

## Product Info



The 10143/10144 series is a Floating Board to Board connector with 2 rows and a 0.5 mm pitch. (ST/RA connection). The concept of the 10143/10144 Board to Board "hybrid" connector that achieves both high-speed transmission of 16 Gbps and floating functions with unprecedented mobility ( $\pm 0.8$  mm movable in the X and Y directions compared to the 0.5 mm pitch).

Power supply terminals that also serve as mounting brackets have been added on both ends of the connector, to help with reducing the overall PCB size.

### [Target Applications]

ADAS, Infotainment, Home equipment, Industrial equipment, Telecom equipment, Robot

## Features

### Feature 1: Floating

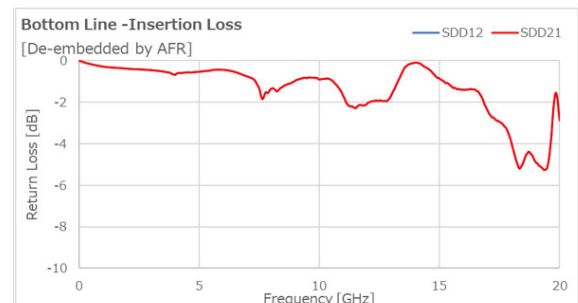
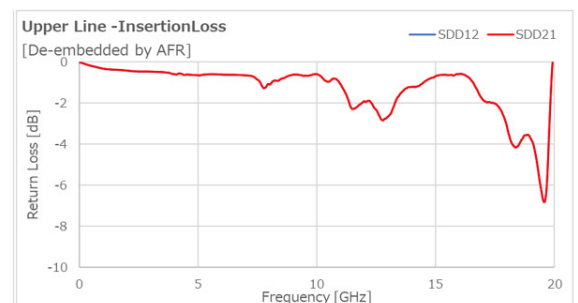
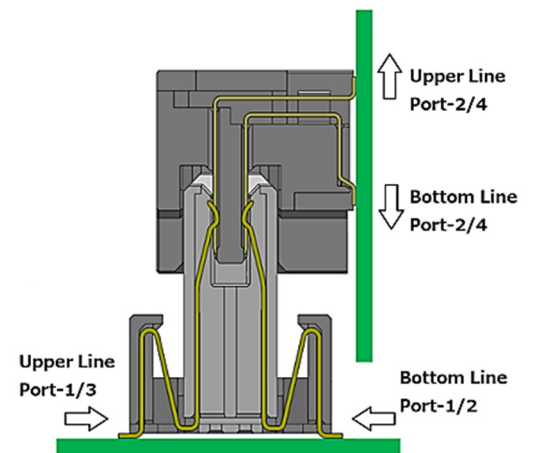
#### "Floating" Capability Enables Design Flexibility and Reliability

IRISO's Board to Board Floating connector technology allows connectors to have a greater tolerance on misalignments, especially those with multiple connections. Another benefit of our Floating connectors is that they absorb movement which reduces stress on the board from the solder tails over time. Additionally, the tri-directional floating technology helps in the connecting assembly process by allowing forgiveness in small misalignments of the mating guides. The 10143/10144 series connector offers a range of movement of 0.8 mm in the X-Y directions, exceeding the pitch width of 0.5 mm.

### Feature 2: High Speed

As the demand for high-frequency component signals becomes universal, advanced technology requires modern devices to have high-speed and reliable transmission from its connected components. IRISO has met this challenge by combining our floating connectors with high-speed transmissions technology. The 10143/10144 Series offers one of the highest transmission speeds in the floating BtoB connector industry supporting 16 Gbps (PCIe Gen4). The 10143 Series has also achieved the highest class of high-speed transmission to date, at \*25 Gbps, for floating board to board connectors.

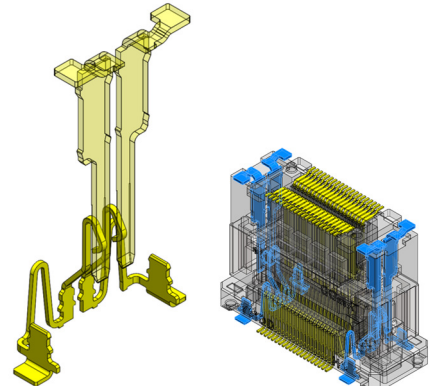
\*Based on "OIF CEI-28G-SR"



## Features cont.

### Feature 3: Power Contact

Two dedicated power pins, a total of 4 power pins rated 3.0A each, have been added on both ends of the connector. These power pins not only hold a higher power rating than signal pin, increasing the overall power supply, they provide a solid connection to the PCB, adding stability while protecting against solder peeling and stress. These features contribute to the miniaturization of the entire connector, giving you flexibility in your overall PCB design.



### Feature 4: Robot Automation

IRISO Connectors for Factory Automation and Robotics Automated assembly not only cuts labor costs but increases quality. Certain automation, however, can have adverse effects like adhesion of foreign matter, mounting/mating misalignments, and incomplete mating. To overcome these issues, IRISO has launched the "Robot Assembly Compatible Connector" concept to solve these automated assembly problems.



## Product Spec

### IMSA-10143S-\*\*\*Y900 ◆ IMSA-10144B-\*\*\*Y900

Item	Unit	Specification
Pitch	mm	0.5
Floating	mm	X:±0.8 Y:±0.8
Pin Counts	pins	20~160 (under planning)
Connecting Type	—	Right Angle
Operating Temperature Range	°C	-40~+125
Rated Current	A	Signal:0.5A/pin, Power:3.0A/pin
Rated Voltage	V	Signal:50V, Power:50V
Withstand Voltage	V	Signal: AC 150V, Power:150V

## Plug & Socket

Parts	Material	Plating
Housing	LCP	-
Retainer	LCP	-
Contact	Copper alloy	Gold
Metal Flange	Copper alloy	Tin

# ABOUT

# IRISO ELECTRONICS



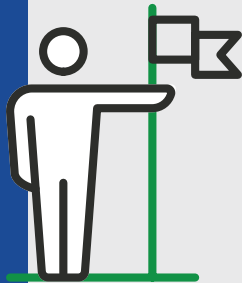
## It started with a single pin...

IRISO has been contributing to the development of the electronics industry worldwide for over 50 years since its foundation as a comprehensive connector manufacturer in 1966. Our more than 3000 employees support customers worldwide on a wide range of innovative new products designed to meet the needs of our industry both today and tomorrow.



## Connected with our customers...

Our customers are at the core of our business. Based on the concept of “market-in”, we develop and manufacture products that are closely linked to customer needs. We listen carefully to customer feedback, verify any issues that may exist in all processes from concept to the production line, and incorporate the feedback into the product design. We take a consultative approach to developing custom products in order to ensure a successful partnership.

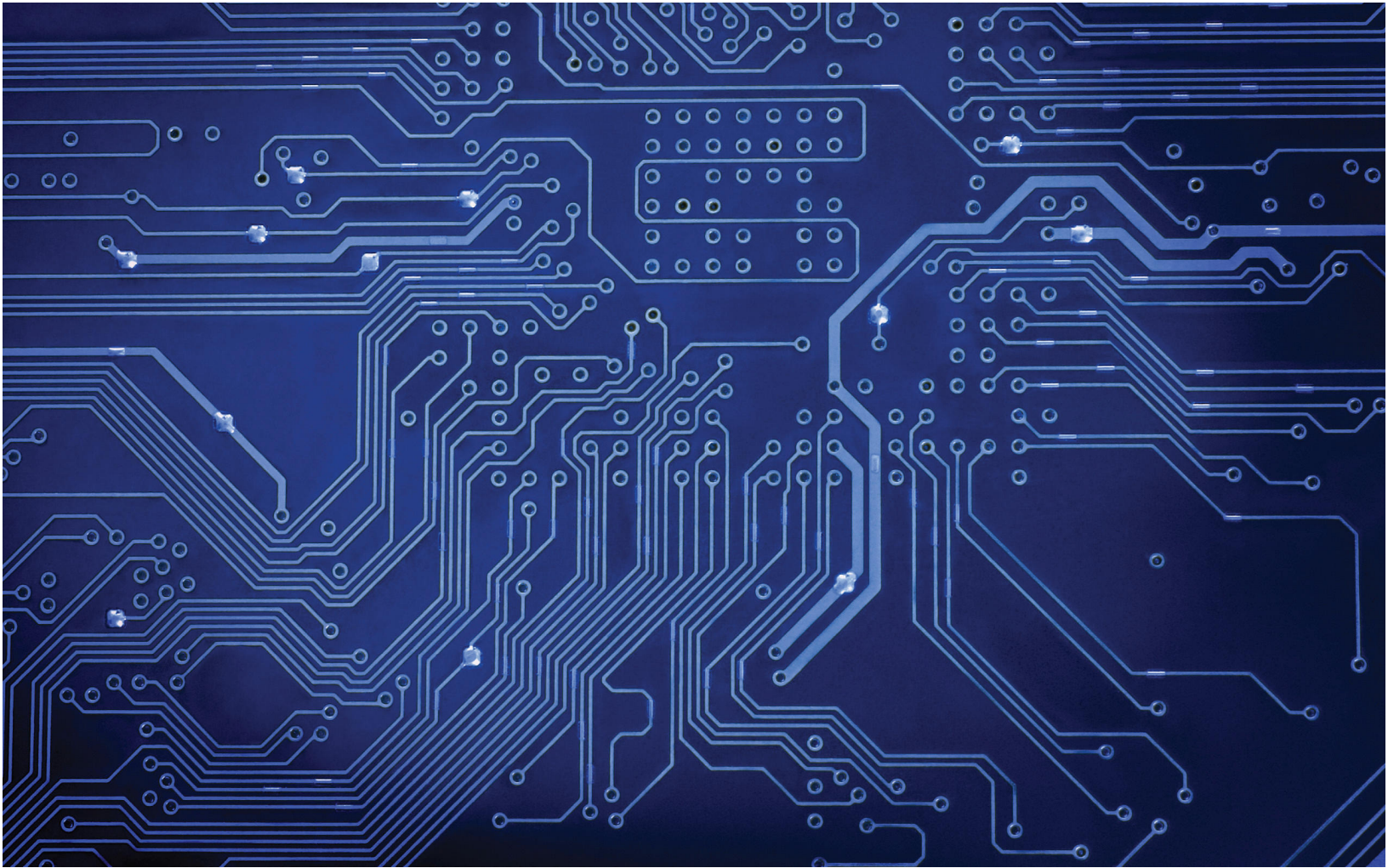


## As a bridge to the future...

With beginnings in the Car AV and electronics, IRISO has established itself as a leading company in the development of connectors for the automotive market. For more than fifty years we have continued to devote ourselves to developing the field of electronics. Over the years, we have significantly expanded the range of our automotive product development to include a wide range of connectors for ADAS, electric powertrain and infotainment applications of today and tomorrow.

LEARN MORE AT: [IRISOCONNECTORS.COM](http://IRISOCONNECTORS.COM)

# Connecting a Better Future.



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