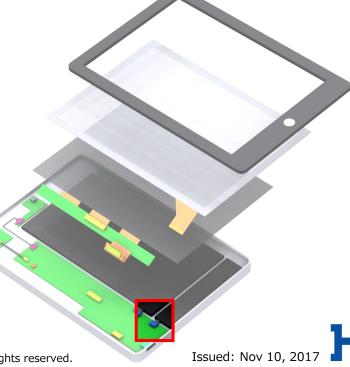
**Bottom Contact** Pitch: 0.5mm Height: 0.9/0.93mm Depth: 3.0/3.4mm Pin Counts: 4 to 50pos. Rated Current: 0.5A

#### FH34SRJ



Commonly used for FPC connection High retention force, Ideal less pin connection **Bottom Contact** Pitch: 0.5mm Height: 1.0mm Depth: 3.2mm Pin Counts: 4 to 50pos.

Rated Current: 0.5Å © 2017 HIROSE ELECTRIC CO., LTD. All rights reserved.



### 7. Connectors for Antenna Connection

#### Miniature RF Connector

#### X.FL



Ultra small connector Mated Height: 0.94mm Max. Mated Height: 1.3mm Max. Frequency: 0 to 12GHz V.S.W.R.: 1.7 Max.

#### X.FL (Low Loss)



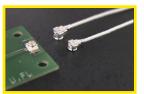
WiGig standard Frequency: 0 to 12GHz V.S.W.R.: 1.7 Max. Intel WiGig recommended

#### W.FL2



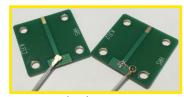
Small interface connector Mated Height: 1.18mm Max. Frequency: 0 to 6GHz V.S.W.R.: 1.6 Max.

#### U.FL



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

#### K.FL2



WiFi standard Mated Height: 1.2mm Max. Frequency: 0 to 6GHz V.S.W.R.: 1.45 Max.

### RF Switch

#### MS-156C



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

#### MS-180

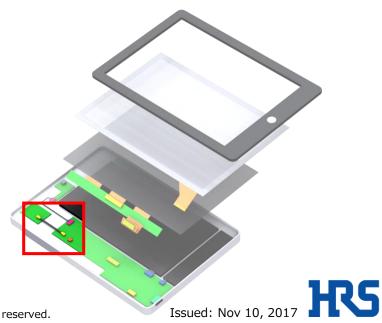


Small switch for checking terminal Height: 0.85mm Frequency: 0 to 11GHz V.S.W.R.: 1.4 Max.

#### MS-190



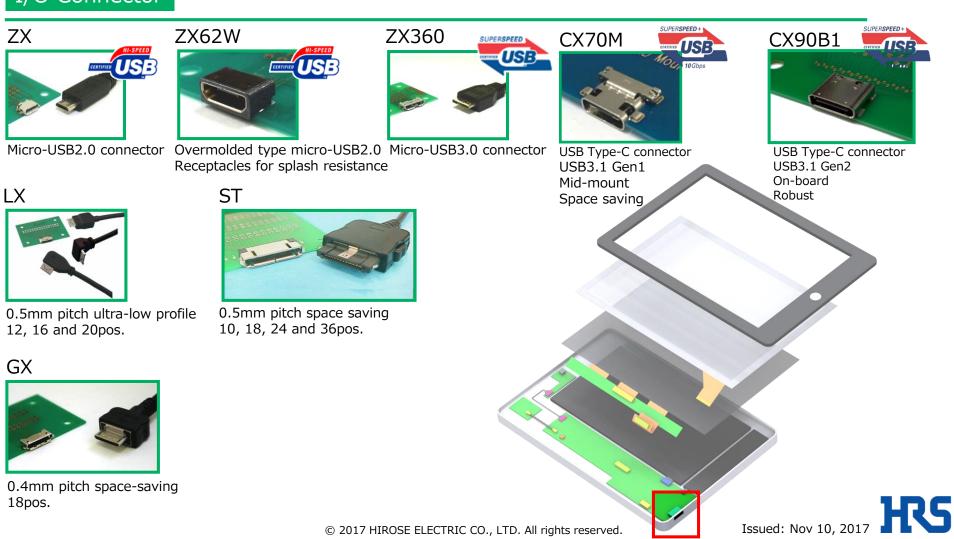
The world's smallest, Ultra low to profile Height: 0.68mm Frequency: 0 to 11GHz V.S.W.R.: 1.4 Max.



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### 8. Connectors for Interface Connection

### I/O Connector



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### 9. Card connectors

#### Micro SD card

#### DM3N\*



Push-Push Type
Top mount
Height: 1.15/1.25mm
Card Detection Switch

#### DM3AT



Push-Push Type
Top mount
Height: 1.68mm
Card Detection Switch

#### DM3BT



Push-Push Type Bottom mount Height: 1.83 Card Detection Switch

#### Nano SIM

#### KP13TS



Tray Type
Top mount
Height: 1.45mm
Card Detection Switch

#### Micro SD + Nano SIM

#### KP15B



Push-Pull Type
Top mount
Height: 1.37/1.55mm
Card Detection Switch

KP15TB\*



Tray Type Top mount Height: 1.37/1.55mm Card Detection Switch

#### Micro SIM card

#### DM3C



Push-Pull Type
Top mount
Height: 1.55mm
Card Detection Switch

#### DM3D



Push-Pull Type
Top mount
Height: 1.83mm
Card Detection Switch

#### KP10S

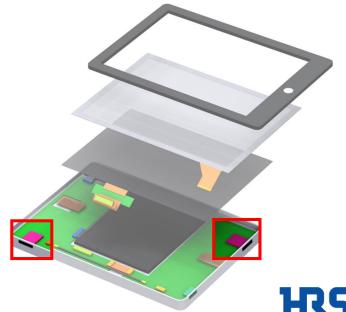


Push-Push Type
Top mount
Height: 1.18mm
Card Detection Switch

#### KP10BH



Push-Pull Type
Top mount
Height: 1.18mm
Card Detection Switch



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