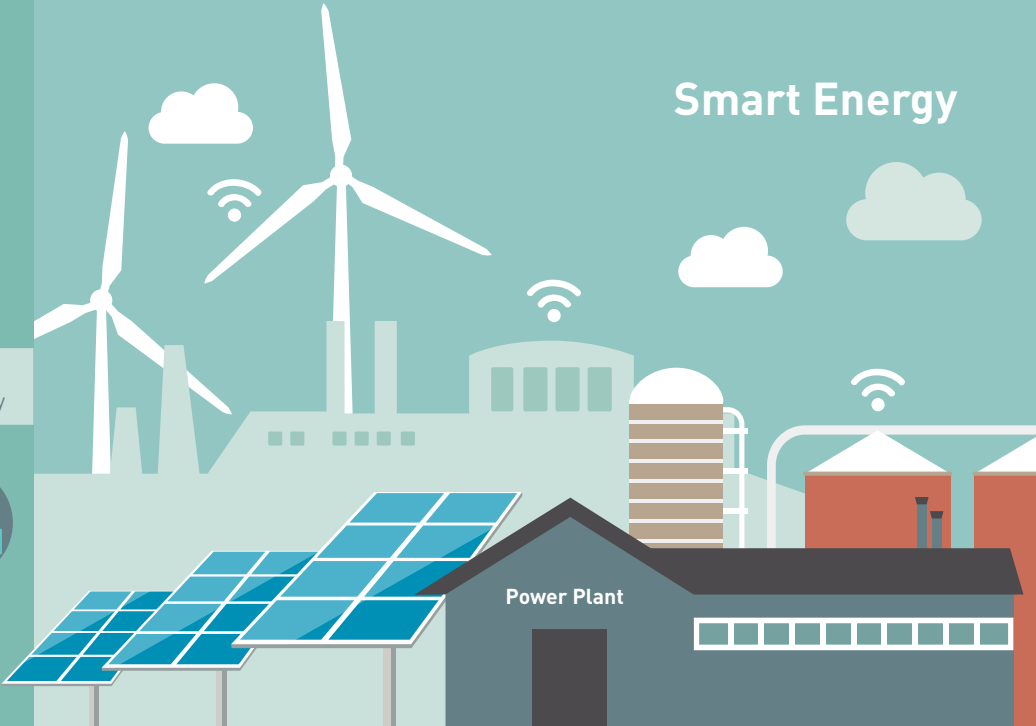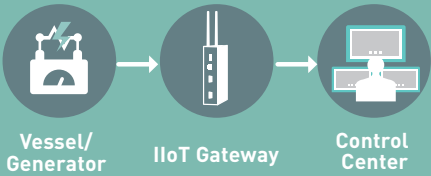## Smart Energy

In a general smart grid, oil refinery and solar energy applications, the ICO series plays the role of a gateway controller. The operational data is collected and forwarded to the cloud to be processed and analyzed at a control center.

Applications
Solar, Smart Grid, Oil Refinery, Electricity

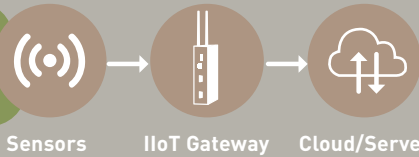Vessel/Generator → IIoT Gateway → Control Center

Power Plant

Environmental Data Collection

By connecting with sensors, the ICO gateway can help farmers collect environmental data like temperature and humidity. With IIoT gateways, farmers can get immediate access to data and remotely control the farm's computerized operations from anywhere in the world. Farmers can also compare, predict and share data for more insights.
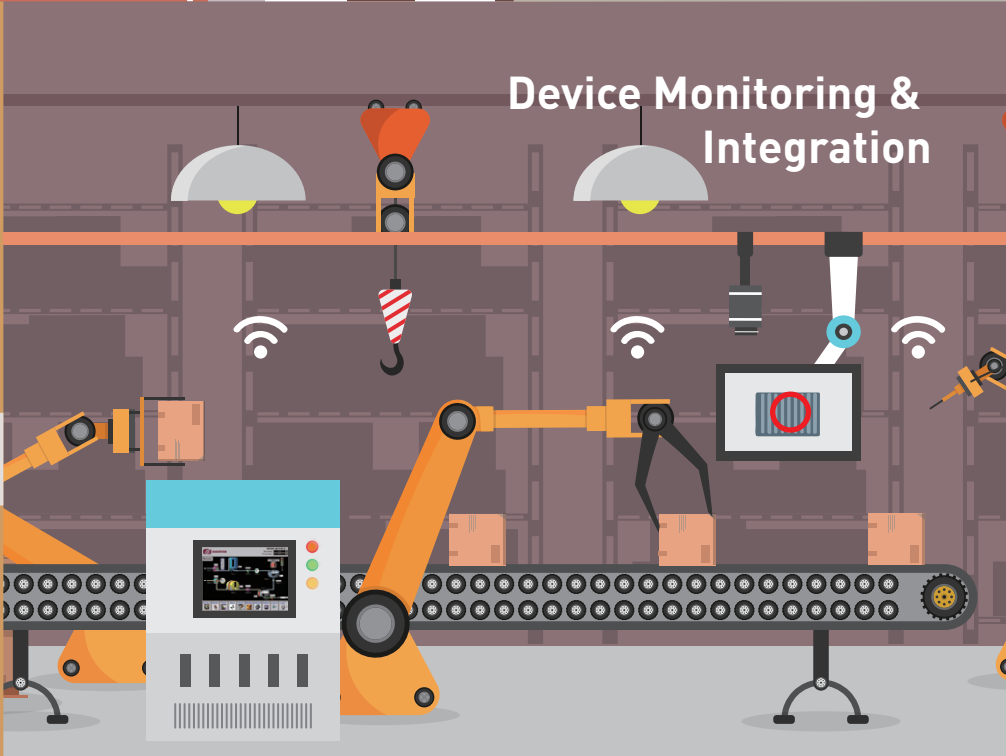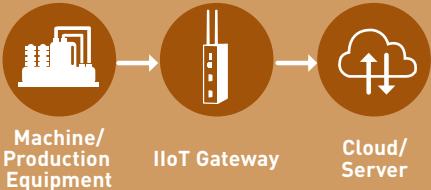
Applications
Humidity Detect, Temperature Detect, Air Quality, Luminance

Sensors → IIoT Gateway → Cloud/Server

Device Monitoring & Integration

The ICO series designed with rich I/O can easily make a connection to different devices in different applications. It offers a platform for machines to connect and to communicate. Through the IIoT gateway controller, users can design their own IIoT solutions such as machine monitoring and predictive maintenance.

Applications
Smart Factory, Machine Conditioning, Intelligent Production

Machine/Production Equipment → IIoT Gateway → Cloud/Server

Product Information

ICO300-MI
- Intel® IoT Gateway Technology with Wind River Intelligent Device Platform XT 3.1
- Intel® Atom® processor E3815
- Wide operating temperature range from -20°C to +70°C
- 12-24 VDC wide range power input

ICO100-839
- Intel® Celeron® processor N3350
- 8-bit programmable DIO for IIoT gateway applications
- Wide operating temperature range from -20°C to +70°C
- AXView 2.0 intelligent remote management and monitoring software

ICO300-83B
- Intel® Celeron® processor N3350
- Multifunction IIoT gateway solution
- Isolated COM port design for system protection and stability
- AXView 2.0 intelligent remote management and monitoring software

NEW

ICO320-83C
- Intel® Celeron® processor N3350
- IIoT LAN gateway solution
- DIN-rail box PC with 4 ports PoE Function (Power-over-Ethernet)
- Wide selection of I/O function (CANBus, COM port)

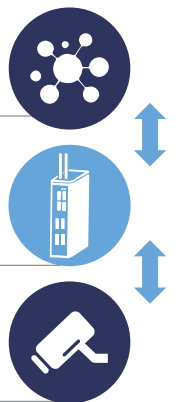## ICO Series in IIoT Concept

Network Connectivity
Supports data transmission through Ethernet/4G/3G/Wi-Fi/Bluetooth/ZigBee/RFID

Gateway & Edge Computing
ICO series provides connectivity between network layer and sensor layer

Physical Devices & Sensors
Supports I/O communication

Intelligent IIoT Gateway

Axiomtek's ICO series is designed for IIoT gateway use. It offers efficient, secure and robust platforms for various applications in diverse IIoT environments. With a wide range of power input and extended operating temperatures, the ICO series can endure harsh operating conditions. Equipped with rich I/O, the ICO series offers flexible and easy integration with various front-end devices or sensors. The ICO series also supports a wide range of wireless modules, including WiFi, Bluetooth, 3G/4G and Zigbee modules. Some models are Microsoft Azure certified and ready to be used to build your IIoT applications.

Axiomtek's ICO series offers great flexibility and reliability in supporting the designs of IIoT-related applications, especially those that require a robust gateway device which can efficiently manage and control complex IoT environments.

Flexible Customization
- Short lead time
- Design capability
- Optimization

Embedded Software Service
- Linux development and function checking
- AXView 2.0 intelligent remote management and monitoring software
- Software customization service

Stability & Reliability
- Fanless and rugged design
- Lockable I/O
- Isolated LAN
- Vibration endurance
- Wide operating temperatures