

Applications



Smart Phones



Tablets/Notebook PC's



Wearable Devices



Noise Prevention



Shield



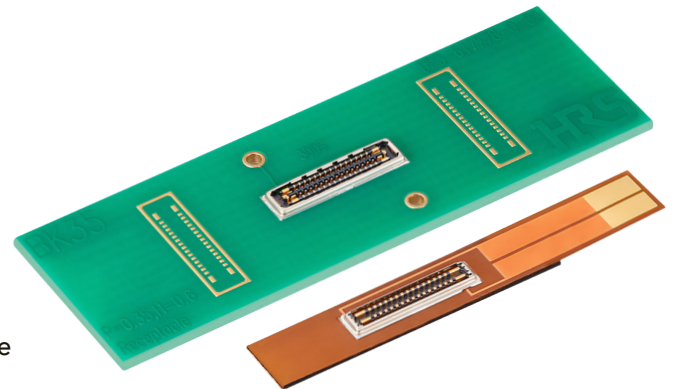
High-Speed

Introducing Hirose's BK35 Series—a compact, shielded FPC-to-board connector designed for high-speed and high-frequency applications where signal integrity, EMI performance, & space savings are critical. With a 0.35mm pitch, 2.2mm depth, and 0.6mm stacking height, the BK35 Series supports high-density system layouts while maintaining reliable transmission performance.

A hybrid power/signal contact structure combines four 2.5A power contacts with signal contacts to support efficient power delivery in a reduced footprint. The fully shielded design helps reduce EMI and maintain stable transmission in electrically sensitive environments, while support for data rates up to 40Gbps and RF transmission up to 40GHz enables use in advanced high-speed systems. A fully armored structure also helps protect the housing from mating misalignment and improves durability in demanding applications.

KEY BENEFITS OF THE BK35 SERIES INCLUDE:

- 0.35mm pitch, 2.2mm depth, and 0.6mm stacking height, ideal for compact environments.
- A hybrid design combining power and signal contacts, with four power contacts rated at 2.5A each, delivering strong power with minimal signal contacts to save space.
- A fully shielded structure that provides excellent EMI prevention, blocking both radiation and incident magnetic fields for clear and reliable signal transmission.
- Supports high-speed data transmission up to 40Gbps and superior RF signal transmission up to 40GHz.
- A robust, fully armored design that protects against housing damage from misalignment during mating, enhancing durability in demanding environments.



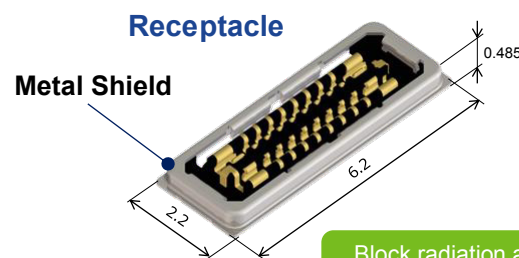
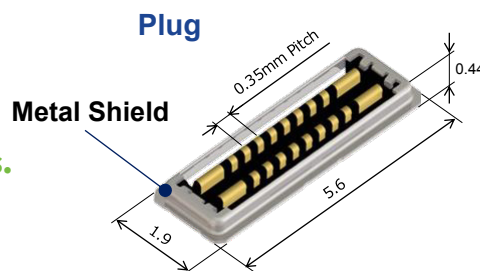
Dimensions

Example:
Signal 16pos.+Power 4pos.

Longitudinal Dimensions

Plug :
 $\{0.35\text{mm} \times (\text{No. of Pos.}/2-1)\} + 3.15\text{mm}$

Receptacle :
 $\{0.35\text{mm} \times (\text{No. of Pos.}/2-1)\} + 3.75\text{mm}$

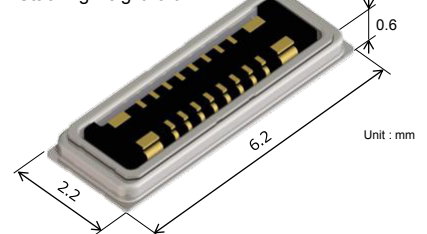


Block radiation and
incident magnetic fields

Shield Structure Covering Whole Connector

Mated Condition

Stacking Height: 0.6mm



Unit : mm

Superior Noise Prevention

Stable ground connection
(Cross-sectional View)



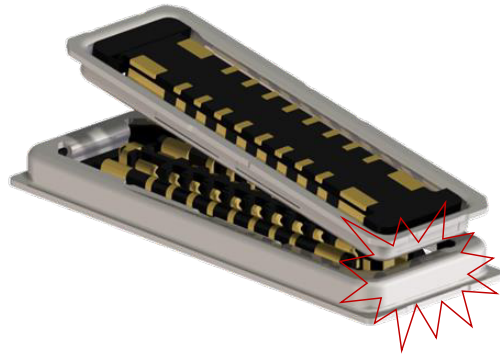
Improved Grounding
for Both Plug and Receptacle

CLICK HERE
FOR MORE INFORMATION

CLICK HERE TO ORDER
SAMPLE NUMBER:
US-BK35SAMPLE-26

Robust Design

Fully Armored Design



Reduces Housing Damage due to Misalignment

Reduces crack or breakage on housing

Breaking Strength	0.3mm Offset	
	Plug	Receptacle
0N (Before Mating)		
120N		
230N		

Specifications

Material and Finish

COMPONENT	MATERIAL	FINISH, REMARKS
Housing	LCP ^{*1}	Black, UL94V-0
Signal Contact	Copper Alloy	Gold Plated (Nickel Underplated)
Power Contact	Copper Alloy	Gold Plated (Nickel Underplated)
Shield	Copper Alloy	Gold Plated (Nickel Underplated)

^{*1} This product satisfies halogen free requirements defined as 900ppm maximum chlorine, 900ppm maximum bromine, and 1,500ppm maximum total of chlorine and bromine.

Performance Characteristics

Rated Current	Power Contact : 2.5A Signal Contact : 0.3A ^{*2}
Rated Voltage	30V AC/DC
Operating Temperature	-55 to +85°C ^{*3}
Contact Resistance	Power Contact: 30mΩ Max. Signal Contact: 50 mΩ Max.
Withstanding Voltage	150V AC for 1 min.
Insulation Resistance	50M Min. (100V DC)
Mating Durability	10 times
V.S.W.R.	0 to 5GHz: 1.3 Max. 5 to 10GHz: 1.4 Max. 10 to 20GHz: 1.5 Max. 20 to 40GHz: 1.8 Max.

- RoHS, Halogen-free^{*1} product
- Variations : 10, 16, 24, 30, 56pos.

^{*2} The total current capacity is 16A for signal contacts.

^{*3} Includes the temperature rise due to current flow.



For additional information please go to
www.hirose.com/en/product/series/BK35

Specifications herein are subject to change without notice.
 Contact Hirose for latest specifications, drawings, or availabilities.

STAY CONNECTED

