

[To Press] [November 8, 2019]

CES2020 Innovation Awards

Hirose's FX26 Series and BM46 Series have both been selected as Innovation Award Honorees for CES 2020, the Consumer Electronics Show held annually in Las Vegas, USA.

FX26, a floating Board-to-Board connector with high heat resistance up to 140°C that withstands severe vibration environments, was developed for internal connection of powertrains including motor controllers, the key product in Electric Vehicles (EV) and Hybrid Electric Vehicles (HEV). It has been selected in the "Vehicle Intelligence & Transportation" Category. Additionally BM46, a Multi-RF Board-to-Board connector developed for next generation high speed communications such as WiGig and 5G, has been chosen in the "Mobile Devices and Accessories" Category. Hirose is exhibiting at CES 2020 with these winning products amongst many others related to Smart Home, Automotive, Wearables and more at our booth, #44349.

**● About the CES2020 Innovation Awards**

CES, hosted by the Consumer Technology Association (CTA), is the world's largest consumer electronics trade fair, held annually in Las Vegas, USA every January.

The "CES Innovation Awards" internationally recognize multiple noteworthy products in 28 product fields based on the following criteria: product quality, design aesthetic, value provided to users, uniqueness and newness of product specifications, and innovation over competing products.

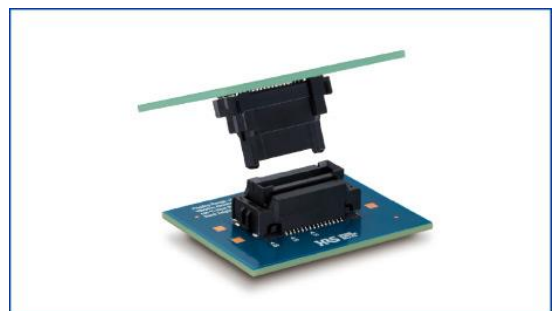
CES 2020 Innovation Awards :

<https://www.ces.tech/Events-Programs/Innovation-Awards/Honorees.aspx>

● FX26 Series

The FX26 Series was developed for internal connection of powertrains including motor controllers, a vital component in EV and HEVs.

It is a floating Board-to-Board connector with high heat resistance up to 140°C capable of withstanding a high vibration environment. Conventional Wire-to-Board connectors have been widely used in the internal connection



of driveline devices. However, as the number of units produced has increased dramatically, it has become difficult for such connectors to satisfy customer requirements in terms of ease of assembly and cost. Additionally, Board-to-Board connectors have not been widely used due to problems with heat, vibration and space restraints.

The FX26 Series overcomes these issues and delivers reliable quality for powertrain connection, all while improving assembly times and reducing costs by replacing traditional cable connectors. FX26's narrow 1mm pitch between terminals add value to applications by enabling size reduction.

● BM46 Series

The BM46 Series is a Multi-RF Board-to-Board connector developed for 5G wearables, portables and mobile devices. Multi-RF capability enables digital signal and Multi-RF signals to be housed in the same connector, enabling smaller devices and increased productivity.

BM46 has excellent high frequency characteristics, a compact size with a pitch of 0.35mm, a stacking height of 0.6mm and

a depth of 2.0mm. Metal guide ribs enhance the product's robustness and substantially reduces the risk of connector damage when mating.

In recent years, new communication standards have been developing rapidly, resulting in an increase of required antennas based on product frequency needs. With this increase, products using convention cable connectors have become crowded with wires. However, with the BM46 Series, transmission is possible in one package.

BM46 is an innovative product ideal for 5G and IoT technologies that contributes to increased board design capabilities and has already been adopted in a wide array of products and modules including smartphones and mobile routers.



● Future Developments

■ FX26 Series

In addition to the 60 position, 25mm mated height, Hirose is planning to develop additional pin counts and height variations.

•No. of Pos.: 20, 30, 40, 50, 60pos.

•Mated Height: 12 to 25mm (12, 15, 18, 20, 25mm)

With a reliable design that meets vehicle standards, FX26 can be used in other applications that are similarly exposed to harsh environments.

■ BM46 Series

The spread of new communication standards such as 5G, WiGig, and LPWAR is expected to result in the development of new devices unlike anything ever seen before. The BM46 is a small, robust, and high performance Multi-RF Board-to-Board connector adaptable to these changes. Hirose aims to expand the use of BM46 beyond smartphones and routers to new markets in the future.

● Company Profile and Information

- Company Profile
Hirose Electric https://www.hirose.com/corporate/en/about/corporate_data/
- FX26 Series
Product Image <http://prd-4s-public.s3.amazonaws.com/upload/corporate/file/FX26.png>
- BM46 Series
Product Details <https://www.hirose.com/product/series/BM46>
Product Image <http://prd-4s-public.s3.amazonaws.com/upload/corporate/file/BM46.png>
- CES 2020 INNOVATION AWARD PRODUCT
Vehicle Intelligence & Transportation FX26 Series
<https://www.ces.tech/Innovation-Awards/Honorees/2020/Honorees/F/FX26.aspx>

Mobile Devices & Accessories BM46 Series
<https://www.ces.tech/Innovation-Awards/Honorees/2020/Honorees/B/BM46.aspx>