



CHANT SINCERE CO., LTD.



Robotics Solutions

- ▾ View Camera
- ▾ LiDAR
- ▾ IMU
- ▾ Robotic Arms
- ▾ Servo Motor / Motor Driver
- ▾ Local / Cloud Storage & Edge Computing

Table Of Contents

About Chant Sincere	03
Quality Systems	05
Competencies & Technology	07
Application	09
Application Overview	11
View Camera	13
LiDAR	15
IMU	17
Robotic Arms	19
Servo Motor / Motor Driver	21
Local / Cloud Storage & Edge Computing	23





About Chant Sincere

Chant Sincere Co., Ltd. was set up in 1985, with the management concept of "Integrity, Innovative, Quality, Sustainability" to design and manufacture connector and cable. Keep developing new innovative products and integrating vertically from R&D, tooling, assembly and quality control to meet the demands (quality-cost/delivery) from customers. Chant Sincere Co., Ltd. has been constructing several of product families to provide a total solution to customers.

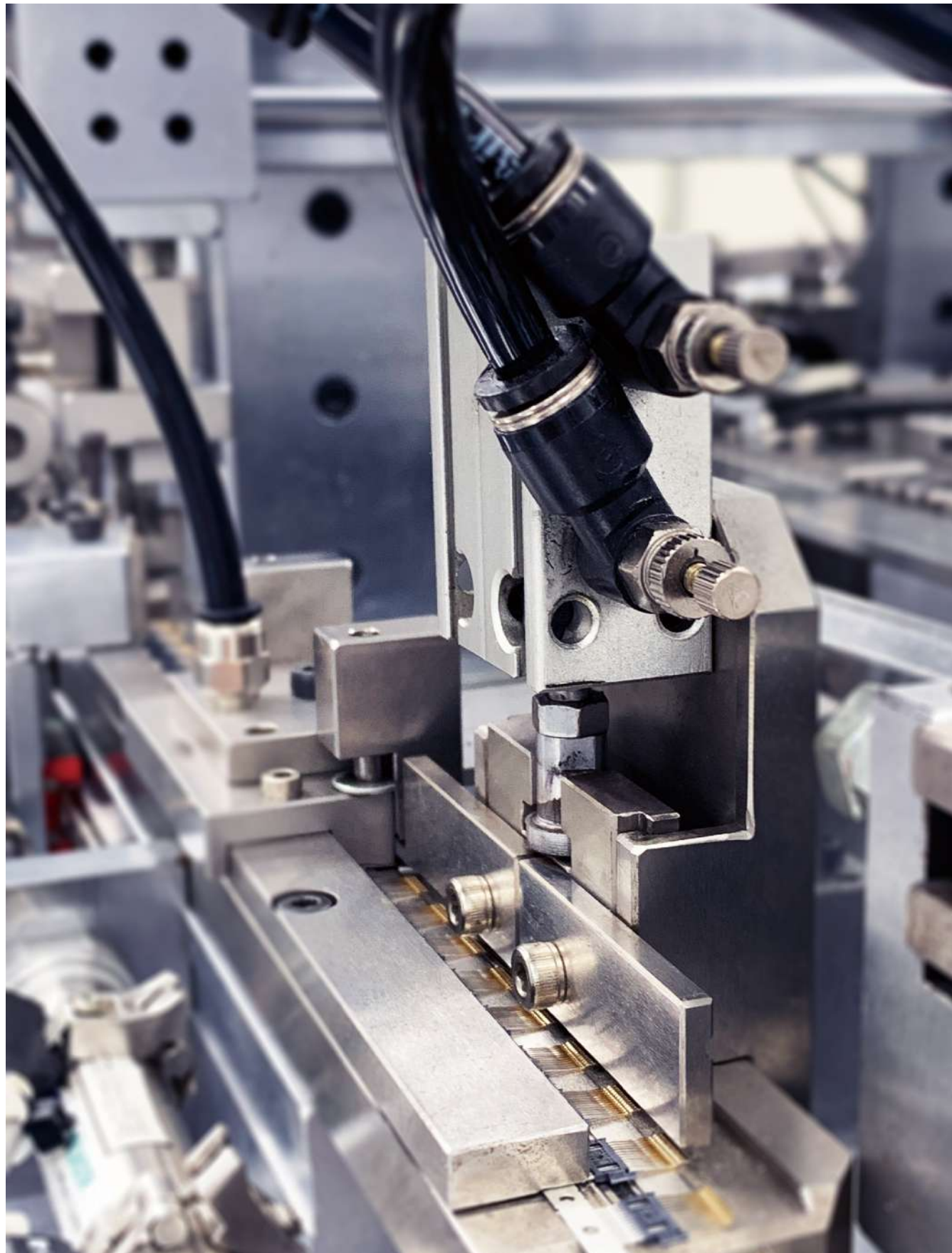
The connector and cable products are widely used in many different applications, such as Computing, Industrial & Automation, Telecommunication, Automotive, Waterproof, Consumer and Medical Industry.

Chant Sincere won the "National Bedrock Award" & "Small Giant Award" from Taiwan Connector maker competition and got many "Best Supplier Awards" from Global customers. We are focusing on improving our design and manufacture technology, and we have been applying for a lot of international patents for our products including I/O connector, Board to Board Connector, Waterproof Connector, Industrial Connector, Automotive Connector, Memory Card Connector and Adaptor, High Speed connector/cable (USB3.1), Audio & Video connector and cable (HDMI, DisplayPort)...etc.

Chant Sincere Co., Ltd. has been growing up as a global professional manufacturer for connector and cable.

The Core Competence of Chant Sincere Co.,Ltd. including.

- Over 40 Years Manufacture Experience
- National Awards Rising Sun Awards/Best Supplier Awards
- Vertical Integration (Design, Tooling, Manufacturing, Test)
- Automation Capability
- Precise Tooling Center
- Wide Range of Product Line
- ODM/OEM Capability
- Customized Capability
- Quality System (ISO, IATF)
- Systematic Testing Process



Quality Systems

Chant Sincere (hereinafter referred to as C.S.) Quality Assurance department meets our customers' quality requirements by practicing continual improvement in our quality assurance processes and increasing customers' satisfaction in the quality of our products.

The effectiveness of QA operation is certified by well-known organizations such as ISO9001 Quality Assurance Management System, ISO 14001 Environmental Management System, ISO/IATF 16949 for Automobile Industry Quality Management System, and ISO13485 Medical Devices Quality Management System. C.S. integrated supply chain and devoted staff has enabled us to build a solid foundation and core capability to better serve our customers. It is principal to always meet and exceed customer expectation by providing superior products and services. Our ultimate goal is to create value for our customers by building collaborative and mutually beneficial relationships.



ISO 14064-1 / ISO 9001 / ISO 14001 / IATF 16949 / ISO 13485



Competencies & Technology

The R&D Center at Chant Sincere leads the industry in research, design, and manufacturing of numerous key parts. This center has successfully developed for both wired and wireless solutions for computer peripherals, communication systems, and automobiles/industrial/medical equipment. Our solid R&D team formed a strong foundation in advance manufacturing technology and superior quality control that also enabled high value adding service for customers.

USB type C connector is an example of the fruits of our research. This miniature and unidirectional interface provides many useful functions such as lighting data transfer rate up to 10 Gbps, DP ALT Mode high-definition video signal support, and brilliant 100W charging capability. Chant Sincere advanced the research further into higher specs such as USB 3.2 and USB 4.0 and offers customized solution for several of industrial applications. We delivered comprehensive solutions in bridging the diverse need for new interface and solve on-going product design issues for customers.

QSFP-DD is an ultra-fast interface that transmits data at 400Gbps speed.

At this speed, stringent requirement for signal integrity and operating temperature is inevitable which imposed huge challenges for the industry. At Chant Sincere, we implemented comprehensive computational software, state of art measuring equipment and eminent R&D capability to aid the solution delivering process. The analysis process includes simulation under CST MSW (Time Domain Simulation), ANSYS HFSS (Frequency Domain Simulation) for signal integrity as well as real-time measurement using test boards and PNA (up to 43.5GHz) to deliver quality reports for signal integrity (S-parameter, Gain compression, conversion gain/loss, noise level). We further performed simulation of its operating temperature using Icepak (Heat transfer and fluid flow simulator). This enabled the performance optimization for heat dissipation solution. With the above R&D skills we successfully delivered the desired professional service within the shortest time frame for our customers.



Application

About Robotics

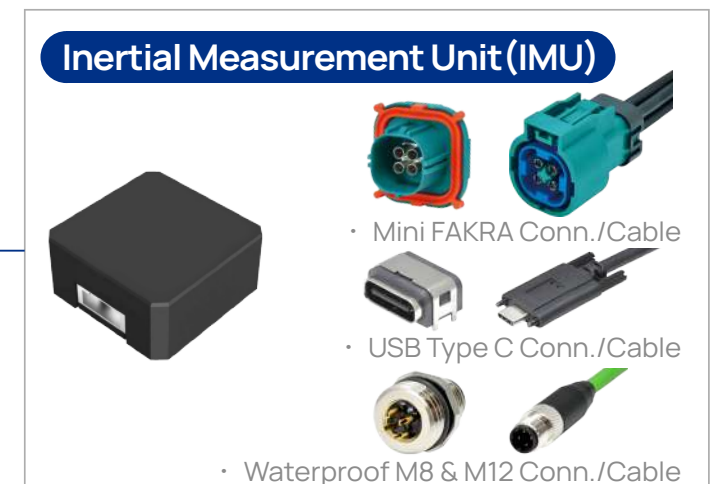
In the field of robotics, connectors and cables play a critical role, as they are responsible for the electrical and data transmission between various components of the robot. As robot technology evolves, these connecting elements have become more complex, directly affecting the robot's performance and stability.

1. **Power Transmission:** Robots require a stable power supply to drive various movement and control components, and connectors and cables ensure that power is reliably transmitted to all parts.
2. **Data Exchange:** The robot's perception system, control unit, and actuators need to continuously exchange data, which requires high-quality connectors and cables to support high-speed and efficient signal transmission, avoiding any delays or data loss.
3. **Interference Resistance and Stability:** Robots often operate in complex or extreme environments, requiring connectors and cables to have excellent resistance to interference and durability to cope with vibration, temperature fluctuations, and electromagnetic interference.
4. **Miniaturization and Flexibility:** Robot designs usually demand miniaturization and flexible configuration of components, making the size, design, and arrangement of connectors and cables crucial.

Application

1. **Automotive:** Used in robots for automotive automation, these connectors are designed to handle high vibrations and harsh conditions, ensuring stable power and signal transmission, especially in mobile or logistics robots.
2. **Industrial:** Essential in industrial robots, they support high current and data transmission, offering resistance to shocks, heat, and corrosion, ensuring stable motion control and data processing in tough industrial environments.
3. **Telecom:** Used for real-time data exchange and remote monitoring in robots, these connectors ensure reliable network communication, crucial for multi-robot operations and automated systems.
4. **Waterproof M8 & M12:** Ideal for robots working in harsh, wet, or outdoor environments, these connectors protect against water and dust, ensuring reliable operation in agriculture, cleaning, or underwater robots.
5. **Consumer Electronic:** Found in home robots like vacuum cleaners and smart assistants, these connectors link batteries, sensors, and drive systems, supporting low-power and cost-effective operations.
6. **PC Peripheral :** PC Peripherals in robotics primarily enhance the robot's functionality and interaction capabilities. These peripherals include various input and output devices used to support the robot's operation, control, and data processing.
7. **High-Speed :** Used in robots requiring fast data transfer, these connectors handle high-frequency and high-bandwidth tasks, such as vision processing and real-time responses, for applications like collaborative or automated robots.

Application Overview



Computer Vision

Autonomous Navigation & Sensors



Obstacle Avoidance

End Effectors

Power Supply

Data Transmission & Machine Learning

※ The products overviewed here are only intended to illustrate the main application products. For other applicable products, please refer to the list on the following pages.

Application Products

		
· FAKRA Connector/Cable	· Mini FAKRA Connector/Cable	· USB Type C Connector/Cable
		
· Waterproof M8 & M12 Connector/Cable	· RJ45 Connector	· DVI Connector
		
· HDMI Connector/Cable	· D-Sub Connector	

※ The product list can be referred to in the EDM of the same series.

View Camera



Functions

- Environmental Perception and Navigation
- Object Recognition and Classification
- Hand-Eye Coordination
- High-Resolution Imaging and 3D Scanning
- Human-Machine Interaction and Facial Recognition
- Quality Inspection and Industrial Applications



Application Products

		
· HMTD-N Connector/Cable	· Mini FAKRA Connector/Cable	· USB Type C Connector/Cable
		
· Waterproof M8 & M12 Connector/Cable	· RJ45 Connector	· D-Sub Connector
		
· QSFP Series / OSFP Series	· HDMI Connector/Cable	· DisplayPort Connector/Cable

※ The product list can be referred to in the EDM of the same series.


LiDAR

Functions

- Environment Perception and Mapping (SLAM)
- Obstacle Detection and Obstacle Avoidance
- Precise Localization
- 3D Modeling and Measurement
- Real-time Data Processing
- Multi-sensor Fusion
- Operation in Night and Low-light Environments

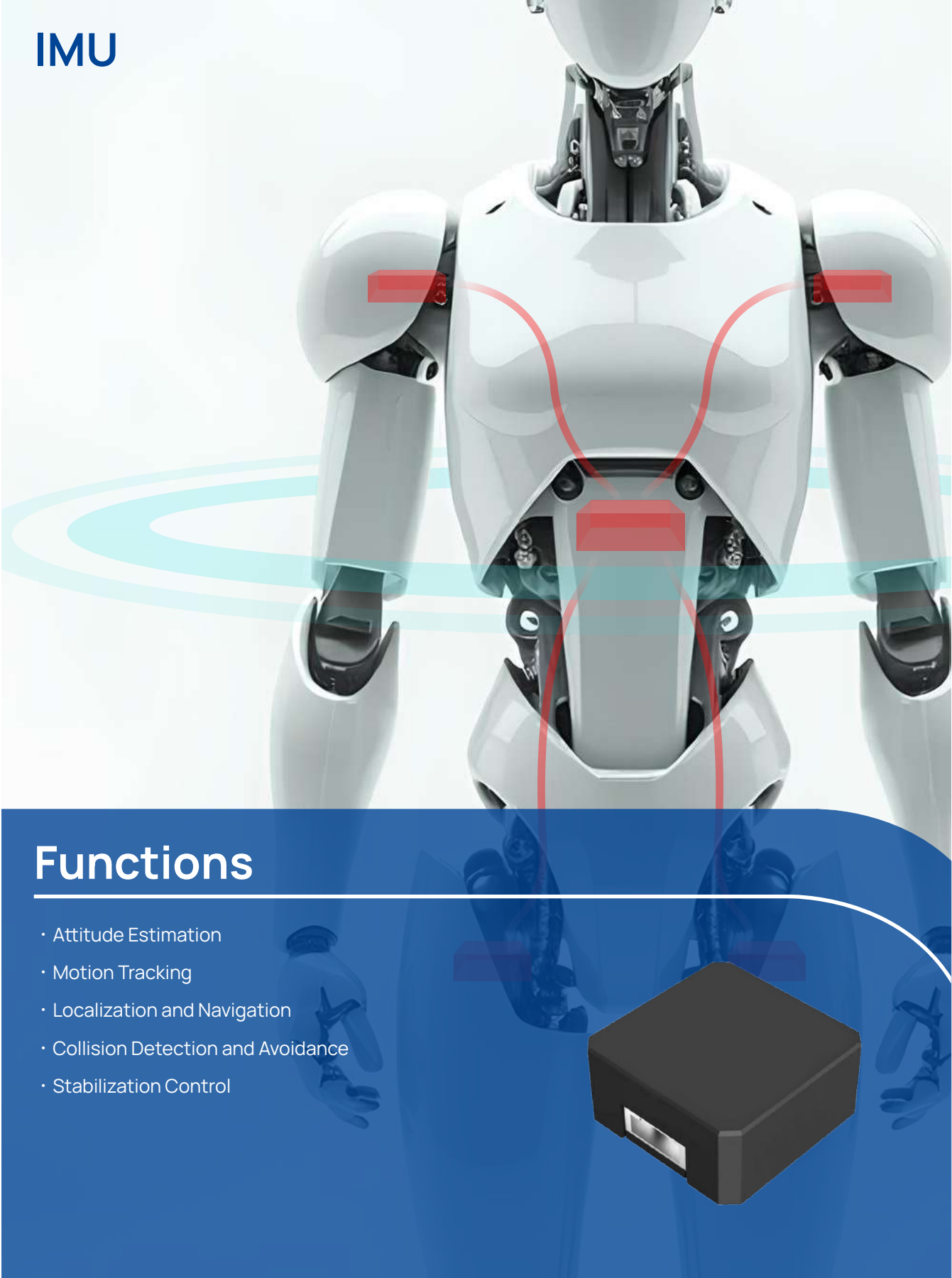


Application Products

		
· Mini FAKRA Connector/Cable	· USB Type C Connector/Cable	· Waterproof M8 & M12 Connector/Cable
		
· RJ45 Connector	· D-Sub Connector	

※ The product list can be referred to in the EDM of the same series.

IMU



Functions

- Attitude Estimation
- Motion Tracking
- Localization and Navigation
- Collision Detection and Avoidance
- Stabilization Control

Application Products

		
· QSFP Series	· USB Type C Connector/Cable	· Waterproof M8 & M12 Connector/Cable
		
· RJ45 Connector	· D-Sub Connector	· HDMI Connector/Cable
		
· DisplayPort Connector/Cable	· High-Speed Board to Board	

※ The product list can be referred to in the EDM of the same series.

Robotic Arms




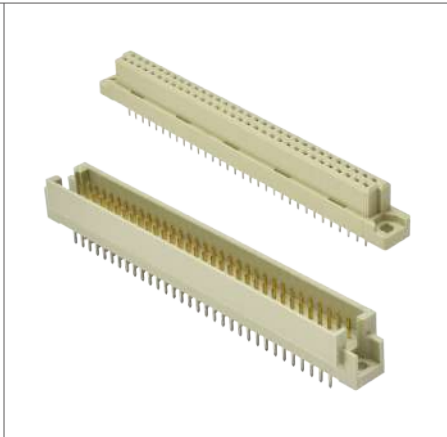


Functions

- Object Grasping and Handling
- Precision Operation
- Perception and Inspection
- Multifunctionality
- Collaboration Function




Application Products

		
· USB Type C Connector/Cable	· Waterproof M8 & M12 Connector/Cable	· RJ45 Connector
		
· High Density D-Sub Connector	· DIN 41612 Connector	· High-Speed Board to Board

※ The product list can be referred to in the EDM of the same series.

Servo Motor Motor Driver



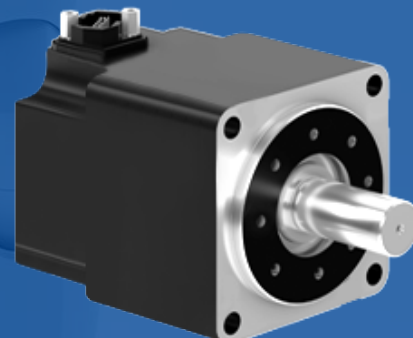
Functions

1. Servo Motor: Precision Control and Movement

- Precise Motion Control
- High Torque at Low Speeds
- Feedback Mechanism
- Positioning and Rotation

2. Motor Driver: Power and Control Management

- Power Amplification
- Signal Conversion
- Speed and Direction Control
- Protection Features



Application Products

		
· QSFP Series / OSFP Series	· USB Type C Connector/Cable	· Waterproof M8 & M12 Connector/Cable
		
· USB Type 3.0 / 3.1 Connector/Cable	· RJ45 Connector	· PCIe Gen-Z Cable
		
· MPO Patch Cord Cable		

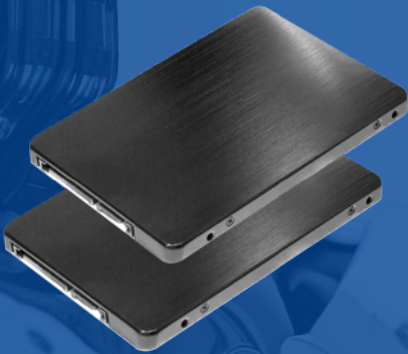
※ The product list can be referred to in the EDM of the same series.

Local / Cloud Storage & Edge Computing



Functions

- Real-time Data Processing
- Reduced Latency and Bandwidth Requirements
- Autonomous Operation and Immediate Response
- Dynamic Learning and Adjustment
- Enhanced Security (Local Storage)
- Resource Management and Collaborative Operation






 **CHANT SINCERE CO., LTD.**

7F-2, No 188, Sec. 3, Datong Road
Xizhi, New Taipei City 22103, Taiwan

 www.coxoc.com.tw

 +886-2-8647-1251

 service@coxoc.com.tw



www.coxoc.com.tw/en