

PRODUCT LINEUP

Leading in the field of high-frequency and high-speed transmissions, I-PEX contributes to the digital society by providing excellent signal integrity solutions with the development of a wide variety of ultra-precision connectors and our incomparable customer support.

RF connectors: MHF® series



MHF® is a series of ultra-miniature RF coaxial connectors for antenna connection within wireless devices that achieves maximum performance with minimal space. Compatible with various communication standards, such as 5G mmWave/Sub6, 4G, LTE, Wi-Fi, Bluetooth, GPS, WiGig, M2M, IoT, SigFox, WiSUN, NB-IoT and LoRa.

- ◆ I-PEX's unique i-Fit® solderless connection technology provides stable VSWR performance up to 15 GHz
- ◆ Products with our ZenShield® technology, such as the MHF® 7S, provide improved EMC performance
- ◆ MHF® I LK & MHF® 4L LK are the industry's first micro-RF coaxial connector with locking mechanism
- ◆ A wide range of options, from extremely small connectors with a mated height of 1.0 mm to connectors that support frequency bands up to 15 GHz

Micro-coaxial/Twinaxial connectors: CABLINE® series



CABLINE® is a connector series that uses micro-coaxial cables that can transmit high-speed signals in a space-saving manner inside a variety of equipment. It supports high-speed transmission such as 64 Gbps/lane, PAM4, USB4, Thunderbolt 3, eDP HBR3 and PCIe Gen 3/4.

- ◆ Electromagnetic noise countermeasures and crosstalk reduction with ZenShield® EMI shielding technology
- ◆ Highly flexible and can be used in narrow spaces by bundling cables
- ◆ Ideal for internal connections with moving parts and strict wiring design requirements, such as the connection between the motherboard and display of a laptop PC
- ◆ Some products include a mechanical lock

Board-to-board connectors: NOVASTACK® series



NOVASTACK® is a board-to-board (FPC) connector series that supports high-speed transmission and high-frequency standards, such as USB4 (20 Gbps/lane), 5G mm wave, sub-6, and eDP HBR3.

- ◆ Shielded options to ensure EMC performance with ZenShield® technology
- ◆ Optional features include independent power terminals converters, etc.

FPC FFC connectors: EVAFLEX® series and MINIFLEX® series



EVAFLEX® is a connector series for FPC and FFC cables that features one-action mating with a mechanical lock mechanism that ensures excellent retention. ZenShield® technology offers excellent EMC protection and enables high-speed transmission, such as USB 4, USB 3.2, V-By-One HS, and eDP.

- ◆ Rated for high temperature operation (up to 125 °C)
- ◆ Vertical and horizontal mating-types available

MINIFLEX® is also a connector series optimized for FPC and FFC cables and has a connector shape known as ZIF (Zero Insertion Force) or LIF (Low Insertion Force).

- ◆ Various pitches range from 0.5 mm to industry's smallest class 0.175 mm
- ◆ Options of a variety of pin counts

Wire-to-Board connectors: ISH® series and IARPB® series



ISH® is a connector series that has excellent high temperature and vibration resistance and has a unique spring structure terminal to ensure high connection reliability. These connectors use discrete wires suitable for supplying large current power to devices.

- ◆ Long-term connection reliability
- ◆ Ideal for harsh environments such as automotive and industrial applications

IARPB® is a board-in type discrete wire connector with excellent vibration resistance. Particularly suitable for automotive applications such as headlights, inverters, and DC-to-DC converters.

- ◆ Excellent vibration resistant due to housing post structure
- ◆ Plating process provides a structure with excellent visibility and stable solder wettability to ensure work efficiency during mounting

Terminals: AP series



AP series is a set of board-to-board power terminal products that supports high-current amperage and withstands high temperatures, all in small form-factors. They are ideal for in-vehicle chargers and industrial equipment that is subject to rapid environmental temperature changes.

- ◆ High level of flexibility gives superior floating performance, allowing mounting of multiple terminals
- ◆ Operate at currents up to 32 A
- ◆ Withstand temperatures up to 125 °C

I/O connectors: MINIDOCK™ series



MINIDOCK™ is a family of board-to-board docking input/output (I/O) connectors that provides a rugged, secure and reliable docking solution for portable medical and industrial devices.

- ◆ Diecast housings and large tapered guide pins ensure up to 5,000 mating cycles
- ◆ Options include vertical and horizontal mating, pin counts ranging from 80 to 240, and 3-level pin sequencing for signal, power, and ground

Card Edge connector: SX-M2



SX-M2 is a shielded connector designed for communication modules and compliant with the M2. Standard. The shielded structure effectively suppresses external noise and signal interference, enabling high performance communication. It contributes to increasing design flexibility in industrial equipment and embedded system applications.

- ◆ Added shielding to the M.2 connector to suppress external noise and signal interference.
- ◆ The open/close cover enables both visual inspection of the contact mounting area and effective EMI protection.

SOLUTIONS

We provide precision manufacturing solutions. Ensuring quality every step of the way from in-house tool design to fully automated manufacturing and inspections.

RF coaxial cable solderless connection technology: i-Fit®



i-Fit® solderless termination technology used in the I-PEX micro RF coaxial connector (MHF®) series eliminates variations in the electrical performance of RF cable assemblies caused by solder and maintains uniform electrical characteristics.

- ◆ Ease of wiring work and maintaining uniform electrical characteristics are most important for antenna performance

Excellent EMC design: ZenShield®



ZenShield® is the name for I-PEX's excellent EMC countermeasure technology available in many of our connector products. The connectors with ZenShield shielding provide significant mitigation of EMI.

- ◆ 360-degree EMC shielding prevents electromagnetic noise radiation from the board mounting part of the signal terminals
- ◆ Gives board designers more flexibility by allowing connectors to be placed near antennas