

SAMWOOTEK

LANKA (PVT)LTD.

Samwootek Lanka (Pvt) Ltd is a Korean based company with team of experienced Staff in Engineering and Marketing Industry. we operating since 2002 in korea. our company aims to offer a service where quality, efficiency and value are key fundanmentals


HIONE+


SAMWOOTEK

OUR VISION

Become the leader in implementation of high-tech solutions and urban development projects in Asia Pacific region

OUR MISSION

Help to change lifestyle by introducing innovative new technologies, changing the industry from traditional way of thinking

INTRODUCTION

Our company was established in 2016. We have offices in Sri Lanka, Korea. We are providing service for Sri Lanka, Maldives, Bangladesh and Myanmar at present. Samwootek Lanka Private Limited is a professional service provider of new technologies. We have wide range of product and services. They are Guest Relationship Management Systems (GRMS), Video Door Phone, Reverse Osmosis (RO) plant, CCTV systems, and Access control systems. Also we are providing engineering services and installations for Extra Low voltage (ELV), Low Voltage (LV), Medium Voltage (MV) and High Voltage (HV) projects. Also we engage in urban development project with the collaboration of Garamspace Co. Ltd, Korea. The company has very abundant experience on Building services and devotes itself to the development and application on new technology, new techniques, and new materials, and devotes itself to contracting high, mega, complicated and sophisticated projects. Our teams of professionals are consisting of Engineering, Marketing and finance professionals. We have in house team is capable of deliver results. Also we are delivering projects incorporate with project management principles. We will continue to be a people oriented and faithful supplier offering technical supports and good customer services.



Company History

2015-2017
IOT Project Engineering Total Solution Provider

2013
SMART HOME BMS

2010
SRILANKA Monorail project coworker with Garamsfce

2002.09
SAMWOOTEK



1. Software (SiManager)

SiManager is HMI software optimized for integrated monitoring control of intelligent buildings based on user-friendly convenience, diversity and stability and it provides a more convenient and efficient building operation environment

2. Graphical Monitoring and Control (Graphic map)

3-Dimensional stereoscopic graphics enable realistic system monitoring control, by arranging the camera image on the graphic screen, you can check the scene situation in real time.

A variety of methods can be used to create a highly readable graphical monitoring that fits your needs and objectives.

3. Text Monitoring and Control (Text map)

A text map is a system default map, consisting of a device tree for Device Manager and a user tree by user configuration.

Text maps can be conveniently used during real-time monitoring and control of individual or collective tag.

The operator can configure the text map tree according to the purpose and function. You can set the tag's attributes, view the tag history and register the schedule for each tag.

4. Schedule setting and control (Schedule map)

Schedule can be set easily using calendar and time bar.

You can easily register a large number of schedules by using schedule groups such as holidays, weekdays, specific days and customization.

Using the individual schedule function, it is possible to centrally manage tag with characteristic according to usage.

You can copy and move schedule by drag & drop method.

5. Create Report (Report Map)

You can register and use various report forms (daily, weekly, monthly, and yearly) written in EXCEL.

Setting information (tag and target value) can be specified and used in each cell.

You can see the results of the registered report in preview form.

You can also set up and print the report file automatically using the automatic print function.

When setting the cell, you can easily and quickly set the expression value (minimum value maximum value, average value, accumulated value, etc.) of the tag by using the auto-increment function and cell copy function.

6. Real-time trend monitoring (trend map)

It compares and monitors the real-time values of tags registered by the operator in graph form.

The tag value is automatically reflected in the trend graph according to the collection period set by the operator.

It is possible to monitor 10 tags for each trend at the same time and it is easy to manage trends per group through a transaction.

By using the right Y axis, trends can be monitored simultaneously for two kinds of tags with different ranges, so it is possible to monitor analog and digital tags at the same time.

Past trends can be checked again using the display shift function

7. IP camera monitoring (camera map)

By registering the camera, you can monitor the situation on the spot by real-time video.

Provides functions such as moving the monitor position, zooming in / out, and saving and capturing video. Six types of screen configurations are possible using the cameras already registered in the camera settings for each group in the camera tree.

It is possible to register and use camera screen by drag & drop method.

Compatible with various IP cameras supporting RTSP and Onvif.

8. View Tag History

You can view the collected tag data by time or by day in graph and table form.

Analog points display minimum, maximum, average and home digital points hourly and daily cumulative uptime.

By adding up to 8 date and tag, you can compare by tag and date.

If you double-click the specific time zone of the graph that is displayed on the first day of each day, a detailed graph for each day of the day is displayed.

9. Alarm occurrence and inquiry

According to the alarm level and detailed classification, system operation status can be informed by various media (screen, printer, document, SMS) according to the user's setting, and alarm status is reported by voice (TTS).

It can be used for diagnosis and management of system status by using alarm history inquiry.

It shows the alarm history by process, event, and system can change alarm display by recognition and deletion processing.

You can use the filtering function to display only the set category and items.

10. User program (script)

SiScript is a user programming framework that can monitor and control all the points set in DvManager through programming techniques, thereby enhancing the diversity and flexibility of equipment operation.

Provides user-friendly programming methods by providing various types of script templates within the program.

Grammar checking and debugging functions are provided at the time of program to enable quick response to incorrect program logic written by the user

11. Device (Device Manager)

DvManager (Device Manager) is a device setting frame for setting device configuration of network ports of all devices, input / output definition for each device, local schedule input, and so on to perform independent functions of the device itself.

DvManager supports multiport architecture and supports various communication methods per port and protocols (SE-Net,CU-Net,DDE,MODBUS,OPC,XNET,BACnet) thus facilitating system integration for various devices including third party products.

12. Create control logic (logic builder)

Easily implement the logic and download it to the device via the graphical editing environment for the device (FCU.MCU) that can execute the control logic (about 100 standard-lines).

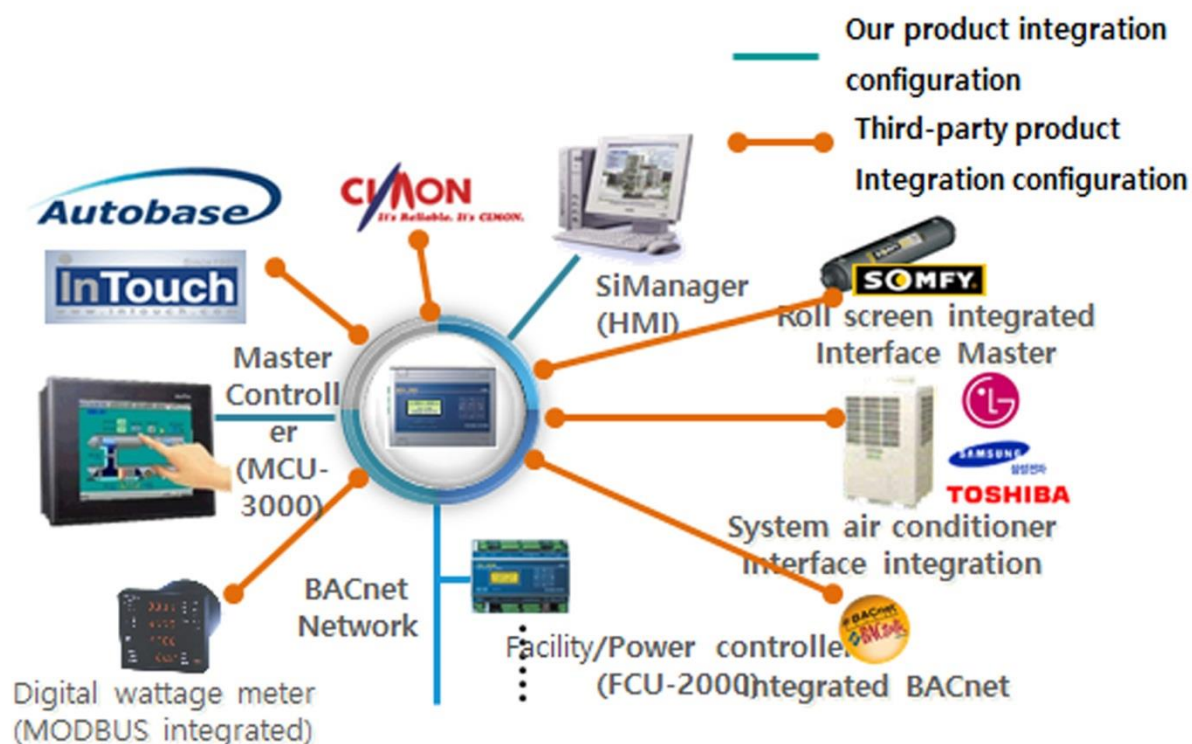
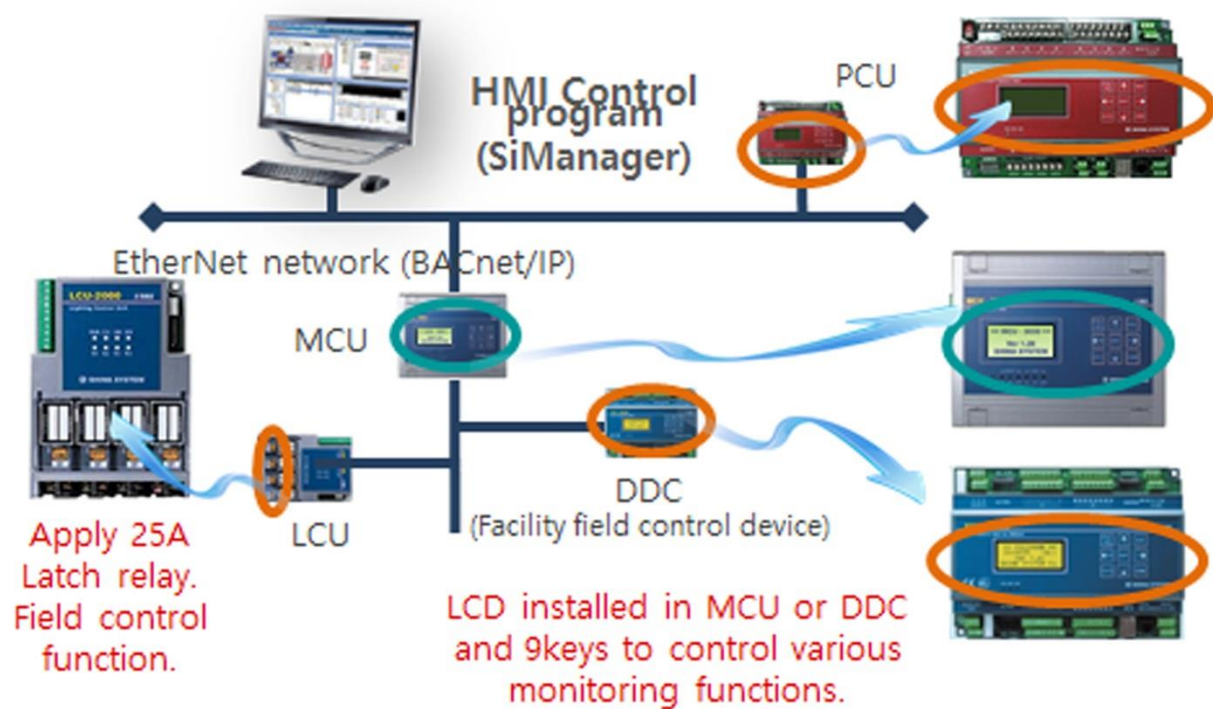
Real-time monitoring and tuning can be added together to verify the logic immediately. It implements control logic by drag & drop method easily using object (flat block, point, integer, real number, connecting line).

13. Blanket Device Management

BACNetManager is a B-AWS certified product that can search for and register devices supporting the BACNet protocol, register objects and object attributes of the BACNet device, and monitor and control the status of the BACNet device.

Connects with SiManager and DvManager to set, monitor and control the execution environment of the device.





MCU(Master Control Unit)



Function

- 1.Up to 4,800 points in connection with SiManager
- 2.Time schedule function by built-in clock
- 3.Detailed environment setting by terminal (VT=100) function, UP/DOWN LOAD function of sys diagnosis and system setting data
- 4.Firmware Up-Grade function by adopting Flash Memory (Supports X-Modem)
- 5.Automatic time setting and data synchronization function with direct digital controller (FCU-2000)
- 6.Pass Word security function
- 7.Supported protocols : CU-NET, TCP/IT, BACnet, ModBus/ TCP and many 3'rd Party protocols

FCU(Field Control Unit)



Function

- 1.Direct monitoring and control functions for various facilities (Point Management)
- 2.Local setting and operation by built-in LCD and Keypad
- 3.Point quantity : Up to 160 points
 - Built-in: 32channels(AI:8/ BI:8/ AO:8/ BO:8)
 - Expansion module: Up to 8 XIM series can be connected
- 4.Communication function: Provides various upper and lower communication functions (LAN, RS-485, RS-232, etc.)
- 5.Various communication protocol support (CU-NET, Modbus, BACnet, Terminal,SMS)
- 6.Equipment control program creation and control function (Composed of about 90 types of function blocks)
- 7.Time schedule function (100 schedules, daily, weekly, monthly, annual schedule)
- 8.I/O type setting and change by simple setting (Ω , mA, V)
- 9.Security function and priority according to password control function
- 10.Data setting download, upload and firmware upgrade by computer



Function

- 1.Upper communication (RS-485) redundancy support (A/B port auto switching function)
- 2.It is composed of main unit and spare unit and it supports CPU duplication function without interruption. It is also possible to operate independently (CPU automatic transfer function)
- 3.Direct monitoring and control functions for various facilities (Point Management)
- 4.Local setting and operation by built-in LCD and keypad
- 5.Communication function: Provides various upper and lower communication functions.
- 6.Various communication protocol support (CU-NET, MODbus, BACnet, Terminal, SMS)
- 7.I/O type setting and change by simple setting (Ω ,mA, V)
- 8.Security function and priority according to password control function
- 9.Data setting download, upload and firmware upgrade by computer
- 10.Equipment control program creation and control function (Composed of about 90 types of function blocks)
- 11.Time schedule function (100 schedules, daily, weekly, monthly, annual schedule, Skip)
- 12.Dual data backup function of semi-permanent flash memory and flash memory and flash memory
- 13.Available points; Expansion of I/O points up to 128 points(8 XIM *16 points =128)





Function

1. Low-cost lighting control module with high-speed RISC CPU
2. Stability is secured by dispersion control of stand-alone type
3. Permanent storage of data by flash memory backup
4. Low-cost, Low-power consumption, self-diagnosis function
5. Built-in DIP switch allows independent individual, group and pattern setting (Stand Alone Configuration)
6. Simultaneous control of multiple relays is controlled at constant time intervals to prevent overload
7. Manual ON/OFF operation switch is built in the tip of the relay, so it can be directly ON/OFF operation in case of controller error.
8. Point of program switch direct registration function (Local Configuration Function)
9. Module Type with 25A Latch Relay (easy to install and easy to panel)
10. Up to 128 relays can be controlled by connecting four built-in relays and expansion modules (XRM-4A/4B/4D)
11. No additional circuit (built-in relay) is required and anyone can easily configure the lighting panel
12. Individual, group and pattern control can be specified by connecting program switched
13. Building master controller (MCU-5000/3000/2000) for the power system construction, the air conditioning, the plant and the integrated system
14. Maximum usage point: Max 31 XRM-4A/4B connections (128 Relays)
15. Max 32 Switch Module (PSM 1 to 4)



Function

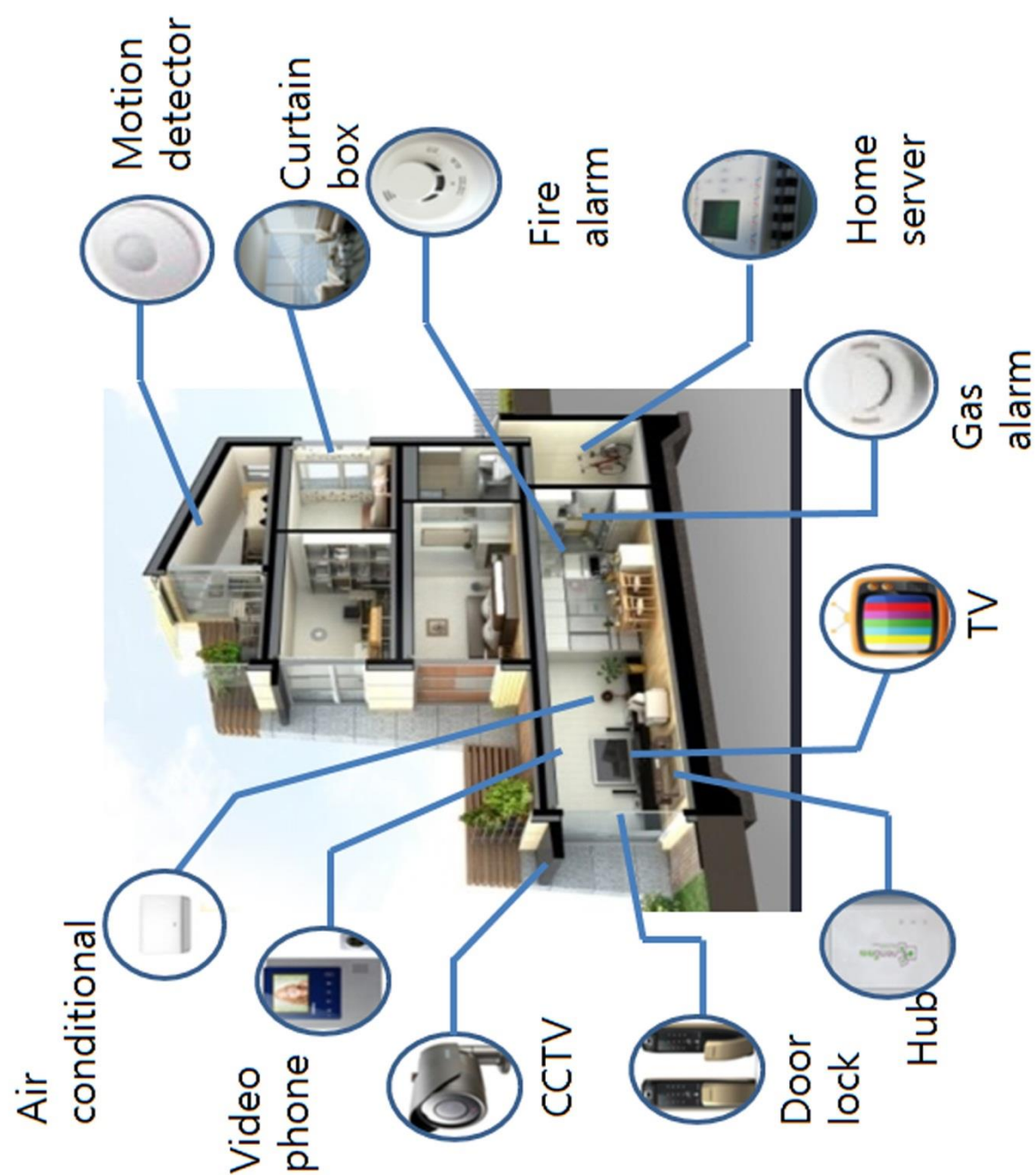
1. Maximum demand power control (DC: Cemand Control)
2. KEPCO Certification and Grant Support Products
3. Expansion through communication (DCU-3000, etc.)
4. Built-in LCD and key buttons
5. Providing additional functions through software
6. Set and manage each target power by season, time and holiday according to the fare system and the situation of the customer
7. DLC: Direct Load Control
8. Integrated system can be built in connection with building automatic control system
9. Individual and 8 groups of load control function (built-in, using active module)
10. Self-diagnosis function
11. Integrated wired / wireless system
12. Can establish communication I/F with Samsung / LG / Toshiba (Carrier) / Sanyo / Mitsubishi/ Hitachi / Aisin etc

Expansion modules (XIM-series)



Function

1. Communication: RS-485
2. Communication distance: 1.2km
3. Transfer rate: 9,600bps
4. Energy Management program execution function
5. Control point : AI:8, DI:8 (for XIM-ABI 8A), DI:8, DO:8 (for XIM-BIO 8A)
6. Module type : 9



HUB(Main IoT devices)

Main Function

This Device connects all of the Internet of things (IoT) to offer Internet access

Product Features

Connecting the lines to router with out of need for complicated network configuration.

Using a number of IoT devices, in one installation.

IoT devices connect multiple wireless no wiring is required.

SMS-based technology used to ensure the openness and scalability, such as kakao talk.

The products what you can use with IoT devices (HUB)

Houses and garden lighting switches, Thermostats, each room thermostats, Consents, Universal Controller, Gas valve and security devices

The Specifications of the product

Model: DJ201

Processor: MediatekRT5350F (300MHz, 32BIT CPU)

Memory: DRAM 32Mb

Flash Memory: 16Mb

Size: 113*78*25(mm)

Wired network: 1 Port, 10/100MbpsWAN

Cable supports auto-detection

Wireless Network: 424.7MHz

(Band wireless network)

Power: DCSV1A (Power consumption less than 2W)

Operating temperature: 0-045°c

Certification number: MSIP-CRM-H17-DJ201



Electrical outlet

Main Function

Outlet is connected to the smartphones, it confirms the power consumption measurements.

Display the cumulative power consumption and accumulation rates.

Reservations by day to set ON/OFF

If the power supply is less than the amount set. It shall be automatically cut off (Optional)

Product Features

It shows immediately converted into electric power consumption charge.

We can control the housewares such as home set to box, pc, printer, fans, humidifier, bidet, I air purifier and etc.

Also control lighting device ON/OFF, sophisticated timer of outdoor signage, pump in the farm, standing light, radio, shelf lighting in department store and etc.

The products what you can use with IoT devices

HUB (DJ201)

The Specifications of the product

Model: AS103

Size: 116*50*74(mm)

Rated: 10A, 220VAC, 60Hz

Maximum Load Capacity: 2.5KW

Electrical Safety Certification number:

SH04070-15001

Electromagnetic Certification Number:

MSIP-RES-H17-AS103

Wireless Certification number:MSIP-CRM-H17-AS102



Gas Circuit Braker

Main Function

This Device connects all of the Internet of things (IoT) to offer Internet access

Product Features

Easy setting because it is set on existing gas valve, but exceptional case can occur

The Specifications of the product

Power supply: AA size 4pcs (Min 12Months). Or DCSV Adapter.

Timers and Remotes control

One-Touch CLOSE/OPEN

Control Channel: 400MHz Wireless (Smart I/O)



Lighting Switch/Multi-Functional Controller

Product Features

Remote Control with Smartphone and control timing.
One-to-one exchanging type without electrical wiring
Remote On/Off Control for home, Office and factory
Diversity application like system air-conditioner
but need expert support

The products what you can use with IoT devices

HUB (DJ201)

The Specifications of the product

Circuit No: 2 Circuit
Max. Load Capability: 400W/Circuit
Switching Type: Capacitive Touch Type
Control channel: 400MHz Wireless
Communication Port: RS-232 or RS-485
AI Input: 2 Circuit
Power: DC 12V 0.5A



Control System of Individual Room/Thermostat

Product Features

Suitable for newly-built villa and detached house
District heating temperature controller connecting with valve actuator
NemoAHN router involved (Remote control with Smartphone)
Remotely control for indoor temperature with remodeling existing
temperature sensor block.
District heating temperature controller connecting with valve actuator.
Individual heating for detached house / District heating for apartment

The Specifications of the product

Wired individual temperature control system 8 zone or max. 15 zone
concurrent control strong durability
Remote control with smartphone
Indoor temperature control
Time Control
Control Channel: 400 MHz Wireless
Remote control with Smartphone
Interlocked with weather (Scheduled)



Hot Water Mat

Product Features

1 heating / 2 heating concurrent support

The Specifications of the product

Parklon PA-001, PA-002
Remote Control with Smartphone



Push-Pull Type | Fingerprint Door lock
 New Concept **PUSH PULL** Premium
 Finger print Digital Door lock

Advanced fingerprint technology with
 no hacking worry

H-7090SK/ Main Key (Fingerprint recognition)

- 4 Way door open
- Double locking from in & Outside
- Temp, Sensor built-in
- PIN + Card + Manual Key
- Panic Release Handle
- Operating sound Control

Features

- Number of registration possibilities fingerprint: 100
- License time that is a fingerprint is very fast (Under 1 Sec)
- Rang of the motion temperature is extensive and especially the low temperature characteristic is excellent.
- Fingerprint Sensor Area is big (9.6 x 9.6 mm)
- ESD Protection $\pm 30KV$
- Separate Wake-up action is not necessary.
- Fingerprint algorithm : Korea Internet & Security (KISA) authentication acquisition



Push-Pull Type | Main Key
 New Concept **PUSH PULL** Premium Finger print Digital Door lock
 Convenient Push-Pull Digital Door lock

H-7000SK / Main key

- 3 way door open
- PIN + Card + Manual Key
- Panic Release Handle
- Double Locking from in & Outside
- Operating sound Control
- Temp, Sensor built-in

Features

- Easy to replace when moving
- No need a Shim plate when replacing other Door Lock
- Changeable Push and Pull



Value up your home Main key Door Lock, No hole required

H-5000 / Main Key

- 3 way door open
- PIN + Card + Manual Key
- Panic Release Handle
- Double Locking from in & Outside
- Operating sound Control
- Temp, Sensor built-in

Features

- Easy Installation
- No Hole required type main key lock
- Easy to replace when moving
- No need a Shim plate when replacing other Door Lock



Handle All-in One Type Mini-Main Key 1
Door Lock for Wooden door
H-2480/ mini Main Key

- 2 Way door Open
- Pin + Card
- No hole required

Features

- Easy to install
- No hole required
- Easy to move and re-installation



Variety Features Comfort and Stability
H-3000/ Mini Main key

- 3 way door open
- PIN + Card + Manual Key
- No hole required
- Panic Release Handle
- Double Locking from in & Outside
- Operating sound Control
- Temp, Sensor built-in



Hotel Lock | Main Key



H-7030/ Main Key
• 2 way door open
• Card + Manual key



H-5330 / Main Key
• 2 way door open
• Card + Manual key



H-5230 / Main Key
• 2 way door open
• Card + Manual key



H-5030 / Main Key
• 2 way door open
• Card + Manual key
• Main key lock with no hole required

Locker Key



HLK-1000 / Locker Key
• 2 way door open



HLK-1033 / Locker key
• 1 way door open

Automatic door button



HJB-200 / Automatic door button

Accessories



Remote Control Unit
(option)



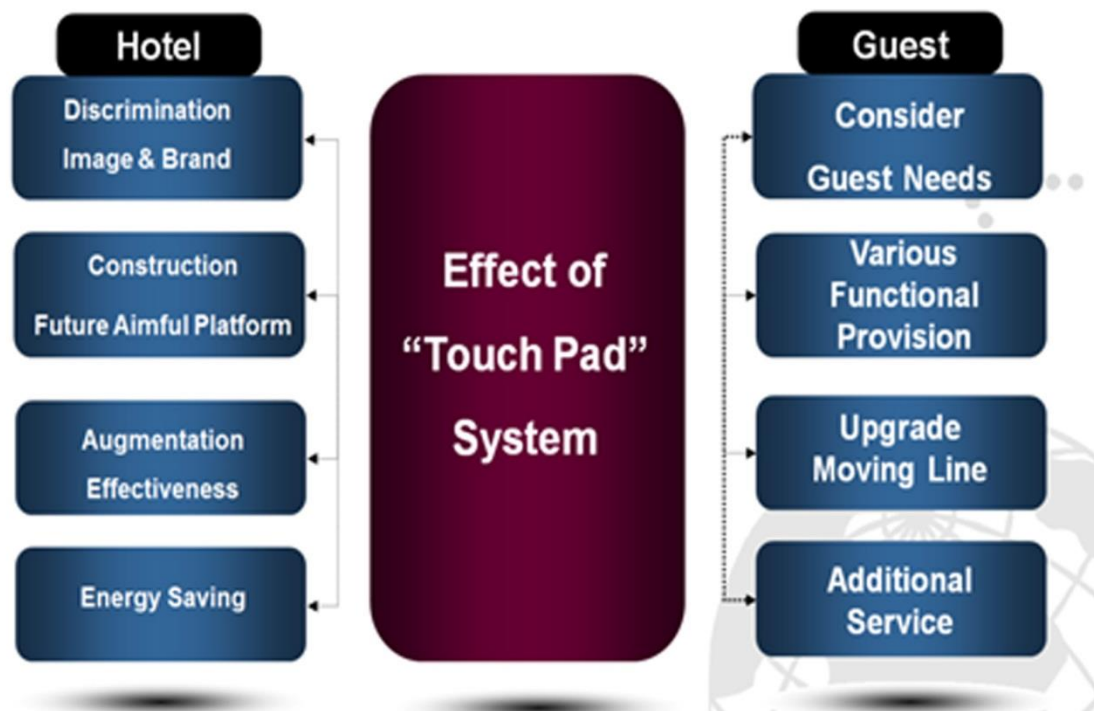
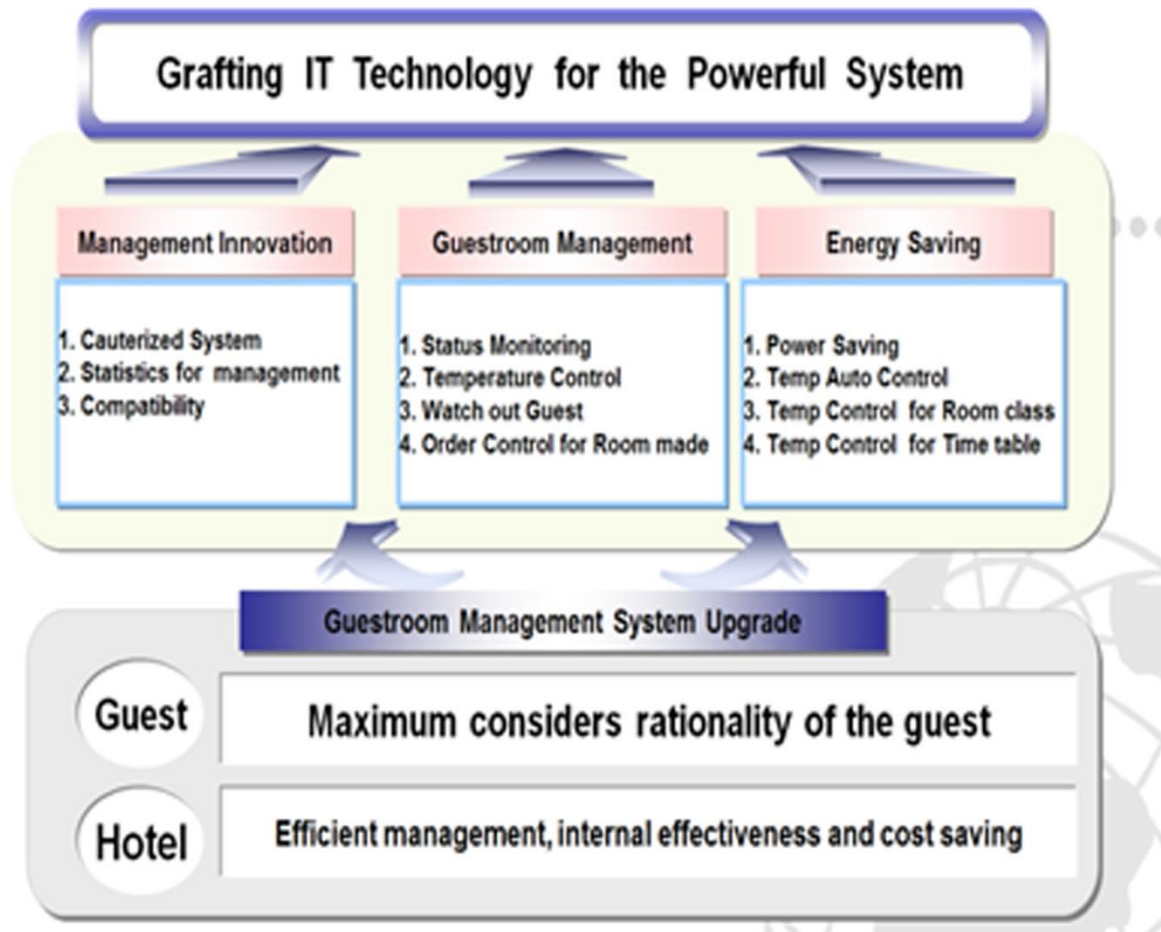
Transmitter (Option)

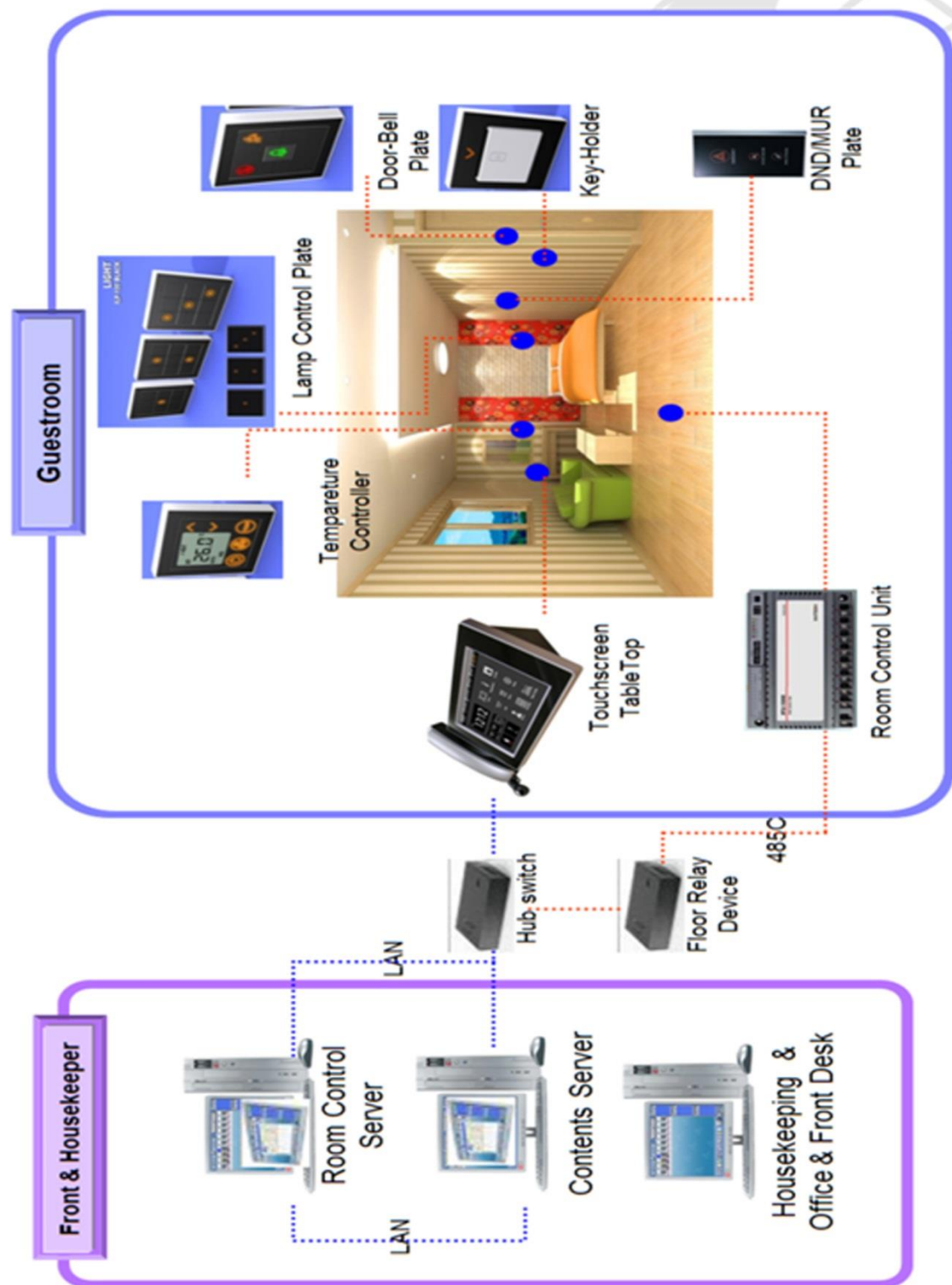


Receiver (Option)



Tag (option) mifare ISO





Monitoring S/W

Specifications

- Monitoring and controlling upon server
- Display summary page
- Event monitoring for room status
 - Check-in/ Existence
 - Do not disturb/ Make up Room
 - Temperature Modify
- Guestroom Control
 - Room Maid/Check-in
 - Message Delivery
 - Empty room control
- Support Intuition interface which is familiar in guest

Hardware Requirement

- CPU: up to Pentium 4
- RAM: Min 256MM
- HDD: min 500MB Free
- VGA: up to 1024 x 768, 256 Color
- O/S: MS Windows-XP, 2000



Guestroom Controller, ILU-100 & IFU-100

Room Control Unit for Temperature Controller, Table-Top Console, Doorbell-plate, key-Holder
Function

(ILU-1000 Light Control Unit)

- Lighting Control: Max 6 Lamp
- Dimming Control: 2 Dimmer 255 step dimming
- Fade in/Out
- Scene Function
- Power Control: Empty / Guest exist

(FU-1000 Field Control Unit)

- Cool & Heat Valve & Fan Control
- Temperature control
- Curtain Control
- Doorbell, key Holder, Chime Bell Interface

(IMU-1000)

- Gateway device between room controllers & Server PC
- Max 32 room control possible
- Save connected room status
- Time sync , remote firmware upgrade function



New generation of Guestroom Console "YT-1000"

Guest can make a scene for lighting in the room produce the various atmosphere.
It provides the basic intelligence and area information of the hotel with the maximum
it increased the convenient characteristic of the customer

Control Functions & Services

- Lighting & Dimming with Scene
- Temperature control
- Music (optional)
- MUR/DND/MSG
- Emergency call
- Curtain Control (optional)
- Phone dialing
- Hotel information by page-view
- World-Time Display
- Alarm
- Language (Korea, Japan, Chinese, English, Russia and Germany)



Specifications

- Power: AC 220V 50~60Hz
- Display: 7 Inch TFT LCD 640x480 16bit Color
- CPU : ARM9 (Samsung S3C2441)
- O/S : Windows- CE 5.0
- Size : 260(W)x 130(H)x 110(D) mm
- Internet- explore 6.0 & Multimedia codec (wav,Mp3)

Configuration Products- Touch Screen-Top 2

"Touch Pad Controller" is upgrade the hotel image & Brand.
Provide the high quality "service" to the guest

Status Icon Display

- Room number, Status icon
- Current temperature



- Short Functions
- Lamp at on
 - Lamp at off
 - LCD off
 - Emergency
 - Help

Main Functions

- Phone interface
- Temperature
- Curtain Control
- Light Control
- Alarm Control
- Music Control
- Services (DND,MUR)
- Change Language
- Hotel Guide

Temperature control for Guest room

Functions

- Temperature control and 3 step speed control for FCU
- Fahrenheit/ Centi degree unit available
- Valve control
- 3-position proportional control
- Include temp sensor
- Remote control for air- conditioner via IR-Remocon

Specifications

- Power: DC 7-12V, 0.5A
- Display: 4.5cm x 4.0cm size LCD & Backlight
- Dimension: 70(W) x 120 (H) x 15 (D) mm
- Back Side Plate: 89(W) x 134 (H) mm



Touch button type table top console

Touch Button type table, YT-200

Elegant designed flat panel interface with room control unit

Functions

- Temperature control
- FCU Control (Speed Mode)
- Message Delivery
- Emergency delivery
- DND/MUR
- Alarm
- World time
- BGM channel & volume (optional)
- Lighting Control (6 Lamp/2 Dimmer/ Master)
- Curtain Control optional
- Large size LCD & Backlight
- Customized panel design



Specifications

- Power: DC 7-12V, 0.5A
- Comm: RS-485 (RSU)
- Display: 4.5cm x 4.0cm size LCD & Backlight
- Dimension: 230 (W) x 65(H) x 105(D) mm
- UI: touch type button

wall mounted Light switch

Wall Mounted Light Switch, YLP-100D1

For Designed Light Control device by touch technology

Functions

- 4 lamp on/off
- 2 dimmer
- Master switch On/OFF
- Flat & Slim Design
- Customized Color change

Specifications

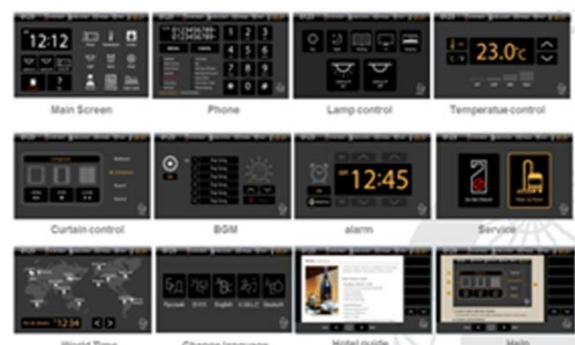
- Power: DC 7-12V, 0.5A
- Display: 4.5cm x 4.0cm size LCD & Backlight
- Dimension: 70(W) x 120 (H) x 15 (D) mm
- Back Side Plate: 89(W) x 134 (H) mm



Touchscreen Table-Top-3

User interface Screen

- Present the room condition for the guest within his information on hotel server
- "Welcome" voice message consider guest nationality
- Present the temperature for the guest within database



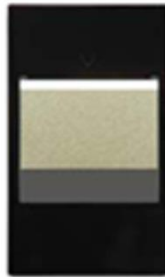
Card Key- Holder, YKH-100
Card key-Holder, YKH-200

Function

Detect the status of the card (Insert/remove)
Data send to the RSU
Status indicate by LED
Separate class of card (Guest/ Maid)

Specifications

Button: 2 EA for Guest/ Maid
LED: 1 Exist
Dimension: 70(W) x 115(H) x22(D) mm



Configuration Products- DND Switch, YDM-100
DND Switch, YDM-100

Switch for DND /MUR and emergency

Function

- Do-Not-Disturb button
- Make-up room Button
- Emergency call button
- Data communication to RSU

Specifications

- Power DC 7~12V, 0.5A
- Display: 4.5cm x 4.0cm size LCD & Backlight
- Dimension: 70(W) x 120(H) x 15 (D) mm
- Backside plate: 89(W) x 134 (H) mm



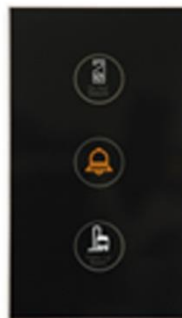
Configuration Products- Door Bell Plate, YDP-100

Function

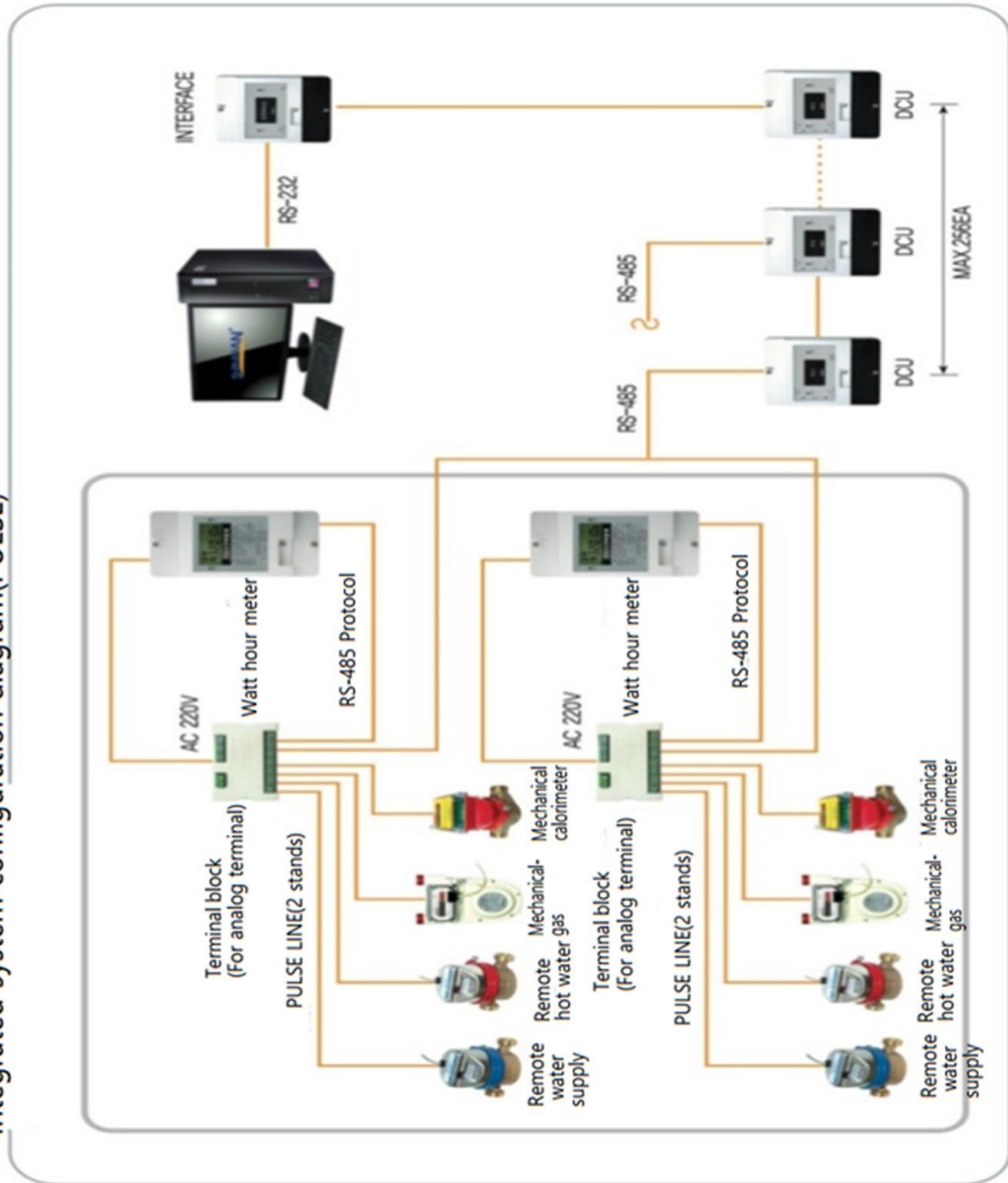
- Door Bell (Chime/Ding-dong)
- DND/MUR LED
- House keeper check exist guest by hidden key
- Mute function when DND

Specifications

- Power DC 7~12V, 0.5A
- Display: 4.5cm x 4.0cm size LCD & Backlight
- Dimension: 70(W) x 120(H) x 15 (D) mm
- Backside plate: 89(W) x 134 (H) mm



Integrated system configuration diagram(PULSE)



Electricity Meter (W-Type)



CT / CT-VT Meter
Three Phase
Dual Voltage
1.5(5)A

Temperature Range	<ul style="list-style-type: none"> Limit range for storage and transportation: -10°C ~ 85°C Limit range for operation: -10°C ~ 70°C
Voltage (Dual)	<ul style="list-style-type: none"> CT Meter (3P4W): 110 / 220 / 400V CT-VT Meter (3P3W): 110V (Phase to Phase)
Protocol	<ul style="list-style-type: none"> Open Protocol (DLMS / COSEM protocol) IEC 62056 / IEC 62056-42 / IEC 62056-21 / IEC 62056-46 / IEC 9646 / DLMS UA
Case	<ul style="list-style-type: none"> Nonmetallic The degree of protection is IP51 or better.
Accuracy Class	<ul style="list-style-type: none"> Active Energy: CL 0.5 Reactive and Apparent Energy: CL 2.0
Physical Port	<ul style="list-style-type: none"> RS-485 / Optical Port Optical Port (300 baud, 9600 baud) To secure scalability of RS-485, RS-485 drivers of Gateways, PLC Modems and Electronic revenue meters up to 32 drivers in single line
Features	<ul style="list-style-type: none"> Bidirectional Communication Remote F/W Upgrade Encrypted Data Transfer Advanced Metering Infrastructure

Smart Electricity Meter (KEPCO G-Type)



1 Phase
220V
100(10)A



3 Phase
220/380V
100(10)A

Communication	Open Protocol (DLMS/COSEM Protocol)
	<ul style="list-style-type: none"> IEC62056 / IEC62056-42 / IEC62056-46 / IEC 9646 / DLMS UA Remote Relay On/Off, Bidirectional
Metering (Monthly)	Physical Port
	<ul style="list-style-type: none"> RS-485 (RJ-45 Jack) RF/PLC modem module can be inserted inside of meter (Option Module)
Power Quality Monitoring	Maximum Data of 8pcs channels is automatic saved :
	<ul style="list-style-type: none"> Power Receiving Data : Active / Apparent / Lagging / Leading Power transmission data : Active / Apparent / Lagging / Leading
Power Quality Monitoring	Manages monthly reading data:
	<ul style="list-style-type: none"> Monthly automatic meter reading is operated as designating auto reading day. If person reads passively, he can conduct passive meter reading via using a button. Monthly meter reading can make report as it read : Month / Last month / 2 months before. Monthly reading data includes data of 8 channels as maximum : demand power and power factor, power monitoring.
Power Quality Monitoring	Power Failure
	With backup battery, power failure can be detected and the history will be saved.
Power Quality Monitoring	Power Factor
	Power factor value can be saved in real-time :
Power Quality Monitoring	Sag & Swell Voltage
	<ul style="list-style-type: none"> Real-time monitoring for Sag and swell : When Sag or Swell occurred, their history can be saved. Adjustment : Swell (110% ~ 120%), Sag (80% ~ 90%)
Power Quality Monitoring	Total Harmonic Distortion (THD) Monitoring
	<ul style="list-style-type: none"> Real-time harmonic distortion (%) can be measured : THD value can be saved up to 288 (3 days). Period : 1/5/10/15/30/60 minute

Electricity Meter (Real-Time Bidirectional)



Single Phase

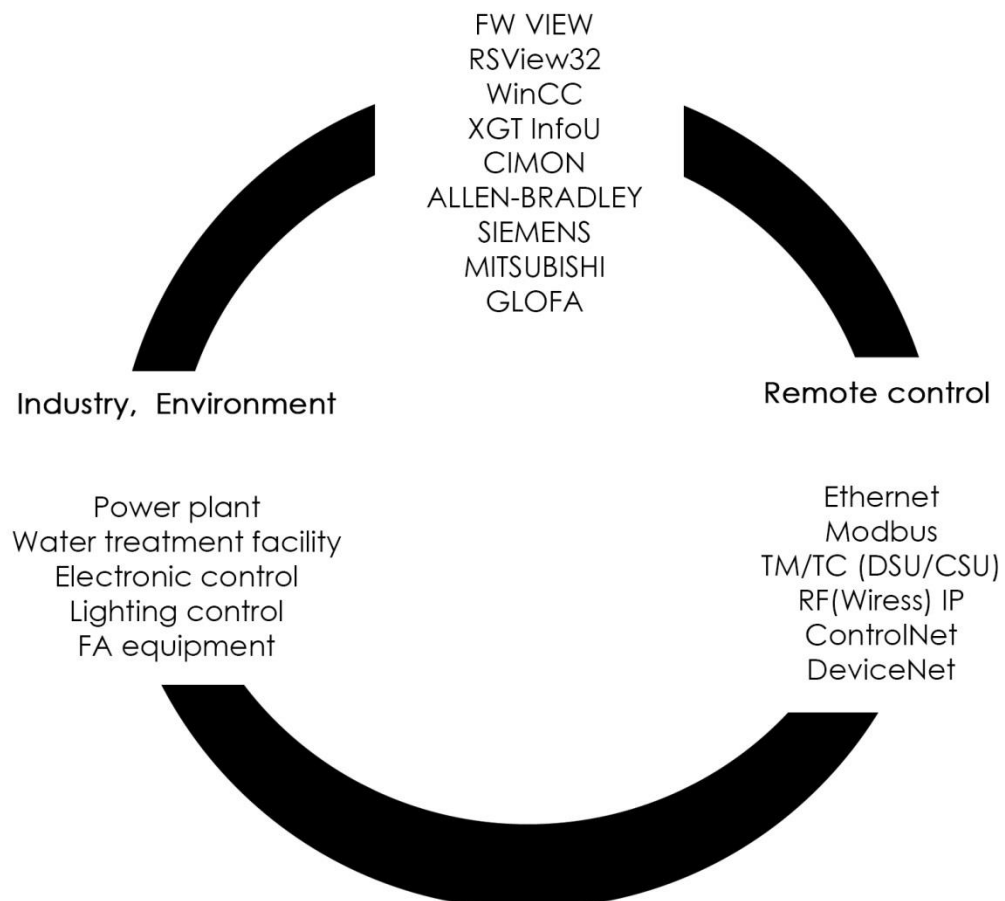
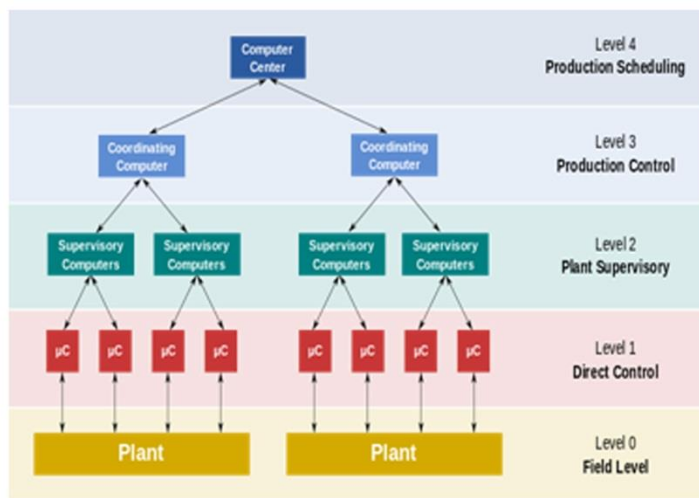


Three Phase

Category	Meter Type	
	Single Phase	Three Phase
Voltage (V)	220V	220V / 380V
Current (A)	40A / 80A / 120A	
Accuracy	Class 1.0	
Communication	RS-485 Communication (Wired)	
IEC Standard	IEC 62052-11, IEC 62053-21, IEC 62056-58	
Reading Function	<ul style="list-style-type: none"> Accumulated Energy Amount Instantaneous Consumption Amount Transmission & Receiving Energy Amount Active / Reactive Energy Amount 	
Features	<ul style="list-style-type: none"> It stores data in nonvolatile memory. It is easy to measure export & import energy by each device. It is easy to install due to compact size. 	
Size	70 (W) x 131 (L) x 47 (H)	114 (W) x 131 (L) x 65 (H)



SCADA system is its ability to perform a supervisory operation over a variety of other proprietary devices.





Supplies

- MED (Multi Effect Distillation)
- Membrane Desalination plant (Reverse Osmosis, Ultra Filtration)
- Hybrid Facilities

Advantages

- Compact & High efficient design
- Energy saving with MVR/TVC

Industries

- Power plant water, Industrial water, cooling water, Portable water, Pure/Ultra-pure water etc.



Supplies

- Bio reactor/ Anaerobic Digester
- Zero Liquid Discharge
- MBR (Membrane Bio Reactor)

Advantages

- Biological H₂S/SO₂ removal
- High performance

Industries

- Power plant Waste water, Industrial waste water,



Supplies

- Evaporators(MVR Evaporators)
- Dryer
- Distillation/ Crystallization plant
- Renewable Bio-fuel production plant etc.
- Secondary cell plant

Advantages

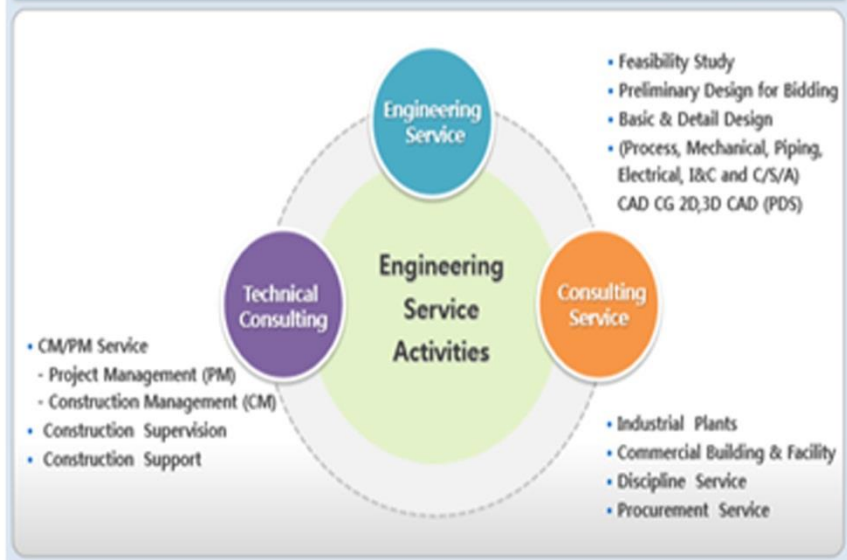
- Energy saving with MVR/TVR
- Compact & high energy efficient design
- Continuous operation

Application

- Chemicals, Food, Starch, Fermentation, Wood processing, Sugar, Fiber, Biofuel, Water reuse, Desalination, Oil sand and etc.



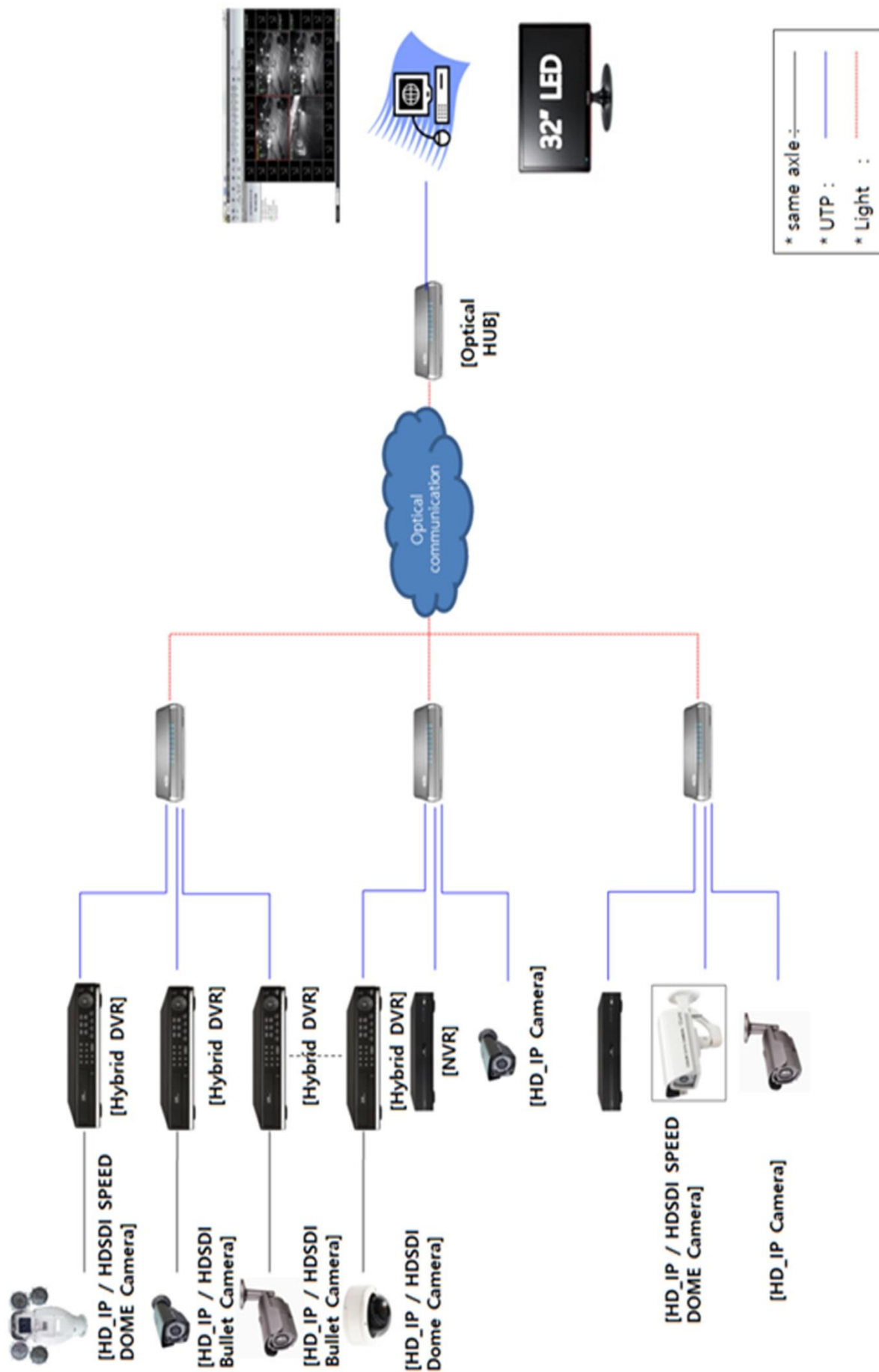
• Water & Waste Water Engineering and Desalination Plant Construction



Field	List	Date of Issue	Remark
Global Network	Certificate of corporate credit Rating	2013.07.11	
	Confirmation Letter	2013.04.23	Hwaseong Chamber of Commerce & Industries
	Recommendation Letter	2013.04.23	Korea plant Industries Association
	Service Investment License	2013.10.23-2014.10.18	Saudi Arabia General Investment Authority
	Certificate company Registration	2013.12.23	Saudi Arabia
Process	Desalination Process	2014.01.24-2019.01.23	New Excellent Technology
Quality	ISO14001:2004	2011.12.02-2014.03.28	
	ISO9001:2008	2011.03.29-2014.03.28	
	ISO9001:2008 KS Q 9001:2009	2011.03.29-2014.03.28	
Fabrication	ASME "U" Stamp	2012.02.24-2015.02.24	
	ANSI/AIHA Z10-2005 & OHSAS 18001:2007	2013.01.22-2016.01.16	
	AME "S" Stamp	2011.03.14-2014.04.14	
	ASME "PP" Stamp	2011.03.14-2014.04.14	

Welcome Hantec has been hard to guarantee the quality of project that based on year of experience and enhance technical know-how as well as quality management. We have established quality management system and has a quality guarantee system that meet global standard and relevant laws to achieve a perfection of project

- ISO 9001:2008
- OHSAS 18001
- ASME STAMP "U" Pressure vessel
- ASME STAMP "PP" Pressure piping
- ASME STAMP "S" Power boiler
- Manufacturing License of special Equipment (China) Boiler & Pressure vessel

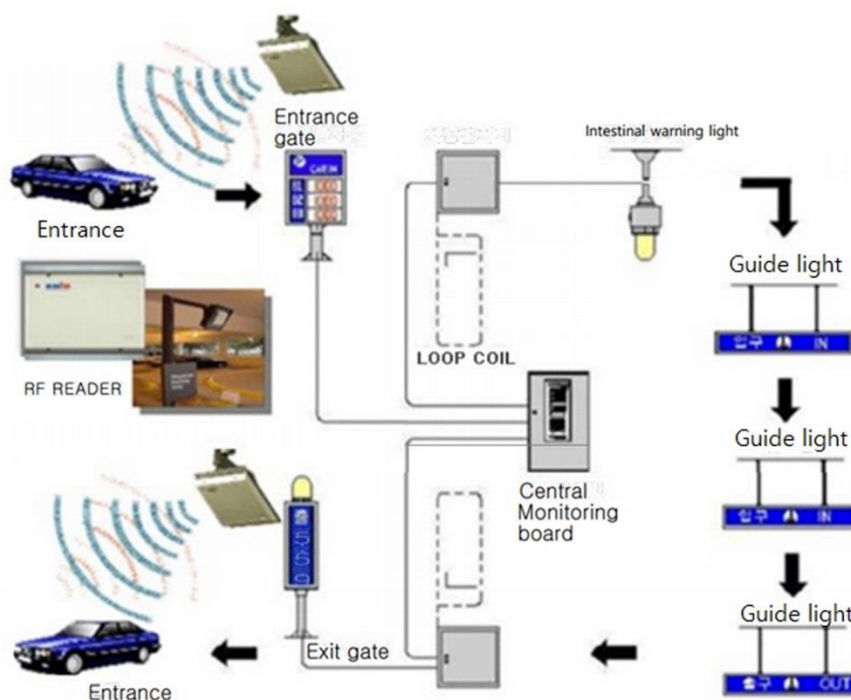


IR-LESS IP CAMERA in Super low illumination
 (Implementing a color image in the low illumination as low as moonlight <0.001 Lux>)
 Comparison images of using IR Camera(CH1) and BLACKNOON(CH2)



Signal Controlling

1. Implementing a color image in the low illumination as low as moonlight
 2. Implementing a color image of perceiver capable of recognizing the subject
- No power required (Built-in PoE)





Remote control





For more information about our products and Services, please visit:

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