IWA

Wireless communication technology for data transmission is the foundation of lighting management platform which provides functions, including lighting control, real-time display, data searching, statistical analysis, and smart energy saving control.

Smart Lighting System

Structure Diagram

Could Service

IBMS Cloud Platform

Application & Display

IBMS Platform (Web Service)   Smart Data Processor   WiFi   Tablet

Ethernet   Equipment Control

Digital Logic Controller-Image   Digital Logic Controller-Lighting

Wireless Gateway

Dimmable   Wireless Lux Sensor   Wireless AI/AO, DI/DO Converter   Light   Wireless Relay Module   3rd Party 2-Way Lighting Control

System Features

| Wireless Network Structure |
Using mesh network, the freely connected networking method does not affect operation even one of lamps is damaged, and is suitable for new and existing buildings.

| Scheduling |
Users can set the expected illumination for each space and time on the tablet or the web page to achieve energy saving effect.

| Human Sensing |
Combine image recognition with human infrared sensor to capture the human presence to switch the lights on/off.

| Sunlight Utilization |
The lighting is automatically dimming to provide lighting compensation depending on the sunlight sufficient or weak to achieve comfortable and energy saving experience in the environment.

| Single Lamp 100% Dimming Adjustment |
Automatic dimming adjustments and single or group lighting control.

| Multiple System Integration |
Integrate the linking control of the parking, the image security, the elevator, and the HVAC system to save the energy and the labor costs.

System Functions

Item		Function	Description
Basic	Smart Lighting	Wireless Control	Wireless remote lighting control by mobile tablet.
		Depth Dimming of Single Lighting	Each lamp is equipped with a wireless light control module that can perform 0-100% fine and progressive dimming.
		Scenario Mode	Lighting scenario mode can be switched with one-touch and customized setting by user's preference.
		Scheduling	Set different illumination and different schedule for different areas.
		Cloud Platform	Access privilege management to provide area lighting control, lighting information, and statistic report on the cloud.
Advanced (with IWA sensors)	Occupancy Sensing Module	Human Detection	Enable to perform illumination adjustment logic according to human occupancy status if IR sensors or an image recognition cameras are adopted.
	Sunlight Utilization Module	Sunlight Utilization Algorithm	Keep the best environment illumination to making comfortable and power-saving by 2-dimension lighting calculation and stepless dimming function.
Cross System Linkage	Smart Curtain	Automatic Curtain Control	Through the outdoor temperature and natural illumination, we integrate smart lighting with HVAC optimization to automatically control the curtain switch.
	Outdoor Lighting Control	Outdoor Illumination and Lighting Control Linkage	Control the outdoor landscape lighting through outdoor illumination information.

Product Specifications

Digital Logic Controller - Lighting

Dimension (L×W×H)	180×77×30 mm	Communication port	USB 2.0(Host)
Power requirement	DC 5V	Network communication	RJ-45 x 2, 10 / 100 / 1000 Mbps Ethernet 802.11b / g / n WLAN Bluetooth 4.0
Memory	512MB		
Core processor	Arm Cortex A8 1GHz		

Wireless Lux Sensor

Dimension (L×W×H)	60×60×10 mm	Coverage	Point source
Power requirement	DC 5V / 12V	Network communication	IEEE 802.15.4 Mesh network
Operation temp.	0-40°C		

Wireless AI/AO Converter

Dimension (L×W×H)	130×100×35 mm	Specification	4AO+2AI AO: 10V PWM / 0-10V / 0-20mA AI: 0-10V / 0-20mA
Power requirement	AC 100 - 240V DC 12V / 24V		
Network communication	IEEE 802.15.4		

Wireless Gateway

Dimension (L×W×H)	85×85×25 mm
Power requirement	DC 24V / PoE
Network communication	IEEE 802.15.4 WiFi Ethernet

In order to connect Image Recognition System, the camera requires：
1. Camera pixel：720×480 pixels or more
2. RTSP streaming protocol