



AIOT



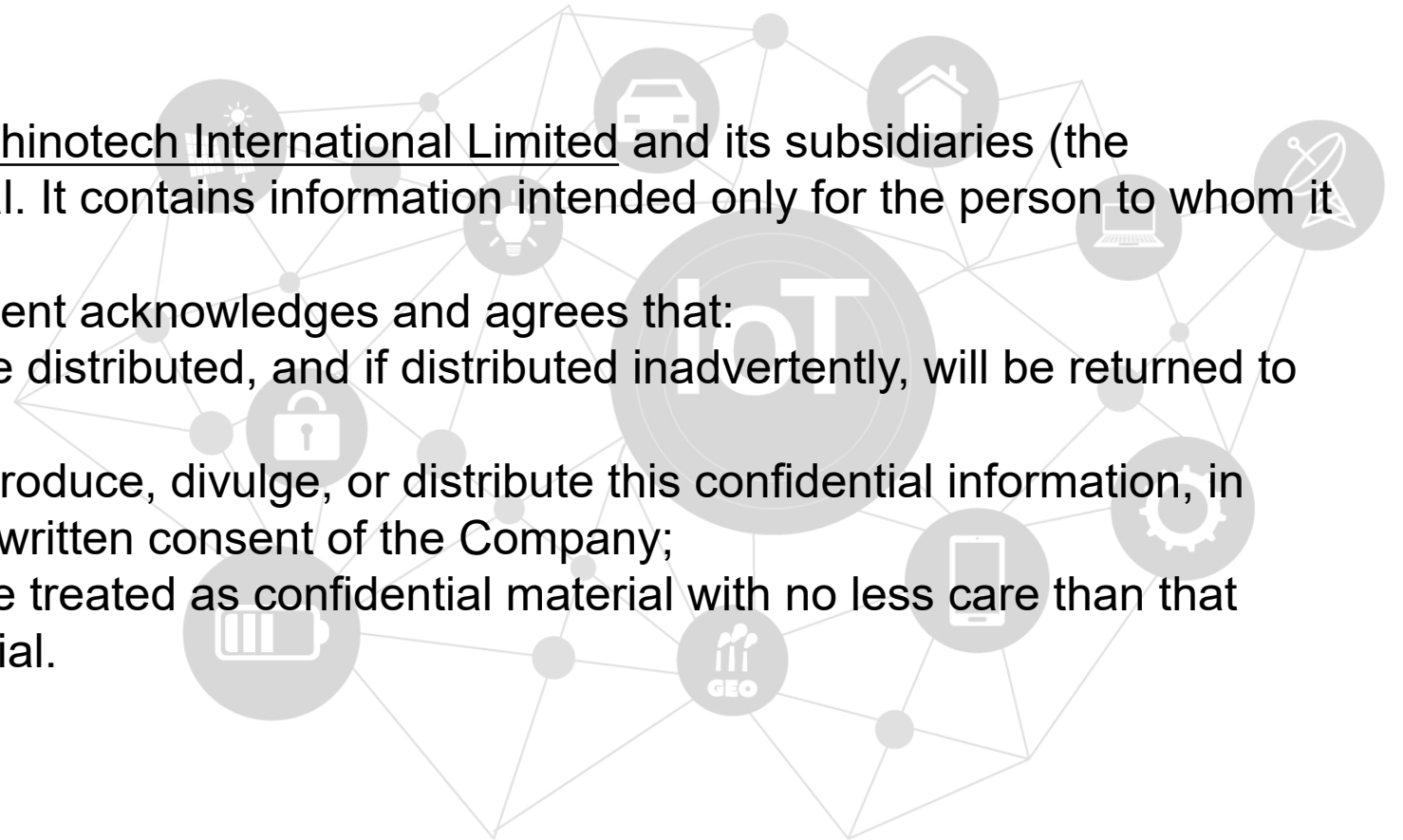
Product Catalogue

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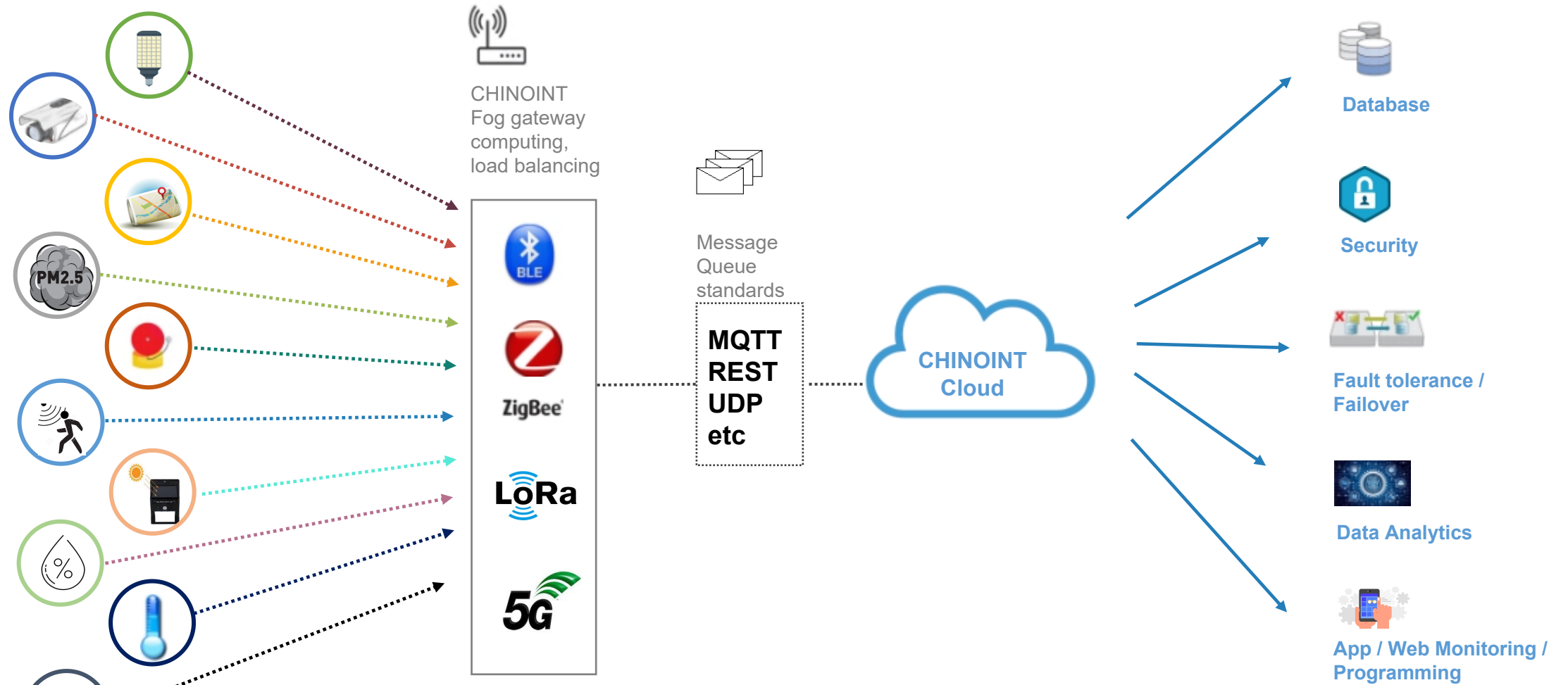
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CHINOINT
SENSE CONNECT
IoT Platform

ChinoInt : IOT PLATFORM ILLUSTRATION



ZIGBEE + LORAWAN + Bluetooth



City & Building Wide Sensor Deployment

- Uni-directional sensor data
 - control of sensors not favorable (LoRa constraints)
 - in-frequent monitoring (e.g. once per day)
- e.g. water meter



Smart Home / Office Controllable Sensor Deployment

- Bi-directional sensor data, setting
 - Control signal is included in Zigbee spec
 - frequent monitoring
- e.g. electric meter with on / off feature

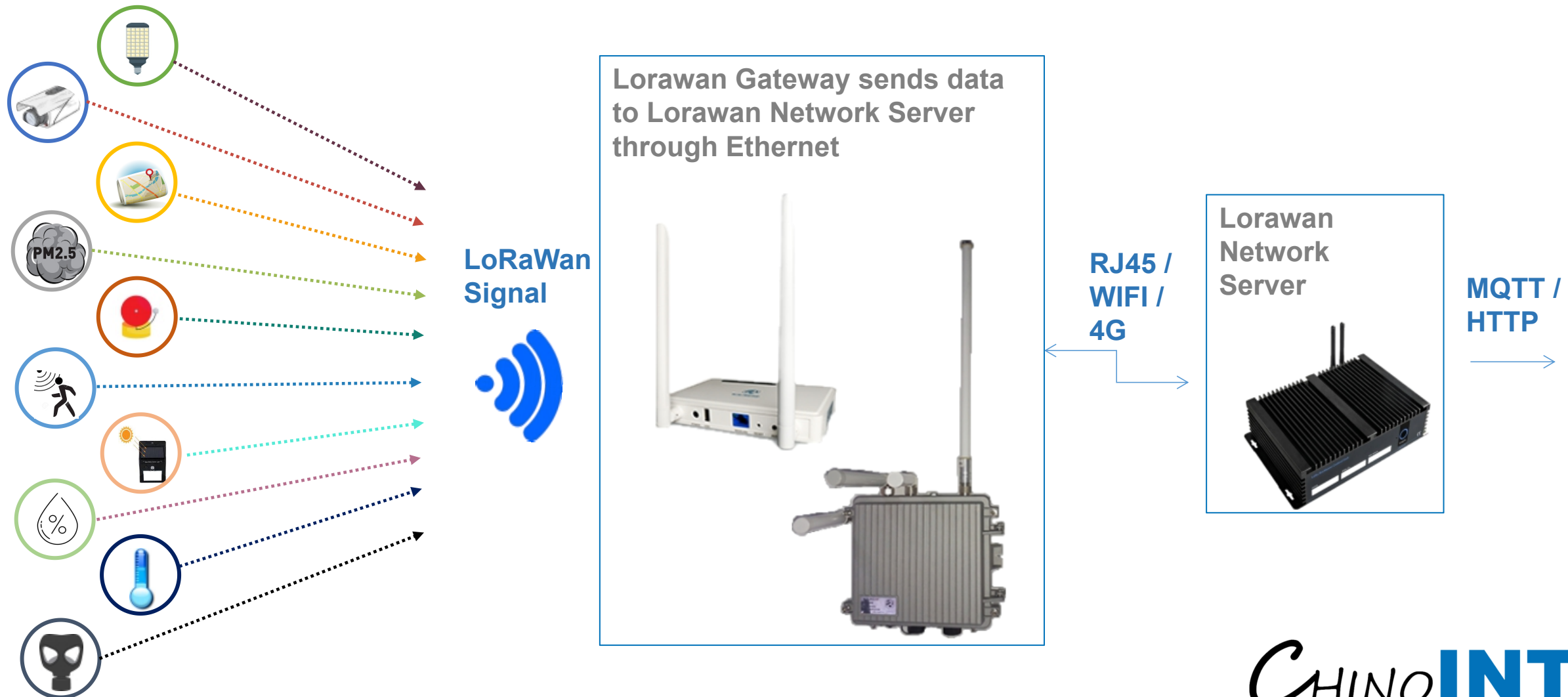


Short range low data rate personal area network

- Bi-directional sensor data
- Device remote control
- BLE spec improves power consumption e.g. headset, personal computer, etc



LORAWAN INFRASTRUCTURE : BASIC TOPOLOGY



Services

OUR SERVICES



Consulting



Design In



Deployment



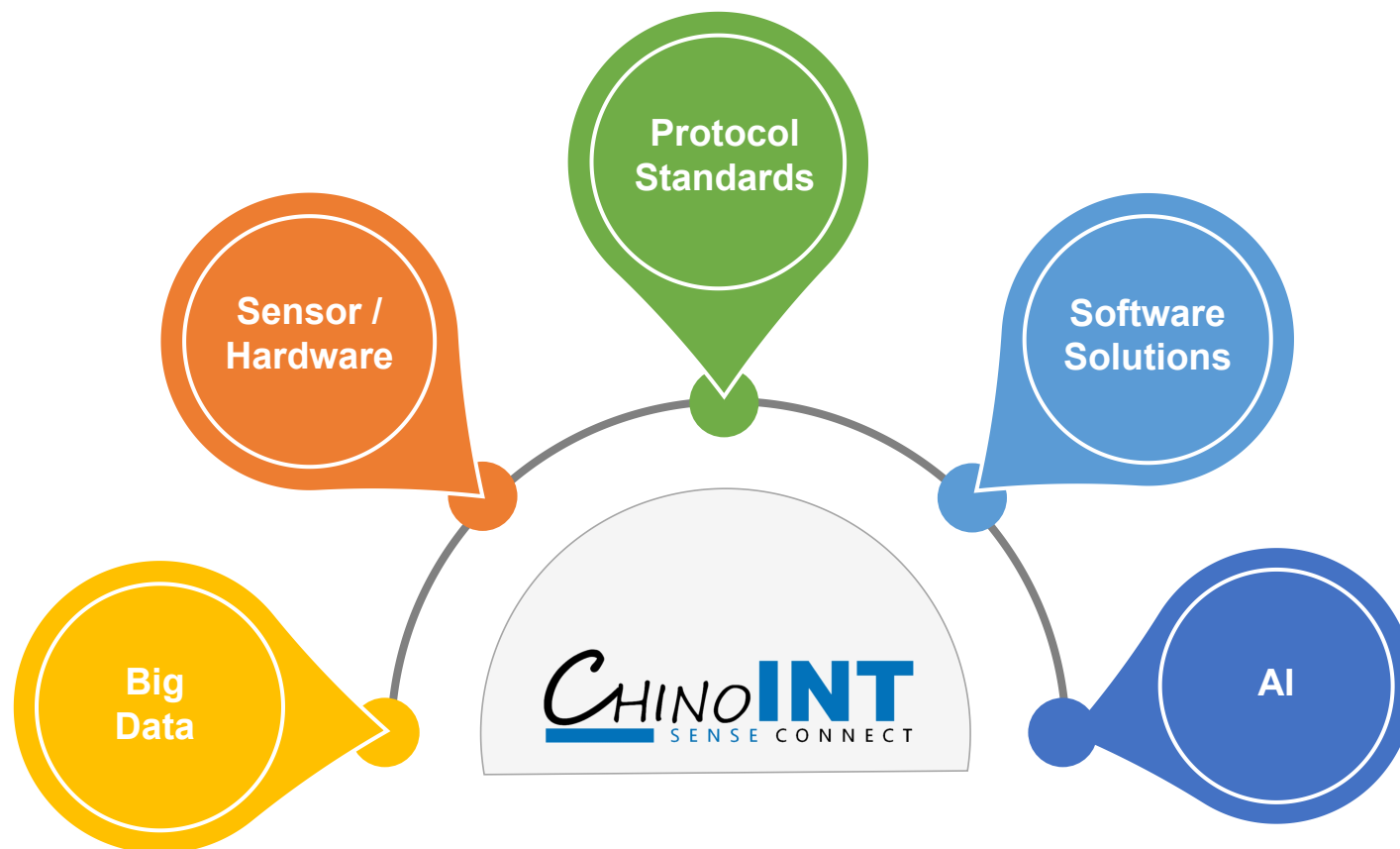
Maintenance



SMART INTEGRATION DONE SMARTLY

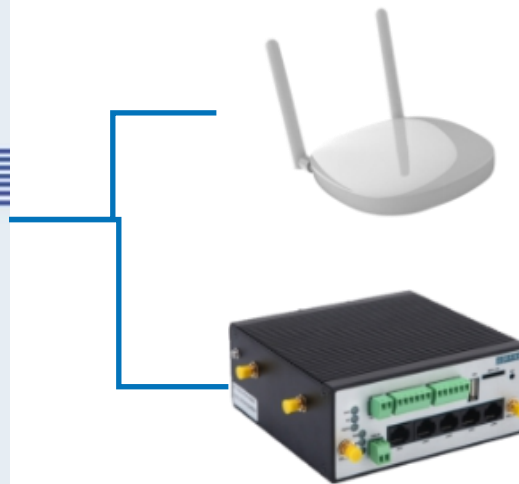
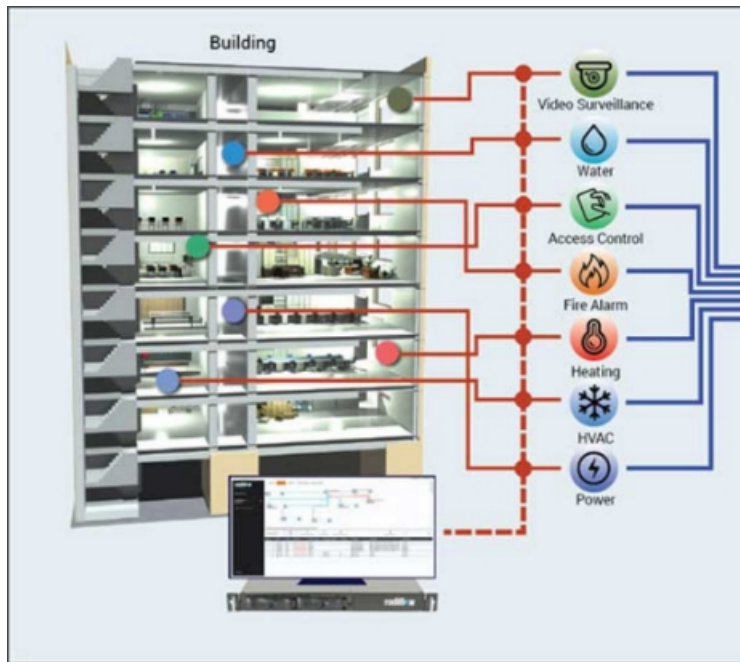


ChinoInt is positioned to be a System Integrator for Smart Building and Smart City solutions.
ChinoInt will master the IoT technologies such as Protocol Standards, Hardware, Software solutions, Big Data, AI, etc.
The aim is to integrate them into a single system, in order to offer a total solution to our customers.



Data Integration

Generally speaking, ChinoINT is able to gather sensor data and feed them back to the BMS, or provide dashboard for easy checking



IoT Gateways



Numerous sensor type to produce reliable data, such as water leakage, occupancy, IAQ, light intensity, etc

ChinoINT offers a rich selection of sensors, in order to provide the best-in-class solution
Feel free to visit our latest product catalogue

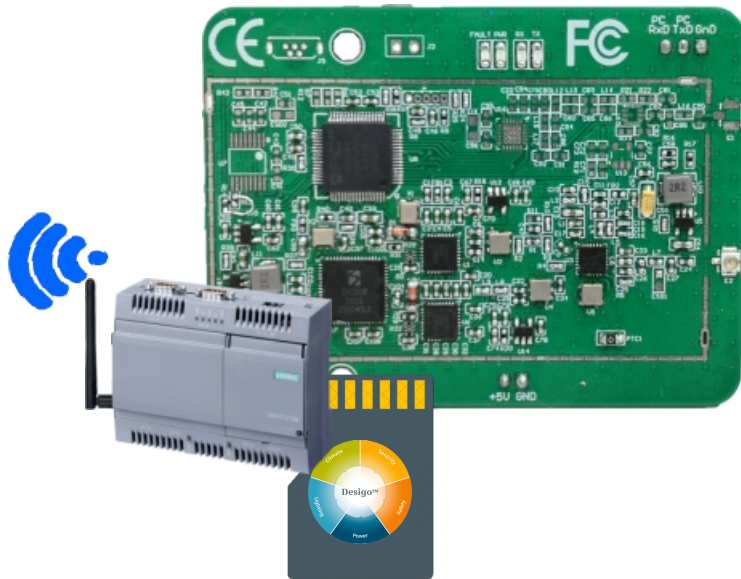
People Counting Sensors
IAQ and Gas sensors
Lighting Control
Control
Status Sensors
Nursing System
RFID System
Access Gate
Sensor Integration



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ChinoINT Homebrew Series

LoRaWan Gateway Upgrade Kit for IOT2040



Parameter	Spec
Name	LoRaWan Gateway Upgrade Kit
ChinoInt Part Number	SECIHWLGE200
Dimension	58 x 78 mm
Protocol	LoRaWan 1.0.2
Channels	8
Automatic SF	Support
Max Output Power	25dBm
Receiver Sensitivity	-142.5dB
Class	A / B / C
Frequency	CN470 / EU433 / AS923
Certification	FCC

Datasheet:

https://b820c62d-c647-4adf-b39f-caf90d2cfe27.filesusr.com/ugd/b81849_078bcfe97a504d8fb9213f9212a69ef0.pdf

LoRaWan SOS Button



Parameter	Spec
Name	LoRaWan SOS Button
ChinoInt Part Number	AECIHWSBE200
Dimension	68 x 61 x 27mm (Housing can be custom-made to fit application)
Uplink	LoRaWan 1.0.2
Max Output Power	20dBm
Receiver Sensitivity	-148dB
Frequency	CN470 / EU433 / AS923
Battery	3.6V 3500mAh
Battery Life	10 years (30 min heartbeat)
Low Power Alert	Support
Certification	FCC

Datasheet:

https://b820c62d-c647-4adf-b39f-caf90d2cfe27.filesusr.com/ugd/b81849_3599078ed96a4df88670d5f002b5ae25.pdf

LoRaWan Occupancy Sensor



Parameter	Spec
Name	LoRaWan Occupancy Sensor
ChinoInt Part Number	AECIHWOSE200
Dimension	68 x 61 x 34mm (Housing can be custom-made to fit application)
Uplink	LoRaWan 1.0.2
Max Output Power	20dBm
Receiver Sensitivity	-148dB
Frequency	CN470 / EU433 / AS923
IR Angle	<= 100 degree
Battery	3.6V 3500mAh
Battery Life	>4 years(30 min heartbeat, assume 20 triggers per day)
Low Power Alert	Support
Certification	FCC

Datasheet:

https://b820c62d-c647-4adf-b39f-caf90d2cfe27.filesusr.com/ugd/b81849_17e833ae0de24dbab85742844d3d7387.pdf

LoRaWan Water Leakage Sensor



Parameter	Spec
Name	LoRaWan Water Leakage Sensor
ChinoInt Part Number	AECIHWWLE200
Dimension	Sensor body: 83 x 58 x 33mm Sensor head: 50 x 30mm
Number of Tip	1 - 3 (default 1)
Uplink	LoRaWan 1.0.2
Max Output Power	20dBm
Receiver Sensitivity	-148dB
Frequency	CN470 / EU433 / AS923
Battery	3.6V 3500mAh
Battery Life	> 2 years (30 min heartbeat)
Low Power Alert	Support
Certification	FCC

Datasheet:

https://b820c62d-c647-4adf-b39f-caf90d2cfe27.filesusr.com/ugd/b81849_74d0be4655a64a96b51346c16af4f44f.pdf

LoRaWan Distance Sensor (Smart Toilet)



Parameter	Spec
Name	LoRaWan Distance Sensor
ChinoInt Part Number	AECIHWDSE200
Dimension	68 x 61 x 27mm (Housing can be custom-made to fit application)
Uplink	LoRaWan 1.0.2
Max Output Power	20dBm
Receiver Sensitivity	-148dB
Frequency	CN470 / EU433 / AS923
Battery	3.6V 3500mAh
Battery Life	> 2 years (5 min interval)
Low Power Alert	Support
Certification	FCC

Datasheet:

https://b820c62d-c647-4adf-b39f-caf90d2cfe27.filesusr.com/ugd/b81849_4e66300070be4f4884cc31c8641f5b62.pdf

LoRaWan Sensor Node



Parameter	Spec
Name	LoRaWan Sensor Node
ChinoInt Part Number	AECIHWSNE200
Dimension	83 x 58 x 33mm (Housing can be custom-made to fit application)
Uplink	LoRaWan 1.0.2
Max Output Power	20dBm
Receiver Sensitivity	-148dB
Sensor Protocol	RS485, UART, I2C, 4-20mA, 0-10V, GPIO x 3
Frequency	CN470 / EU433 / AS923
Battery	3.6V 3500mAh
Battery Life	10 years standby (30 min heartbeat, sensor loading excluded)
Low Power Alert	Support
Certification	FCC

Datasheet:

https://b820c62d-c647-4adf-b39f-caf90d2cfe27.filesusr.com/ugd/b81849_7b098aacadfe4f86b2f7dbf54047ae10.pdf

LoRaWan CT Meter



Parameter	Spec
ChinoInt Part Number	AECIHWCTE204
Dimension	110 x 70 x 59mm (Housing can be custom-made to fit application)
Uplink	LoRaWan 1.0.2
Max Output Power	20dBm
Receiver Sensitivity	-148dB
Measure Range	0 - 400A
Resolution	0.1A
Accuracy	+/- 1%
Frequency	CN470 / EU433 / AS923
Battery	3.6V 3500mAh
Battery Life	5 years (30 min interval)
Low Power Alert	Support
Certification	FCC
IP Rating	IP65 (battery box)

Datasheet:

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LoRaWan Non-immersible Water Level Sensor



Parameter	Spec
ChinoInt Part Number	AECIHWLLE204
Dimension	110 x 70 x 59mm (Housing can be custom-made to fit application)
Uplink	LoRaWan 1.0.2
Max Output Power	20dBm
Receiver Sensitivity	-148dB
Measure Range	50 - 2000 mm
Sensing Technology	Ultrasonic
Tank Thickness	3 - 8mm (metal or plastic, no rust / paint)
Frequency	CN470 / EU433 / AS923
Battery	3.6V 3500mAh
Battery Life	3 years (30 min interval)
Low Power Alert	Support
Certification	FCC
IP Rating	IP65 (battery box)

Datasheet:

https://b820c62d-c647-4adf-b39f-caf90d2cfe27.filesusr.com/ugd/b81849_9228853bc3e14493a85d7949e457291f.pdf

Connectivity Gateways

Part Number	AEDGHWGW0203	AEDGHWGW0204	AEDGHWGW0201	AEDGHWGW0202	AEDGHWGW0308	AEDGHWGW0309	AEDGHWGWLPS8
Appearance							
LoRa Module	Base on SX1276/SX1278 LoRa module solution				SX1301 + 2 x 1257		SX1308 + 2 x 1257
Ta / Rx Channel	2x TX/RX, Full duplex				10 x RX + 1 TX		
LoRaWAN	ABP				Standard LoRaWAN		
End Node	Private LoRa End node or LoRaWAN End Node which work in single Frequency and have a longer RX time				Any LoRaWAN Compatible End node		
3G / 4G	No	Yes	No	Yes	No	Yes	No
Standard	LoRaWan / LoRa						
Tx Power	20dBm Max						
Rx Sensitivity	-140dBm (Spreading factor 10, bandwidth 125KHz)						
Power Input	12V DC, 1A						5V 2A, or Type C USB
Output Power	20dBm Max	20dBm Max	20dBm Max	20dBm Max	27dBm Max	27dBm Max	20dBm Max
Sensitivity	-148dBm	-148dBm	-148dBm	-148dBm	-140dBm	-140dBm	-140dBm
10 / 100M	2	2	2	2	2	2	1
Wifi b/g/n	1	1	1	1	1	1	1
USB Host	1	1	1	1	1	1	1
USB Power	x	x	x	x	x	x	1
Mini PCIe	x	x	x	x	1	1	x
Frequency	CN470, US915, AU915, AS923, KR920, EU868,IN865						

LoRaWan Gateway

- LoRaWan indoor gateway
- Optional 4G Uplink
- Proprietary technology to reduce network server
- LoRa / LoRaWan Support
- Work with LoRaWan compatible sensors
- CE / FCC

Indoor Gateway
AEDGHWGW0308



Outdoor Gateway
AEDGHWGWLOS8

Parameter	Spec
Frequency Band	470 / 868 / 915 / 923MHz
Protocol	LoRaWan 1.0.2
Channel	10
Class	A / C (Indoor) A / B / C (Outdoor)
Power	DC12V, POE
Optional 4G	LTE,UMTS/HSPA+ and GSM/GPRS/EDGE coverage
Network Backhaul	10M/100M RJ45 Ports 2.4G WiFi (802.11 bgn)
Dimension	158x114x30mm (AEDGHWGWLOS8)
Certification	CE, FCC

LoRa / LoRaWan Gateway - AEDGHWGW020x

- LoRaWan indoor / outdoor gateway
- 4G Uplink
- Proprietary technology to reduce network server
- LoRa / LoRaWan Support
- Work with LoRaWan compatible sensors
- CE / FCC

Indoor Gateway
AEDGHWGW0201



Outdoor Gateway
AEDGHWGW0203



Parameter	Spec
Frequency Band	470 / 868 / 915 / 923MHz
Protocol	LoRaWan 1.0.2
Channel	2
Class	A / C
Power	DC12V
4G Optional (AEDGHWGW0202)	LTE,UMTS/HSPA+ and GSM/GPRS/EDGE coverage
Network Backhaul	10M/100M RJ45 Ports x 2 2.4G WiFi (802.11 bgn)
Dimension	110x85x30mm (AEDGHWGW0201)
Certification	CE, FCC

LoRa / LoRaWan Repeater - AEDGHWGW021x

- LoRaWan indoor / outdoor repeater
- Extending LoRaWan coverage without data cabling
- Proprietary technology to repeat LoRaWan signal
- LoRa / LoRaWan Support
- Work with LoRaWan compatible sensors
- CE / FCC

Indoor Repeater
AEDGHWGW0211



Outdoor Repeater
AEDGHWGW0213



Parameter	Spec
Frequency Band	470 / 868 / 915 / 923MHz
Protocol	LoRaWan 1.0.2
Channel	2
Class	A / C
Power	DC12V
Dimension	110x85x30mm
Certification	CE, FCC

Edge Computing Gateway - AEDGHWGW0201



Parameter	Spec
Power	DC12V
4G Optional (AEDGHWGW0202)	LTE,UMTS/HSPA+ and GSM/GPRS/EDGE coverage
Network Backhaul	10M/100M RJ45 Ports x 2 2.4G WiFi (802.11 bgn)
Dimension	110x85x30mm
Certification	CE, FCC
MCU	AR9331 14K MIPS
Flash	16MB
RAM	64MB

LoRaWan Edge Computing Gateway - AEDGHWGWLPS8

- LoRaWan indoor gateway
- Proprietary technology to reduce network server
- LoRa / LoRaWan Support
- Work with LoRaWan sensors
- CE / FCC
- Support up to 300 nodes



Parameter	Spec
Frequency Band	470 / 868 / 915 / 923MHz
Protocol	LoRaWan 1.0.2
Channel	10
Class	A / C
Power	DC5V, USB-C
Network Backhaul	10M/100M RJ45 Port 2.4G WiFi (802.11 bgn)
Dimension	120 x 120 x 30mm, 187g
Certification	CE, FCC

LoRaWan Network Server

- LoRaWan Network Server Hardware + Software
- No extra device license needed
- Intel 1037U Fanless design 64bit x86 processor /8GB DDR3/64GB SSD
- Linux OS
- ETH 1Gbps×2, USB×4, COM×4
- HDMI×1, VGA×1
- 88~264Vac 50/60Hz, DC 12V/3A

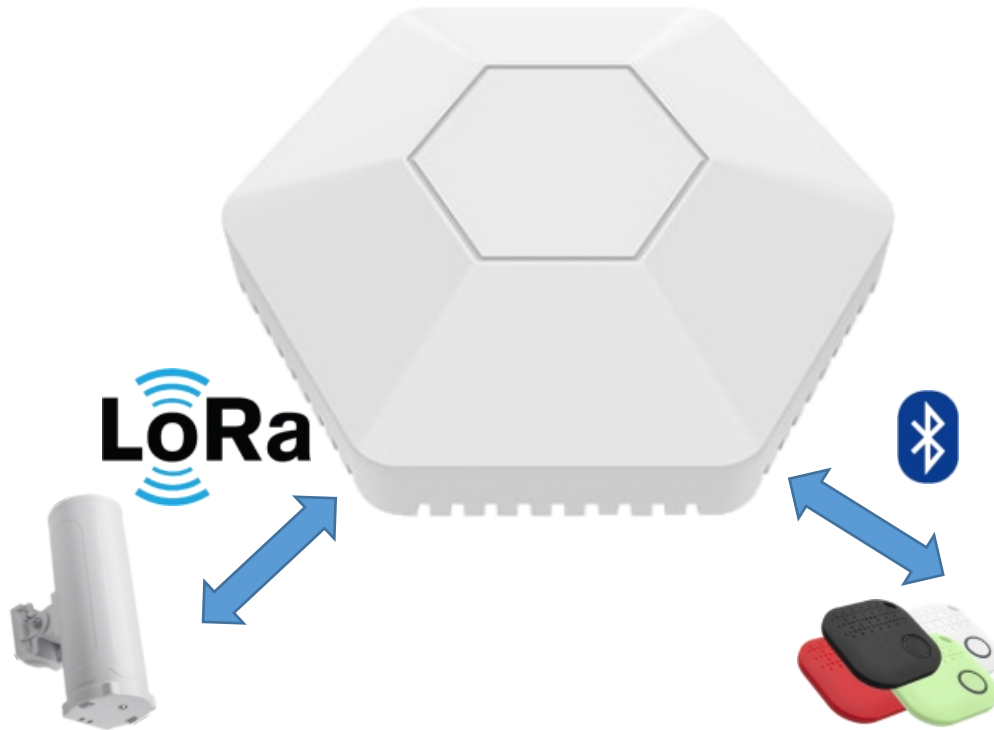


- Separate model available for 10000 LoRaWan nodes



Parameter	Spec
Frequency Band	470 / 868 / 915 / 923MHz
Protocol	LoRaWan 1.0.2
ADR	Support
Encryption	AES128
Class	A / B / C
Device Registration	OTAA / ABP, mass import
API	MQTT / HTTP
Antenna	Dual antenna design
Capacity	10 gateway 2000 node
Dimension	212.5×150×43mm

LoRaWan BLE Probe

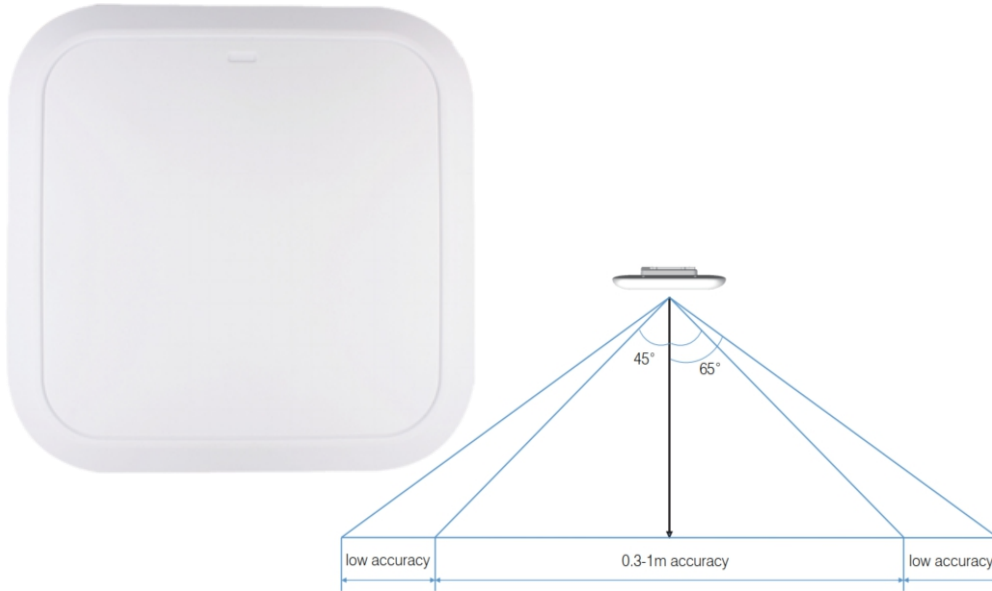


ChinoINT
LoRaWan Gateway

LoRaWan Probe (to ride on LoRaWan Infrastructure)
(to reduce BLE gateway and RJ45 uplink connection)

Parameter	Spec
ChinoInt Part Number	AEMKHWLP030B
Dimension	123 x109x 36mm
Frequency	CN470/EU868/AU915/US915/AS923/I N865/KR920/EU433/CN470/CN779
Protocol	LoRaWan 1.0.2
Max Transmit Power	20dbm
RX Sensitivity	-142.5dBm@SF12 300bps
BLE	Beacon scanning up to 80m
Power Supply	12V DC or 5000mAh chargeable battery
Operating Temperature	-40~+70°C, 10%~90%

BLE High Accuracy Positioning Gateway+



- Talented locating engine supports 0.3-1m positioning accuracy
- Real time locating system with low latency
- Talent design ensures low EMI and strong anti-interference
- Adapts for different terminals including mobile phones and the beacons in the market
- POE connection and highly integrated engine enables simple and quick deployment
- Locating engine provides API for application development

Parameter	Spec
Name	BLE High Accuracy Positioning Gateway
ChinoINT Part Number	AECPHWGW0300 / AECPHWGW0100
Dimension	240 x 240 x 40 mm (720g)
Uplink	WAN , WiFi IEEE 802.11b/g/n
Downlink	BLE 2401MHz~2481MHz
Tx Range	50m distance from gateway to sensor
Accuracy (AOA)	0.3-1m, cover up to 300 square meter
Power	POE 48V
Locating update rate	1-5Hz
Processing speed	300 locating message/s
Additional features for AECPHWGW0300	temperature, vibration, motion, humidity, gas and other sensors

BLE Location Gateway



Parameter	Spec
Name	BLE Location Gateway
ChinoINT Part Number	AEMKHWGW0101
Dimension	120mm x 120mm x 22.5mm
Uplink	WAN , WiFi IEEE 802.11b/g/n
Downlink	2.4GHz, Bluetooth 5.0, Bluetooth 4.2, BLE
Tx Range	150m max, Open space
Encryption	AES-128-ECB
Power	POE , USB , DC9V
POE	Support
Weight	136g
Manadatory Support	Eddystone, BLE

BLE Edge Computing Gateway



Parameter	Spec
Name	BLE Edge Computing Gateway
ChinoINT Part Number	AEKMHWGW0101
Dimension	165x165x25mm
Uplink	WAN , WiFi IEEE 802.11b/g/n
Downlink	BLE5.0/BLE 4.0
Tx Range	BLE4.0/4.1/4.2/BLE5.0: > 300 meters (with amplifier) open space
Scanning Capability	> 240 beacon per second
Power	POE ,DC 5V
POE	Support
Material	ABS
Working environment	-10℃~ 55℃

BLE Outdoor Edge Computing Gateway



Parameter	Spec
Name	BLE Outdoor Edge Computing Gateway
ChinoINT Part Number	AEKMHWG0201
Dimension	173*90*43.5mm
Uplink	WAN , WiFi IEEE 802.11b/g/n
Downlink	BLE5.0/BLE 4.0
Tx Range	BLE4.0/4.1/4.2/BLE5.0: > 300 meters (with amplifier) open space
Scanning Capability	> 240 beacon per second
Power	POE ,DC 5V
POE	Support
Material	ABS
Working environment	-10℃~ 55℃
Protection	IP54

Dry Contact - LoRaWan Adapter AEDGHWSN5002



LoRa Spec:

- Frequency Range,
 - Band 1 (HF): 862 ~ 1020 Mhz
 - or
 - Band 2 (LF): 410 ~ 528 Mhz
- 168 dB maximum link budget.
- +20 dBm - 100 mW constant RF output vs.
- +14 dBm high efficiency PA.
- Programmable bit rate up to 300 kbps.
- High sensitivity: down to -148 dBm.
- Bullet-proof front end: IIP3 = -12.5 dBm.
- Excellent blocking immunity.
- Low RX current of 10.3 mA, 200 nA register retention.
- Fully integrated synthesizer with a resolution of 61 Hz.
- FSK, GFSK, MSK, GMSK, LoRaTM and OOK modulation.
- Built-in bit synchronizer for clock recovery.
- Preamble detection.
- 127 dB Dynamic Range RSSI.
- Automatic RF Sense and CAD with ultra-fast AFC.
- Packet engine up to 256 bytes with CRC.
- LoRaWAN 1.0.2 Specification

Micro Controller:

- STM32L072CZT6 MCU
- MCU: STM32L072CZT6
- Flash: 192KB
- RAM: 20KB
- EEPROM: 6KB
- Clock Speed: 32Mhz

Battery:

- Li/SOCI2 un-chargeable battery
- Capacity: 4000mAh
- Self Discharge: <1% / Year @ 25°
- Max continuously current: 130mA
- Max boost current: 2A, 1 second

Power Consumption

- STOP Mode: 2.7uA @ 3.3v
- LoRa Transmit Mode: 125mA @ 20dBm 44mA @ 14dBm

Parameter	Spec
Frequency Band	433/470/868/915/920/923MHz
Protocol	LoRaWan 1.02
ADR	Support
OTAA	Support
Uplink random LoRaWAN channel selection	Support
Report Mode	event triggered / configurable scheduled reporting
Heartbeat message	support, configurable
Class	A
Power	4000mAh Li/SOCI2 battery
IP	IP68
Dimension & Weight	80 x 65 x 50 mm, 137g
Tx Power	+20 dBm - 100 mW constant RF output & +14 dBm high efficiency PA
Certificate	CE
Mounting	Direct wall mount using 2 screw

RS485 / Modbus to LoRaWAN Converter AEDGHWGW4851



LoRa Spec:

- Frequency Range,
 - Band 1 (HF): 862 ~ 1020 Mhz
 - or
 - Band 2 (LF): 410 ~ 528 Mhz
- 168 dB maximum link budget.
- +20 dBm - 100 mW constant RF output vs.
- +14 dBm high efficiency PA.
- Programmable bit rate up to 300 kbps.
- High sensitivity: down to -148 dBm.
- Bullet-proof front end: IIP3 = -12.5 dBm.
- Excellent blocking immunity.
- Low RX current of 10.3 mA, 200 nA register retention.
- Fully integrated synthesizer with a resolution of 61 Hz.
- FSK, GFSK, MSK, GMSK, LoRaTM and OOK modulation.
- Built-in bit synchronizer for clock recovery.
- Preamble detection.
- 127 dB Dynamic Range RSSI.
- Automatic RF Sense and CAD with ultra-fast AFC.
- Packet engine up to 256 bytes with CRC.
- LoRaWAN 1.0.2 Specification

Hardware System:

- STM32L072CZT6 MCU
- SX1276/78 Wireless Chip
- Power Consumption (exclude RS485 device):
 - ✧ Idle: 32mA@12v
 - ✧ 20dB Transmit: 65mA@12v

Parameter	Spec
Frequency Band	CN470/EU433/KR920/US915/EU868/AS923/AU915/IN865/RU864
Protocol	LoRaWan 1.02
Serial Protocol	Modbus/RS485
ADR	Support
OTAA	Support
Uplink random LoRaWAN channel selection	Support
Report Mode	event triggered / configurable scheduled reporting
Class	A / C
Power	DC 7 - 24V
Dimension	135 x 70 x 30 mm, 105g
Tx Power	+20 dBm - 100 mW constant RF output & +14 dBm high efficiency PA

LoRaWAN IO Module AEDGHWGW2222



- STM32L072CZT6 MCU
- SX1276/78 LoRa Wireless Chip
- LoRaWAN Class A & Class C protocol
- Optional Customized LoRa Protocol
- Bands: CN470/EU433/KR920/US915
- EU868/AS923/AU915
- AT Commands to change parameters

LoRa Spec:

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- FSK, GFSK, MSK, GMSK, LoRaTM and OOK modulation.
- Built-in bit synchronizer for clock recovery.
- Preamble detection.
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- Automatic RF Sense and CAD with ultra-fast AFC.
- Packet engine up to 256 bytes with CRC.
- LoRaWAN 1.0.2 Specification

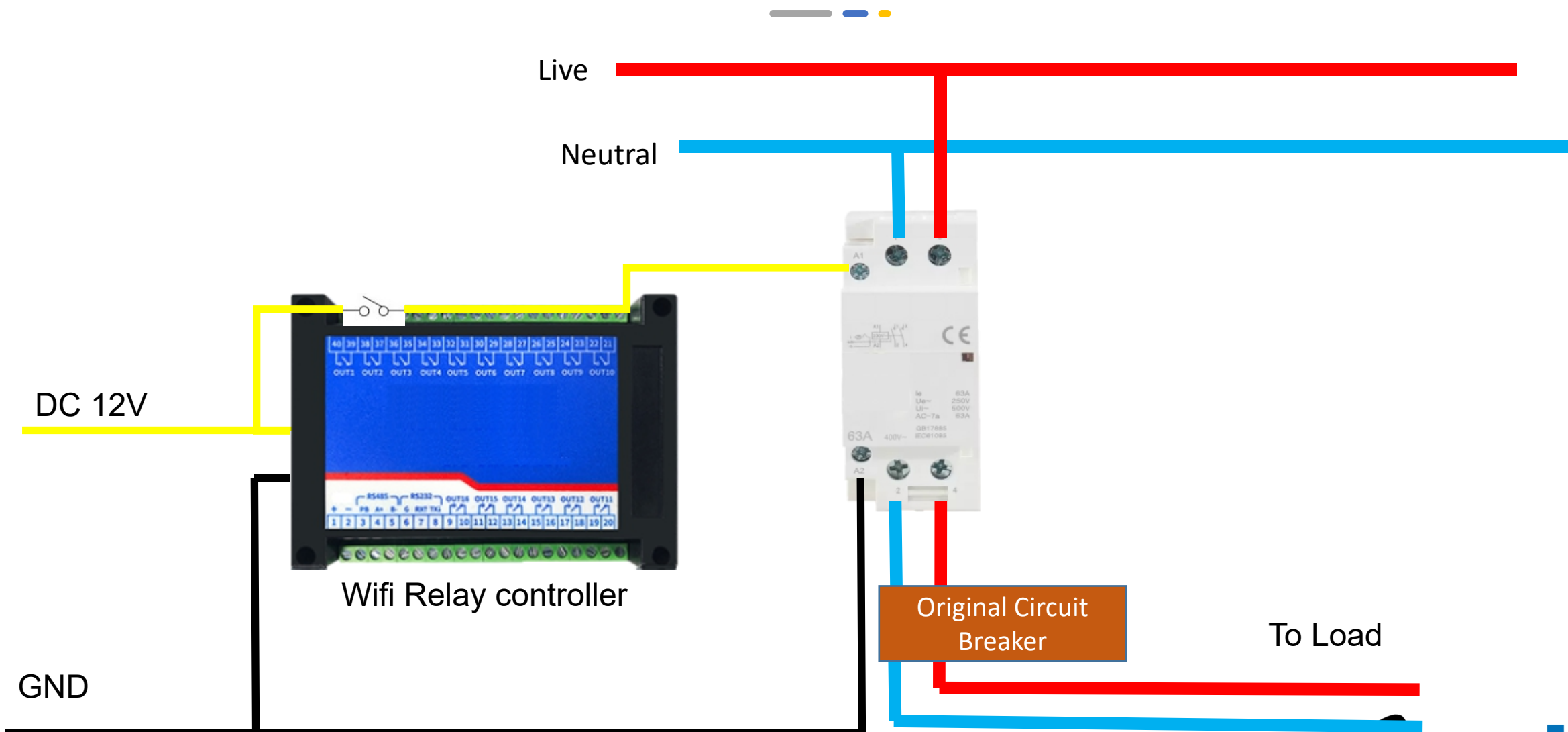
Parameter	Spec
Frequency Band	CN470/EU433/KR920/US915/EU868/AS923/AU915/IN865/RU864
Protocol	LoRaWan 1.02
Class	A / C
Digital Input	2 (bi-directional)
Digital Output	2
Relay Output	2 (5A@250VAC / 30VDC)
Analog Input	2 x 0~20mA (res:0.01mA)
Analog Input	2 x 0~30V (res:0.01v)
Power	DC 7 - 24V
Dimension	13.5 x 7 x 3 cm, 105g

Remote Electricity Power Controller / DI / DO



Parameter	Spec
ChinoINT Part Number	AEJYHWRExxxx
Contact Rating	10A/30VDC 10A/250VAC
Number of channels	4 to 32
Durability	100000 times
Data interface	Wifi, Ethernet, RS485
Rated voltage	DC 7-30V
Temperature range	Industrial -40℃~85℃
Dimension	145*94*41mm (12 DO)
Weight	330g (12 DO)
Certification	CE
Mounting	Din Rail

Power Controller in ELV Room



Zigbee Gateway



Zigbee Gateway
IoT Gateway
Edge Computing Device

Parameter	Spec
Name	IoT Gateway
ChinoInt Part Number	AESCHWGW0301
Dimension	103x103x19.5mm
Uplink	Wan, WiFi
Downlink	zigbee, WiFi
Tx Power	+18DB（zigbee）、+15DB（wifi）
MCU	580MHz, FLAS256M, DDR2:1G
Power	USB powered, 5V 1A, POE compatible
POE	Support, convertible
Operating Temperature	0 - 50℃
Operating Humidity	≤ 5 - 95% RH, non-condensing
Storage temperature	-10 - 60℃

People Counting System

Dual Lens Video people counting system



AEWCHWIR0102	
Dimension	194 × 70.2 × 35.8 mm
Weight	271 g (0.6 lb)
Power Supply	12VDC or POE
Operating Temperature	-10 °C to + 40 °C
Operating Humidity	10% to 90%, no condensing
Storage temperature	-10 - 50°C
Reference	HIKVISION iDS-2CD6810F/C

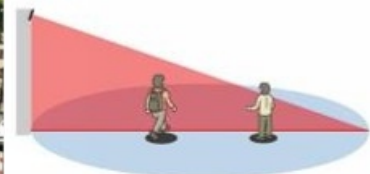
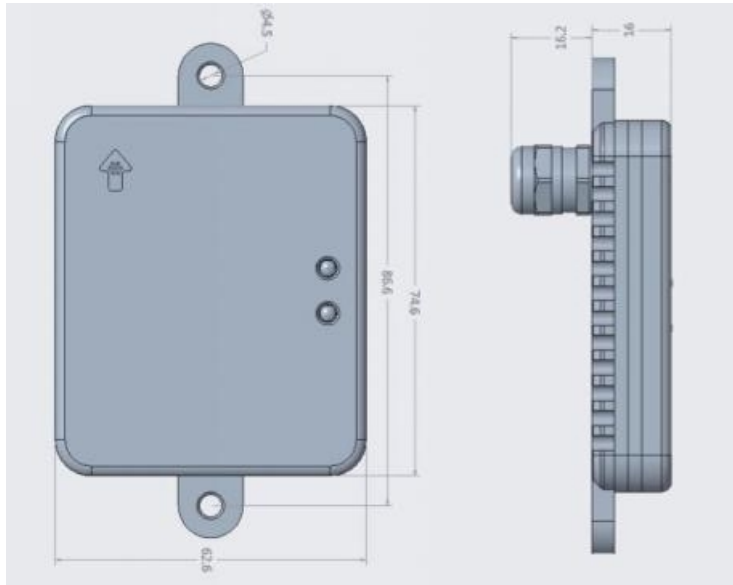
TOF Video people counting system



AEWCHWIR0102

Dimension	195mm x 110mm x 32mm
Weight	550g
Counting Modes	Line counting, advanced count line logic, group counting
Power Supply	POE
Cascade	up to 4 units
Auto Height Setup	Yes

People Counting Radar



AEWHHWPR0101

Dimension	99.6mm×62.6mm×16mm
Frequency Range	78GHz ~ 79.25GHz
Modulation	FMCW
Range	1.5m ~13m
Velocity Measurement	-5 m/s ~ +5m/s
Max number of target	35
Voltage	12V DC

Sensor based Vehicle Counting and monitoring



High performance radar works in 77GHz
Accurate measurement of distance, speed and angle of multiple lanes and multiple targets (up to 128)
Advanced DSP technology, high velocity accuracy & low false alarm rate
Low power consumption, size and structure design suitable for installation
Ride on our LoRaWan network
Strong environmental adaptability, detection performance is not affected by external environment such as light, dust, rain and snow

Specification		
Frequency Range		77GHz
Modulation		FMCW
Bandwidth		150MHz
Data Rate		14Hz
Azimuth Angle Range		$\pm 15^{\circ}$
Elevation Angle Range		$\pm 3^{\circ}$
Range Measurement		200m
Velocity Measurement		0 km/h ~+200 km/h
Range Accuracy		1m
Velocity Accuracy		-1 km/h ~0km/h
Lane Section Flow	Expressway	96%
	Smooth Traffic (city)	95%
	Congestion Traffic (city)	92%
Voltage Range		9~12V DC
Current Range		<330mA
Power Consumption		5W
Temperature Range		-40°C~+85°C
Dimensions(H×W×D)		139.5mm×101.5mm×26.7mm

IAQ & Gas Sensors

All-in-One IAQ Sensor



Monitor an indoor space of > 50m²

Item	Unit	Range	Resolution
Temperature	°C	-10-45	0.1
Humidity	%RH	0-100	0.1
CO2	ppm	400-2000	1
HCHO	mg/m3	0-2.00	0.001
TVOC	ppb	0-9999	1
PM2.5	ug/m3	0-6000	1
PM10	ug/m3	0-6000	1
PM1.0	ug/m3	0-6000	1
NH3	ppm	0-50	0.01
H2S	ppm	0-100	0.01

Spec & Common Models



Item	Spec
Working Voltage	7-36Vdc/250mA
Dimension	110*110*37mm
Working Temperature	-10oC-45oC
Communication	Modbus RTU / Wifi

Part Number	°C	%RH	CO2	HCHO	TVOC	NH3	H2S	PM 1.0 / 2.5 / 10
AEASHWAQ0100								
AEASHWAQ0101								
AEASHWAQ0102								
AEASHWAQ0103								
AEASHWAQ0104								
AEASHWAQ0105								
AEASHWAQ0106								
AEASHWAQ0107								

Common models
Able to tailor-made to fit your needs
Able to other elements on-demand

IPS Display



Integrated IPS display for real time data visualization

Able to custom-made to add IAQ index

Display style can be changed on request

More IAQ Sensor Selection



						
Temperature - °C	-10-45 / 0.1	-10-45 / 0.1	-10-45 / 1			-10-45 / 1
Humidity - %RH	0-100 / 0.1	0-100 / 0.1	0-100 / 1			0-100 / 1
NH3 - ppm		0-100 / 0.01				
H2S - ppm		0-100 / 0.01			0-300 / 1	
PM2.5 - ug/m3	0-1000 / 1	0-1000 / 1	0-500 / 1			0-1000 / 1
PM10 - ug/m3	0-1000 / 1	0-1000 / 1				
CO2 - ppm	400-4000 / 1	400-2000 / 1				400-5000 / 1
CO - ppm	0-500 / 1					
e-CO2 - ppm			450-2000 / 1			
TVOC	0-2.00mg/m3 / 0.01	0-9999ppb / 1	125-600ppb / 1	0-500 / 1		0-2.00mg/m3/ 0.01
HCHO -mg/m3	0-2.00/ 0.01	0-2.000 / 0.001				0-2.00 / 0.01
O2 - %vol	0-30 / 0.1					
Smoke - ppm	0-5000 / 10					
CH4 Flammable - %LEL	0-100 / 0.1					

Integrated IAQ Sensor + LoRaWan Adapter



Parameter	Spec
Name	Integrated IAQ Sensor + LoRaWan Adapter
ChinoInt Part Number	AEWHHWPR0101
Warm up time	DC9V~36V
Response Time	< 10s
Interface	RS485
Voltage Range	DC9V~36V
Operation Condition	0~50°C, 15%-90%RH (non-condensing)
Dimensions(H×W×D)	110*110*47mm

Item	Unit	Range	Resolution	Accuracy
Temperature	°C	0-60	0.01	+-0.5
Humidity	%RH	0-100	0.04	+-3
CO2	ppm	400-2000	50	+-75
HCHO	mg/m3	0-0.5	0.001	+-0.003
TVOC	mg/m3	0-1.2	0.001	+-0.012
PM2.5	ug/m3	0-1000	0.3	+-10%
PM10	ug/m3	0-1000	0.3	+-10%

LoRaWan IAQ Sensor (RHT, PIR, Lux, CO2, TVOC, pressure)



Parameter	Spec
Name	LoRaWan IAQ Sensor
ChinoInt Part Number	AEULHWIA0102
Dimension	105 × 70.4 × 21.2 mm
Uplink	LoRaWan 1.0.2
Temperature	Range:-20 °C to + 70 °C, Accuracy: ±0.3 °C (0 ~ 70 °C), ±0.6 °C (-20 ~ 0 °C), Resolution: 0.1 °C
Relative Humidity	Range: 0% to 100% RH, Accuracy: ±3% RH (10 ~ 90%), ±5% RH (0 ~ 10%, 90 ~ 100%), Resolution: 0.1%
PIR	Detection Area: 94 ° Horizontal, 82 ° Vertical, Distance: 5 m
Lux	Range: 60000 lux (Visible + IR, IR), Accuracy: ±30%
CO2	Range: 400 ~ 5000 ppm, Accuracy: ±30 ppm or ±3% of reading, Resolution: 1 ppm
TVOC	Range: 0 ~ 60000 ppb (total VOC), Accuracy: ±15% of reading, Stability: 1.3% accuracy drift per year
Barometric pressure	Range: 300 ~ 1100 hPa (-40 ~ 85 °C), Accuracy: ±1 hPa, Resolution: 0.1 hPa"
Power	2 × AA alkaline batteries/Powered by Type C port
Battery Life	~1 year (SF12, 10 min interval)

LoRaWan Outdoor 4-in-1 CO2 Sensor

(CO2, barometr, barometric pressure, humidity, temperature)



Parameter	Spec
Name	LoRaWan Outdoor 4-in-1 CO2 Sensor
ChinoInt Part Number	AEULHWOA5CO2
Dimension	156.1 × 71 × 69.5 mm
Uplink	LoRaWan 1.0.2
Temperature	-20 °C to + 70 °C, Accuracy: ±0.3 °C (0 ~ 70 °C), ±0.6 °C (-20 ~ 0 °C), Resolution: 0.1 °C
Relative Humidity	Range: 0% to 100% RH, Accuracy: ±3% RH (10 ~ 90%), ±5% RH (0 ~ 10%, 90 ~ 100%), Resolution: 0.1%
CO2	Range: 400 ~ 5000 ppm, Accuracy: ±30 ppm or ±3% of reading, Resolution: 1 ppm
Barometric Pressure	Range: 300 ~ 1100 hPa (-40 ~ 85 °C), Accuracy: ±1 hPa, Resolution: 0.1 hPa
Power	19000 mAh Li-SOCl2
Battery Life	5.4 year (SF7, 10 min interval)
IP	IP66
Low Power Alert	Support
Mouting	DIN rail, wall, pole mounting

LoRaWan Outdoor CO2/Temperature/Humidity Sensor With Solar Panel



Parameter	Spec
Name	LoRaWan RHT Sensor
ChinoInt Part Number	AENVHWC30201
Dimension	Mask Body: D220mm*H340mm, Solar Panel Size: 290mm*150mm*25mm
Uplink	LoRaWan 1.0.2
Temperature	Range: -20 °C — 55 °C Accuracy +/-0.5 °C@25 °C Max.+/-0.8 °C@ -20 °C — 55 °C
Relative Humidity	Range: 0%RH-100%RH Accuracy: +/-4%RH @25 °C
CO2	Range: 0-5000ppm, Accuracy: +/- (100ppm+6% read value)
Power	3 Rechargeable Lithium Batteries In Series (Single-Cell Rechargeable Lithium Battery 3.7V, Capacity Recommended 5000mah)
Battery Life	360 hours (report data once every 15 minutes, with a rechargeable battery capacity of 5000mah)
IP	IP55

LoRaWan Outdoor CO2/Temperature/Humidity Sensor DC



Parameter	Spec
Name	LoRaWan Outdoor CO2/Temperature/Humidity Sensor DC
ChinoInt Part Number	AENVHWC30202
Dimension	Mask Body: D220mm*H380mm, Internal Main Body Size: 111mm*86mm*41mm
Uplink	LoRaWan 1.0.2
Temperature	Range: -20 °C—55 °C Accuracy +/-0.5 °C@25 °C Max.+/-0.8 °C@ -20 °C—55 °C
Relative Humidity	Range: 0%RH-100%RH Accuracy: +/-4%RH @25 °C
CO2	Range: 0-5000ppm, Accuracy: +/- (100ppm+6% read value)
Power	DC12V / 1A
IP	IP55



Industrial Gas Sensor Family



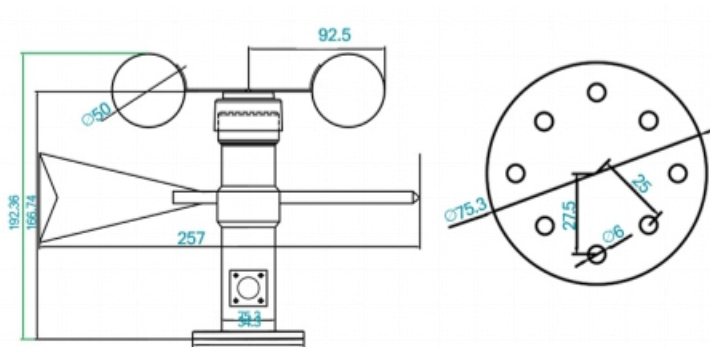
Parameter	Spec
Name	Industrial Gas Sensor Family
ChinoInt Part Number	AAZZHWGSxxxx
Explosion Protection Level	Exd IIC T6
Rateing	IP65
Accuracy	3% (25°C)
Response time	< 15s
Power	DC12V, <1W
Dimension	172x142x90mm
Operating Condtion	-30-50°C, 15-95%RH non-condensing
Protocol	RS485

Sensing element	Spec	Technology
H2S	0-100ppm/0-1000ppm	Electrochemical
NO2	0-20ppm/0-100ppm/0-2000ppm	Electrochemical
O3	0-10ppm/0-20ppm/0-100ppm	Electrochemical
HCHO (Formaldehyde)	0-5ppm	Electrochemical
NO	0-250ppm/0-2000ppm	Electrochemical
SO2	0-20ppm/0-100ppm/0-2000ppm	Electrochemical
CO	0-1000ppm/0-2000ppm	Electrochemical
NH3	0-100ppm/0-1000ppm/0-5000ppm	Electrochemical
H2	0-1000ppm/0-40000ppm	Electrochemical
CH4	0-100%LEL	Electrochemical
CO2	5000ppm	Electrochemical
O2	0-30%/0-100%	Electrochemical

Wind Sensor



Parameter	Spec
Name	Wind Sensor
ChinoInt Part Number	AAZZHWWSWSD0
Dimension	257 x 193 x 76 mm
Protocol	RS485 / Modbus-RTU
Wind Speed	0 - 30 m/s (+/- 3%)
Wind Direction	16 directions (22.5°)
Starting Speed	0.4m/s
Power	DC 9~24V



LoRaWan CO2/Temperature/Humidity Sensor DC



Parameter	Spec
Name	LoRaWan CO2/Temperature/Humidity Sensor DC
ChinoInt Part Number	AENVHWC30101
Dimension	111mm*86mm*42mm
Uplink	LoRaWan 1.0.2
Temperature	Range: -20° C — 55° C Accuracy +/-0.5° C@25° C Max.+/-0.8° C@ -20° C — 55° C
Relative Humidity	Range: 0%RH-100%RH Accuracy: +/-4%RH @25° C
CO2	Range: 0-5000ppm, Accuracy: +/- (100ppm+6% read value)
Power	DC12V/1A

LoRaWan CO2/Temperature/Humidity Sensor Battery



Parameter	Spec
Name	LoRaWan CO2/Temperature/Humidity Sensor Battery
ChinoInt Part Number	AENVHWC30102
Dimension	111mm*86mm*42mm
Uplink	LoRaWan 1.0.2
Temperature	Range: -20° C – 55° C Accuracy +/-0.5° C@25° C Max.+/-0.8° C@ -20° C – 55° C
Relative Humidity	Range: 0%RH-100%RH Accuracy: +/-4%RH @25° C
CO2	Range: 0-5000ppm, Accuracy: +/- (100ppm+6% read value)
Power	Apply 8 Sections Of ER14505 Lithium Batteries, Lithium Battery Power Supply Voltage 7.2v, Total Capacity 9600mah, (Single-Section Lithium Battery: 3.6V 2400mAH)
Battery Life	The Battery Life Is About 1 Year

LoRaWan Smoke and Heat Detector - AEGSHWSH0134



Parameter	Spec
Dimension	Φ120 x 53 mm, 112.5g
Protocol	LoRaWan 1.0.2
Frequency	863-870MHz (EU), 902-928MHz (US)
Transmission Range	up to 10km
Rx Sensitivity	-132dBm@ 980bps
Power Supply	CR17450
Smoke Sensing	Advanced Photoelectric Sensing Technology
Sensitivity & Alarm Pattern	UL217: 1.31%/ft ~ 2.28%/ft ; Temporal Three Pattern EN14604: 0.091dB/m ~ 0.149dB/m ; Temporal Three Pattern
Smoke Sensitivity	UL268: recognize component
Heat Sensitivity	UL217: 57°C ~ 65 °C (136°F ~149°F) ; Temporal Three Pattern EN 54-5: A2S : 54°C ~ 70°C ; Temporal Three Pattern
Power	18 months standby
Operate Condition	0°C ~ 49°C (32°F ~120°F), 10-85% RH non-condensing
Certification	UL, VdS, CE, FCC, TELEC

LoRaWan Smoke detector - AENVHWSM0101



Parameter	Spec
Dimension	Ø92mm x 50mm
Protocol	LoRaWan 1.0.2
Frequency	US915 AU915 AS923 EU868 KR920 CN470
Transmission Range	up to 10km
Rx Sensitivity	-121dBm
Power Supply	2 X CR17450
Battery Life	1 hour interval, 4 years
Smoke Sensing	Photoelectric Sensing Technology
Operate Condition	-10° C ~ 50° C, Less Than 90%RH

Cigarette Detector - AEORHACS6024



Parameter	Spec
Dimension	Φ100*45mm, 200g
Sensor Technology	CMOS photoelectric
Protocol	Dry contact
Power	DC 12-32V
Detecting Sensitivity	m=0.15-0.5dB/m-1
Material	ABS Plastic
Installation	Ceiling mounted
Certificate	CE
Operating Temperature	-10°C- +55°C
Alarm Current	≤50uA

Smoke Detector



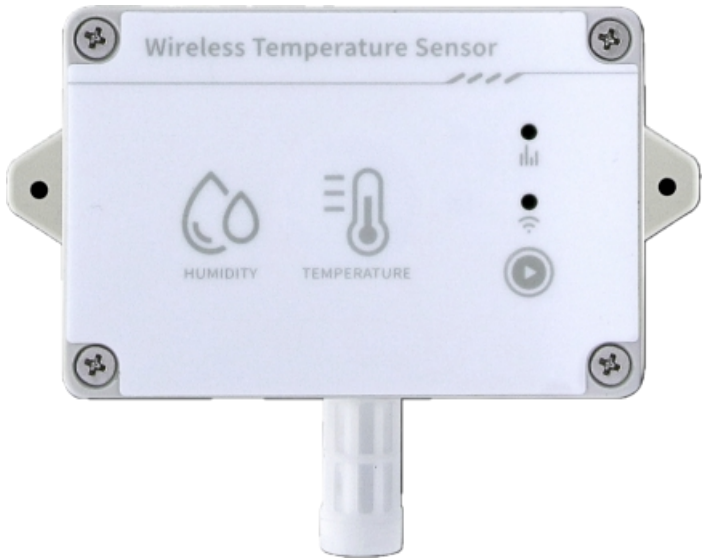
Parameter	Spec
ChinoInt Part number	AESCHWSD0101
Dimension	Φ90X37.5mm
Protocol	Zigbee HA1.2
mounting	Ceiling mount / Wall mount
Detection	Smoke
Detection Range	50m2
Power Supply	CR123A
Battery Life	> 1 year (20 times / day)
Battery level alert	Support
Alarm Level	≥85 dB
Operating Condition	0-50℃ , ≤5-95%RH , non-condensing
Storage Temperature	-10-60℃

LoRaWan CO2 Sensor



Parameter	Spec
Name	LoRaWan CO2 Sensor CO2 levels, temperature, humidity, light, and motion
ChinoInt Part Number	AEESHWES0102
Dimension	86 x 86 x 28 mm, 80g
Uplink	LoRaWan 1.0.2
Temperature	Resolution 0. 1 ° C, Accuracy: ±0. 2 ° C
Relative Humidity	Resolution 0. 1 % RH, Accuracy at 25 ° C: ± 2 % RH
Light	Range: 4 – 2000 LUX, Resolution: 1 LUX, Accuracy: ± 10 LUX
CO2	Range: 0 – 10000 ppm, Accuracy: ± 50 ppm / ± 3% of reading
PIR	Range of detection: 5 m, Field of View: 90°
Power	2 x 3. 6V AA lithium battery
Report Interval	1 hour, adjustable
Battery Life	3 years
Certification	CE, ROHS

LoRaWan RHT Sensor



Parameter	Spec
Name	LoRaWan RHT Sensor
ChinoInt Part Number	AELVHWTR0102
Dimension	112x68x40mm
Uplink	LoRaWan 1.0.2
Temperature Range	-20 - 85° C, +/-0.3° C (25° C)
Relative Humidity Range	0 - 99.9%RH, +/-3%RH (25° C)
Report Mode	Tunable reporting interval, button triggered reporting
Power	3.6V battery
Report Interval	5 min, adjustable
Battery Life	3.5 years
Low Power Alert	Support

LoRaWan RHT Sensor (Outdoor)



Parameter	Spec
Name	LoRaWan RHT Sensor
ChinoInt Part Number	AERHHWTH0101
Dimension	84 X 114 X 55 mm
Uplink	LoRaWan 1.0.2
Temperature Range	±0.5° C typically from +5° C to+60° C
Relative Humidity Range	±5% RH typically from 20% RH to 80% RH at 25°
Report Mode	Tunable reporting interval, 1 minute to 24 hours
Power	3.6V ER34615
Report Interval	1 min, adjustable
Battery Life	5 years
Low Power Alert	Support
Certification	CE, IP64

LoRaWan RHT Sensor



Parameter	Spec
Name	LoRaWan RHT Sensor
ChinoInt Part Number	AEESHWES0105
Dimension	86 x 86 x 28 mm
Uplink	LoRaWan 1.0.2
Temperature Resolution	0. 1 ° C, Accuracy: ±0. 2 ° C
Relative Humidity Resolution	0. 1 % RH, Accuracy at 25 ° C: ± 2 % RH
Report Mode	Tunable reporting interval, 1 minute to 24 hours
Power	2 x 3. 6V AA lithium battery
Report Interval	1 hour, adjustable
Battery Life	9.5 years
Certification	CE, ROHS

LoRaWan RHT Sensor



Parameter	Spec
Name	LoRaWan RHT Sensor
ChinoInt Part Number	AENVHWTH0201
Dimension	34x112x17mm
Uplink	LoRaWan 1.0.2
Temperature Range	-20° C — 55° C $\pm 0.5^{\circ}\text{C}$ @25° C Max. +/-0.8° C@ -20° C~55° C
Relative Humidity Range	10%RH — 100%RH $\pm 4\%\text{RH}$ @25° C
Report Mode	Tunable reporting interval, 1 minute to 24 hours
Power	2 X 1.5V AA Alkaline Battery
Report Interval	30 min, adjustable
Battery Life	2.5 years
Low Power Alert	Support

LoRaWan RHT Sensor



Parameter	Spec
Name	LoRaWan RHT Sensor
ChinoInt Part Number	AERHHWTH0201
Dimension	50x20x50mm
Uplink	LoRaWan 1.0.2
Temperature Accuracy	±0.3℃
Relative Humidity Accuracy	±3 %RH
Report Mode	Tunable reporting interval
Power	3.6V AA battery
Report Interval	60 min, adjustable
Battery Life	3 years
Low Power Alert	Support

LoRaWan RHT Sensor



Parameter	Spec
Name	LoRaWan RHT Sensor
ChinoInt Part Number	AENVHWTH0103
Dimension	88x65x19mm
Uplink	LoRaWan 1.0.2
Temperature Accuracy	-40℃~55℃, ±0.8℃ @25℃
Relative Humidity Accuracy	0%RH~80%RH, 1%
Report Mode	Tunable reporting interval
Power	2 x 3.6V ER14505 AA lithium batteries
Report Interval	15 min, adjustable
Battery Life	5 years
Low Power Alert	Support

LoRaWan RHT Sensor



Parameter	Spec
Name	LoRaWan RHT Sensor
ChinoInt Part Number	AELVHWTR0101
Dimension	100 x 90 x 21.5mm
Uplink	LoRaWan 1.0.2
Temperature Range	-20 - 60° C, +/-0.3° C (25° C)
Relative Humidity Range	0 - 99.9%RH, +/-2%RH (25° C)
Display accuracy	0.1° C / 0.1%RH
Power	<u>9-36VDC, USB powered</u>
Report Interval	2.5s

LoRaWan RHT Sensor



Parameter	Spec
Name	LoRaWan RHT Sensor
ChinoInt Part Number	AEULHWIA0100
Dimension	105 × 70.4 × 21.2 mm
Uplink	LoRaWan 1.0.2
Temperature	Range:-20 ° C to + 70 ° C, Accuracy: ±0.3 ° C (0 ~ 70 ° C), ±0.6 ° C (-20 ~ 0 ° C), Resolution: 0.1 ° C
Relative Humidity	Range: 0% to 100% RH, Accuracy: ±3% RH (10 ~ 90%), ±5% RH (0 ~ 10%, 90 ~ 100%), Resolution: 0.1%
PIR	Detection Area: 94 ° Horizontal, 82 ° Vertical, Distance: 5 m
Lux	Range: 60000 lux (Visible + IR, IR), Accuracy: ±30%
Power	2 × AA alkaline batteries/Powered by Type C port
Battery Life	1.5 year (SF12, 10 min interval)

Zigbee RHT Sensor



Name	Parameter
Zigbee	HA1.2
Power	3V, 2 x AAA
Battery Life	1 year, 5 minute interval
Intelligent feature	deviation over 0.5°C or 5% RH triggers reporting, otherwise, report at 1 hr interval
Alert	Low power alert
Operating Temperature	-10 ~ 55°C
Operating Humidity	0 - 99.9% RH
Dimension	Ø61.2x33mm

All-in-One Outdoor IAQ Sensor



Also available
PM2.5, PM10, Barometer,
Wind speed, Wind direction,
Sound, Rainfall, SO2, O3

Item	Unit	Range	Resolution
Temperature	°C	-10-45	0.1
Humidity	%RH	0-100	0.1
CO	ppm	0-1000	0.1
NO2	mg/m3	0-20	1
TVOC	ppb	0-9999	1 (0-2008) 6 (2008-11110) 32 (11110-60000)
NH3	ppm	0-100	0.5
H2S	ppm	0-100	0.1

Electrical Spec	Value
Working Voltage	12-24Vdc
Dimension	Ø180x210mm
Working Temperature	-20-50
Communication	Modbus RTU

Control

Wireless Siren



Parameter	Spec
ChinoInt Part Number	AESCHWSA0101
Dimension	Ø78x41 mm
Protocol	Zigbee HA1.2
Mounting	Ceiling mount / Wall mount
Alert	Sound / Light
Power	5V USB, DC adapter , with 3.7V internal battery
Low battery alert	Support
Operating Temperature	-10-55°C
Operating Humidity	RH 0-99.9% , non-condensing

LoRaWan Siren



Parameter	Spec
ChinoInt Part Number	AENVHWSR0101
Dimension	Φ85mm * 52mm
Protocol	LoRaWan 1.0.2 class A
Frequency	433/470/868/915/923 MHz
Alert	Sound / Light
Power	12V DC supply
Low battery alert	Support
Battery Life	5 years
Alarm Sound Level	(At Three Meters) >=80dB

LoRaWan Siren



Parameter	Spec
Name	LoRaWan Siren
ChinoInt Part Number	AEWEHWLS307
Dimension	132*113*50mm
Protocol	LoRaWan 1.0.2
Light alarm	120 times/minute±10%
Flash energy	≥1.2WS
Siren volume	≥110dB
Frequency Bands	CN470/AS923/ EU868/US915/AU915
Power	12V DC
Working Condition	-10℃~+55℃ , 10%-95%(no-condensing)

Modbus Siren



Parameter	Spec
Name	RS485 Siren
ChinoInt Part Number	AETBHWSR12R4
Dimension	122*72*43mm
Protocol	Modbus-RTU (30ms period)
Light alarm	150 times/minute±10%
Color	LED Red
Siren volume	110dB
Volume Distance	dB / 30cm
Power	12V DC
Working Condition	-40℃~85℃ , 10%-95%(no- condensing)

Zigbee IR Transceiver



Ceiling / wall mount bracket

Parameter	Spec
ChinoInt Part Number	AESCHWIR0101
Dimension	Ø85x30mm
Protocol	Zigbee HA1.2
Mounting	Ceiling mount / Wall mount
Coverage	360 degree coverage
Power	USB 5VDC 1A
Carrier and range	38kHz, 30m
Operating Temperature	-10-50°C
Operating Humidity	RH 0-99.9% , non-condensing

LoRaWan IR Transceiver



Parameter	Spec
ChinoInt Part Number	AENVHWIR0101
Dimension	Ø106x30.5mm, 100g
Protocol	LoRaWan
Mounting	Ceiling mount / Wall mount
Band	EU863-870 , US902-928 , AU915-928 KR920-923 , AS923 , CN470-510
Coverage	360 degree coverage
Power	DC12V
Carrier and range	38kHz 32m
Operating Temperature	-20-55°C
Operating Humidity	RH < 90% , non-condensing

LoRaWan Door Lock



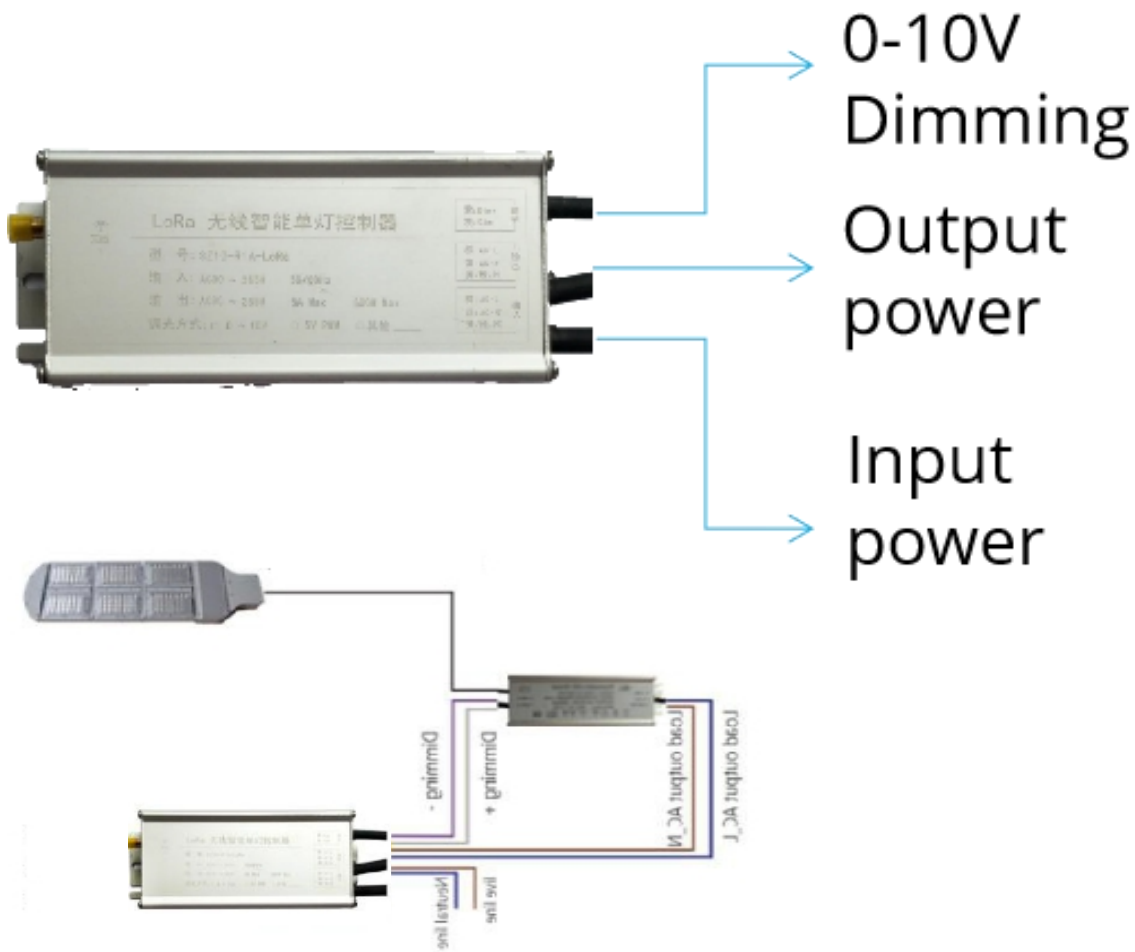
Parameter	Spec
ChinoInt Part Number	AELVHWDL10LW
Dimension	330x72x25mm on both sides
Protocol	LoRaWan1.0.2
Material	Zinc Alloy
Frequency	EU863-870 , US902-928 , AU915-928 KR920-923 , AS923 , CN470-510
Battery	4 x 1.5V AA, with USB backup
Battery Life	> 12 months (10 times / day)
Unlock	LoRaWan remote, password, card, key
Local Alert	Continuous unlock failure, temper
Operating Condition	-25 ~ 55°C, 20-85% non-condensing

Lighting Control

LoRaWan Light Dimmer



Parameter	Spec
ChinoINT Part Number	AESCHWLLSZ10
Dimension	L161 x W62.3 x H44 (mm)
Relay Parameter	250V/16A
Supply Voltage	AC85-265V
Output Rated Current	5A, 800W Max
Dimming Type	0-10V/PWM
Output	Single-phase AC
Data Collection	V, I, P, Q, COSΦ
Transmit Power	20dBm±1dBm (max)
Sensitivity	-136dBm±1dBm (@SF=12)
Rating	IP65

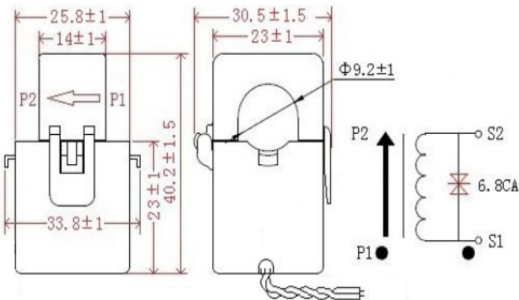
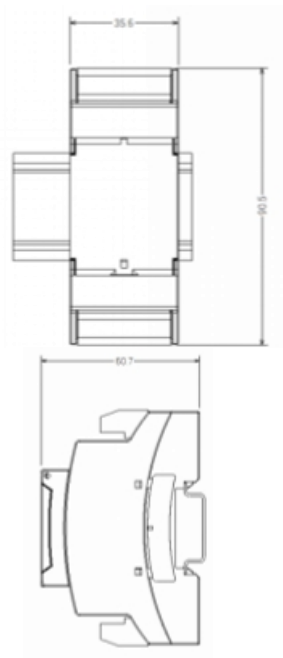


Zigbee Light Control Module



Parameter	Spec
Name	Zigbee Light Control Module
ChinoInt Part Number	AEEPHWLC0101
Dimension	92.8 x 44.2 x 23.6 mm
Protocol	Zigbee HA1.2
Encryption	Zigbee AES-128
Power	AC80 -265V , 50-60Hz
Certification	CE, FCC

LoRaWan Power Meter with On/Off



Name	Spec
Product number	AELVHWSM0101
Wiring	220Vac typical 0.5W single-phase power supply
Standard	GB/T 17215.321-2008 IEC62053-21:2003
Measurement Current	63A max
Control	1 channel 5A relay switch output, cut capacity through contactor 40/63/80A (extra component)
Power Parameter	single-phase AC current, voltage, frequency, active energy metering, Power factor
Dimensions (W x L x H)	90.5×35.6×60.7mm
Operating Temperature	-10 ~ 55 ° C
Operating Humidity	5%~95%, non-condensing

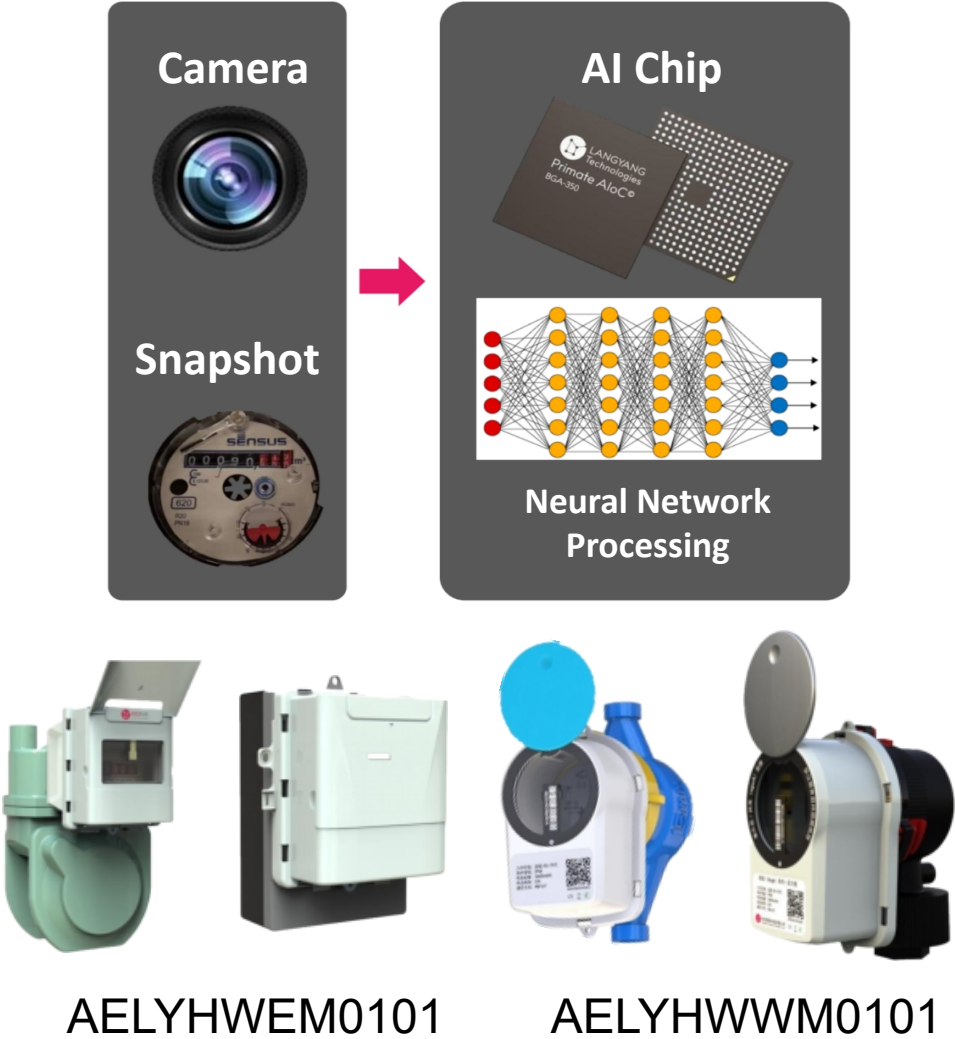
LoRaWan Smart Button Array



Parameter	Spec
ChinoInt Part Number	AERKHASB0101
Dimension	38mm x 52mm x 15.5mm
Weight	100g
Uplink	LoRaWan 1.0.2, Class A
Frequency	433/470/868/915/923 MHz
Power	300mAh
Battery Life	2 years (rechargeable)
Low Power Alert	Support

Status Sensor

Video-based AI Meter for different purposes



Parameter	Spec
Name	AI Meter
ChinoInt Part Number	AELYHWWM0101, AELYHWEM0101
Dimension	135mm*95mm*55mm (AELYHWWM0101) 167mm*134mm*96mm (AELYHWEM0101)
Weight	200g
Uplink	LoRaWan 1.0.2, Class A, OTAA / ABP
Technology	AI Camera reading technology
Power	3.6V Lithium Battery capacity: 8500mAh
Battery Life	6 years Battery life, one reading per day
Protecting Rating	IP68
ESD Rating	ESD rating > 10kV

Vibration Sensor for Predictive Maintenance



Parameter	Spec
Name	Vibration Sensor
Dimension	78 x Ø32 mm
Weight	200g
Uplink	LoRaWan 1.0.2, Class A, OTAA / ABP
Technology	Accelerometer
Bandwidth	>10kHz
Resonant Frequency	30kHz
Battery Life	Up to 5 years
Protecting Rating	IP66
Operating Temperature	-20° C to +60° C
EMI/RFI/ESD	IEC61000-4-2, ICE61000-4-6

LoRaWan Water Leakage / Flood Sensor



Parameter	Spec
Name	LoRaWan Water Leakage Sensor
ChinoInt Part Number	AEDGHWL0101
Dimension	64 x 30 x 14 mm
Uplink	LoRaWan 1.0.2, Class A, OTAA / ABP
Power	CR2032
Battery Life	2 years
Bands	CN470/EU433/KR920/US915/EU868/AS923/AU915/IN865
Heartbeat	Support
Parameter Change	AT commands
Configuration	LoRaWan Downlink

Vibration Sensor (Spring Type)



1-gang sensor
AENVHWAA0301

Electric

Input Power	2 x 3.6V ER14505 AA lithium batteries (3.6V2400mah/section)
Sleeping Mode	23uA
Wake up Mode	6.3mA@3.3V
Receiving Current (max)	11mA @3.3V
Transmitting Current (max)	120mA/3.3V
Battery Voltage Measurement Accuracy	±0.1V
Low Voltage Threshold	3.2V

Vibration Sensor

Vibration Sensor Case Size	L:43mm*W:13mm*H:12mm
Vibration Sensor Maximum Voltage	5V
Sensor Switch Life	Up to 200,000 times
Vibration Sensor Working Principle	When it is at rest, it is in the open state OFF state. When the external force is touched to reach the corresponding vibration force, or when the moving speed reaches the appropriate centrifugal force, the conductive pin will instantly reach the ON state. When the external force disappears, the switch returns to the OFF state.

Physical

Dimension	Main Part: L: 112mm*W: 65mm*H: 32mm
Weight	150g
Environment Temperature Range	-20℃ ~ 55℃
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature	-40℃ ~ 85℃



2-gang sensor
AENVHWAA0302

Vibration Sensor (Rolling Ball Type)



1-gang sensor
AENVHWAA0401

Electric

Input Power	2 x 3.6V ER14505 AA lithium batteries (3.6V2400mah/section)
Sleeping Mode	26uA
Wake up Mode	6.3mA@3.3V
Receiving Current (max)	11mA @3.3V
Transmitting Current (max)	120mA/3.3V
Battery Voltage Measurement Accuracy	±0.1V
Low Voltage Threshold	3.2V

Vibration Sensor

Vibration Sensor Case Size	L:43mm*W:13mm*H:12mm
Vibration Sensor Maximum Voltage	5V
Sensor Switch Life	Up to 100,000 times
Vibration Sensor Sensitivity	When placed horizontally, any shaking can trigger the device. When the pilot electrical end (without foot end) is placed downward, it is not easily to be triggered.
Vibration Sensor Characteristic (Dual ball type single direction tilt sensitive trigger sensor)	When the vibration sensor is tilted and the tilting angle is greater than 10 degrees, it will be OFF mode. When the tilt level changes, and the triggering end is lower than tilt angle 10 degrees, it will be ON state. The module can detect open circuit OFF state and closed circuit ON state signal to detect vibration or move.
External Cable Length	1 meter

Physical

Dimension	Main Part: L: 112mm*W: 65mm*H: 32mm
Weight	150g
Environment Temperature Range	-20℃ ~ 55℃
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature	-40℃ ~ 85℃



2-gang sensor
AENVHWAA0402

Sound Sensor

(with Temperature, Humidity, Light and Motion)

Sensors

Temperature

Resolution: 0.1 °C

Accuracy: ± 0.2 °C (See figure 1)

Humidity

Resolution: 0.1 % RH

Accuracy at 25 °C: ± 2 % RH (See figure 2)

Accuracy of humidity over temperature: See figure 3

Light

Range: 4 – 2000 LUX

Resolution: 1 LUX

Accuracy: ± 10 LUX

Motion (PIR)

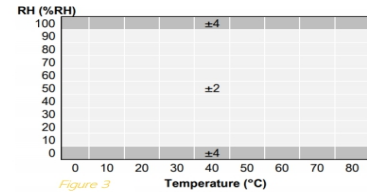


Figure 3

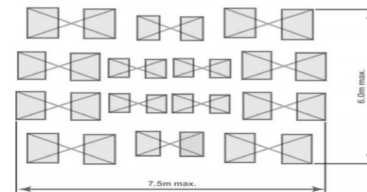
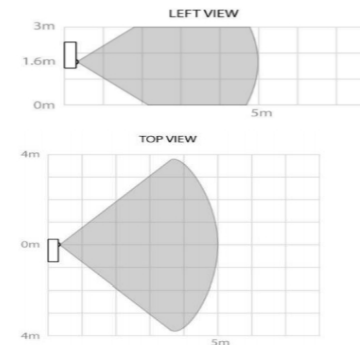
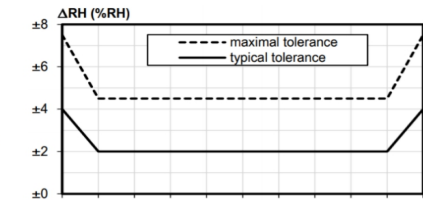
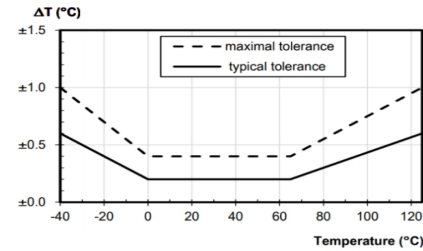


Figure 4 - Detection pattern

Device Specifications

Mechanical specifications

Weight	60 g excluding batteries / 100 g including batteries
Dimensions	86 x 86 x 28 mm
Enclosure	Plastic, PC/ABS

Operating conditions

Temperature	0 to 40 °C
Humidity	0 to 85 % RH (non-condensing)

Device Logging Function

Sampling Interval	Configurable via NFC and downlink configuration
Data Upload Interval	Configurable via NFC and downlink configuration

Device Power Supply

Battery Type	2 x 3.6V AA Lithium Batteries
Expected Battery Life	< 2 years (Depending on configurations and environment)



Sound

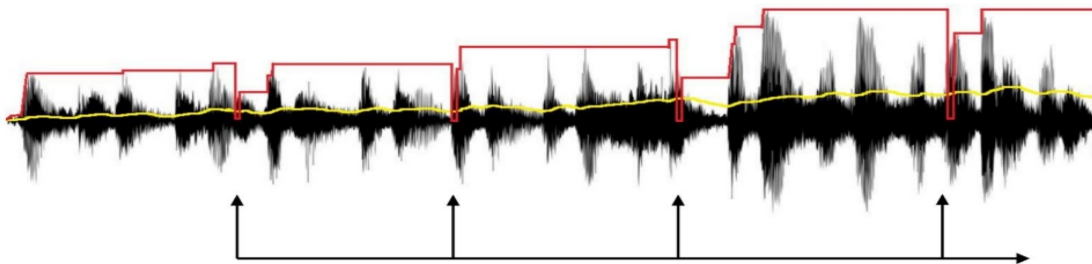
The sound sensor measures the average and peak sound pressure level with dBa filtering. It wakes and samples both signals every 10s, and does the final calculation before sending the data at the desired send interval. For large orders, sensitivity and filtering can be changed.

Average value range: 35 – 70 dBspl

Peak value range: 65 – 99 dBspl

Sound resolution: 1 dB

Sound accuracy: ± 5 dB



10s sample and peak reset. For every send interval, the ERS Sound calculates total peak and average for all samples.

Battery Wireless Meters - AENVHWCM Family



										
Part number	AENVHWCM1075	AENVHWCM1030	AENVHWCM3075	AENVHWCM3050	AENVHWCM1150	AENVHWCM3150	AENVHWCM1250	AENVHWCM3250	AENVHWCM3630	AENVHWCM1630
Dimension - main body	112mm* 65mm* 32mm	112mm* 65mm* 32mm	112mm* 65mm* 32mm	112mm* 65mm* 32mm	112mm* 65mm* 32mm	112mm* 88.19mm* 32mm	112mm* 65mm* 32mm	112mm* 88.19mm* 32mm	112mm* 88.19mm* 32mm	112mm* 65mm* 32mm
Dimension - sensor	42.5*27.5*2 5mm	37.5*39*14 mm	42.5*27.5*2 5mm	37.5*39*14mm	43.5*33*28. 5mm	43.5*33*28. 5mm	66*46*34mm	66*46*34mm	84.8*40.8* 48mm	84.8*40.8* 48mm
Number of Phase	1	1	3	3	1	3	1	3	3	1
Max Measurement Current	75A	30A	75A	50A	150A	150A	250A	250A	630A	630A
Measurement Accuracy	+-1%									
Measurement Resolution	1mA									
Battery	2 X 3.6V ER14505 AA Lithium Batteries									
Battery Life	4.5 Years (30 min interval)									
Low Voltage Alert	Support									
Wireless Range	10km									
Standard	LoRaWAN™ Class A Compatible									
Encryption	Diffie-Hellman Key Exchange + AES-128 CBC									
IP Protection	IP30									
Operating Condition	-20°C ~ 55°C, <90% RH (No condensation)									
Storage Temperature	-40°C~+85°C									
Mounting	Screw/magnet									

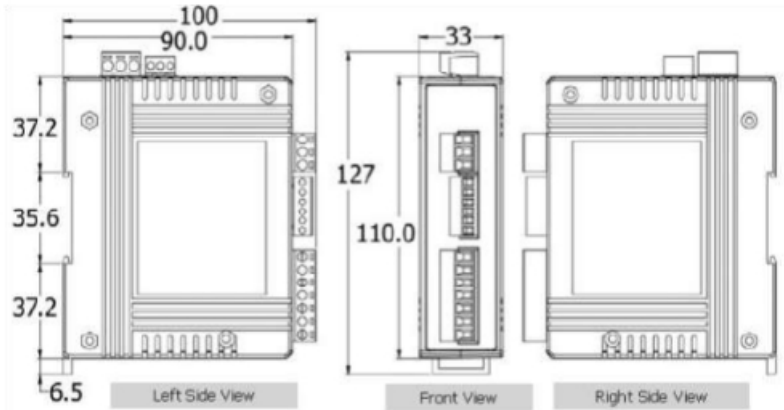
Industrial Grade High Accuracy



Name	Spec
Product number	AELPHWEM0101 - Smart Power Meter 60A RS485 version AELPHWEM0102 - Smart Power Meter 60A POE version AELPHWEM1001 - Smart Power Meter 100A RS485 version AELPHWEM1002 - Smart Power Meter 100A POE version AELPHWEM2001 - Smart Power Meter 200A RS485 version AELPHWEM2002 - Smart Power Meter 200A POE version
Wiring	1P2W-1CT, 1P3W-2CT, 3P3W-2CT, 3P3W-3CT and 3P4W-3CT
Measurement Voltage	10 ~ 500 V (CAT III)
Measurement Current	CT Ø10 mm (60 A); CT Ø16 mm (100 A); CT Ø24 mm (200 A); CT Ø36mm (300 A); CT Ø36mm (400 A)
Measurement Frequency	50-60 Hz
W Accuracy	Better than 0.5% (PF:1)
Starting Current	0.03A (60A), >0.05A (100A), >0.09A(200A)
Power Parameter	True RMS voltage (Vrms), True RMS current (Irms), Active Power (kW), Active Energy (kWh), Apparent Power (kVA), Apparent Energy (kVAh), Reactive Power (kVAR), Reactive Energy (kVARh), Power Factor (PF), Frequency(Hz)
Data Update Rate	1 Second
RS485 version	Modbus-RTU - Baud rate 9600 (default),19200, 38400, 115200 DIP Switch Selectable Isolation - 3000 VDC
POE version	Modbus-TCP IEEE 802.3af
Input voltage	+12 ~ 48 VDC
Power Consumption	2W
Dimensions (W x L x H)	127 mm x 105 mm x 33 mm
Operating Temperature	-20 ~ 70 °C
Storage Temperature	-40 ~ 80 °C

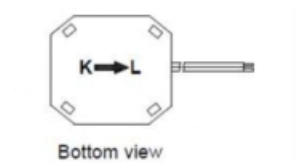
Industrial Grade High Accuracy

- Easy mounting
- Easy wiring
- Fit for 1 x 3-phase metering
- Fit for 3 x single-phase metering



Item	copper wire		Wire external diameter (mm)	Reference current (A)	CT size and product model	CT spec. (internal diameter/Max. current)
	AWG SIZE (mm ²)	Quantity /Diameter (mm)				
Flat cable		1.6	3.2	15	Ø10	10mm/60A
		2.0	3.6	20		
Twisted pair	2.0	7/0.6	3.4	17		
	3.5	7/0.8	4.0	20		
	5.5	7/1.0	5.0	30		
	8.0	7/1.2	6.0	40		
	14	7/1.6	7.6	55		
	22	7/2.0	9.2	70	Ø16	16mm/100A
	30	7/2.3	10.5	90		
	38	7/2.6	11.5	100		
	50	19/1.8	13.0	120	Ø24	24mm/200A
	60	19/2.0	14.0	140		
	80	19/2.3	15.5	165		
	100	19/2.6	17.0	190		

*Wire and current will have discrepancy because of the temperature, material and brand



- At the bottom of the CT, there is a "K→L" mark.



- Open the CT clip.

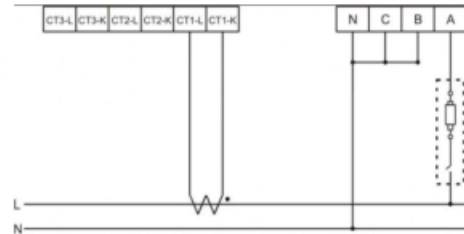


- Make sure the power current direction follow the "K→L" mark on the CT and then close the CT clip.

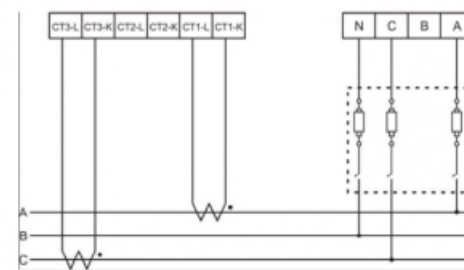


- Installation steps finished.

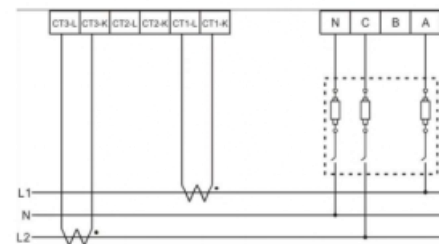
1P2W-1CT



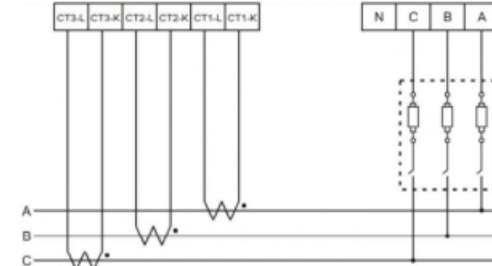
3P3W-2CT



1P3W-2CT



3P3W-3CT



CHINOINT
SENSE CONNECT

Zigbee Power Meter with On/Off



Name	Spec
Product number	AESCHWSM0101
Wiring	220V IN/OUT
Measurement Voltage	10 ~ 230 V
Measurement Current	62A max
Control	Power ON / OFF
Power Parameter	True RMS voltage (Vrms), True RMS current (Irms), Active Energy (kWh)
Dimensions (W x L x H)	80x66x36mm
Operating Temperature	-20 ~ 55 ° C
Operating Humidity	5% to 75%, non-condensing



Industrial Grade Gateway

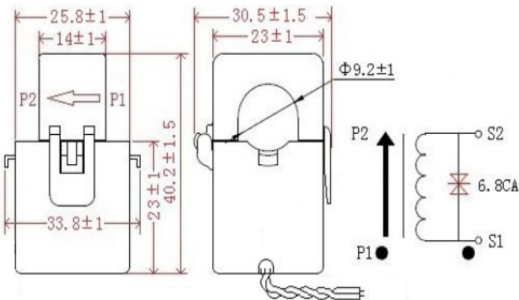
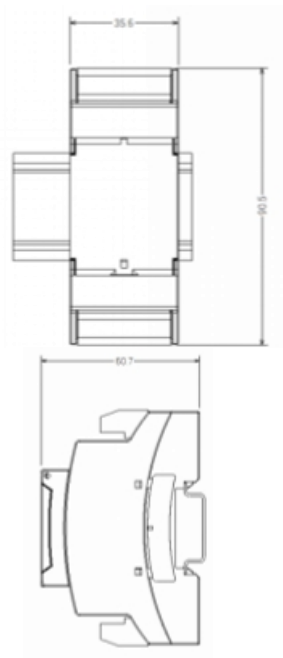
- 4G uplink
- RJ45 uplink
- WIFI uplink



Smart Office / Home Gateway

- RJ45 uplink
- WIFI uplink

LoRaWan Power Meter with On/Off



Name	Spec
Product number	AELVHWSM0101
Wiring	220Vac typical 0.5W single-phase power supply
Standard	GB/T 17215.321-2008 IEC62053-21:2003
Measurement Current	63A max
Control	1 channel 5A relay switch output, cut capacity through contactor 40/63/80A (extra component)
Power Parameter	single-phase AC current, voltage, frequency, active energy metering, Power factor
Dimensions (W x L x H)	90.5×35.6×60.7mm
Operating Temperature	-10 ~ 55 ° C
Operating Humidity	5%~95%, non-condensing

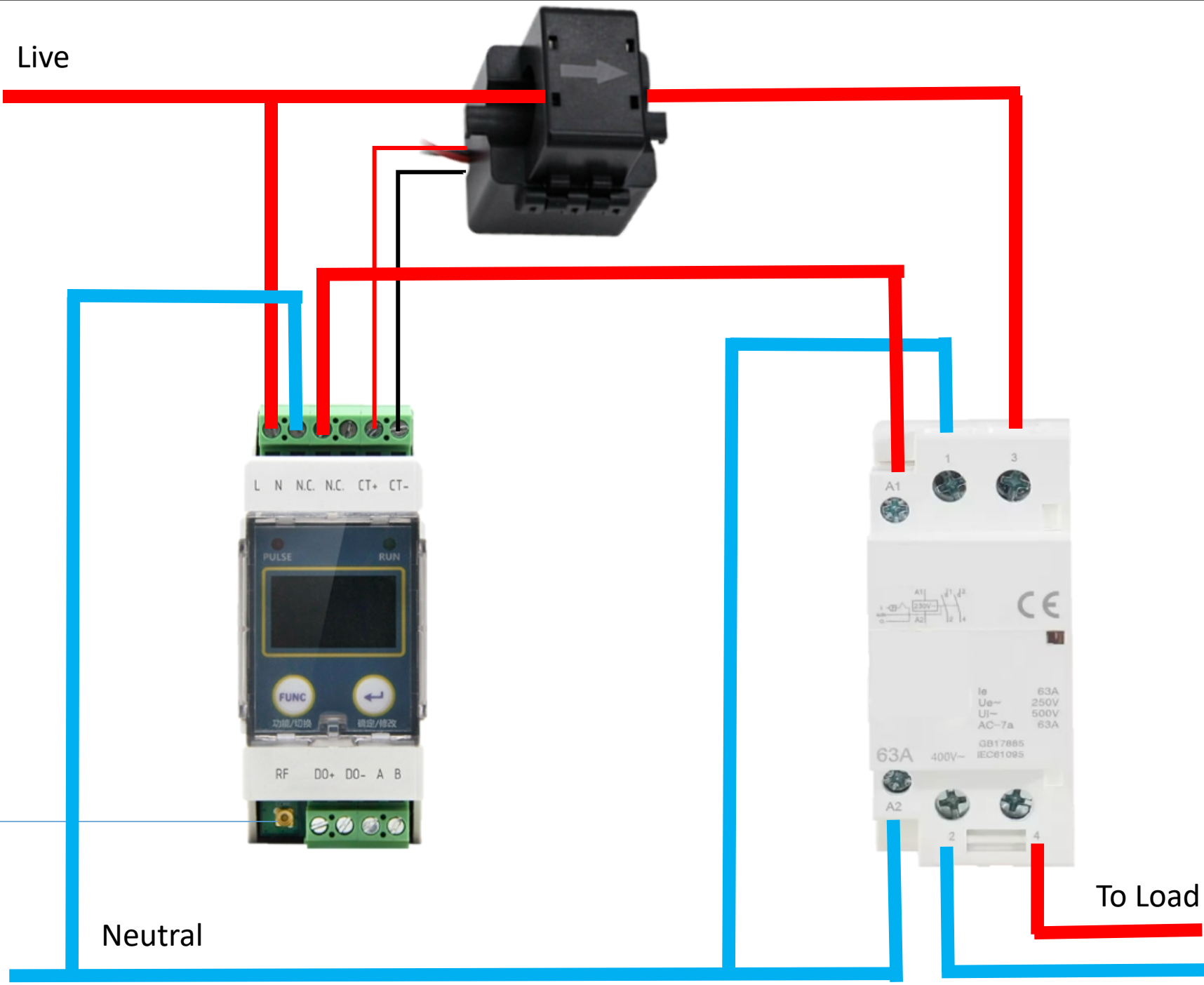
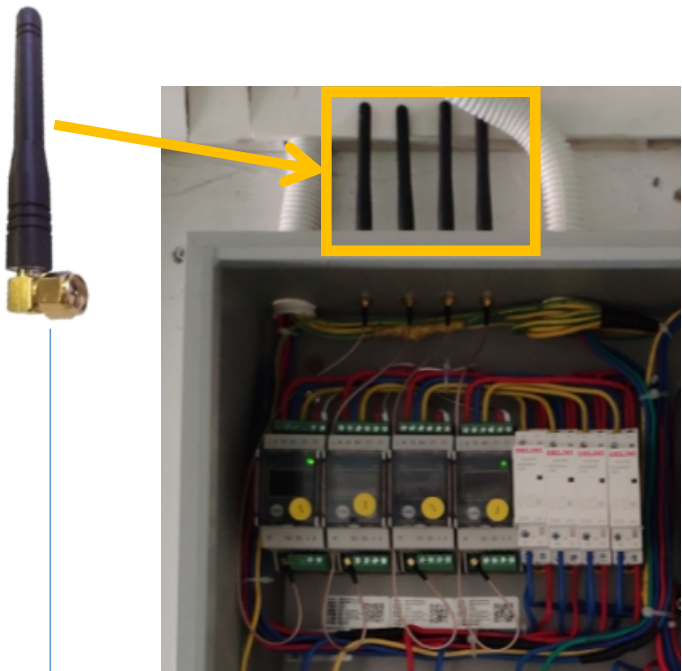
Contactor used with LoRaWanPower Meter



Name	Spec
Product number	AEGYHWCT0101
Number of Pole	2
Main Circuit Rating	220V
Rated Current	40A
Contact	2NO / 2NC
Standard	IEC61095
Control Voltage	220V AC
Mounting	Din Rail
Dimension	36 x 68 x 85 mm (W x D x H)
Certification	CE

Connection Diagram

Outside MCB Box



LoRaWan Location Button (GPS + BLE + Accelerometer)



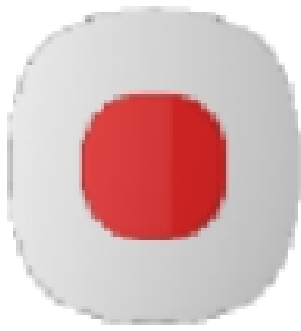
Parameter	Spec
Name	LoRaWan Button
ChinoInt Part Number	AEMKHWLB04PB
Dimension	75mm x 38.9mm x 15.5mm
Protocol	LoRaWan 1.0.2
Battery Alert	Support
Battery Life	3 years (without GPS)
Frequency Bands	433/470MHz,868/915MHZ
Power	Rechargeable battery
Motion Detect	3-axis accelerometer
IP Rating	IP65

LoRaWan Button



Parameter	Spec
Name	LoRaWan Button
ChinoInt Part Number	AEWEHWLB0301
Dimension	86*86*26mm
Protocol	LoRaWan 1.0.2
Battery Alert	Support
Battery Life	5 years (once per day)
Frequency Bands	CN470,EU863,US902,AS923,AU915,KR920
Power	Li/SOCL2 battery
Working Condition	-10℃~+50℃ , 10%-95%(no condensing)

Zigbee Button



Parameter	Spec
Name	Smart Button
ChinoInt Part Number	AESCHWSB0101
Dimension	43x39x11mm
Protocol	Zigbee HA1.2
Battery Alert	Support
Encryption	Zigbee AES-128
Power	3V Battery
Operating Temperature	-10-55℃
Operating Humidity	RH 0-99.9% , non-condensing

Zigbee PIR



Parameter	Spec
Name	Wireless PIR
ChinoInt Part Number	AESCHWIR0203
Dimension	Ø48.4mm x 53.4mm
Protocol	Zigbee HA1.2
Battery Alert	Support
Encryption	Zigbee AES-128
Power	3V Battery, battery life 1 year
Operating Temperature	-10 - 55℃
Operating Humidity	RH 0-99.9% , non-condensing

Zigbee Light Control Module



Parameter	Spec
Name	Zigbee Light Control Module
ChinoInt Part Number	AEEPHWLC0101
Dimension	92.8 x 44.2 x 23.6 mm
Protocol	Zigbee HA1.2
Encryption	Zigbee AES-128
Power	AC80 -265V , 50-60Hz
Certification	CE, FCC

LoRaWan 3-in-1 Occupancy Sensor



Parameter	Spec
Name	LoRaWan 3-in-1 Occupancy Sensor
ChinoInt Part Number	AELVHWOS00102
Dimension	112x68x40mm
Uplink	LoRaWan 1.0.2, Class A, OTAA
Temperature Range	-20 - 85° C, +/-0.3° C (25° C)
Frequency	433/470/868/915/923 MHz
Relative Humidity Range	0 - 99.9%RH, +/-3%RH (25° C)
Occupancy Sensor	IR Angle: <= 120 degree, tunable sensitivity, 12m max
Report Mode	Tunable reporting interval, button triggered reporting
Power	3.6V battery
Report Interval	5 min, adjustable
Battery Life	3.5 years
Low Power Alert	Support

LoRaWan Occupancy Sensor



Parameter	Spec
Name	LoRaWan Occupancy Sensor
ChinoInt Part Number	AELVHWOS0101
Dimension	112x68x40mm
Uplink	LoRaWan 1.0.2, Class A, OTAA
Frequency	433/470/868/915/923 MHz
Occupancy Sensor	IR Angle: <= 120 degree, tunable sensitivity, 12m max
Report Mode	Tunable reporting interval, button triggered reporting
Power	3.6V battery
Report Interval	5 min, adjustable
Battery Life	3 years
Low Power Alert	Support

LoRaWan 3-in-1 Occupancy Sensor



Parameter	Spec
Name	LoRaWan 3-in-1 Occupancy Sensor Temperature, Light Level And PIR Status
ChinoInt Part Number	AENVHWOS0101
Dimension	78mm*78.8mm*82.2mm, 125.8g
Uplink	LoRaWan 1.0.2, Class A
Frequency	433/470/868/915/923 MHz
Occupancy Sensor	110° (level), 60° (vertical) Mechanical rotation angle:40°
Detection speed	≥0.2m/sec
Power	2 pcs ER14505 battery AA size
Battery Life	3.5 years, 2 hr interval
Low Power Alert	Support

LoRaWan Occupancy Sensor



Parameter	Spec
Name	LoRaWan Occupancy Sensor temperature, humidity, light intensity, motion, and detects occupancy
ChinoInt Part Number	AEESHWES0103
Dimension	86 x 86 x 28 mm, 60g
Uplink	LoRaWan 1.0.2, Class A
Frequency	433/470/868/915/923 MHz
Motion	Panasonic Grid-Eye© infrared sensor
Temperature	Resolution: 0. 1 ° C, Accuracy: $\pm 0. 2$ ° C
Humidity	Resolution: 0. 1 % RH, Accuracy at 25 ° C: ± 2 % RH
Occupancy Sensor	110° (level), 60° (vertical) Mechanical rotation angle:40°
PIR	Range of detection: 5 m, Field of View: 90°
Light	Range: 4 – 2000 LUX, Resolution: 1 LUX, Accuracy: ± 10 LUX
Power	2 pcs ER14505 battery AA size
Battery Life	5 years (1 hour interval)
Low Power Alert	Support

LoRaWan THLM Sensor



Parameter	Spec
Name	LoRaWan Occupancy Sensor temperature, humidity, light intensity, motion
ChinoInt Part Number	AEESHWES0106
Dimension	86 x 86 x 28 mm, 60g
Uplink	LoRaWan 1.0.2, Class A
Frequency	433/470/868/915/923 MHz
Motion	Panasonic Grid-Eye© infrared sensor
Temperature	Resolution: 0. 1 °C, Accuracy: ±0. 2 °C
Humidity	Resolution: 0. 1 % RH, Accuracy at 25 °C: ± 2 % RH
PIR	Range of detection: 5 m, Field of View: 90°
Light	Range: 4 – 2000 LUX, Resolution: 1 LUX, Accuracy: ± 10 LUX
Power	2 pcs ER14505 battery AA size
Battery Life	5 years (1 hour interval)
Low Power Alert	Support

LoRaWan Smart Button



Parameter	Spec
ChinoInt Part Number	AENVHWSB0101
Dimension	81.7x81.7x14.3mm
Uplink	LoRaWan 1.0.2, Class A
Frequency	433/470/868/915/923 MHz
Power	2*AAA Batteries
Battery Life	60 Min interval 4 Years
Low Power Alert	Support

LoRaWan Smart Button Array



Parameter	Spec
ChinoInt Part Number	AERKHASB0101
Dimension	38mm x 52mm x 15.5mm
Weight	100g
Uplink	LoRaWan 1.0.2, Class A
Frequency	433/470/868/915/923 MHz
Power	300mAh
Battery Life	2 years (rechargeable)
Low Power Alert	Support

LoRaWan Door Sensor



Parameter	Spec
Name	LoRaWan Door Sensor
ChinoInt Part Number	AEDGHGDS0101
Dimension	64 x 30 x 14 mm
Uplink	LoRaWan 1.0.2, Class A, OTAA / ABP
Power	CR2032
Battery Life	Support to send 12000 uplink messages. Battery life is 1 year, assumes 32 times of open / close per day.
Bands	CN470/EU433/KR920/US915/EU868/AS923/AU915/IN865
Heartbeat	Support
Parameter Change	AT commands
Configuration	LoRaWan Downlink

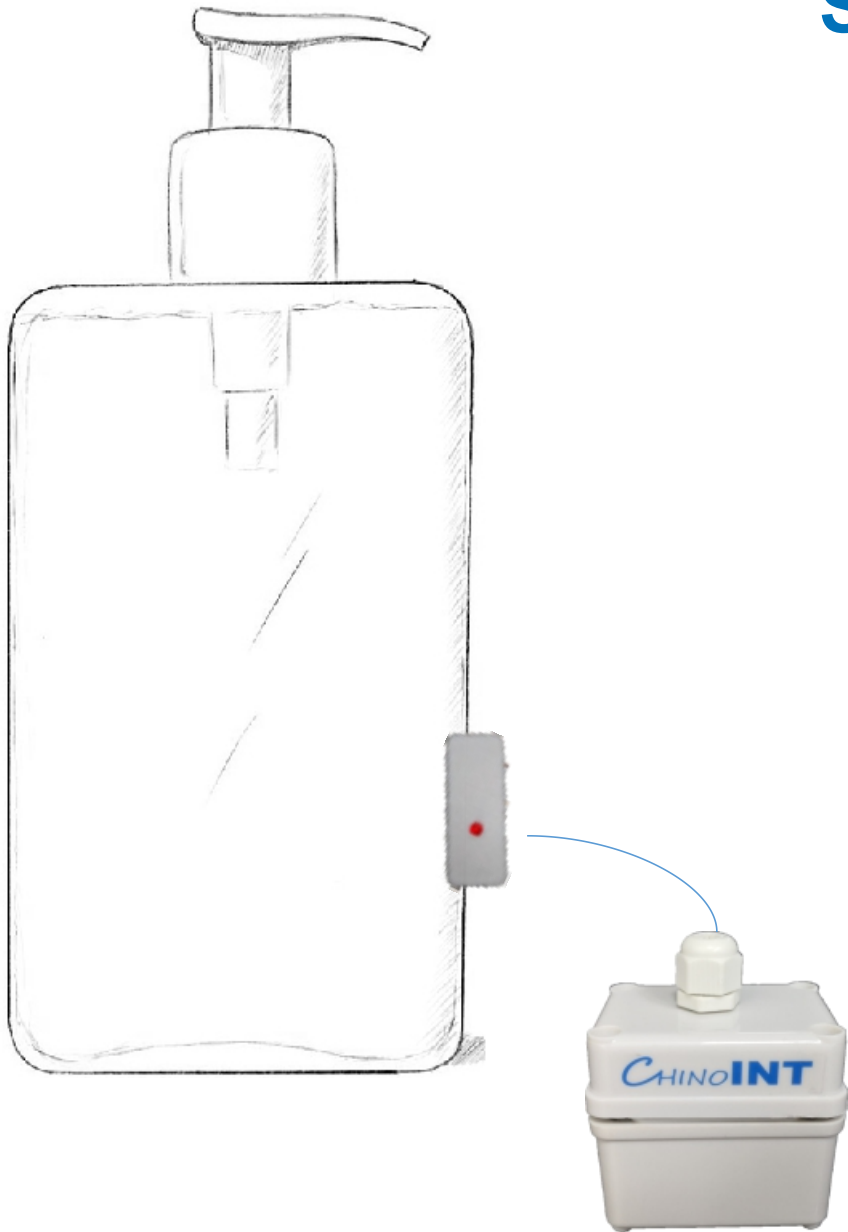
Ultrasound Distance Sensor (Tissue Roll / Rubish bin / etc)



Parameter	Spec
Name	Distance sensor
ChinoInt Part Number	AECIHWSTDS1x
Dimension	68 x 61 x 27mm
Vin	3.6V Battery
Battery Life	> 2 years (5 min interval)
Low Battery Alert	Support
Response Time	500ms
Detecting Range	0.5 - 180 cm
Insallation	Adhesive easy installation

Custom-designed mounting fixture for all equipment

Soap Level Sensor



Parameter	Spec
Name	Soap level sensor
ChinoInt Part Number	AECIHWSTLL1W
Dimension	65 x 65 x 55mm
Vin	3.6V Battery
Battery Life	> 2 years (5 min interval)
Low Battery Alert	Support
Response Time	500ms
Operating temperature	-10 - 105°C
Detecting tube Radius	> 5mm
Error	+/-1.5mm
Water proof	IP65
Insallation	Adhesive easy installation

Liquid Level Sensor for Metal Casing



Parameter	Spec
Name	Liquid level sensor for Metal Casing
ChinoInt Part Number	AEXKHQLL0102
Dimension	Φ28mm * 17mm, cable length 450mm
Vin	10-36V
Power consumption	<25mA
Output Voltage	Vin / 0V
Power consumption	Average current
Response Time	2s
Operating temperature	-10 - 105℃
Detecting metal casing thickness	3 - 8mm
Error	+/-1.5mm
Water proof	IP65

Location Sensor System

LoRaWan GPS Tracker



Parameter	Spec
ChinoInt Part Number	AEDGHWPS0101
Dimension	85 x 48 x 15 mm
Weight	50g
Protocol	LoRaWan 1.0.2
Frequency	CN470/EU433/KR920/US915/EU868/AS923/AU915
Power Supply	2xAA battery or Li battery
Low Battery Alert	Support
GPS	Real-time GPS tracking
Accelerometer	Built-in 9 axis accelerometer
Certification	CE

Beacon with Button



Parameter	Spec
ChinoInt Part Number	AEMKHWBB0301
Dimension	Φ48x14.7mm
Protocol	2.4GHz BLE
Transmission Range	100m (open space)
IP Rating	IP67
Power Supply	CR2477
Battery Life	5 years
Low Battery Alert	Support
Weight	24 g
Certification	FCC / CE
OTA Update	Support
Protocol Support	Apple iBeacon, BLE5.0

Button with Beacon



Parameter	Spec
ChinoInt Part Number	AEMKHWTA0401
Dimension	32 * 32 * 6 mm
Protocol	2.4GHz BLE
Transmission Range	80m (open space)
IP Rating	IP67
Power Supply	CR2032
Battery Life	15 months
Low Battery Alert	Support
Weight	10 g
Certification	FCC / CE
OTA Update	Support
Protocol Support	Apple iBeacon, BLE5.0

Beacon with Accelerometer



Parameter	Spec
ChinoInt Part Number	AEMKHWTA0101
Dimension	69.90x32.15x18.15 mm
Uplink	2.4GHz BLE
Transmission Range	max 120m (open space)
Low Battery Alert	Support
Encryption	AES-128-ECB
Power Supply	2 x AAA battery
Battery Life	3 Years
Weight	33.8g (with battery)
IP Rating	IP66
Certification	FCC / CE
OTA Update	Support
Protocol Support	Apple iBeacon, BLE5.0

BLE4.0 Beacon



Parameter	Spec
ChinoInt Part Number	AEKMHWIB0101
Dimension	36*36*5.6mm
Weight	10g (with battery)
Transmission Range	max 100m (open space)
Low Battery Alert	Support
Power Supply	CR2032
Battery Life	7 months, 2 seconds interval
TX power	-20~4dBm
IP Rating	IP44
Certification	FCC / CE
Protocol support	Apple iBeacon, Eddystone URL, Eddystone UID, Eddystone TLM

BLE Beacon with Temperature sensor



Parameter	Spec
ChinoInt Part Number	AEKMHWIB0102
Dimension	36*36*5.6mm
Weight	10g (with battery)
Transmission Range	max 100m (open space)
Low Battery Alert	Support
Power Supply	CR2032
Battery Life	12 months, 2 seconds interval
TX power	-20~4dBm
Temperature Sensor	error:+/-3℃ , -40℃~70℃
Certification	FCC / CE
Protocol support	Apple iBeacon, Eddystone URL, Eddystone UID, Eddystone TLM

BLE Beacon with Temperature sensor & Accelerometer



Parameter	Spec
ChinoInt Part Number	AEKMH WIB0103
Dimension	36*36*5.6mm
Weight	10g (with battery)
Transmission Range	max 100m (open space)
Low Battery Alert	Support
Power Supply	CR2032
Battery Life	16 months, 2 seconds interval
TX power	-20~4dBm
Temperature Sensor	error: +/-3°C , -40°C~70°C
Accelerometer	x/y/z
Certification	FCC / CE
Protocol support	Apple iBeacon, Eddystone URL, Eddystone UID, Eddystone TLM

Asset Tracking Tag - Black



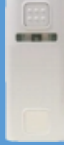
Parameter	Spec
ChinoInt Part Number	AEKMHWIB0104
Dimension	46*39*22mm
Weight	37g
Transmission Range	100m (BLE4.0) 250m (BLE5.0) (open space)
Low Battery Alert	Support
Power Supply	CR2477
Battery Life	> 36 months, 2 seconds interval
TX power	-20~5dBm
IP Rating	IP67
Certification	FCC / CE
Protocol support	Apple iBeacon, Eddystone URL, Eddystone UID, Eddystone TLM
Temperature Sensor	error: +/-3°C , -40°C~70°C
Accelerometer	x/y/z

Asset Tracking Tag - White



Parameter	Spec
ChinoInt Part Number	AEKMHWIB0105
Dimension	60*60*18mm
Weight	25g (with battery)
Transmission Range	100m (BLE4.0) 250m (BLE5.0)
Low Battery Alert	Support
Encryption	AES-128-ECB
Power Supply	2 * AAA battery
Battery Life	> 48 months, 2 seconds interval
TX power	-20~5dBm
IP Rating	IP54
Certification	FCC / CE
Protocol support	Apple iBeacon, Eddystone URL, Eddystone UID, Eddystone TLM
Temperature Sensor	error: +/-3°C , -40°C~70°C
Accelerometer	x/y/z

High Accuracy Positioning Beacons (0.3 - 1m accuracy)

							
Name	Positioning Beacon 10	Positioning Beacon 15	Positioning Tamper proof Beacon 25	Positioning Chest Tag 30	Positioning Beacon 40	Positioning Light & Sound Alarm	Rugged Tamper proof positioning beacon
Part Number	AECPHWBB0010	AECPHWBB0015	AECPHWBB0025	AECPHWBB0030	AECPHWBB0040	AECPHWBB0050	AECPHWBB0061
Dimension (mm)	40 × 36 × 12	41.2 x 28.8 x 8.2	35.3 x 28.3 x 10.2	99 x 66.5 x 6.2	85 x 80 x 13.5	92.5 x 40 x 19.5	92.5 x 40 x 19.5
Net Weight (g)	12	8	9.5	35	58.2	40	58
Tx Distance (m)	80	120	120	80	120	80	120
Detection Speed (km/h)	15	80	80	-	-	200	80
Protocol	Bluetooth 4.0 / BLE	Bluetooth 4.0 / BLE	Bluetooth 4.0 / BLE	Bluetooth 4.0 / BLE	Bluetooth 4.0 / BLE	Bluetooth 4.0 / BLE	Bluetooth 5.0 / BLE
Data Rate (k/bps)	250	1000 / 2000	1000 / 2000	250 / 1000 / 2000	1000 / 2000	1000	1000 / 2000
AES Encryption	Support	Support	Support	Support	Support	Support	Support
Battery Type	CR2032	CR2032	CR2032	Rechargeable 300mAh	2 x CR2450	2 x AA	CR2477
Battery Life (Year)	1 - 1.5	2 (3Hz)	2 (3Hz)	Recharge Time 2 Hr	5	3	5
Low Battery Warning	Support	Support	Support	Support	Support	Support	Support
IP Rating	IP65	IP67	-	IP65	IP65	IP53	IP68
Color	Blue, Red	Black, White	Black	Grey	Black	Black	Yellow
Button	-	-	-	Yes	Yes	Yes	-
Light & Sound	-	-	-	-	-	Yes	-
Accelerometer	-	Optional	Optional	Optional	Optional	-	Optional
Mounting	Wearable, Adhesive	Hang, Adhesive	Adhesive	Hang	Adhesive	Hang, Adhesive	Tie

UWB Positioning Gateway / Base Station



Parameter	Spec
ChinoINT Part Number	AEHRHWGWANC1
Frequency Band	3.5 to 6.5 GHz
Dimension	120 x 120 x 30mm
Input Power	DC 5V
Power Consumption	5W
TX Power	0dBm/1mW
Coverage	5m (40x40m ²)
Uplink	Ethernet / Wifi

UWB Positioning Tag



Parameter	Spec
ChinoINT Part Number	AEHRHWPTTWZ1
Frequency Band	3.5 to 6.5 GHz
Dimension	60 x 60 x 20mm
Input Power	DC 5V
Power Consumption	2.5W
TX Power	0dBm/1mW
Battery	1500mAh, 1 year @ 30s interval
Interval	100ms - 60s

RFID System

UHF RFID integrated reader



AEWYHWRE0101	
Dimension	230x230x70 mm
Protocol	ISO18000-6B, ISO18000-6C (EPC CIG2)
Frequency Band	902-928 MHz
Detection distance	0-5m
Antenna	8 dbi
Interface	RS232, RS484, Wiegand, RJ45, WIFI
Power Rating	9-12VDC 1A
Operating Temperature	0 - 40°C
Operating Humidity	5 - 95% RH, non-condensing
Storage temperature	-10 - 50°C

UHF RFID long distanceintegrated reader



AEWYHWRE0102

Dimension	445x445x70 mm
Protocol	ISO18000-6B, ISO18000-6C (EPC CIG2)
Frequency Band	902-928 MHz
Detection distance	0-15m
Antenna	8 dbi
Interface	RS232, RS484, Wiegand, RJ45, WIFI
Power Rating	9-12VDC 1A
Operating Temperature	0 - 40°C
Operating Humidity	5 - 95% RH, non-condensing
Storage temperature	-10 - 50°C

UHF RFID Bluetooth Reader



AEWYHWHR0102	
Dimension	110 × 50 × 5.8 mm
Protocol	ISO18000-6C (EPC CIG2)
Frequency Band	902-928 MHz
Detection distance	0-1m
Antenna	0~26dbm, supports RSSI
Interface	Bluetooth 4.0
Power Rating	USB
Reading Speed	> 50 tag / s
Operating Condition	0 - 40°C, 5 - 95% RH, non-condensing
Storage temperature	-10 - 50°C

UHF RFID Handheld Reader



AEWYHWHR0947	
Dimension	170 x 85 x 25 mm
Protocol	ISO18000-6C (EPC CIG2)
Frequency Band	902-928 MHz
Detection distance	0-1m
Android System	4 Core Cortex-A53, Main frequency 1.3GHz
Screen	5" IPS screen 720x1280
Interface	Bluetooth 4.0, GPS
Battery	4500mAh, USB powered
Reading Speed	50 tag / s
Rating	IP65

UHF RFID Handheld Reader



AEWYHWR6000	
Dimension	170 x 85 x 25 mm
Protocol	ISO18000-6C (EPC CIG2)
Frequency Band	902-928 MHz
Detection distance	0-2m
Android System	4 Core Cortex-A53, Main frequency 1.3GHz
Screen	5" IPS screen 720x1280
Interface	Bluetooth 4.0, GPS
Battery	4500mAh, USB powered
Reading Speed	50 tag / s
Rating	IP65

UHF RFID Handheld Reader with holder



AEWYHWR6100

Dimension	170 x 85 x 25 mm
Protocol	ISO18000-6C (EPC CIG2)
Frequency Band	902-928 MHz
Detection distance	0-5m
Android System	4 Core Cortex-A53, Main frequency 1.3GHz
Screen	5" IPS screen 720x1280
Interface	Bluetooth 4.0, GPS
Battery	4500mAh, USB powered
Reading Speed	80 tag / s, imported IC
Rating	IP65

RFID Tags

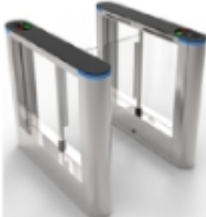
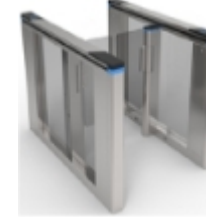


				
Name	Anti-metal Tag	Tearproof Adhesive Tag	Anti Body Tag	Adhesive Tag
Part Number	AEWYHWT A0201	AEWYHWT A0101	AEWYHWT A0301	AEWYHWT A0102
Dimension (mm)	135 x 22 x 12	110 x 40	98 x 56 x 5	50 x 50
Protocol	ISO18000-6C (EPC CIG2)	ISO18000-6C (EPC CIG2)	ISO18000-6C (EPC CIG2)	ISO18000-6C (EPC CIG2)
Frequency	860-960 MHz	860-960 MHz	860-960 MHz	860-960 MHz
Operating Temperature	-20 - 60°C	-30 - 50°C	-40 - 85°C	-30 - 50°C
Material	ABS	PET	ABS	PET
Effective distance (m)	0 - 15	0 - 35	0 - 1	0 - 35

More models:



Access Gate

						
Dimension (mm)	1410x300x1005	1400x185x1020	1200x185x980	1500x150x980	1500x100x980	1400x120x980
Unlock time (s)	0.2	0.2	0.2	0.2	0.2	0.2
Speed (person / min)	35	35	35	35	35	35
Path width (mm)	550	900	600	600	600	550
Power	220V 50Hz	220V 50Hz	100 – 240	100 – 240	100 – 240	100 – 240
Moter Voltage (V)	24	24	24	24	24	24
Operating Temperature (℃)	-25 – 70	-25 – 70	-25 – 70	-25 – 70	-25 – 70	-25 – 70
Signal	Dry Contact	Dry Contact	Dry Contact	Dry Contact	Dry Contact	Dry Contact
Reverse direction alert	Yes	Yes	Yes	Yes	Yes	Yes
Weight (kg) (single door)	95 (75)	★ 80 (65) ★	★ 80 (65) ★	★ 80 (65)	★ 80 (65)	80 (65)
Material	1.2mm body, 1.5mm top cover SUS304, stainless steel	1.2mm body, 1.5mm top cover SUS304, stainless steel	1.5mm body, 1.5mm top cover SUS304, stainless steel	1.5mm body, 1.5mm top cover SUS304, stainless steel	1.5mm body, 1.5mm top cover SUS304, stainless steel	Cold rolled plate, Paint(烤漆)
Anti-pinching IR sensor						
Brushless Servo Motor	No	No	No	No	Yes	Yes

Accessories

Battery - AEHYHWBA0101



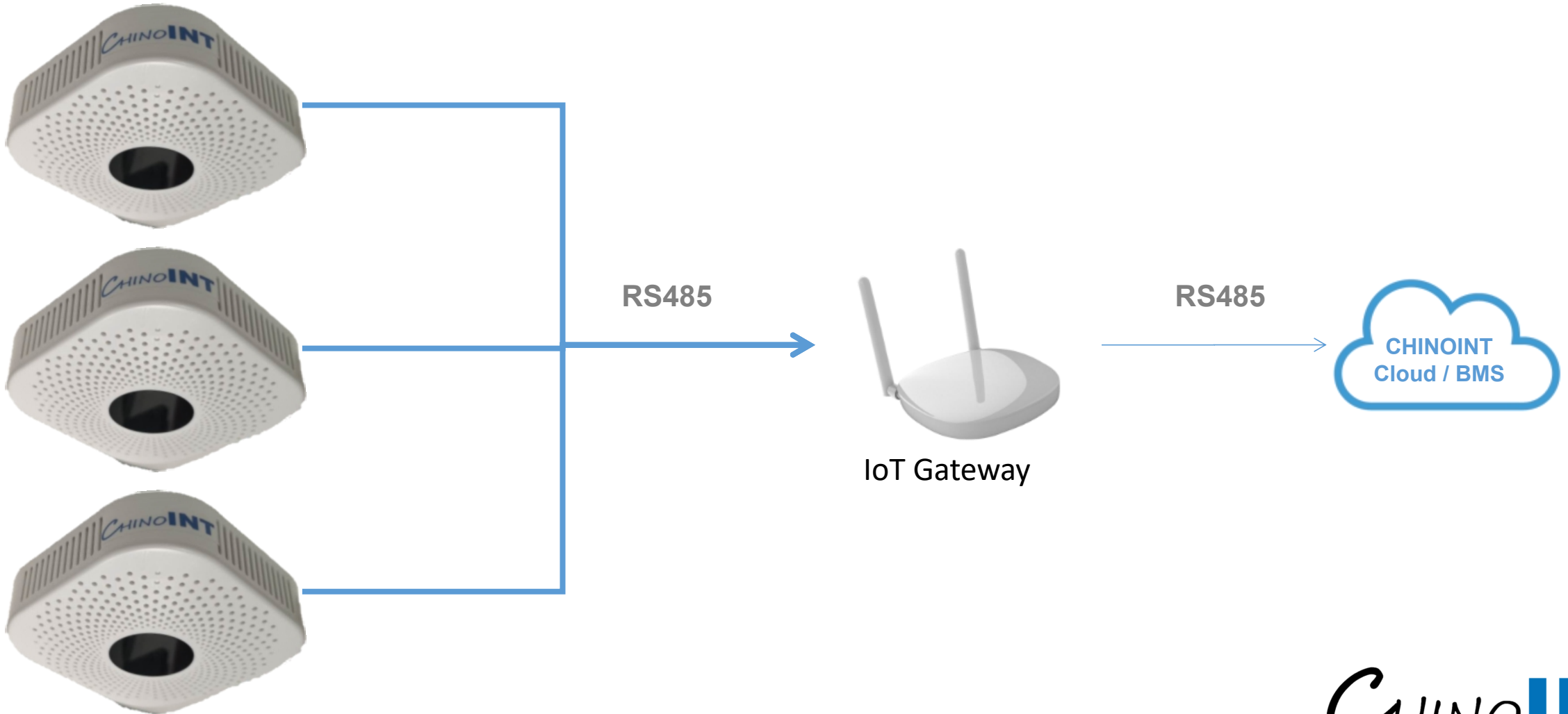
Parameter	
Capacity	150000mAh / 555Wh
Charging Time	DC21V 7 hours
DC 5.5 Output	DC 9~12V/10A x 1
Display	LCD
Operating Temperature	Discharge-20°C~60°C;
Dimension	285*220*170mm
Weight	5.2kg
Certification	FCC, CE, RoHS

Connectivity

Connectivity Options: BMS direct integration



Sensor Cluster



Connectivity Option: LoRaWan



Sensor Cluster



Connectivity Option: Zigbee



Connectivity Option: WiFi

Sensor Cluster



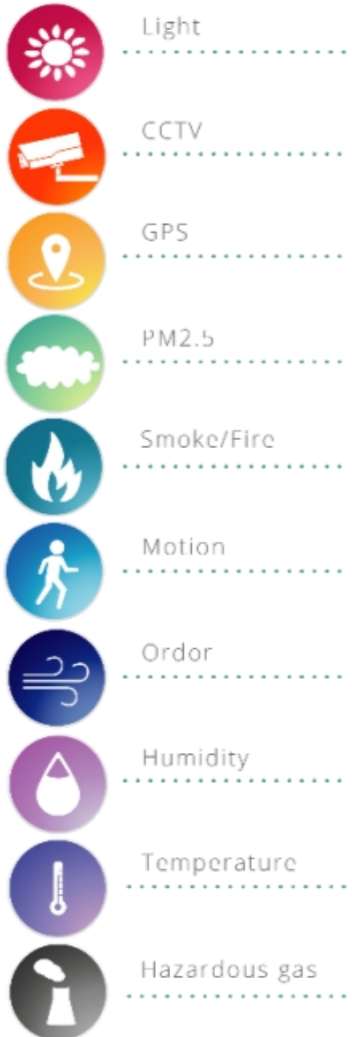
Predictive Maintenance

Type of Maintenance

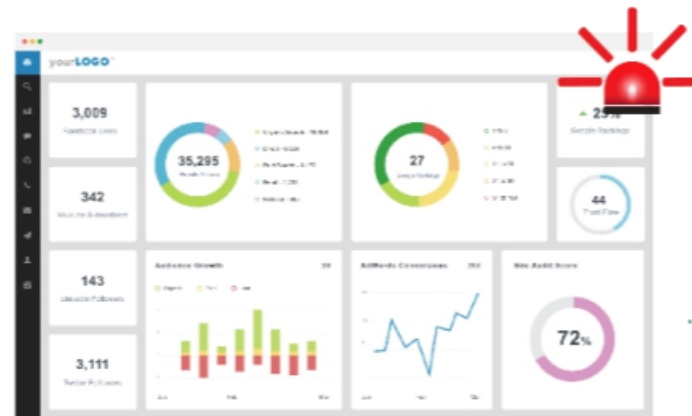
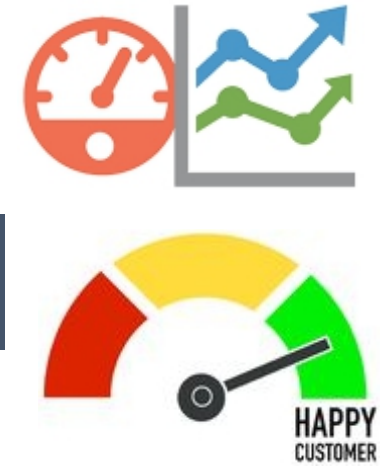


	Reactive	Preventive	Predictive
Definition	Repairing parts or equipment only after the asset has broken down or been run to the point of failure	Scheduled based on calendar time, asset runtime, or some other period of time.	Scheduled as-needed based on real time conditions of assets.
Trigger	Failure	Time	Data
Pros	Maximized utilization	Better than reactive maintenance Relatively easy to implement	Maintenance is performed as needed Reduces maximum amount of downtime Better spare parts management
Cons	Down time unavoidable	Risk of over-maintaining Keep spare parts stock	More investment
Service Level	Very Low	Medium	High

Predictive Maintenance

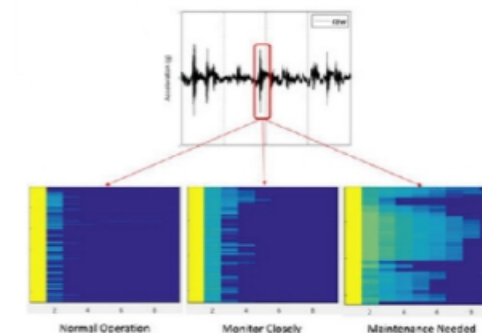


Parts replaced before failure happens!



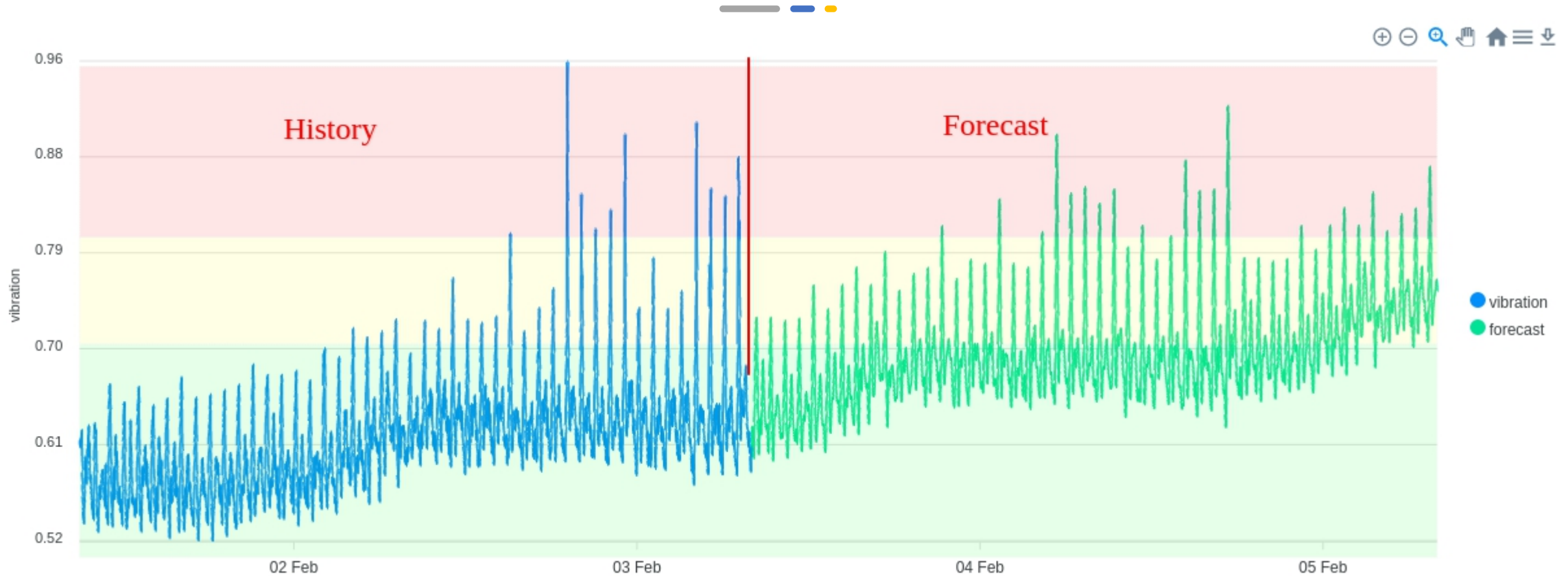
From the data analysis, the predictive maintenance platform produces real-time alert

Predictive Maintenance



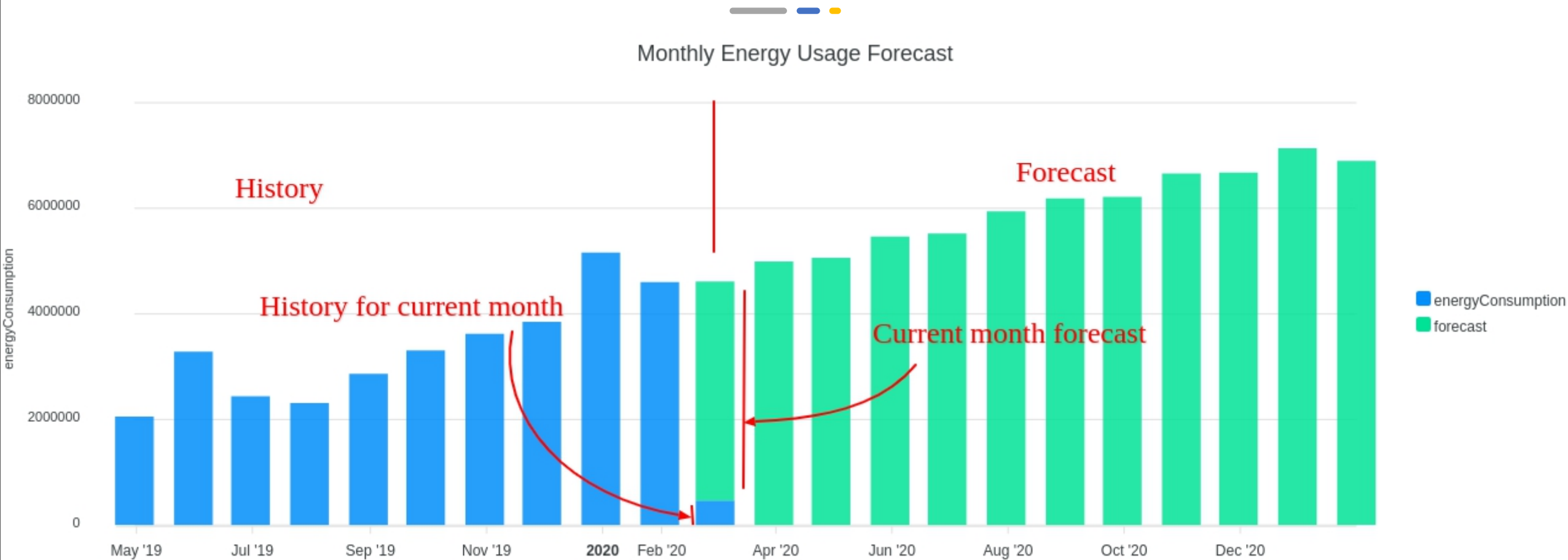
Real-time unmanned surveillance
Data comes in continuously, the predictive maintenance platform keeps monitoring the data using the built-in data model
Machine Learning helps to refine the model

Simple Prediction For Motor



Motor vibration monitoring. It is to predict when vibration will rich critical levels maintenance can be scheduled to avoid unplanned downtime.

Simple Prediction for Power Consumption



Example to forecast how much energy would be consumed by the building during next year. Key point is to aggregate telemetry from sensors on building level and then build a forecast.

Prediction VS Real Data

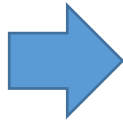


Dashboard can be created to show prediction and realtime data side by side

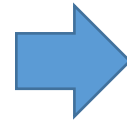
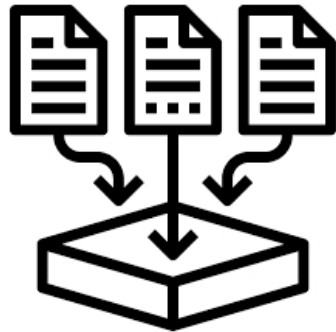
Road to Zero Downtime



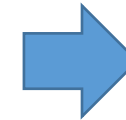
Sensor
Deployment



Data
Capturing



Aalytic
Modelling



Sensor
Deployment

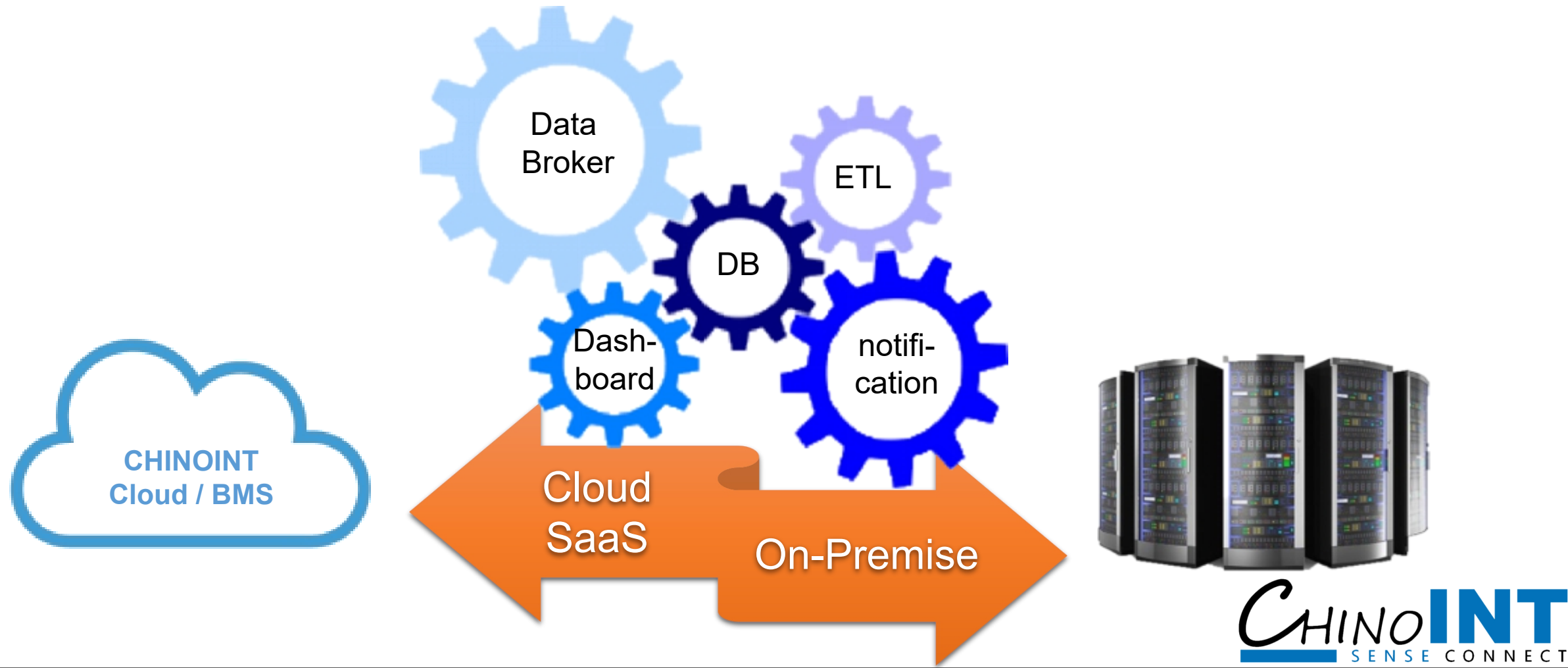


Feedbak &
finetune

Software Platform

Software Platform

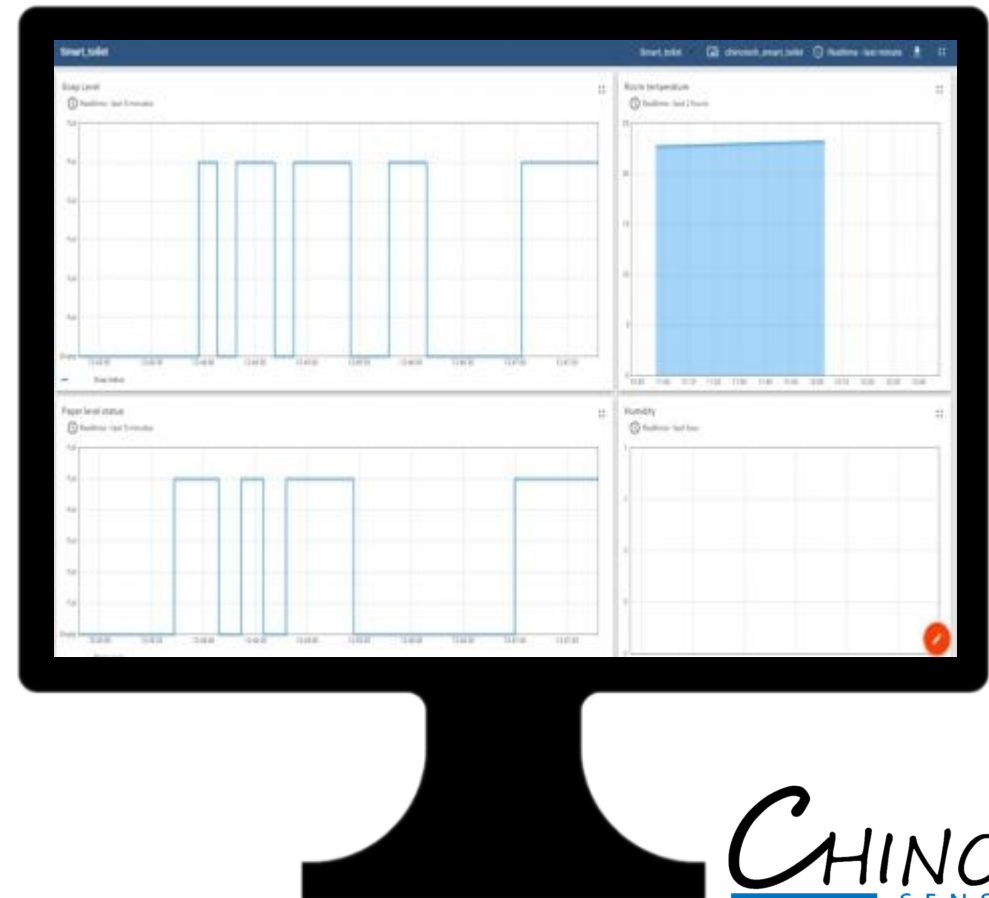
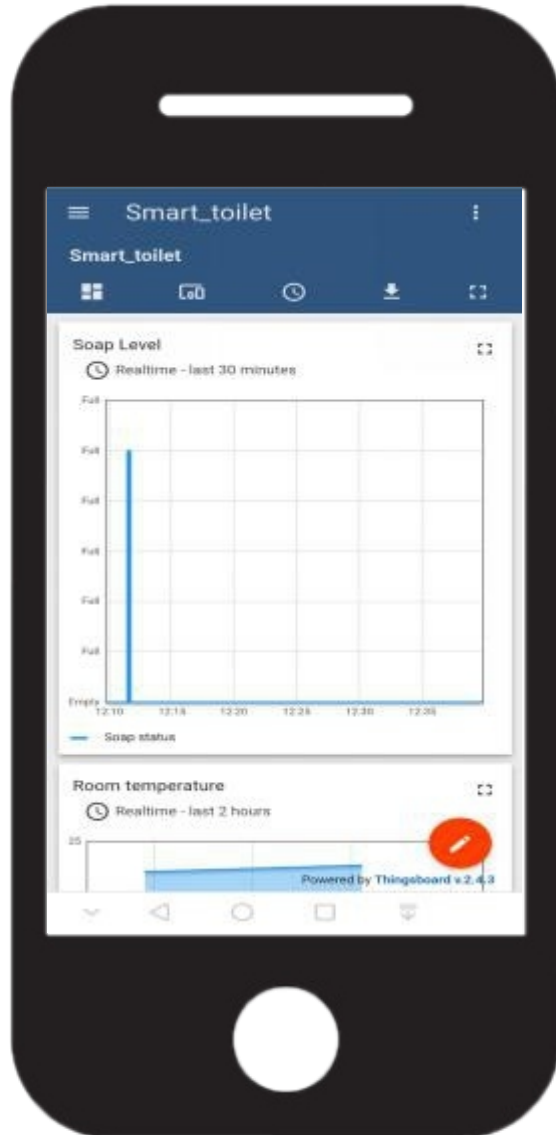
The Software Platform consists of Data Broker, ETL tool, Database, Dashboard and notification modules
For easy deployment, both Cloud SaaS and on-premise version is available.



Dashboard



Clean and clear dashboarding is one of the key element in an IoT system. The Smart Toilet platform provides easy to use dashboard, with multi-layer user account settings.

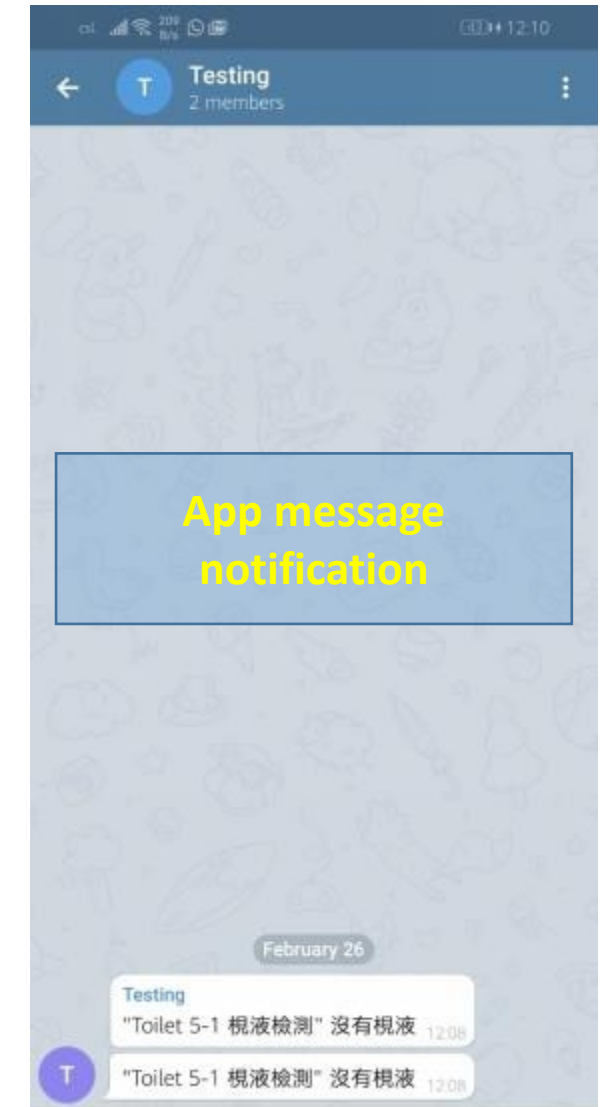
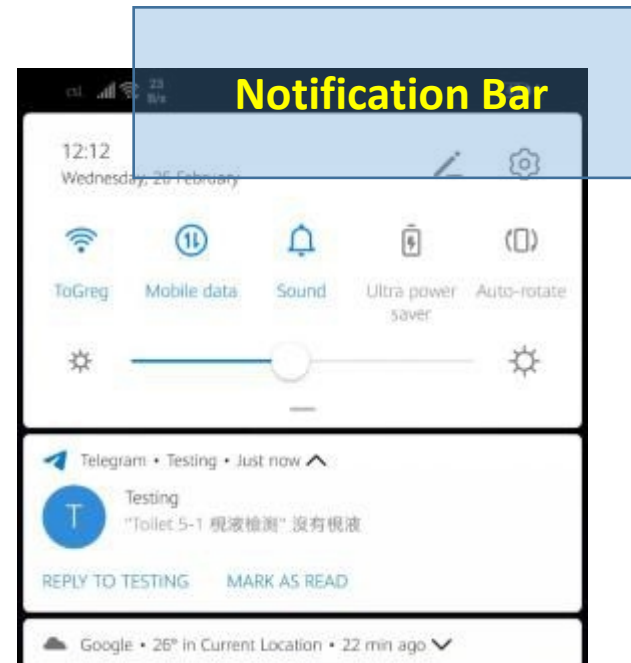
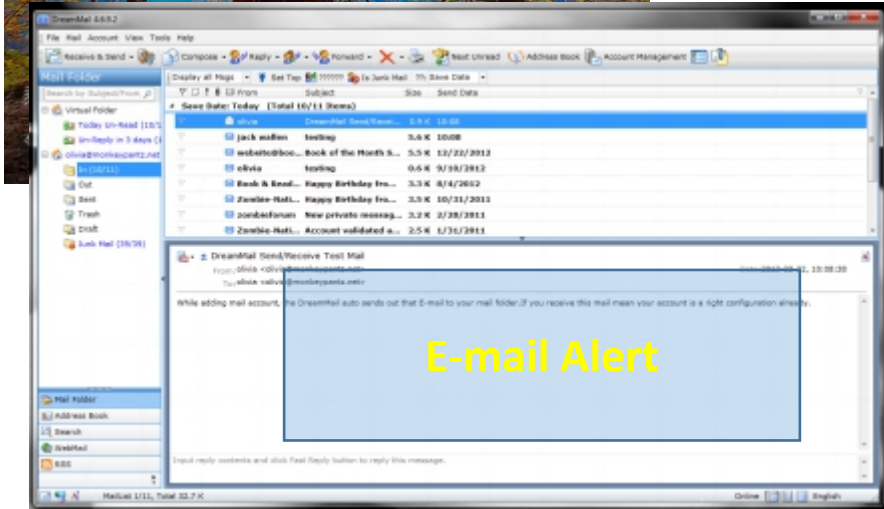
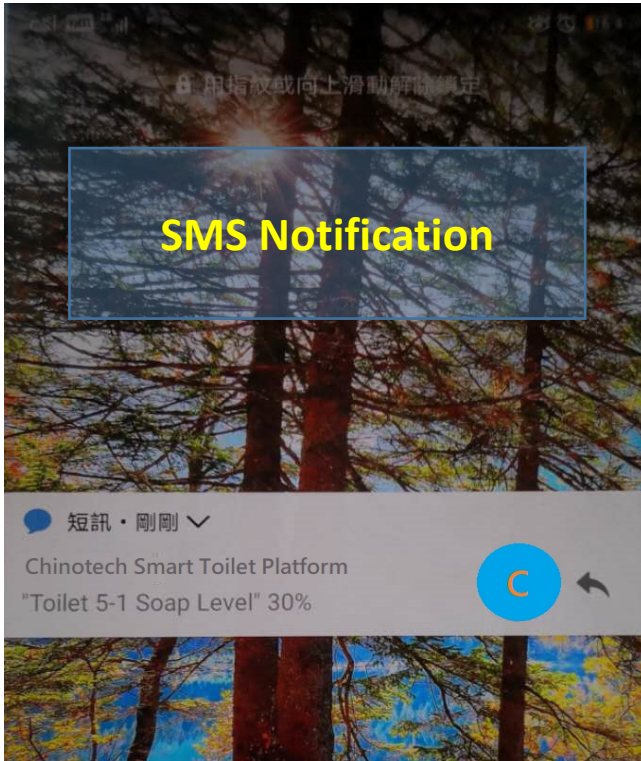


Notification

Notification is one of the crucial feature for Smart Toilet, in order to achieve on-demand cleaning and best resource utilization.

Notification can be done through app, notification bar alert, SMS and through e-mail.

App message notification can be configured as group alert, and individual alert.

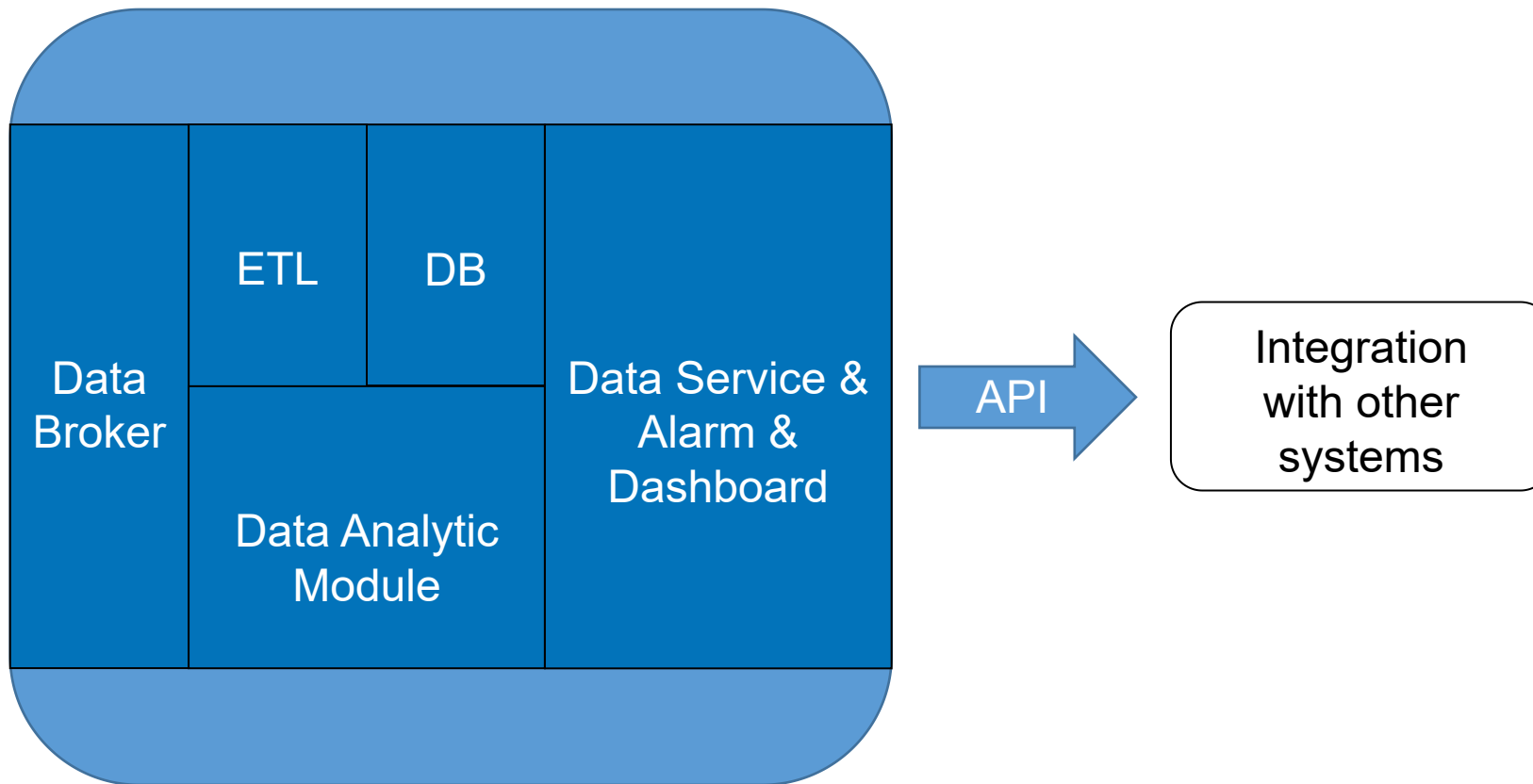


The Analytic Platform

Centralized Platform



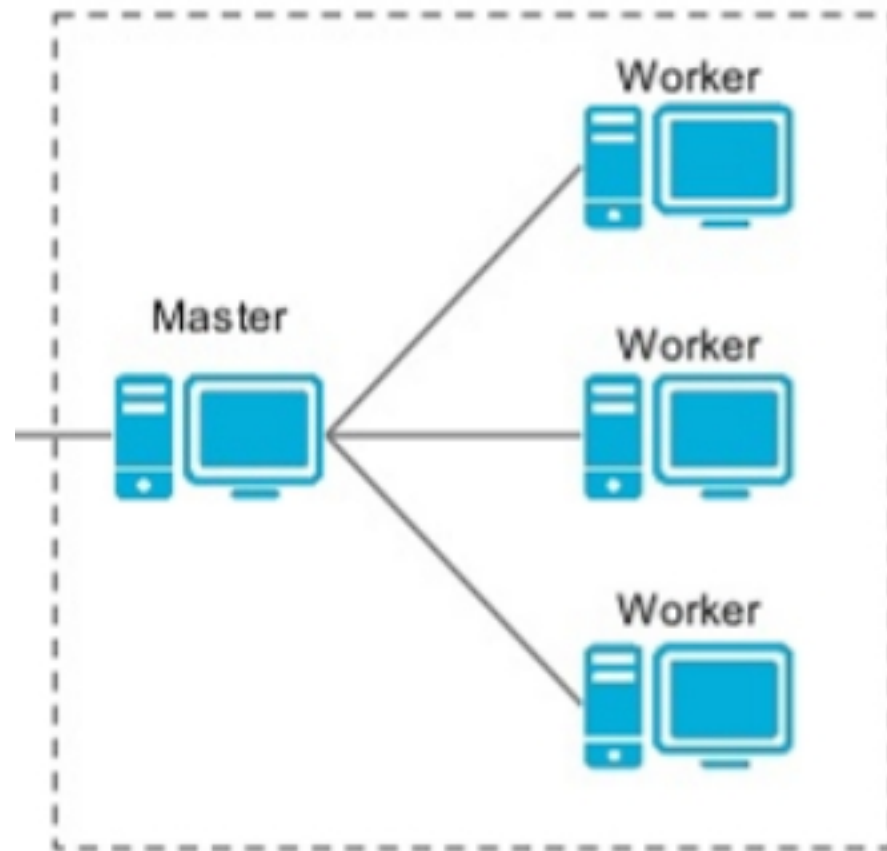
ChinoINT Platform is a centralized platform for BMS data and device management



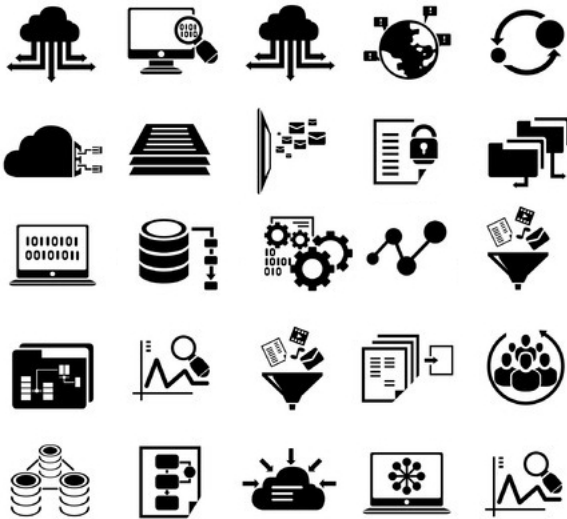
Distributed Analytic Platform



The analytic platform is a ready platform for distributed computing
It is easily deployed with single node, and ready to scale up when needs arise.



Models Ready



Classification

- Logistic regression
- Binomial logistic regression
- Multinomial logistic regression
- Decision tree classifier
- Random forest classifier
- Gradient-boosted tree classifier
- Multilayer perceptron classifier
- Linear Support Vector Machine
- One-vs-Rest classifier (a.k.a. One-vs-All)
- Naive Bayes
- Factorization machines classifier

Regression

- Linear regression
- Generalized linear regression
- Available families
- Decision tree regression
- Random forest regression
- Gradient-boosted tree regression
- Survival regression
- Isotonic regression
- Factorization machines regressor

Linear methods

Factorization Machines

Decision trees

- Inputs and Outputs
- Input Columns
- Output Columns

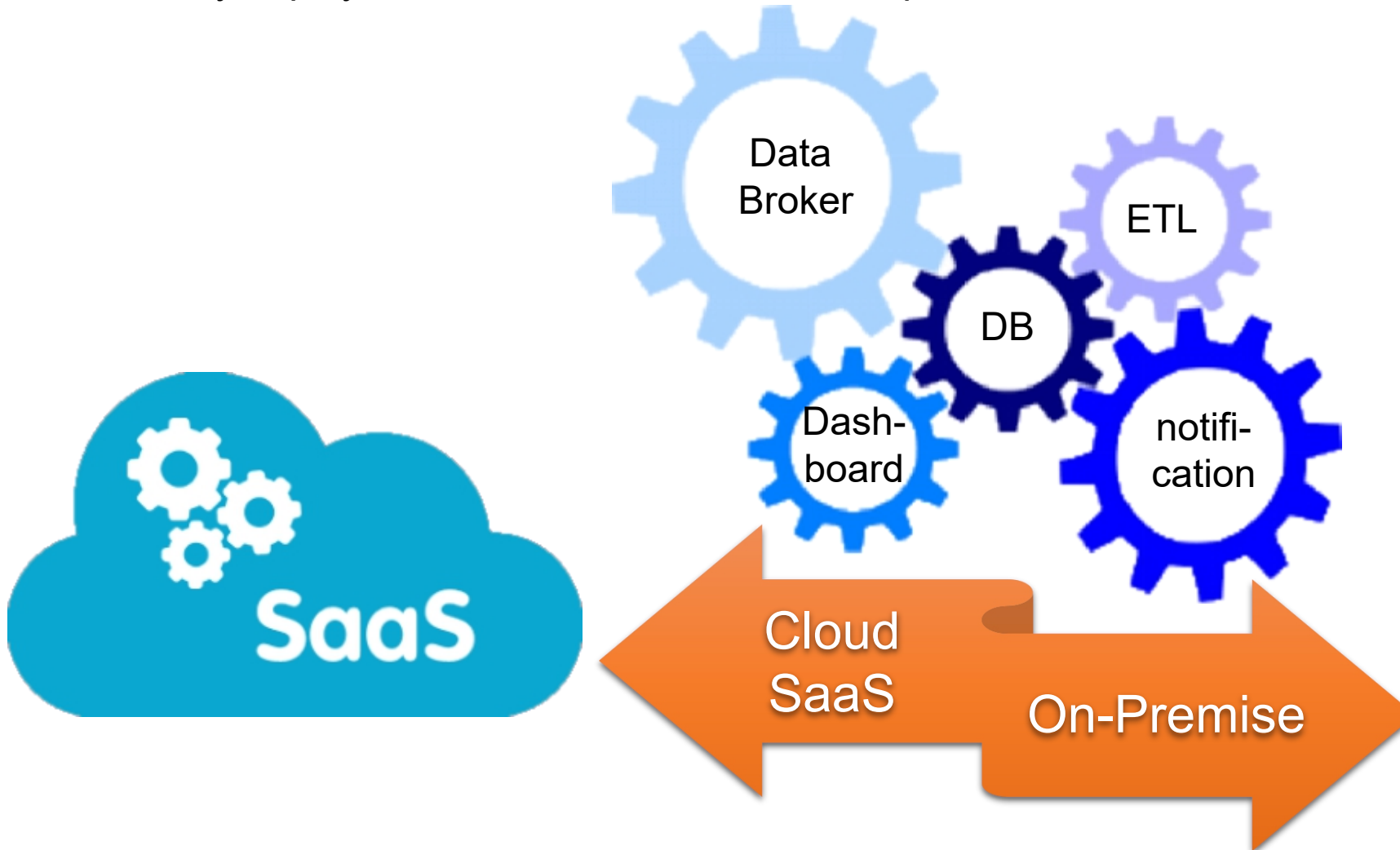
Tree Ensembles

- Random Forests
- Inputs and Outputs
- Input Columns
- Output Columns (Predictions)
- Gradient-Boosted Trees (GBTs)
- Inputs and Outputs
- Input Columns
- Output Columns (Predictions)

Centralized Platform

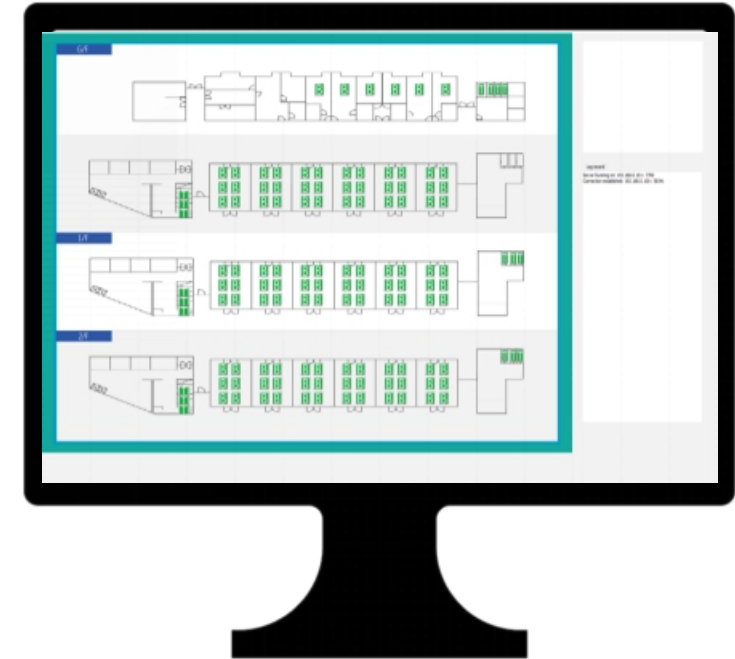
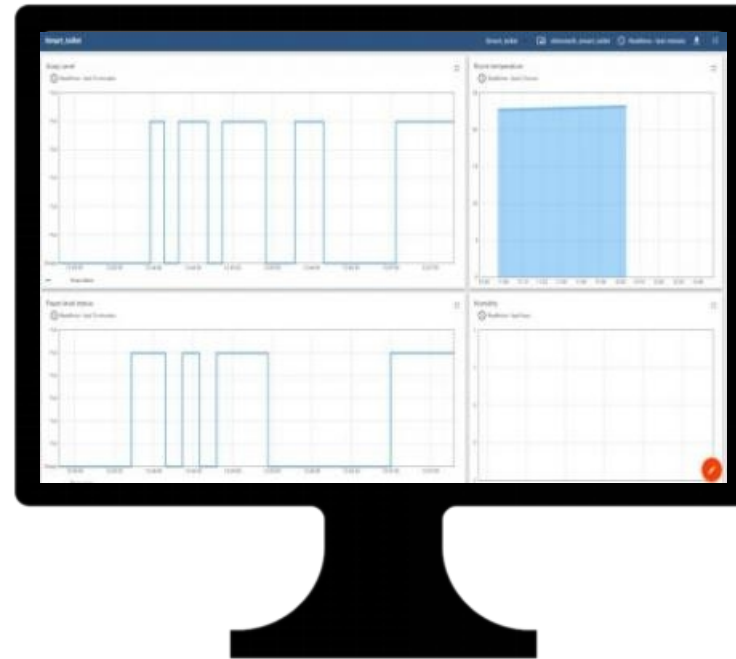


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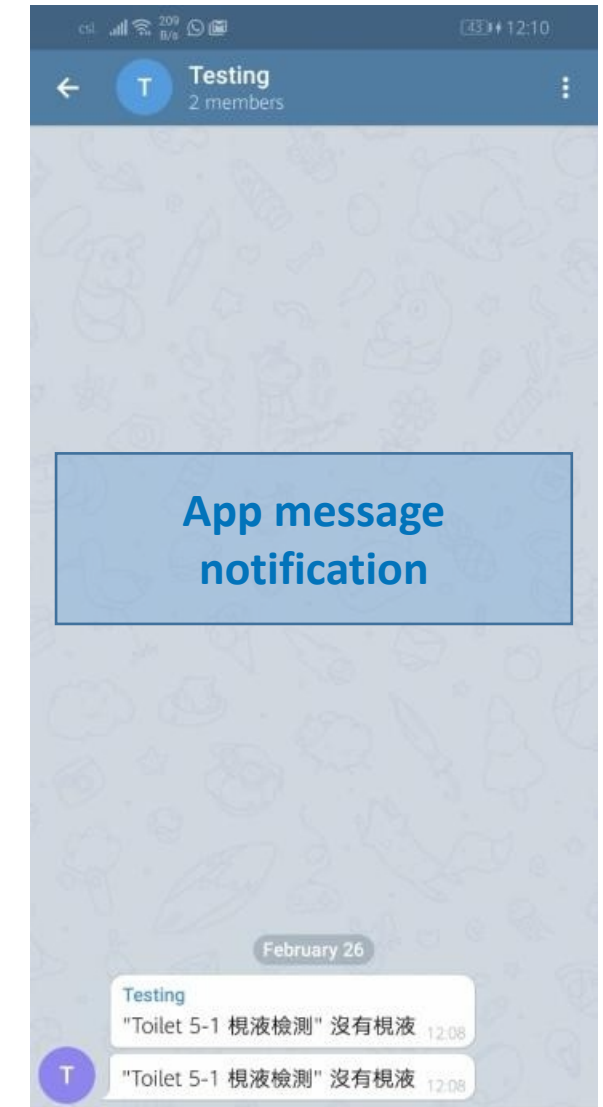
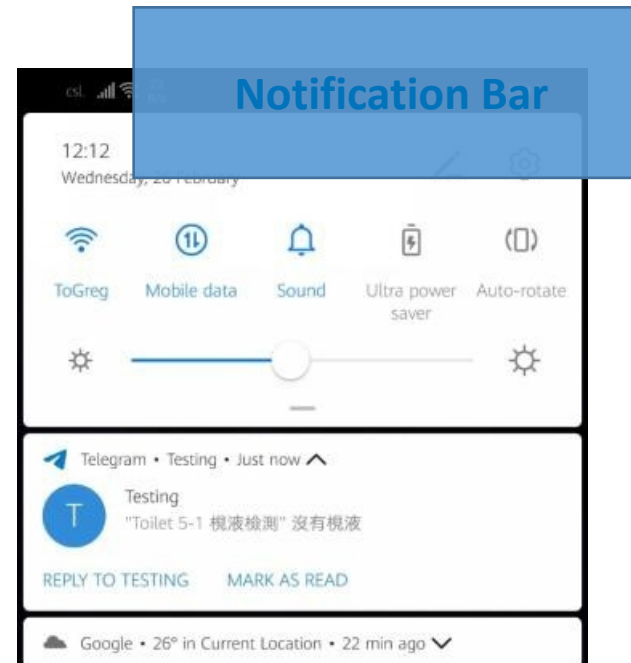
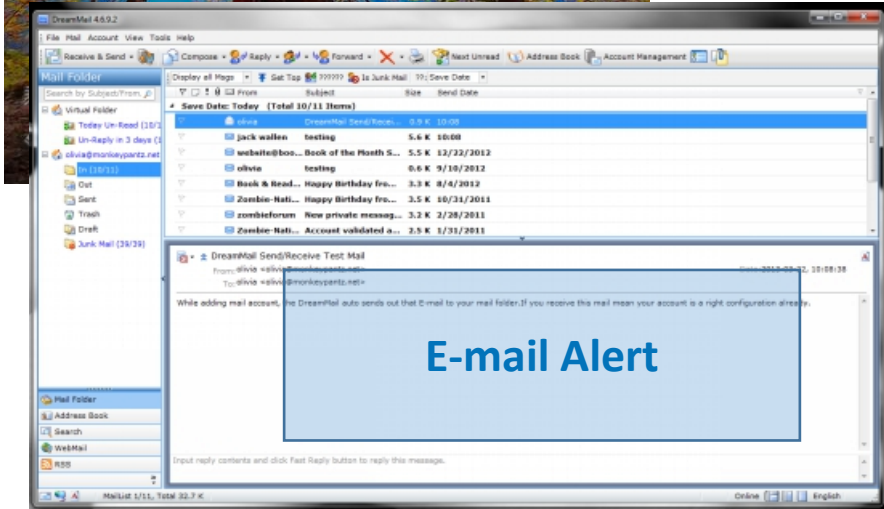
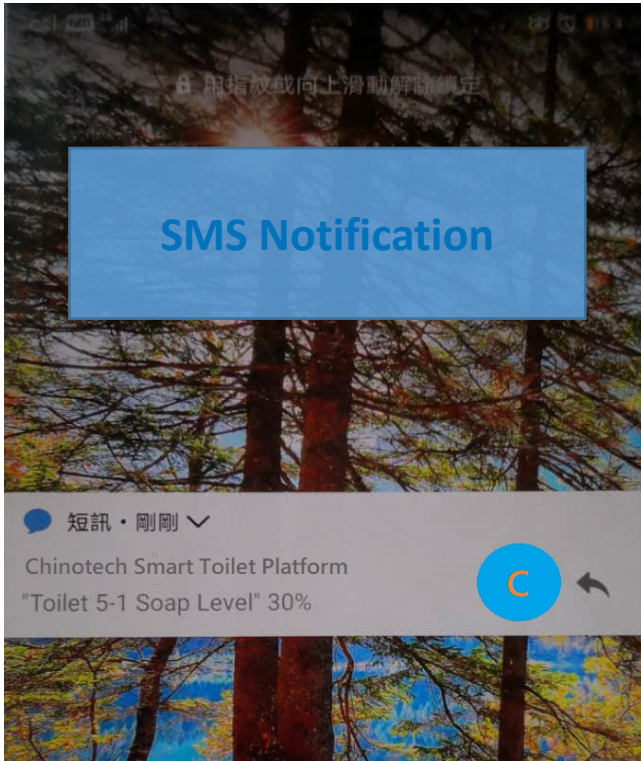


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www.chinoint.com



For more information,
please feel free to contact us:

sales@chinoint.com