Product Overview

BK19 Series

HIROSE ELECTRIC AMERICAS

Applications



Smartphones



Wearables



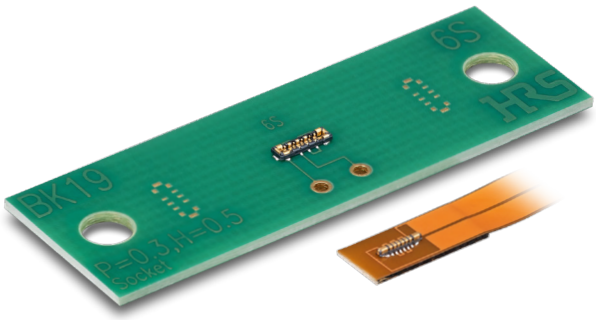
VR/AR Glasses



Meet Hirose's BK19 Series—an ultra-low-profile, narrow-width hybrid FPC-to-board connector designed for space-constrained electronic systems. Featuring a 0.3mm pitch, 0.5mm stacking height, and just 1.2mm width, the BK19 Series combines power and signal connectivity in a miniature footprint while supporting up to 5A through its power contacts.

A fully armored design helps protect the housing from damage during mating, while a ±0.3mm self-alignment range in both pitch and width directions supports easier mating. A dimpled locking contact design provides high extraction force for secure connections, and an insert-molded plug and receptacle structure helps prevent solder wicking.

KEY BENEFITS OF THE BK19 SERIES INCLUDE:

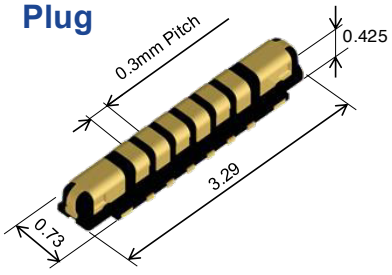


- A 0.3mm pitch, 0.5mm stacking height, and 1.2mm width that minimize mounting space in high-density designs
- Power contacts rated up to 5A and signal contacts rated at 0.3A, integrating power and signal in a single interface
- A fully armored structure that protects the housing from damage caused by mating misalignment
- ±0.3mm self-alignment in both pitch and width directions, with metal guide ribs that guide mating alignment
- A dimpled locking contact structure that provides high extraction force and clear tactile feedback during mating
- Two-point contacts for both power and signal that maintain contact reliability
- Insert-molded plug and receptacle structures that prevent solder wicking

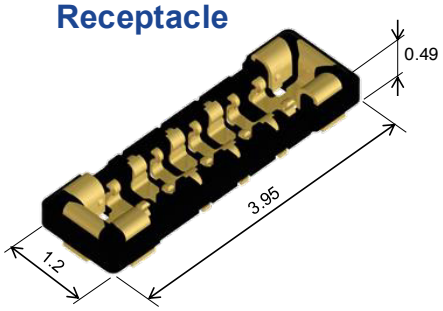
Dimensions

Single-Row, Signal 6pos.+Power 2pos.

Plug

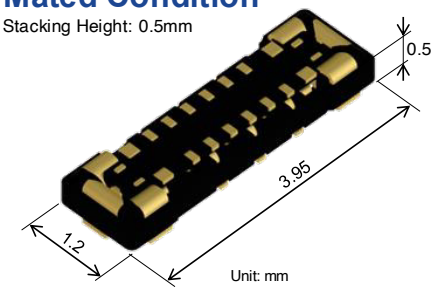


Receptacle



Mated Condition

Stacking Height: 0.5mm



CLICK HERE FOR MORE INFORMATION

CLICK HERE TO ORDER SAMPLE NUMBER: US-BK19SAMPLE-26

Longitudinal Dimensions

Plug: 0.3mm × (No. of Pos.) + 1.49 mm

Receptacle: 0.3mm × (No. of Pos.) + 2.15mm

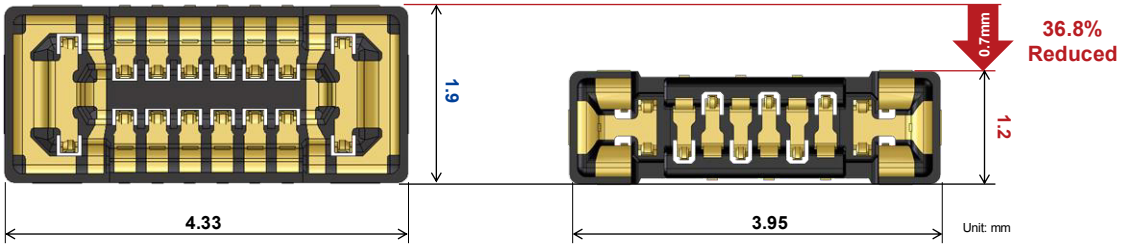
Space-Saving

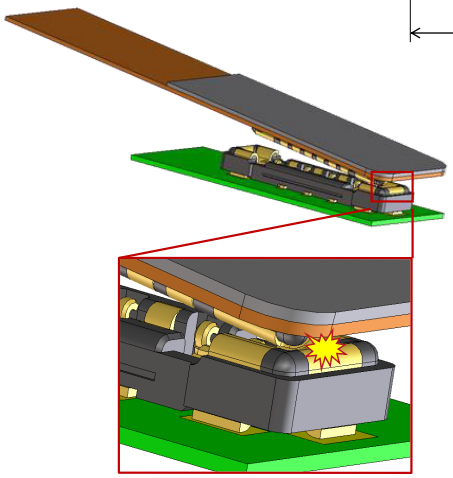
Single-Row Design

Designed for ultra-compact pitch, width, and height

Conventional Product:
Double-Row, P=0.35mm, 12pos.

BK19 Series:
Single-Row, P=0.3mm, 6pos.





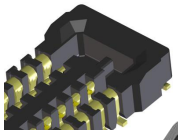
Fully Armored Design Prevents Housing Damage

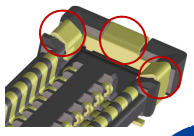
Comparison of Conventional Designs & Fully Armored Structure

Conventional Designs

No Metal Covering on Housing

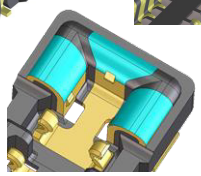
Housing Partially Covered with Metal





Exposed Housing Area

BK19



Fully Armored Metal Housing

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)

*1 This product satisfies halogen free requirements defined as 900ppm maximum chlorine, 900ppm maximum bromine, and 1500ppm maximum total of chlorine and bromine.

Performance Characteristics

Rated Current	Power Contact: 5A Signal Contact: 0.3A
Rated Voltage	30V AC/DC
Operating Temperature	-55 to +85°C*2
Contact Resistance	Power Contact: 10mΩ Max. Signal Contact: 30mΩ Max.
Withstanding Voltage	100V AC for 1 min.
Insulation Resistance	50MΩ Min. (100V DC)
Mating Durability	10 times

- RoHS, Halogen-free*1 product
- Variations: 6pos.*3

*2 Includes the temperature rise due to current flow.
*3 Please contact Hirose for detailed information about pin variations.

For additional information please go to
www.hirose.com/en/product/series/BK19

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

STAY CONNECTED