# Industrial IoT Intelligent LED Display


Web Interface

Real-time Message

Configuration via Mobile Devices

IP65

Vol. iKAN_1.23.09_EN

# Contents

# iKAN Overview

With the ubiquity of IoT technology, industrial products are now deployed for outdoor applications, transportation, and the leisure industry.
ICP DAS iKAN series - Industrial IoT Intelligent LED Display provides integrated features catering to specific requirements of various industries. Features include waterproof design, enhanced readability, mix-and-match font sizes, multilingual characters, and the web interface for development. Besides offering 9 basic languages (Chinese, English, Russian, Japanese, Korean, French, German, Italian, and Spanish), the iKAN series also supports 4 additional languages (Thai, Arabic, Hebrew, and Hindi).
Besides, the iKAN series can be directly integrated with ICP DAS DL/CL series Air Box Modules for environmental monitoring solutions. The combination enables quick and intuitive operations without additional configuration.
iKAN series supports built-in Modbus RTU/TCP protocols for seamless integration, allowing the product series to be configured easily to display data in various applications. Examples include applications for product lines, public transport, tunnel construction, and indoor/outdoor air quality monitoring.




# Support Multiple Industrial Communication Protocols

**Industrial-grade Protection Against Interference**

**Built-in Web Interface**

**Easy-to-use**

**Support Multilingual Characters**

## Support Standard Modbus Communication Protocol

ICP DAS starts from the field of industrial applications, and introduces the iKAN series with a focus on practicability and user experience. iKAN series is designed based on the most commonly used communication protocol - Standard Modbus. It provides two physical communication interfaces RS-485 and RJ-45 Ethernet, and supports many protocols such as PROFIBUS, PROFINET, CANopen, OPC UA, and Modbus RTU/TCP. In practice, engineers can configure connections to the iKAN using physical cables, and complete settings through the built-in web interface which is intuitive and easy-to-use.

## Display Multilingual Characters and TrueType Fonts

Industrial-grade iKAN series features protection against interference, robustness, and excellent integration capabilities, as well as displays multilingual characters such as Thai, Arabic, Hebrew, Hindi, Japanese, etc. The series also supports a 7-color text display using LED lights with high brightness, and TrueType fonts uploaded by users. The advantages allow users to configure displays for optimal readability in various environments.


| Easy Configuration | 7-color Text Display | High Degree of Expandability | Flexible Integration |
|---|---|---|---|

OPC UA

PROFIBUS

Modbus RTU/TCP

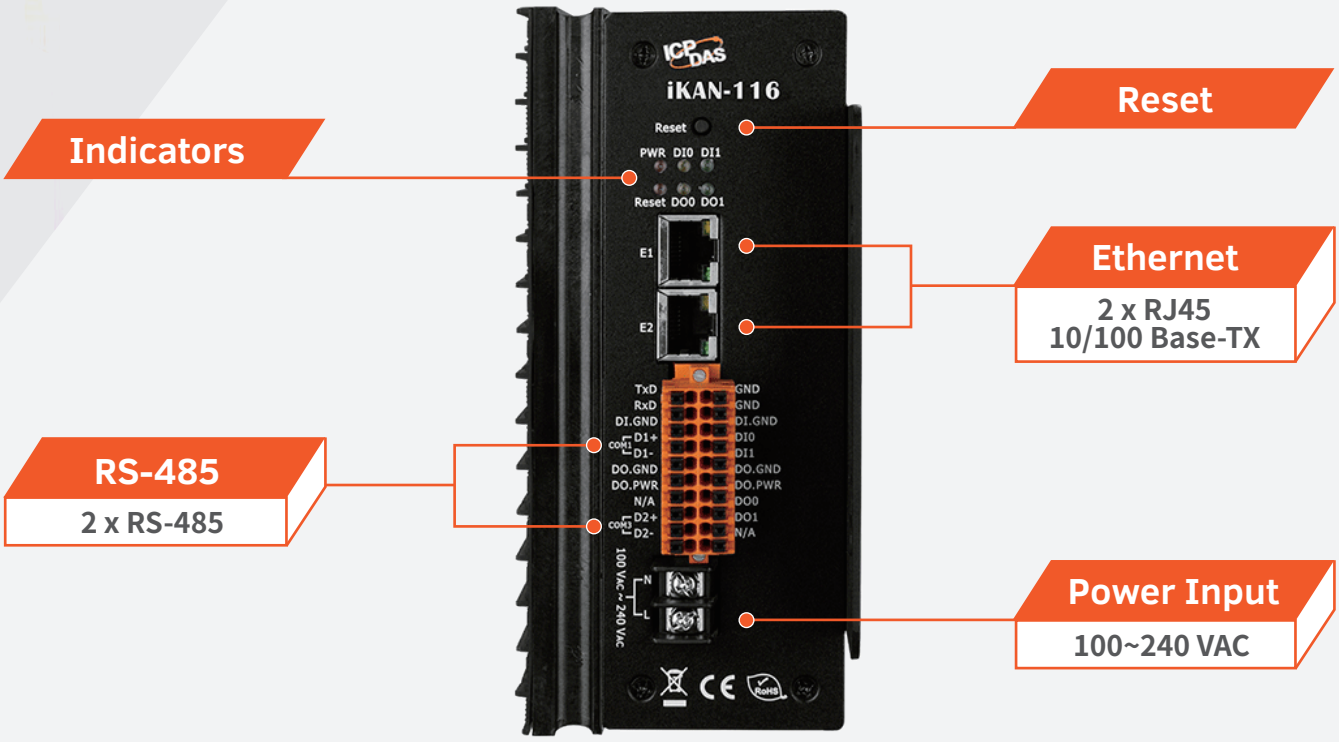
PROFINET

CANopen

# iKAN Series

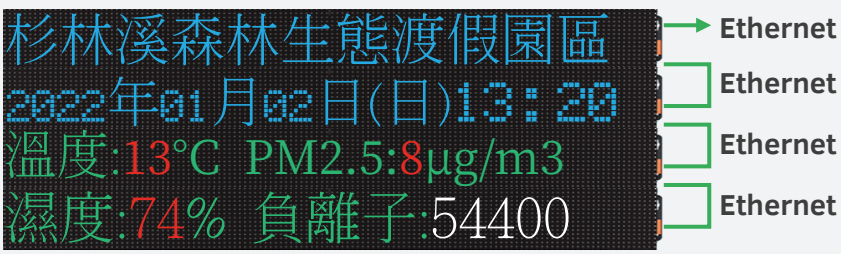
Industrial IoT Intelligent LED Display


## Standard Interface




## Connection to Multiple LED Displays


iKAN LED display has a built-in 2-port Ethernet switch, avoiding the costs of purchasing additional switches. This feature simplifies the task of wiring and maintenance, and achieves connection to multiple iKAN series LED displays.

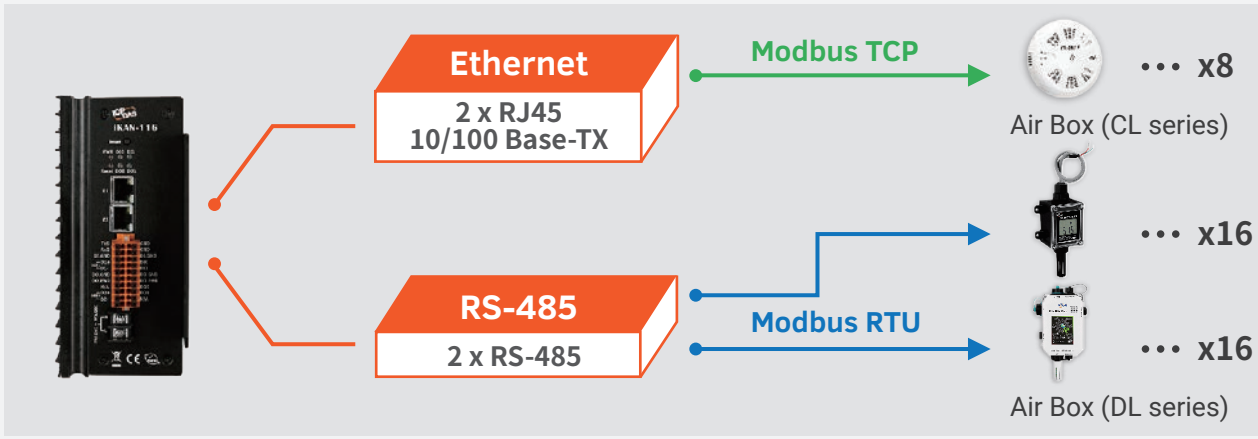


# iKAN Series

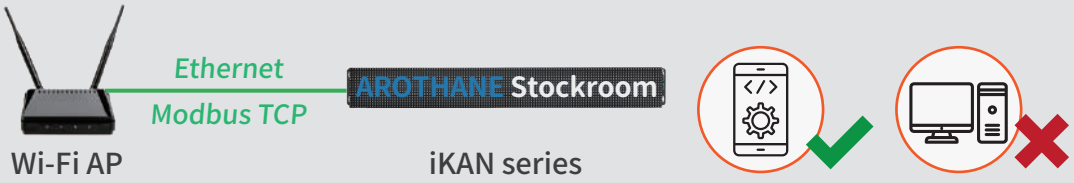
**Industrial IoT Intelligent LED Display**

## Display Data Detected by Air Box Modules with No Programming Required.

Connect up to 8 air box modules on an Ethernet network, and up to 32 air box modules on an RS-485 network.




## Various Configuration Options: Wireless Environment (Wi-Fi)



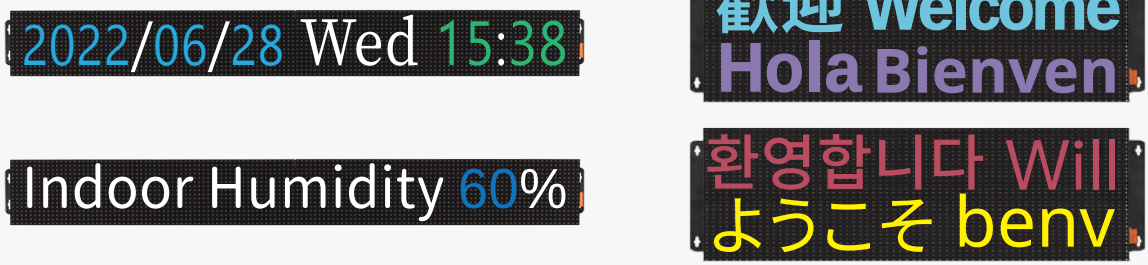

No computer or PLC is needed. Users can configure and operate the system using a mobile device as long as it connects to Wi-Fi.

## Ingress Protection


iKAN series is designed with an IP65 rating to meet industrial application requirements in harsh environments. The waterproof enclosure and protective connector interface are against ingress of dust and water, ensuring smooth operation of the equipment. Applications in practice: mines, construction sites, forest recreation areas, national parks, etc.

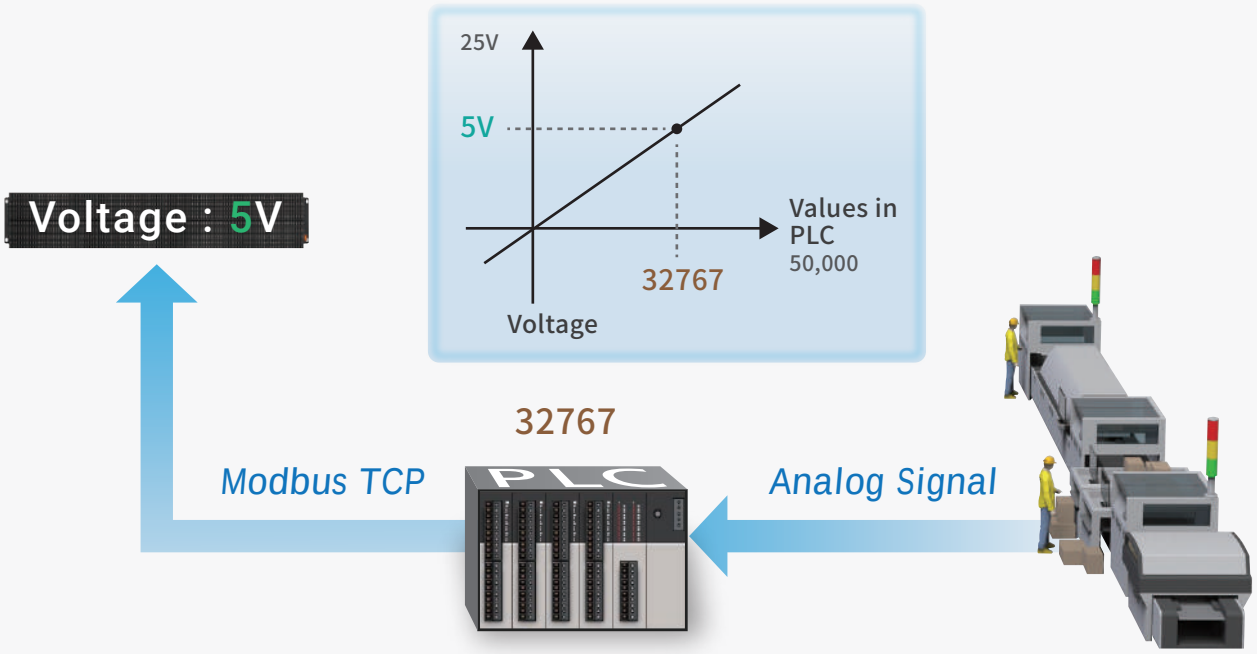
## Support 7 Languages and 7-color LEDs

- Built-in functions: real time clock, perpetual calendar
- Multi-language support: Chinese, English, Russian, Japanese, Korean, French, German, Italian, Spanish
- 7-color text available: red, yellow, blue, green, sky blue, purple, white
- Unicode font support




## Built-in function: numerical value conversion

- Modbus messages read back can be converted to corresponding numeric measurement values of current, voltage, temperature, etc.



## Support various communication interfaces & industrial communication protocols

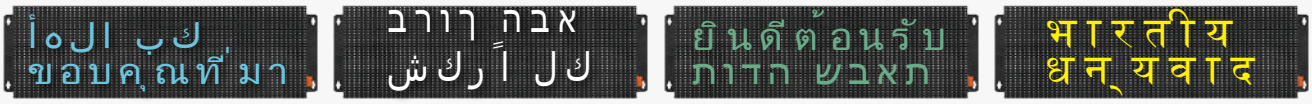
- Support Ethernet interface (RJ-45), RS-485, PROFIBUS, CANBus
- Support Modbus TCP Slave, Modbus RTU Slave, CANopen, CGI Command

## Offer Web-based Configuration Interface, Support Remote Operation via Mobile Phones and Tablets

- No PC or PLC required, easy setup via the mobile phone connection

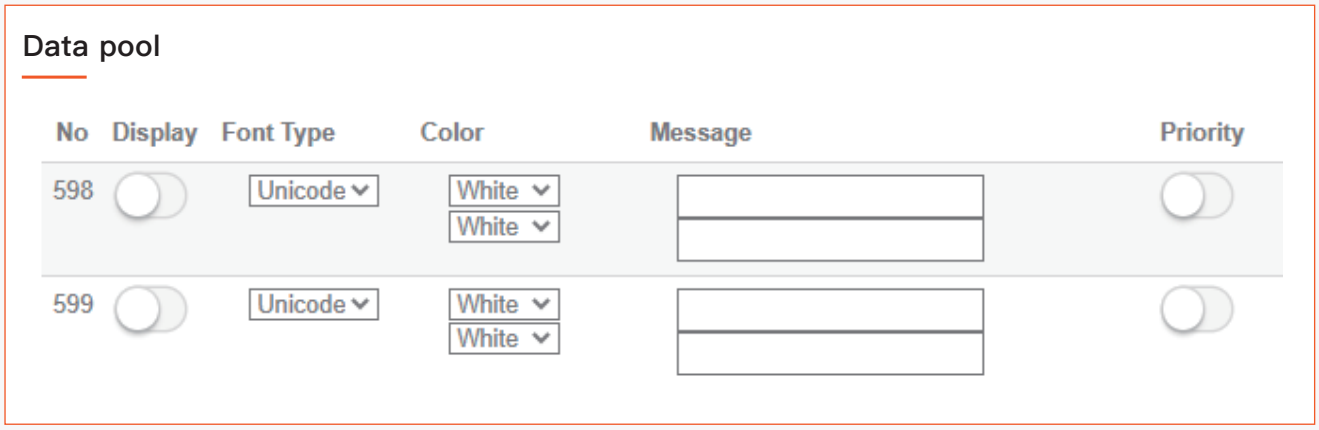
## Support TrueType Font Upload

- Support Thai, Arabic, Hebrew, and Hindi



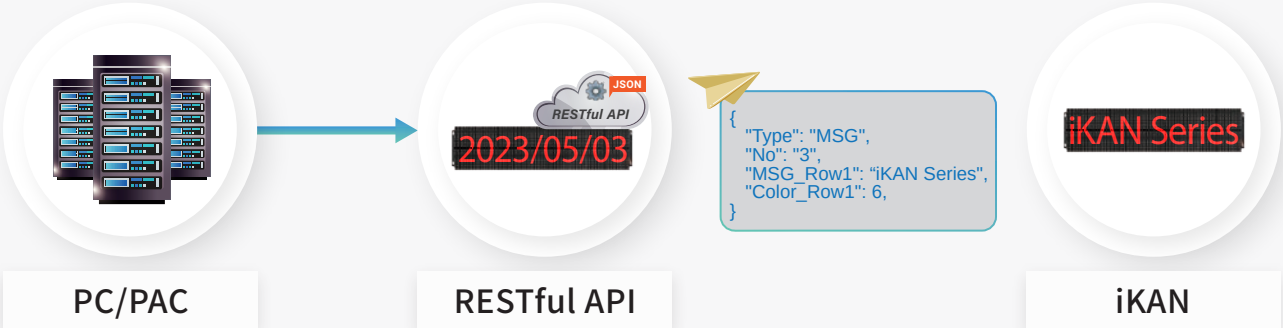

## Support 600 Built-in Messages

- Provide a database of up to 600 message settings for a variety of projects



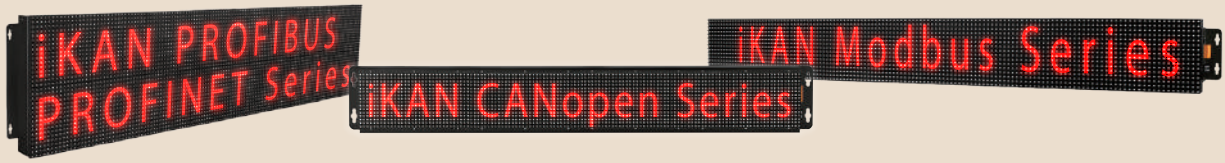

## Support RESTful APIs

- By using the RESTful APIs, users can directly edit iKAN messages and make changes to the configuration, i.e. messages displayed, variables, and system parameters.



# System Architecture

**Industrial LED Display** *Data transmission using various protocols*




**Communication Layer**

Modbus

**I/O Layer**

**I/O and Sensors**

M-7000 Series DL/CL Series

**Smart Power Meter**

PM-3000 / PM-2000 Series

*Data transmission via direct I/O connection*

**Communication Layer**

CANopen Modbus PROFINET PROFIBUS

**Control Layer**

| Edge Controller | Power Meter Concentrator | Controller | Software |
|---|---|---|---|
| WISE Series | PMC Series | PLC | SCADA |

**I/O Layer**

**I/O and Sensors**

M-7000 Series DL/CL Series

*Data transmission via the control layer*

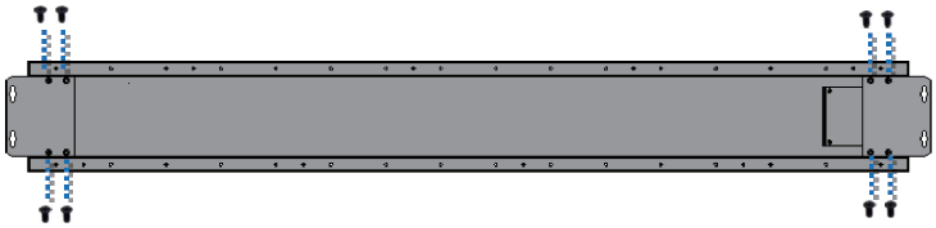
**Data Type**

| Water volume | Power | Temperature | Carbon dioxide | Carbon monoxide | Particulates | License plate recognition |
|---|---|---|---|---|---|---|
| | | | CO2 | CO | PM2.5 | |

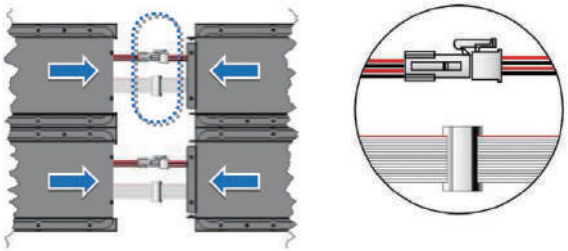
# Hardware Installation & Configuration


## iKAN Hardware Installation

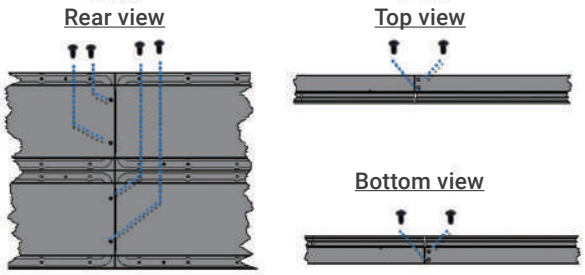
- Secure the metal wall mounting brackets on both sides of the iKAN series LED display with screws provided in accessories



- Connect the communication cables and power cables between the LED boards

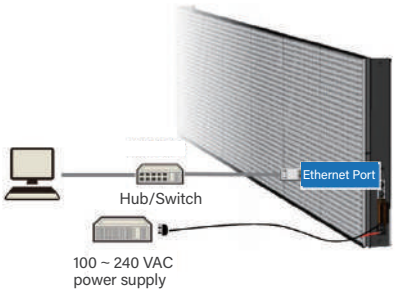


- Position the LED boards side by side and secure them using screws




## Configuration via the Web Interface

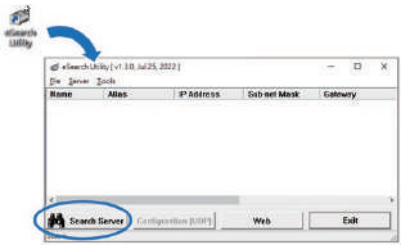
- Connect to the computer and power supply



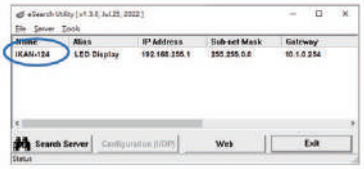

- Parameter settings via the web interface

Download eSearch Utility from ICP DAS official website
Default installation path
C:\ICPDAS\eSearch

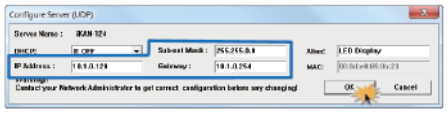
1. Execute eSearch.exe in the installation path and press the "Search Server" button




2. Double-click on the iKAN model searched by eSearch Utility to open the screen for settings




3. Input the parameters and click the OK button. The newly configured values will take effect after the automatic reset of iKAN (approx. a two-second wait)



## Operation Using Internet-connected Mobile Devices

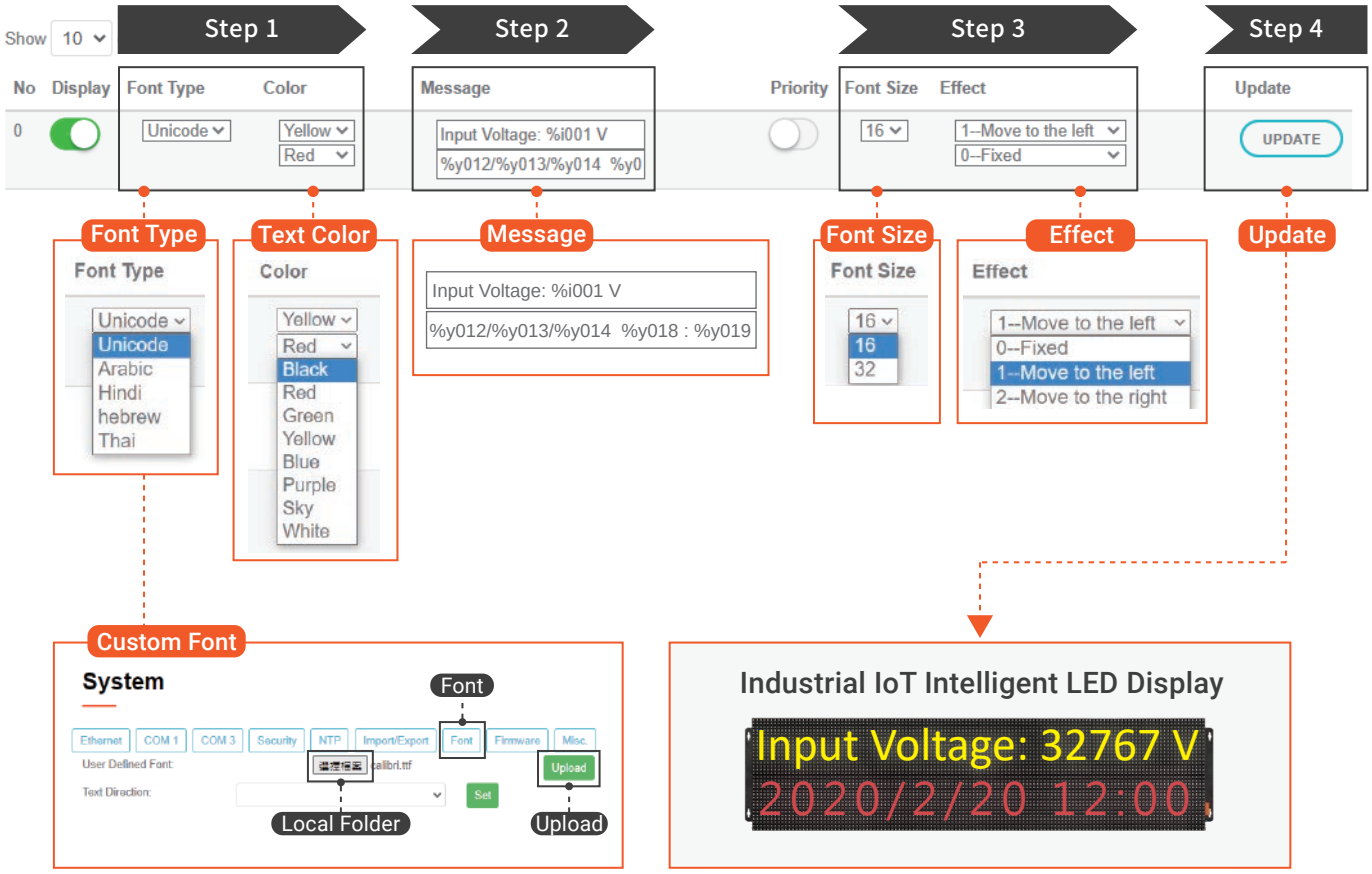
- Open a web browser and enter the IP address of your iKAN series LED display

http://10.0.9.248/

# Web-based Operation Interface

## Message Pool Settings

## Message Pool




## Mix-and-match Messages

**Font Sizes**
Text displayed in various sizes, each on a separate row

**7-color Text Display**
Red, green, yellow, blue, purple, light blue, and white

**Support Unicode/TrueType Fonts**
Text displayed in different fonts, each on a separate row

# Energy Management Solutions

ICP DAS provides WISE-5231M-4GE Edge Controller for IoT-enabled control and data transmission. PMC-5231 Power Meter Concentrator is deployed to process the energy data measured by PM-3133-MTCP Power Meter. The data is then sent to IoTstar - IIoT Cloud Management Software for field device management, data aggregation and visualization. Besides, IoTstar supports customizable cloud-based dashboards catering to specific applications.

IoTstar Bot Service

LINE SMS


## WISE-5231M-4GE

Intelligent IIoT Edge Controller
(Supports 4G wireless network)

ALM-04-MRTU
MP3 Alert module

ALM-Horn-MRTU
Piezo Transducer Alarm Siren

DL-1022
Data Logger Module (Air Box)

Check Zone A for access control anomaly

Check Zone B for water leak anomaly

iKAN-116S
Industrial IoT Intelligent LED Display


## IoTstar Dashboard

## PMC-5231

IIoT Power Meter Concentrator

PM-2133D-160P

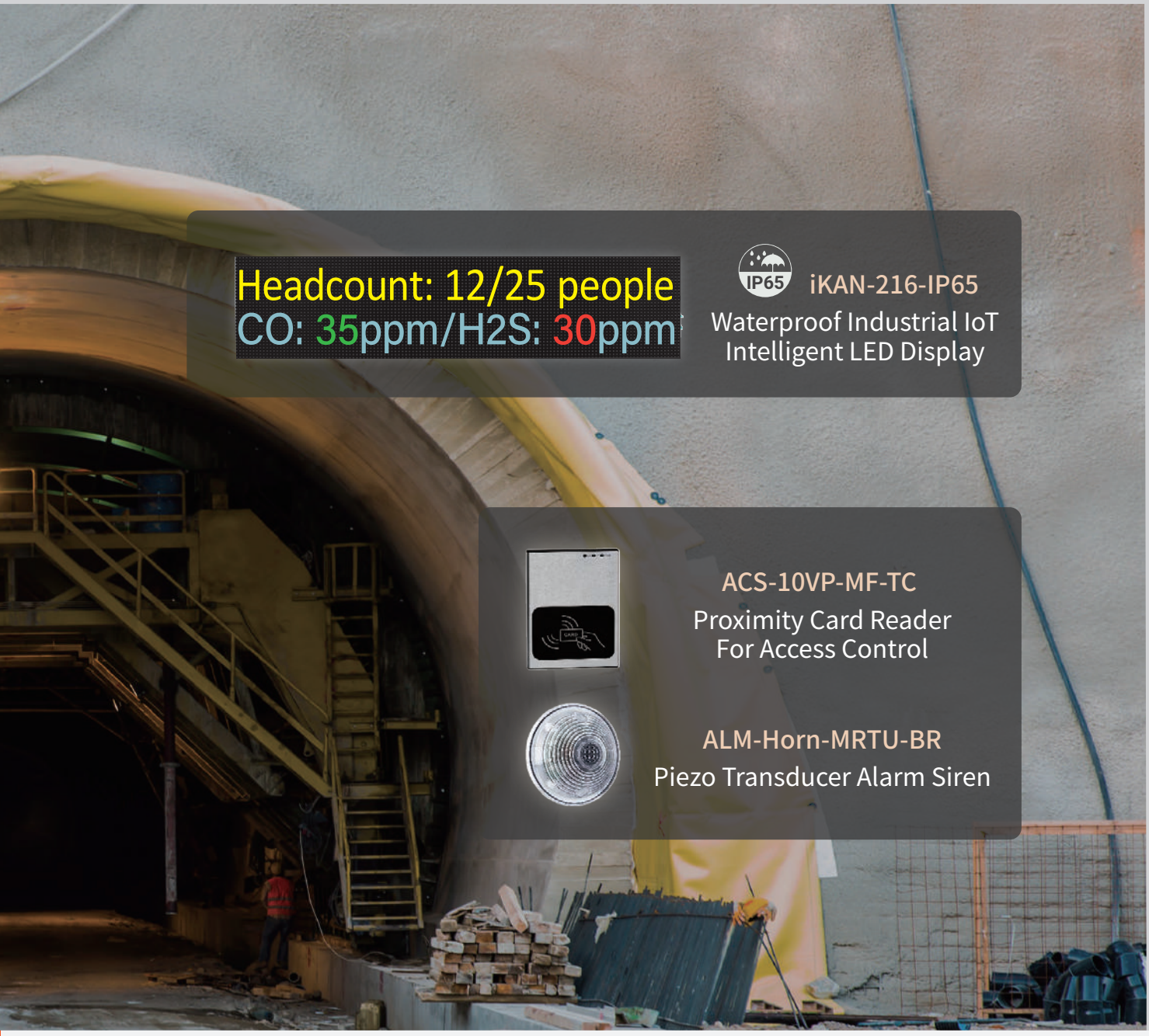
3-phase Smart Power Meter with LED Display

PM-3133-100P-MTCP

3-phase Smart Power Meter


# Harmful Gas Warning & Access Control in Construction Sites of Tunnel Projects

Tunneling involves risks such as ground collapse and harmful gas exposure, the primary safety concerns for construction workers. For example, high gas concentrations can render workers unconscious. Therefore, IoT technology is deployed to prevent such accidents. Industrial IoT Intelligent LED Display indicates gas concentration detected on-site for risk management and headcount.



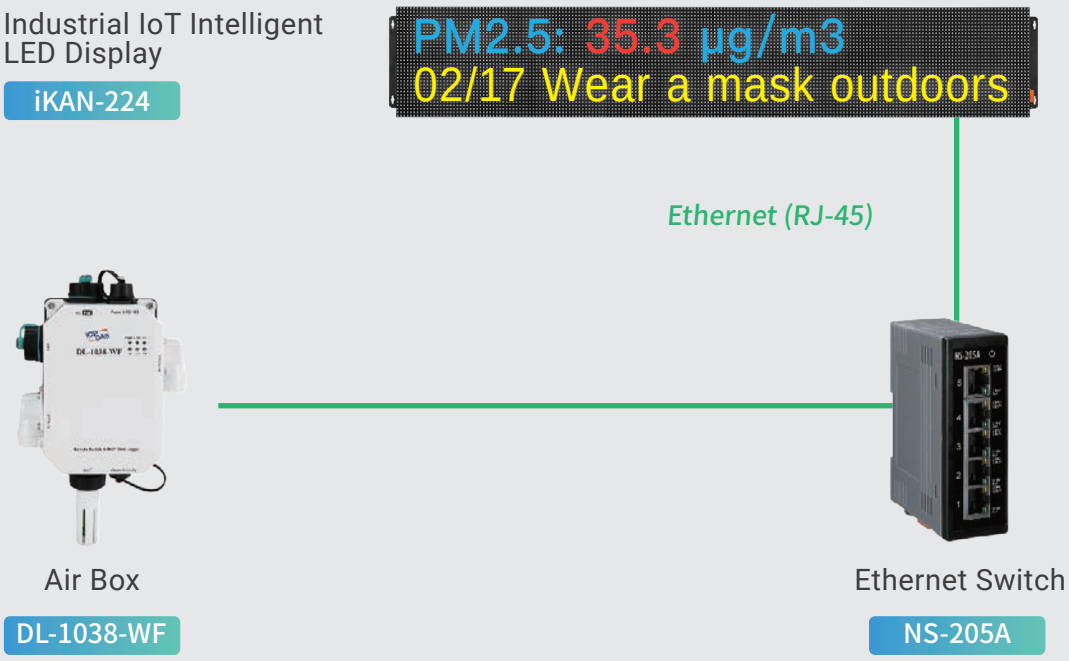

This case study involves “Data Visualization of Air Quality” and “Access Control” solutions. WISE-5231M-4GE Edge Controller controls signals and transmits data. DL/CL series Air Box Modules measure gas concentrations (CO, CO2, O2, H2S, SO2) in tunnels.

At the entry point, ACS Proximity Card Reader manages headcount and access control, while a dual-row iKAN series LED display shows current headcount and air quality data. Once readings exceed threshold values, Piezo Transducer Alarm Siren will raise the alarm on-site. Meanwhile, WISE Edge Controller sends alarm notifications to mobile devices, enhancing management efficiency.

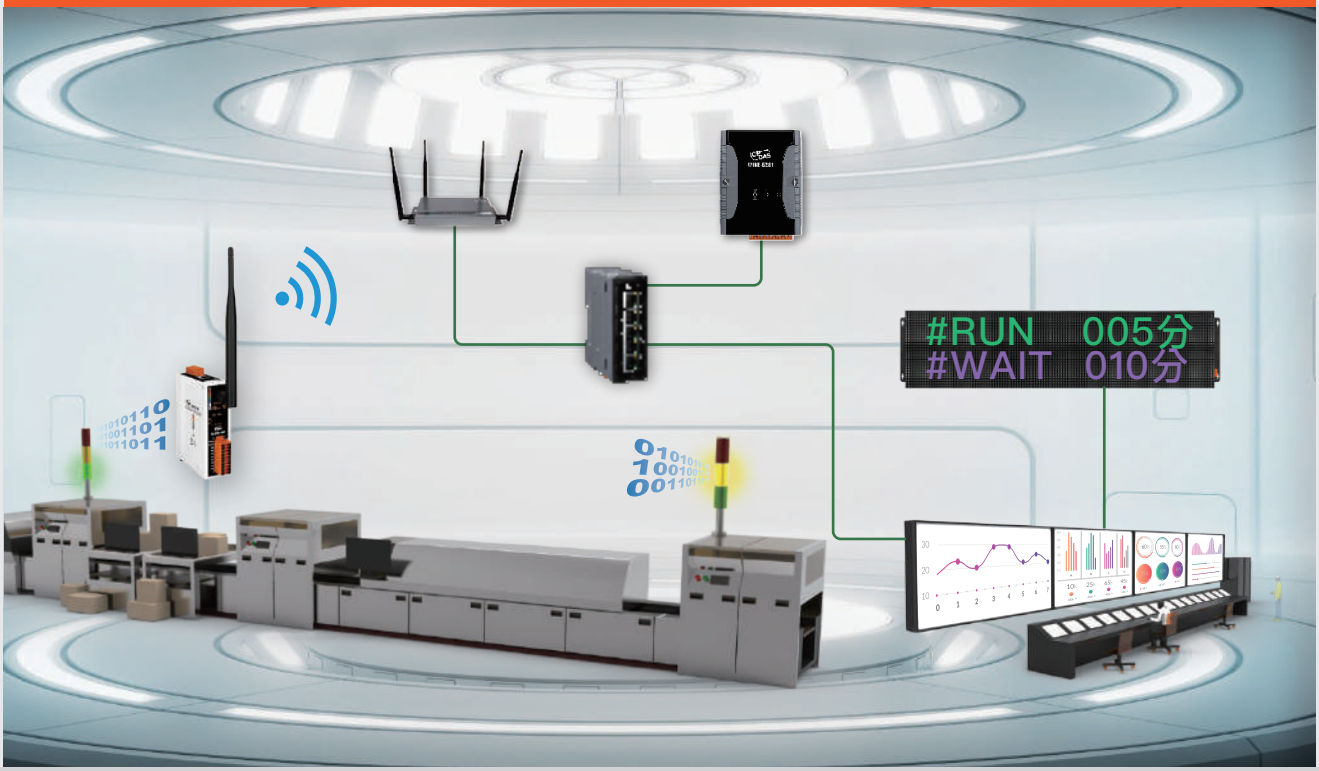
# Air Quality Monitoring Solution Applied in Meeting Rooms


iKAN series LED display can connect to a local area network to show real-time air quality data and meeting information. Besides, iKAN series can directly connect to DL/CL series Air Box Modules, displaying detected readings without additional settings.

| Air Quality Index (AQI) | Good | Moderate | Unhealthy for sensitive groups | Unhealthy for all | Very unhealthy | Dangerous |
|---|---|---|---|---|---|---|
| PM2.5(µg/m3) 24-hour Average | 0.0-15.4 | 15.5-35.4 | 35.5-54.4 | 54.5-150.4 | 150.5-250.4 | 250.5-350.4 |



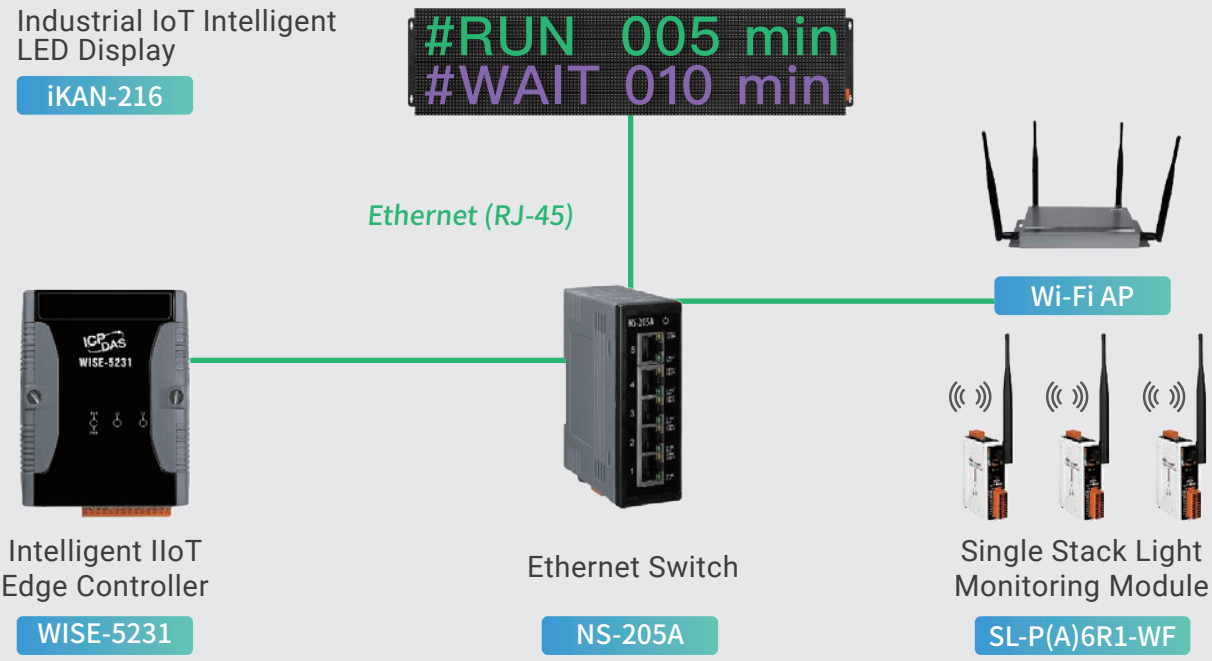
# Stack Light Monitoring with Wireless Solutions



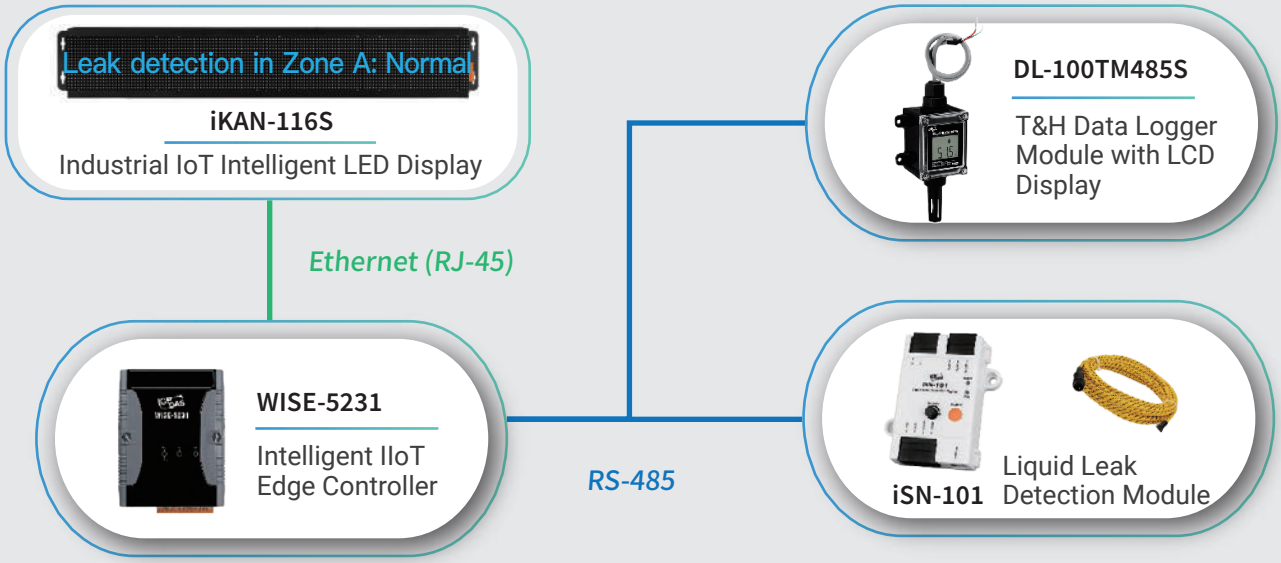

iKAN series LED display can integrate easily with PLC in manufacturing execution systems. It allows real-time display of stack light status, ambient temperature & humidity, and air quality to enhance capacity utilization.

Machine Utilization= Run Time/On Time
KPI=(RUN+LOST+TEST) Time/On Time

| RUN | LOST | TEST | MON | HOLD | WAIT | DOWN | PM | FAC |
|---|---|---|---|---|---|---|---|---|



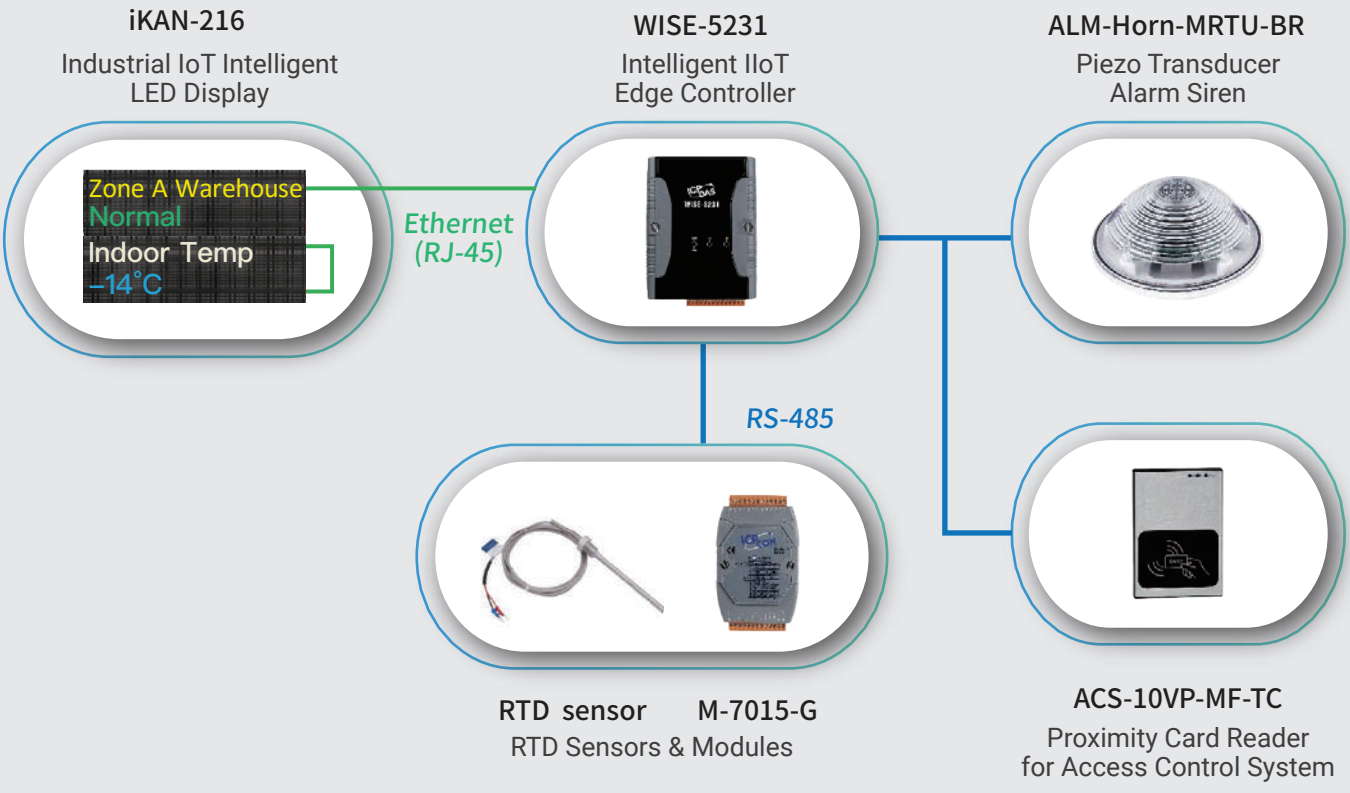
# Environmental Monitoring in Raw Material Warehouse - Warning Display in Public Spaces





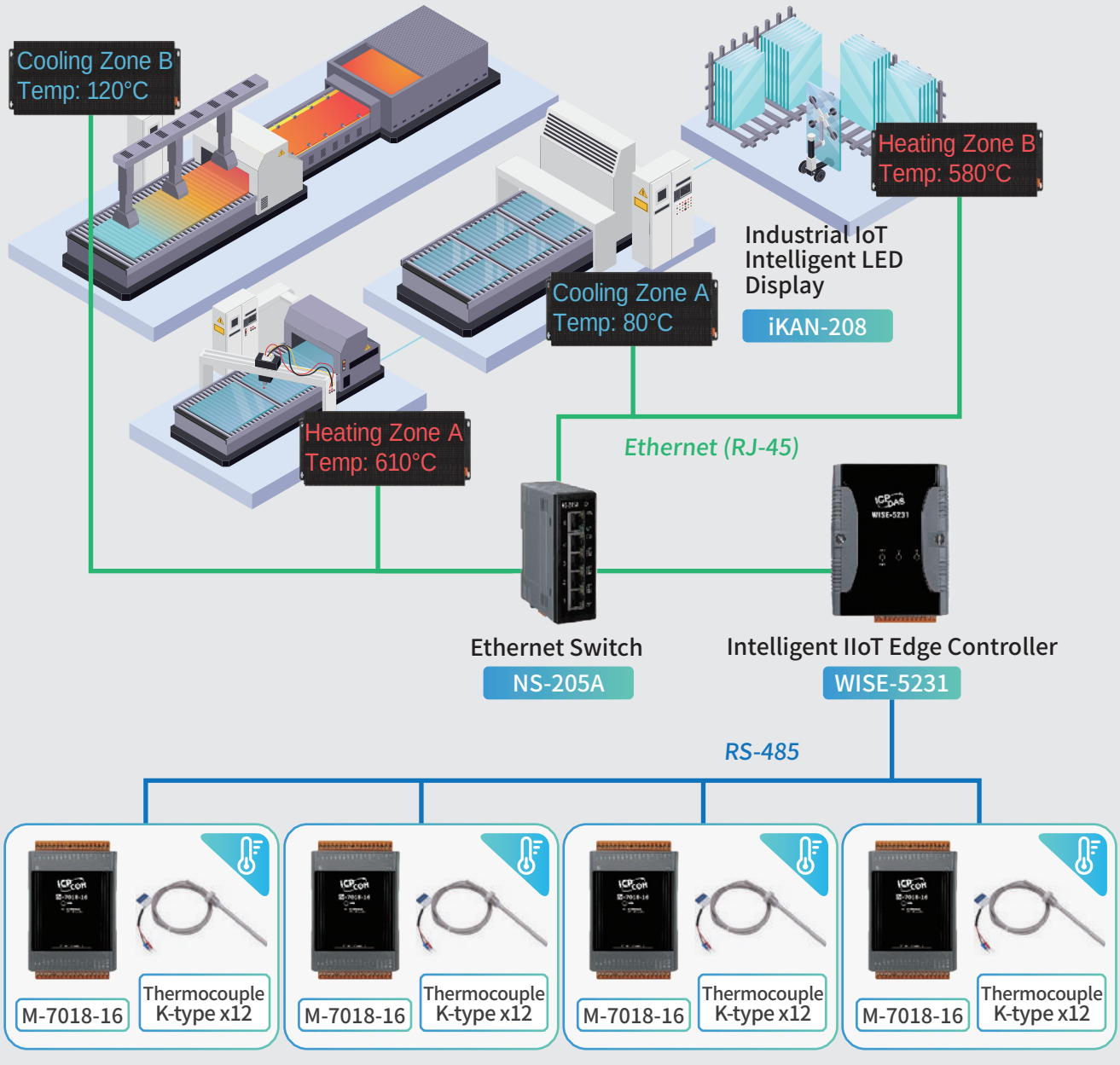
# Temperature Monitoring Solution for Cold Storage & Biotech Raw Material Storage

RTD sensors measure low temperatures, and are suited for deployment in cold storage warehouses and biotech raw material storage rooms. Through system integration, iKAN series LED display installed outside the storage rooms show measured temperatures. ALM-Horn Alarm Siren is activated by temperature anomalies. Proximity Card Reader enables access control and headcount display on the iKAN.



# Temperature Monitoring Solution for Tempered Glass Production

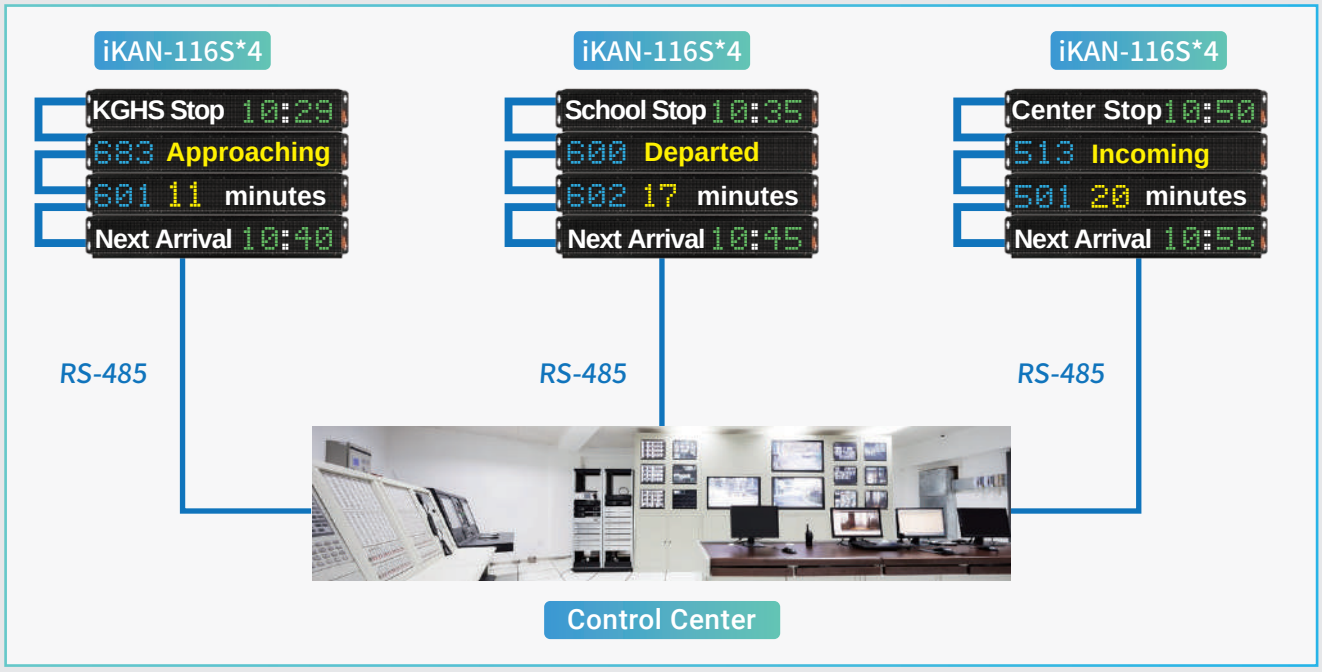
Tempered glass is produced by thermal treatments, exhibiting high strength. During manufacturing, the glass is conveyed by a roller table for heating and shaping. The glass is then cooled rapidly using jets of air. Hence, temperature monitoring at each stage is crucial.

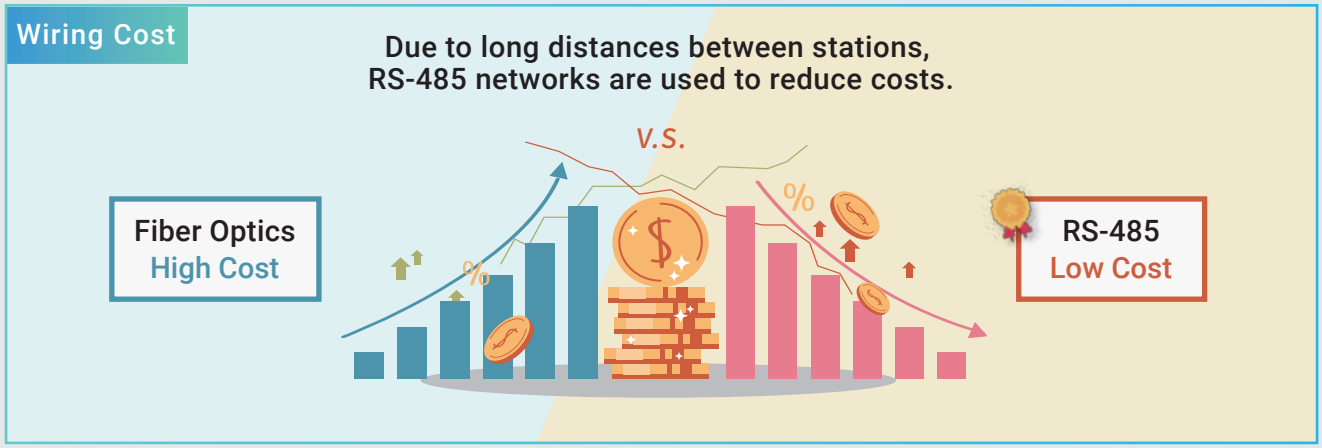


# LED Display for Shuttle Bus Transportation at T.S. Dream Mall


T.S. Dream Mall has 6 shuttle bus stations due to its vast park size. At each station, 4 iKAN-116S LED Display are installed and positioned parallel to one another. To avoid the high cost of fiber-optic cables, RS-485 networks are chosen for connecting to the control center. Messages in different fonts and colors are displayed on iKAN-116S using Modbus RTU, showing information such as time, location, and bus numbers at each station.

iKAN series LED display supports Unicode and ASCII characters, enabling configuring a particular parameter individually. Important information can be highlighted using a different font or color.

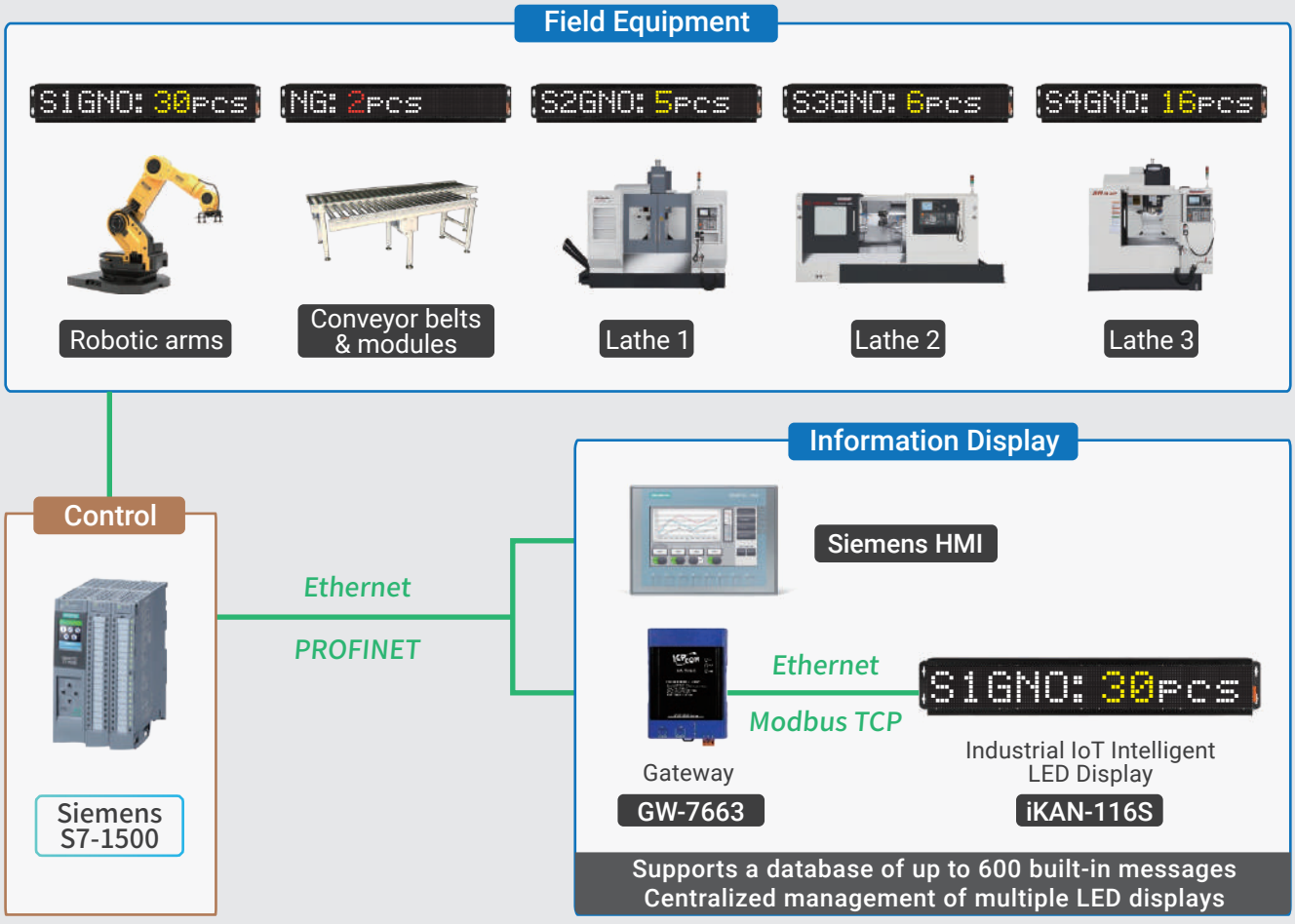



# Tailored Production Line for Aluminum Wheel Manufacturing

## Production Line KPI Display

The factory in India, with extensive floors, adopts robotic arms and Siemens PLC for aluminum wheel manufacturing. At first, the production line KPIs were planned to be shown on Siemens HMI. However, the HMI screens are too small, and thus the client chose a proactive reporting system instead. The system integrates ICP DAS GW-7663 PROFINET to Modbus TCP Gateway for communication between the Siemens PLC and ICP DAS iKAN-116S LED Display. iKAN-116S showing KPIs such as production capacity and status, machine failures, etc., keeps personnel and engineers posted. Besides, the client activates iKAN' s Watchdog Timer function. Once disconnection between the PLC and iKAN is detected, warning messages are shown on iKAN screens to prevent misinterpretation of information and improve production efficiency.




## Malls and Public Places

## Air Quality Data Display

PM2.5 : 14.1 (ug/m³) Visitors : 131
Max. visitor numbers : 500

IP65 Dual-row & waterproof Industrial IoT Intelligent LED Display

iKAN-224-IP65

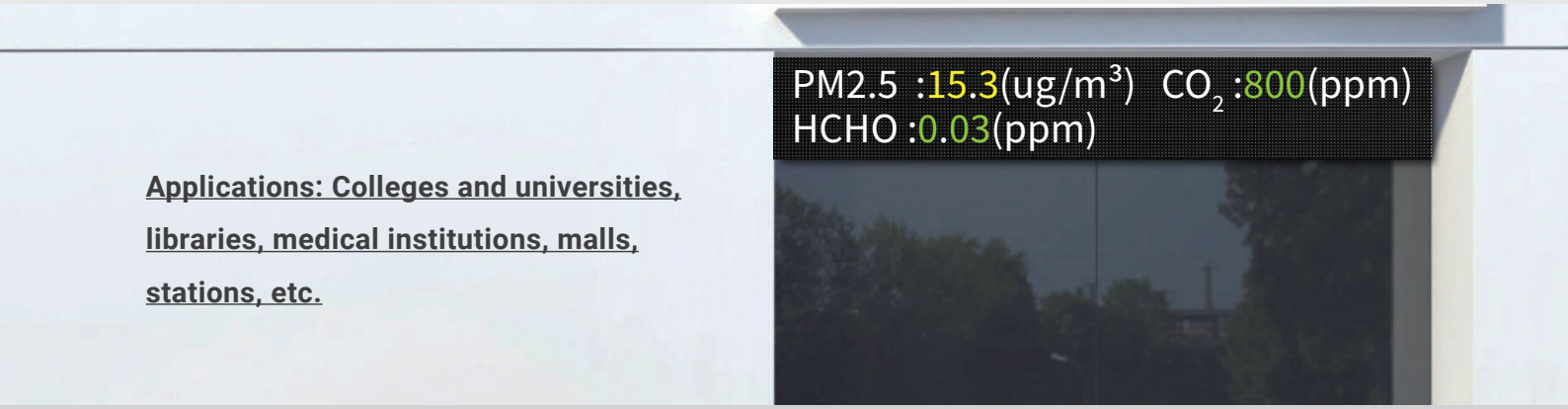
Ethernet (RJ-45)

***No need for a controller***

iKAN LED display features built-in connectivity to the air box modules without needing a master. Its web-based configuration enables the display of real-time readings obtained from air box modules on both iKAN and web interface, greatly saving time and effort.

Air Box
Particle PM1/2.5/10, CO, CO2, TVOC

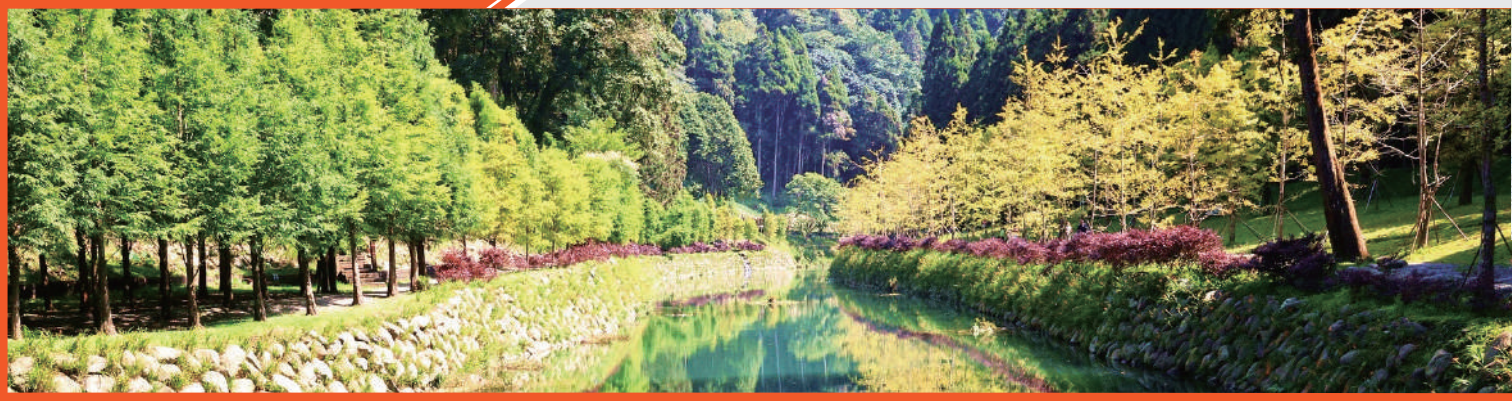
DL-1038




**Applications: Colleges and universities, libraries, medical institutions, malls, stations, etc.**

The COVID-19 outbreaks lead to increasing public safety awareness and formulation of relevant regulations. Hence, information such as visitor numbers, room capacity, and indoor air quality data (CO, CO2, HCHO, and PM1/2.5/10) are displayed at specific public places. iKAN series LED display meets the demands by showing scrolling messages and connecting to DL-1000 series Air Box Modules, enabling real-time monitoring of indoor air quality and ensuring compliance with safety standards.

Note: According to Article 5 of the Indoor Air Quality Management Regulations set by the Environmental Protection Administration of the Taiwan Government, indoor areas with a size less than or equal to 2,000 square meters require a minimum of 5 inspection points for air quality, i.e., at least 5 air quality sensors need to be installed.



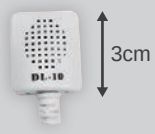
# Sun-Link-Sea Vacation Resorts

## Air Quality Data Display, Interactive Web Interface

In a post-COVID world, domestic travel in Taiwan has been strong, with visitors flocking to tourist attractions across the island.
In this case, the client deploys iKAN series LED displays to show environmental data detected parkwide. Integration with M-7017Z-G Analog Input Module with High Voltage Protection to process data obtained from negative ion concentration sensors and other environmental monitoring sensors. This setup prevents the discharge of static electricity to the connected modules at the back end.
Since the entire park uses Ethernet networks, tGW-715 gateway is employed to convert the RS-485 interface of M-7017Z into an Ethernet interface for data transmission. The system integrates with WISE-5231 IIoT Edge Controller to configure message display according to the preset logic rules. In this way, visitors can view data on air quality, negative ion concentrations, temperature & humidity at a glance. Moreover, iKAN features a new function - RESTful API which uses JSON to configure the parameters of the LED display. This allows for tailored landing page designs and interactive elements.

## ICP DAS Products for Environmental Monitoring

**Environmental Monitoring Modules** — *Air Quality Monitoring | T&H. Monitoring | Gas Monitoring*

| DL-10 series | DL-100 series | DL-300 series | DLW-1000 series |
|---|---|---|---|
|  |  |  |  |
| ▪ Magnetic Mount<br>▪ T&H.<br>▪ Server Room Monitoring | ▪ LCD Display<br>▪ T&H. / Dew Point<br>▪ IP66 Protection<br>▪ Use in Harsh Environments | ▪ LCD Color Touch Screen<br>▪ T&H. / Illuminance<br>▪ Measures CO/$CO_2$/ HCHO Concentration<br>▪ Use in Indoor Environment Monitoring | ▪ Mini Weather Station with IP54 Ventilation Fan Design<br>▪ Wind Speed & Direction / T&H. / Rainfall / Illuminance / Atm. / PM2.5 |


## Sun-Link-Sea Hotel

IP65 Four-row & waterproof
Industrial IoT Intelligent LED Display

**iKAN-424-IP65**

Ethernet (RJ-45)

Ethernet Switch
**NS-205A**

Intelligent IIoT
Edge Controller
**WISE-5231M**

### Interactive app for visitors



## Songlong Rock Waterfall

IP65 Waterproof Industrial IoT
Intelligent LED Display

**iKAN-124-IP65**

Ethernet (RJ-45)

Ethernet Switch
**NS-205A**

Ethernet (RJ-45)

IP65 Waterproof Industrial IoT
Intelligent LED Display
**iKAN-124-IP65**

Gateway
**tGW-715**

RS-485

Voltage Input Module
**M-7017Z-G**

0-2V

**Negative Ion Sensor**

Gateway
**tGW-715**

RS-485

T&H. Data Logger
**DL-100TM485S**

PM2.5 Sensor
**DL-1020**

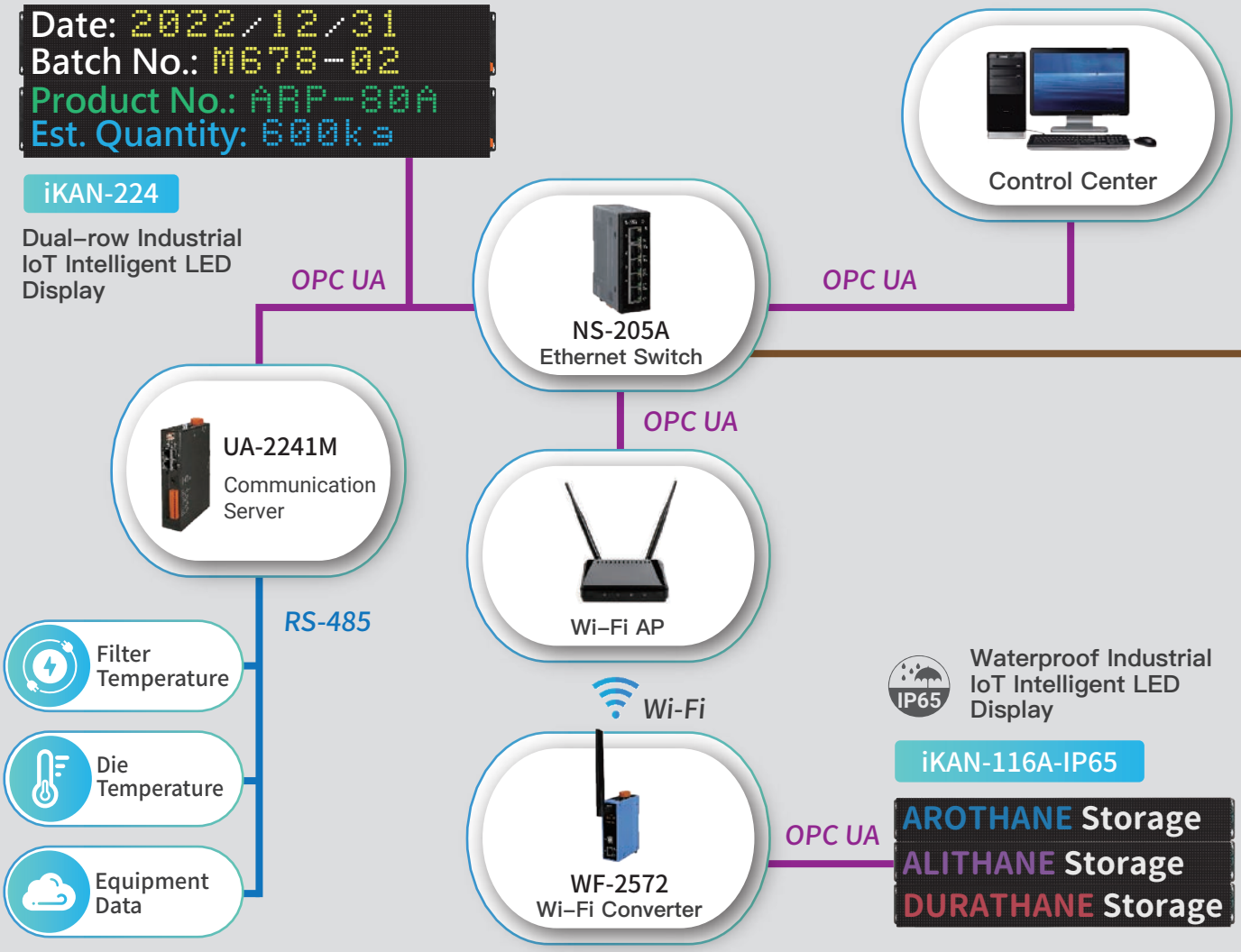

## Visitor Center


# Medical-Grade Thermoplastic Polyurethane (TPU) Manufacturing

## Manufacturing Data Display

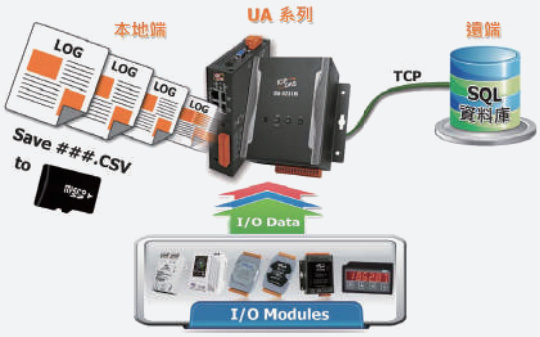
ICP DAS - BMP, a medical-grade TPU manufacturer, adjusts various parameters according to the formulations. The data displayed on HMI devices is small and hard to read across the plant. Thus, iKAN-224 dual-row LED display comes in useful by showing manufacturing KPIs and scrolling alert messages in each row.

The entire factory floor uses OPC UA architecture for data collection and transmission. UA-2241M IIoT Communication Server is deployed to process data from the RS-485 devices (Modbus RTU). Subsequently, the data is transmitted through an unmanaged ethernet switch. iKAN-224 then displays the data, enhancing accessibility and readability of KPIs on site.

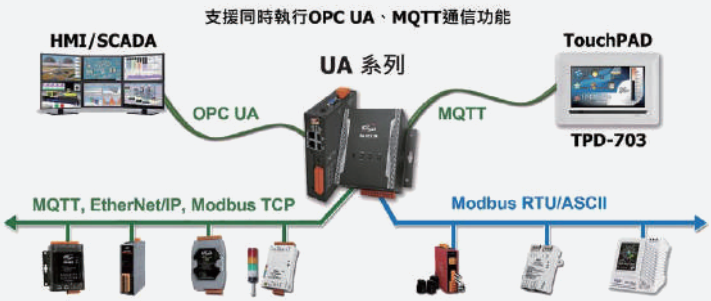


# Advantages of Using OPC UA in Medical-Grade TPU Production Lines

- I/O data collected can be directly imported into log files and a remote database

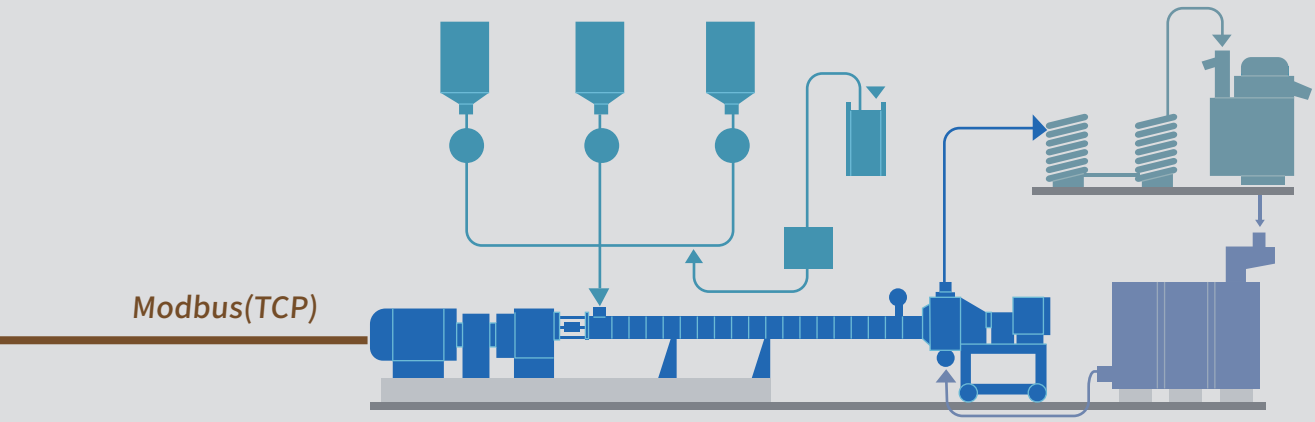



- Support Ethernet and Serial communication modules




- Built-in OPC UA Server service
- Support MQTT Broker/Client service
- Provide proactive data transmission
- Support authentication
- Support data encryption
- Support cloud-based logic control, IFTTT, and APP notifications

# Automated Data Collection in Smart Factory




Industrial Injection Molding Machine

Production Line 1

Raw Material Processing | Screw Control | Mixing & Polymerization | Underwater Pelletizing

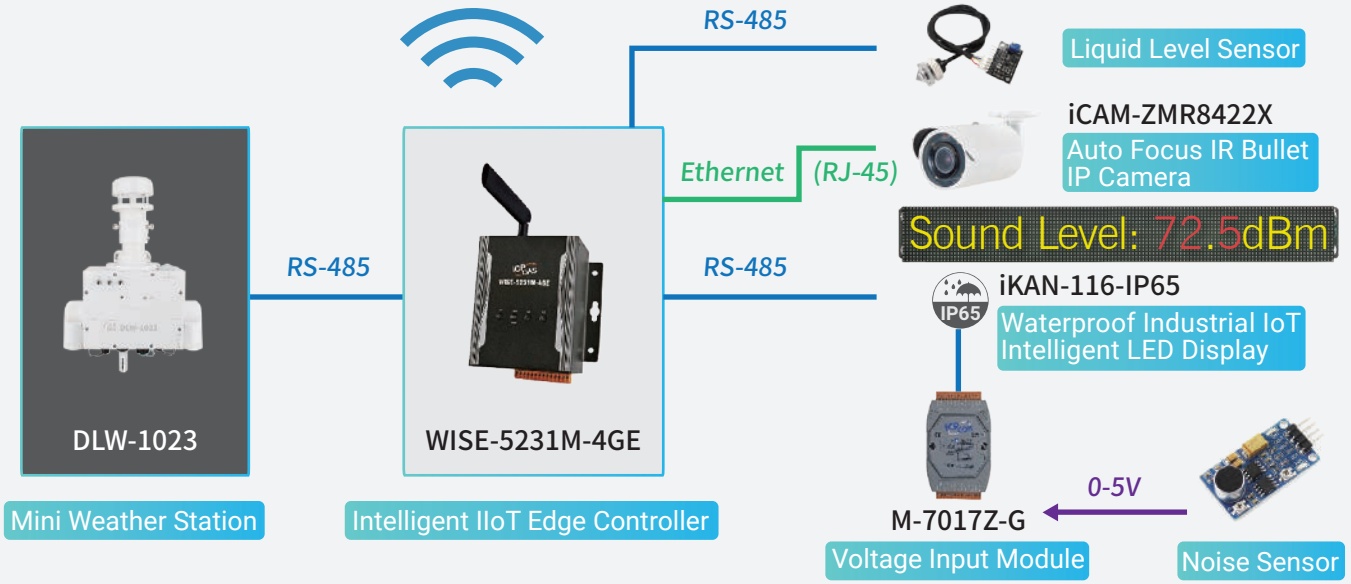
Tank Level (A) | Tank Level (B) | Tank Level (C) | Rotational Speed (Zone A) | Rotational Speed (Zone B) | Temp (Part A) | Temp (Part B)


# Construction Noise & Level Monitoring Solution

Construction noise levels vary between stages, with sources coming from different machinery and activities. In this case, DLW-1023 Mini Weather Station, CCTV, and real-time noise monitoring equipment are installed at the entry point and exit of the construction site. iKAN LED display shows data on noise, liquid level, air quality, wind direction, rainfall, etc., in real time. Besides, the data is uploaded to the cloud through WISE-5231M-4GE. Using IoTstar- IIoT Cloud Management Software, a customized monitoring dashboard can be created, and real-time notifications can be sent to the right personnel via the LINE app.

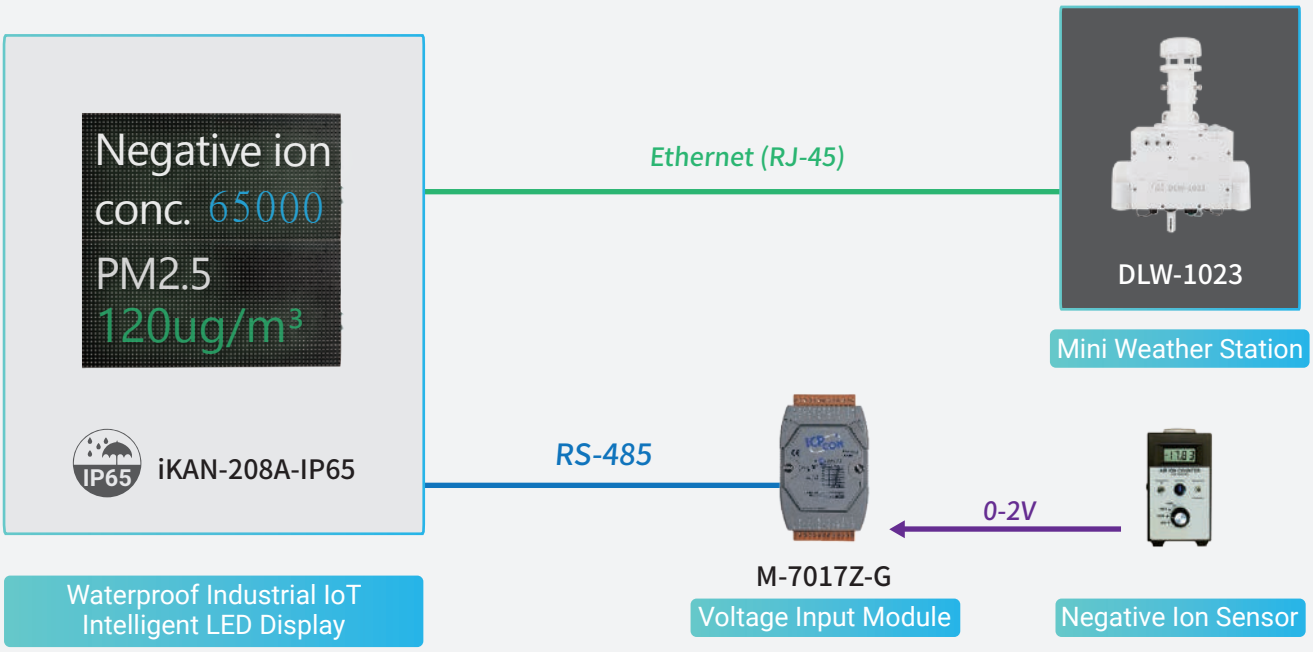

## Smart Monitoring & Data Visualization

## Groundwater Level Detection




# Hotel Environment Air Quality Monitoring Solution

Public awareness of environmental safety has increased with the global outbreak of COVID-19. This is evident in visitors now paying more attention to the air quality of crowded places such as resorts. ICP DAS DLW-1XXX Mini Weather Station monitors meteorological conditions and air quality data, including temperature, humidity, CO, CO2, HCHO, negative ion conc., PM1/2.5/10, etc. Integration with WISE-5231M-4GE Edge Controller and iKAN LED display allows data display on the LED board, making management tasks easier and the environment safer.




**Hotel Environment Air Quality Monitoring Solution:**

- **Sensor data visualization**
- **Vertical integration and easy expansion**
- **Direct connections between sensors and Industrial IoT LED Display, presenting measured values**

The waterfall design of the swimming pool creates height difference, generating huge amounts of negative ions through air friction when water splashes collide with rocks. This allows visitors to enjoy the fresh air in the hotel. In this project, negative ion sensors and DLW Mini Weather Stations are installed to collect air quality data, and the use of the iKAN LED display visualizes measured values for visitors.


# LED Parking Lot Signs

Parking operators are now introducing IoT-enabled devices and automated parking systems to reduce the need for human resources. Applications include access control, display of directions and spaces available for each level, emergency communication systems, and equipment monitoring.

- **IoT Switch provides IoT devices with a schedule management function. For example, power on/off scheduling, IP address access management, etc.**
- **iKAN LED display offers the functions of scheduled messages based on triggers, real-time display of messages, and easy configuration via a web-based interface.**
- **ICP DAS provides a variety of PACs with built-in operating systems such as Windows, WinCE, and Linux for development.**
- **IoT devices offer a high degree of integration capabilities. For example, ToF parking detection modules, multilingual voice alert devices, high-brightness buzzers, air boxes, etc.**

## Automatic Boom Barriers & IoT Systems




iKAN-508


iKAN-216A

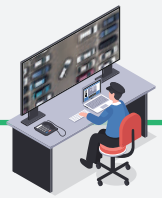
Industrial IoT Intelligent LED Display

LP-8421
Programmable Automation Controller

LPR Cameras

e-Tag Readers

Ethernet (RJ-45)



Ethernet (RJ-45)

iNS-306 IoT Switch

Control Center

MSM-508 Managed Switch

RS-485

## Air Quality Monitoring & Surveillance

iCAM-ZMR8422X
Auto Focus IR Bullet IP Camera

DL-1038 Air Box
PM1/2.5/10/CO/CO2/TVOC/ Temp/Humidity/Dew Point

## Indoor Emergency Communication Systems

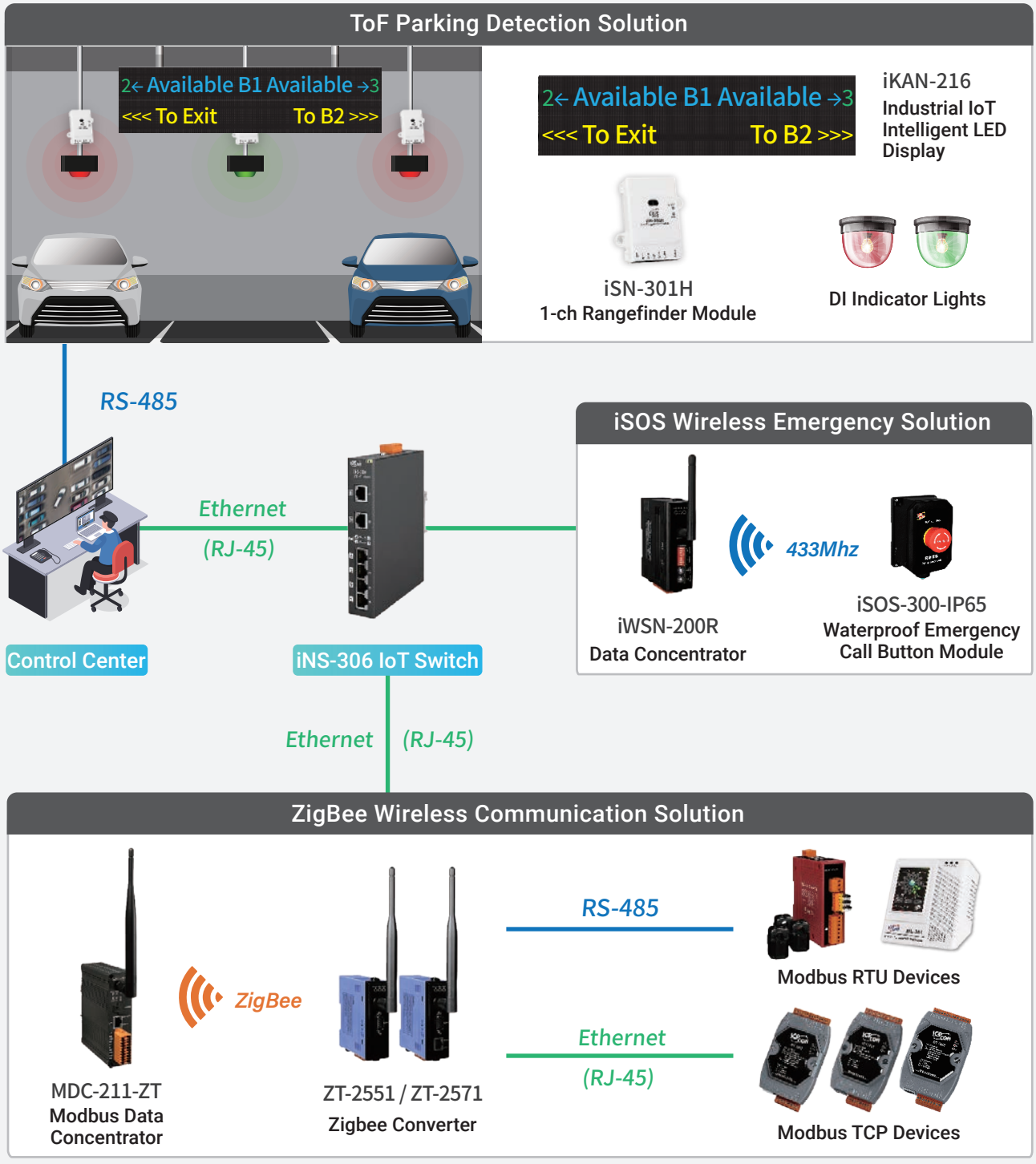
iSOS-109 + SP-S2-DS
Wireless Emergency Call Button + Indoor Light Charging

ALM-Horn-MRTU-BR
Piezo Transducer Alarm Siren

# iKAN x ZigBee Wireless Solution — Real-time Display of Parking Spaces Available

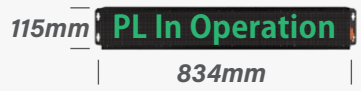
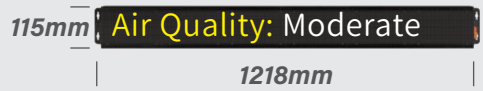
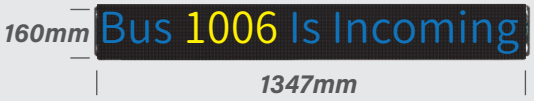
The solution saves wiring effort across the parking lots. ICP DAS Zigbee series - Modbus High-speed Data Concentrator processes Modbus messages collected by each group of modules.

**MDC-211-ZT ZigBee Modbus Data Concentrator works with ZT-2XXX series modules, connecting Modbus RTU devices and ZigBee I/O modules widely dispersed across parking lots to the Ethernet through simple configuration. This solution enables users to build a remote monitoring system quickly.**

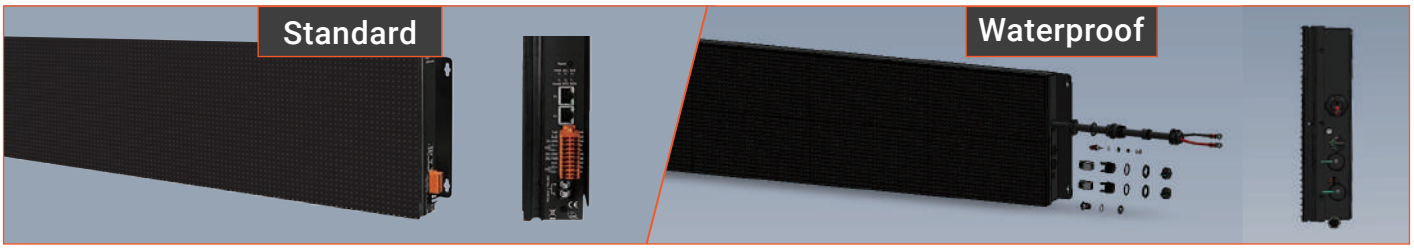


# iKAN Selection Guide

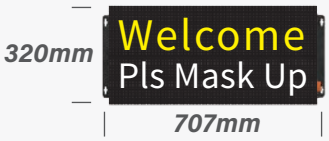
ICP DAS offers industries a holistic range of the iKAN series – Industrial IoT Intelligent LED Display – in different sizes. The design combines ruggedness, easy installation, and the optional IP65 protective casing for outdoor applications. The series ensures smooth data display and improves operational efficiency.

| iKAN-1XX Series | Modbus iKAN Series |
|---|---|
|  | **iKAN-116S**<br>Single-row 8/16 Characters |
|  | **iKAN-124S**<br>Single-row 12/24 Characters |
|  | **iKAN-116、iKAN-116A**<br>Single-row 8/16 Characters |
|  | IP65<br>**iKAN-116-IP65、iKAN-116A-IP65**<br>Single-row 8/16 Characters |
|  | **iKAN-124、iKAN-124A**<br>Single-row 12/24 Characters |
|  | IP65<br>**iKAN-124-IP65、iKAN-124A-IP65**<br>Single-row 12/24 Characters |

## Communication Interface

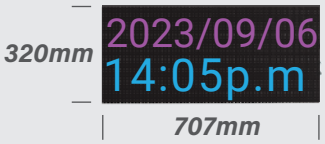



**iKAN-2XX Series** | *Modbus iKAN Series*



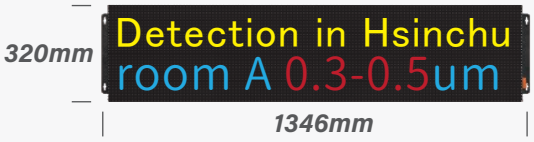

### iKAN-208、iKAN-208A

Dual-row 4/8 Characters



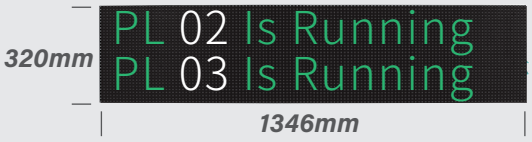

### iKAN-208-IP65、iKAN-208A-IP65

Dual-row 4/8 Characters




### iKAN-216、iKAN-216A

Dual-row 8/16 Characters

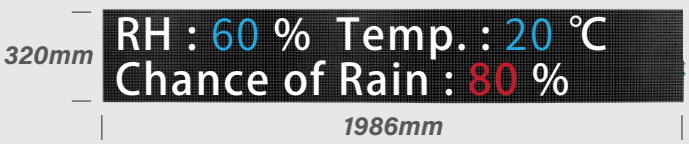



### iKAN-216-IP65、iKAN-216A-IP65

Dual-row 8/16 Characters


### iKAN-224、iKAN-224A

Dual-row 12/24 Characters




### iKAN-224-IP65、iKAN-224A-IP65

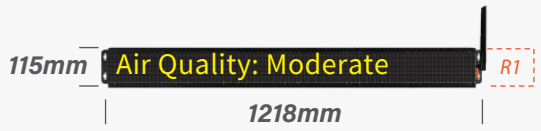
Dual-row 12/24 Characters

# iKAN Selection Guide

ICP DAS offers industries a holistic range of the iKAN series – Industrial IoT Intelligent LED Display – in different sizes. The design combines ruggedness, easy installation, and the optional IP65 protective casing for outdoor applications. The series ensures smooth data display and improves operational efficiency.

## iKAN Special Model

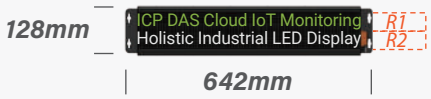
Modbus iKAN Series




Wi-Fi

### iKAN-124S-WF

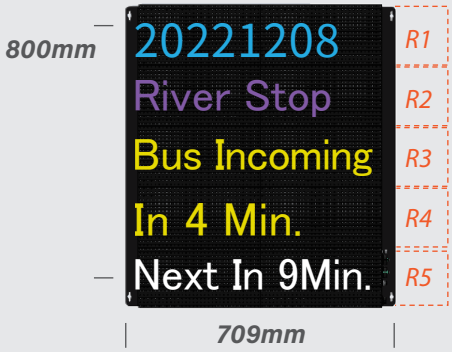
Single-row 12/24 Characters




tiny

### iKAN-224t

Dual-row 12/24 Characters




IP65

### iKAN-508A-IP65

Five-row 4/8 Characters


IP65

### iKAN-424A-IP65

Four-row 12/24 Characters

IP65

### iKAN-248A-IP65

Dual-row 24/48 Characters

# iKAN Selection Guide

## Model Name

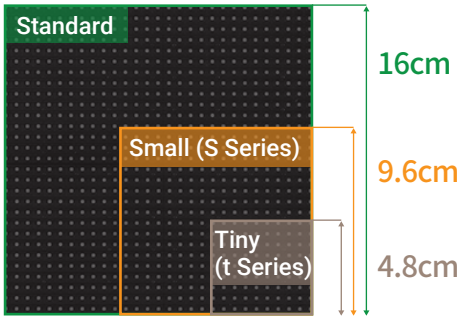
iKAN- [1] [08] [S] [A] - [PFB] - [IP65]

| Row | Character | Board Size | RoHS | Protocol | Waterproof |
|---|---|---|---|---|---|
| 1: 1 Row<br>2: 2 Rows | 08: 8 CHR<br>16: 16 CHR<br>24: 24 CHR<br>48: 48 CHR | Null: Standard<br>S: Small<br>t: Tiny | A: N.A.<br>Null: Compliant | Null: Modbus<br>PFB: Modbus + PROFIBUS<br>PFN: Modbus + PROFINET<br>CPS: Modbus + CANopen<br>WF: Modbus + Wi-Fi | Null: N.A<br>IP65: IP65 |

## LED Light Brightness

| | A Series | Standard Series | S Series | t Series |
|---|---|---|---|---|
| Pixel Pitch (mm) | 10 | 10 | 6 | 3 |
| Brightness (cd/m2) | Max. 4200 | Max. 3400 | Max. 2100 | Max. 5000 |
| Scan Mode | 1/4 Scan | 1/8 Scan | | |
| Power Input | DC 5V | 100~240 VAC | | |
| RoHS | No | Yes | | |

## Board Size




## Modbus iKAN Display (RoHS Compliant)

*Modbus iKAN Series*

| | Mechanical Data | | | | | Communication Interface | |
|---|---|---|---|---|---|---|---|
| Model | Row | Character | Board Size | Dimensions (mm) (W x H x D) | Weight | Ethernet | COM Ports |
| iKAN-116 | 1 | 16 | Standard | 1346x160x49 | 4 Kg | Modbus TCP Slave<br>Max. 8 connections<br>Web-based operation interface<br><br>2 x RJ-45, 10/100 Base-TX | RS-485 x2 |
| iKAN-116S | 1 | 16 | Small | 834x115x37.5 | 2 Kg | | |
| iKAN-124 | 1 | 24 | Standard | 1986x160x49 | 4.6 Kg | | |
| iKAN-124S | 1 | 24 | Small | 1218x115x37.5 | 2.5 Kg | | |
| iKAN-208 | 2 | 8 | Standard | 707x320x50 | 4 Kg | | |
| iKAN-216 | 2 | 16 | Standard | 1346x320x49 | 8 Kg | | |
| iKAN-224 | 2 | 24 | Standard | 1986x320x49 | 12 Kg | | |
| iKAN-116-IP65 | 1 | 16 | Standard | 1346x160x49 | 4 Kg | | |
| iKAN-124-IP65 | 1 | 24 | Standard | 1986x160x49 | 4.6 Kg | | |
| iKAN-208-IP65 | 2 | 8 | Standard | 707x320x50 | 4 Kg | | |
| iKAN-216-IP65 | 2 | 16 | Standard | 1346x320x49 | 8 Kg | | |
| iKAN-224-IP65 | 2 | 24 | Standard | 1986x320x49 | 12 Kg | | |

## Modbus iKAN Display (Non RoHS Compliant)

Modbus iKAN Series

| | Mechanical Data | | | | | Communication Interface | |
|---|---|---|---|---|---|---|---|
| Model | Row | Character | Board Size | Dimensions (mm) (W x H x D) | Weight | Ethernet | COM Ports |
| iKAN-116A | 1 | 16 | Standard | 1346x160x49 | 4 Kg | Modbus TCP Slave Max. 8 connections Web-based operation interface<br><br>2 x RJ-45, 10/100 Base-TX | RS-485 x2 |
| iKAN-124A | 1 | 24 | Standard | 1986x160x49 | 4.6 Kg | | |
| iKAN-208A | 2 | 8 | Standard | 707x320x50 | 4 Kg | | |
| iKAN-216A | 2 | 16 | Standard | 1346x320x49 | 8 Kg | | |
| iKAN-224A | 2 | 24 | Standard | 1986x320x49 | 12 Kg | | |
| iKAN-116A-IP65 | 1 | 16 | Standard | 1346x160x49 | 4 Kg | | |
| iKAN-124A-IP65 | 1 | 24 | Standard | 1986x160x49 | 4.6 Kg | | |
| iKAN-208A-IP65 | 2 | 8 | Standard | 707x320x50 | 4 Kg | | |
| iKAN-216A-IP65 | 2 | 16 | Standard | 1346x320x49 | 8 Kg | | |
| iKAN-224A-IP65 | 2 | 24 | Standard | 1986x320x49 | 12 Kg | | |
| iKAN-224t | 2 | 24 | Tiny | 642x128x62 | 2.1 Kg | | |
| iKAN-248A-IP65 | 2 | 48 | Standard | 3908x320x81 | 27 Kg | | |
| iKAN-424A-IP65 | 4 | 24 | Standard | 1988x640x81 | 27 Kg | | |
| iKAN-508A-IP65 | 5 | 8 | Standard | 709x800x81 | 10 Kg | | |

## PROFIBUS iKAN Display (Call Sales)

PROFIBUS iKAN Series

| | Mechanical Data | | | | | Communication Interface | |
|---|---|---|---|---|---|---|---|
| Model | Row | Character | Board Size | Dimensions (mm) (W x H x D) | Weight | Ethernet | COM Ports |
| iKAN-116-PFB | 1 | 16 | Standard | 1347x160x73 | 4 Kg | Modbus TCP Slave Max. 8 connections Web-based operation interface<br>1 x RJ-45, 10/100 Base-TX | RS-485 x1<br>PROFIBUS x1 |
| iKAN-116S-PFB | 1 | 16 | Small | 834x130x54 | 2 Kg | | |
| iKAN-124-PFB | 1 | 24 | Standard | 1987x160x73 | 4.6 Kg | | |
| iKAN-124S-PFB | 1 | 24 | Small | 1218x130x54 | 2.5 Kg | | |
| iKAN-116-PFB-IP65 | 1 | 16 | Standard | 1346x160x49 | 4 Kg | Modbus TCP Slave Max. 8 connections Web-based operation interface<br>2 x RJ-45, 10/100 Base-TX | |
| iKAN-124-PFB-IP65 | 1 | 24 | Standard | 1986x160x49 | 4.6 Kg | | |

Baud Rate: 9.6 k, 19.2 k, 45.45 k, 93.75 k, 187.5 k, 500 k, 1.5 M, 3 M, 6 M, 12 Mbps ; Protocol: DP-V0

## CANopen iKAN Display (Call Sales)

CANopen iKAN Series

| | Mechanical Data | | | | | Communication Interface | |
|---|---|---|---|---|---|---|---|
| Model | Row | Character | Board Size | Dimensions (mm) (W x H x D) | Weight | Ethernet | COM Ports |
| iKAN-116-CPS | 1 | 16 | Standard | 1346x160x49 | 4 Kg | Modbus TCP Slave Max. 8 connections Web-based operation interface<br>2 x RJ-45, 10/100 Base-TX | RS-485 x1<br>CAN x1 |
| iKAN-116S-CPS | 1 | 16 | Small | 834x115x37 | 2 Kg | | |
| iKAN-124-CPS | 1 | 24 | Standard | 1986x160x49 | 4.6 Kg | | |
| iKAN-124S-CPS | 1 | 24 | Small | 1218x115x37 | 2.5 Kg | | |
| iKAN-116-CPS-IP65 | 1 | 16 | Standard | 1346x160x49 | 4 Kg | | |
| iKAN-124-CPS-IP65 | 1 | 24 | Standard | 1986x160x49 | 4.6 Kg | | |

Baud Rate: 10 k, 20 k, 50 k, 125 k, 250 k, 500 k, 800 k, 1 Mbps ; Protocol: CANopen DS-301 ver4.02, DS-401 ver2.1


## Energy Management Solution

- InduSoft SCADA
- Power Meter Concentrator
- IIoT PMC with Display
- Three-phase Smart Power Meter
- Single-phase Smart Power Meter
- Multi-circuit Smart Power Meter
- True RMS Input Module
- Smart Power Meter with LED Display


## IIoT Product

- IoT Cloud Management Software (IoTstar)
- IoT Intelligent Edge Controller (WISE-5231 Series)
- IP Camera (iCAM Series)
- IoT Communication Server (UA-5200 Series)
- MQTT I/O Module (MQ-7200 Series)
- Stack Light Monitoring Module (tSL Series)


## ZigBee Wireless Product Solutions

- Introduction to Wireless Networks
- Applications
- ZigBee Converter
- ZigBee Repeater
- ZigBee I/O Group Module
- ZigBee I/O Group
- ZigBee Modbus Data Concentrator


## UA Series / BRK Series: IIoT Cloud Solution

- IIoT Communication Server：UA Series
- Features and Architecture
- Automation Solutions
- UA I/O Module：U-7000 Series
- IIoT MQTT Broker：BRK Series
- Application of BRK-2841M


## WISE - Intelligent IIoT Edge Controller & I/O Module

- WISE IIoT Edge Controller I/O Module
- IIoT Cloud Management Software
- Applications
- Product Specification
- Intelligent Surveillance Solution
- Integrated Solution Using Mobile Devices
- Device Monitoring Solution: ExoSense


## Smart Building, Smart Home Automation

- Video Intercom & Access Control
- Touch HMI - TouchPAD Series
- Smart Lighting Control
- Energy Saving - PM/PMC Series
- Environmental - DL/CL Series
- Motion Detector - PIR Series
- Wi-Fi Wireless - WF Series
- Infrared Wireless - IR Series
- ZigBee Wireless - ZT Series
- IIoT Server & Concentrator
- LED Display - iKAN Series
- Data Server - iDaSer Series


## Industrial Panel PC Industrial Panel Controlle

- Win-GRAF/eLogger
- AVEVA Edge
- iPPC - Industrial Panel PC
- ViewPAC - Industrial Panel Controller
- AVEVA ViewPAC - SCADA Panel Controller
- Industrial I/O Module
- SmartView - Multifunctional HMI


## PC-based I/O Boards

- PCI Express Bus Data Acquisition Boards
- PCI Bus Data Acquisition Boards
- ISA Bus Data Acquisition Boards
- Special Function Boards
- Daughter Boards and Accessories

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