RF as a Service
OEM / ODM

LoRa
GATEWAY

Design and Manufacturing Service

Our RFaaS teams offer a great range of wireless electronic products on the basis of OEM / ODM. We welcome your ideas and will create the best solution for you.

บริษัท อิทธิฤทธิ์ เทคโนโลยี จำกัด
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itthirit

WB-3628

LoRa Gateway
RS485 & RS232

- LoRa Wireless data link provide stable data stream.
- Wide voltage operation for Industrial applications.
- High output RF Power and high sensitivity provide more then 40KM transmission distance.
- Multi-Interface support RS-485 / RS-232.
- AUX Power output for general purpose such as plug-in sensor, or other sub system.
- Software setting function such as Frequency / ID / P2P / Group / Broadcast / Power output ....

WW-3C28

LoRa Gateway
RS485 & AUX In / Out

- LoRa Wireless data link provide stable data stream.
- Wide voltage operation for Industrial applications.
- High output RF Power and high sensitivity provide more than 40KM transmission distance.
- Multi-Interface support RS-485 / Analog or Digital Input / Digital Output.
- AUX Power output for general purpose such as plug-in sensor, or other sub system.
- Software setting function such as Frequency / ID / P2P / Group / Broadcast / Power output ....
- Resist the water, dust, temperature and shock and meet with the IP68 standard.
- Analog Input Support 0~10 V / 0~20 mA / 4~20 mA / ADC (0~10 V).
- Modbus command for Analog Input / Digital Input / Digital Output / DC Output.
- Digital Output support PWM / Latch Mode.
- AUX I / O support remote setup / status inquiry function.

WATER PROOF

WW-3D28

LoRa Gateway
RS485 & 5 Ports AUX In / Out

- LoRa Wireless data link provide stable data stream.
- Wide voltage operation for Industrial applications.
- High output RF Power and high sensitivity provide more than 40KM transmission distance.
- Multi-Interface support RS-485 / Analog or Digital Input / Digital Output.
- AUX Power output for general purpose such as plug-in sensor, or other sub system.
- Software setting function such as Frequency / ID / P2P / Group / Broadcast / Power output ....
- Resist the water, dust, temperature and shock and meet with the IP68 standard.
- Analog Input Support 0~10 V / 0~20 mA / 4~20 mA / ADC (0~10 V).
- Modbus command for Analog Input / Digital Input / Digital Output / DC Output.
- Digital Output support PWM / Latch Mode.
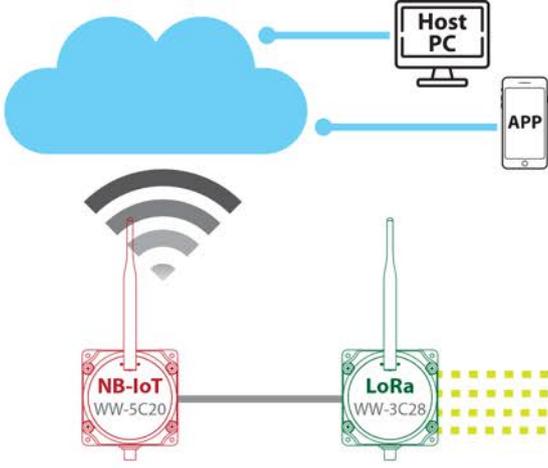- AUX I / O support remote setup / status inquiry function.

WATER PROOF

Specification

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WB-3628

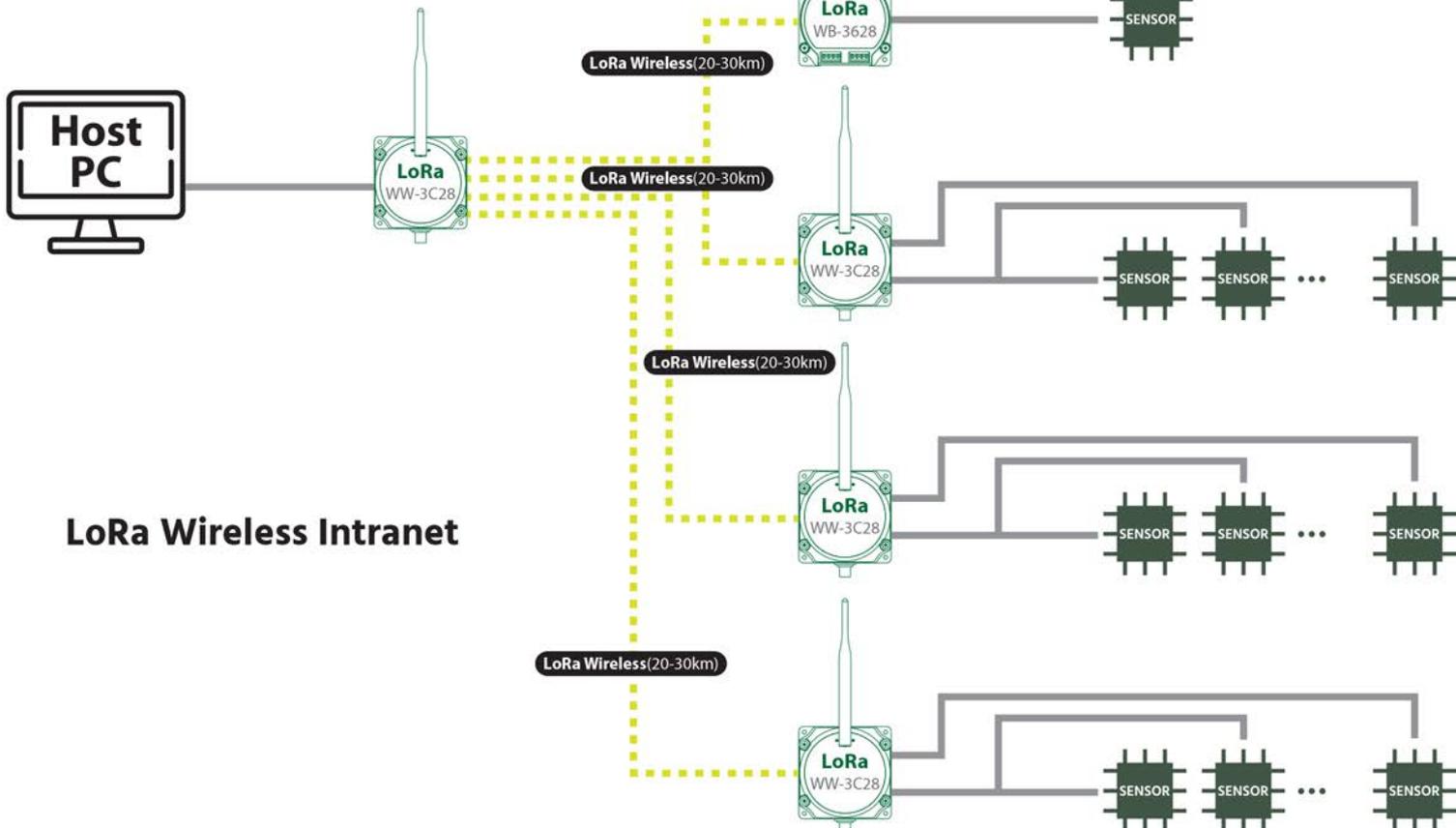|	
Product Type	Indoor
Air Stream Protocol	LoRa Wireless Protocol (No support LoRaWan)
Operating Frequency Range	410 ~ 525MHz / 862 ~ 1020MHz (According to the local regulatory compliance.)
Sensitivity	Up to -136dBm@SF=7 / 10.4K bandwidth
Transmit RF Power	Maximum 2W
Interface	RS-485 x 1 / RS-232 x 1
RS-485 Protocol	Modbus RTU
Serial Interface Baud Rate	1200bps / 2400bps / 4800bps / 9600bps / 19200bps / 38400bps / 57600bps / 115200bps / 230400bps
Operating Temperature	-40°C ~ 85°C
Topology	Broadcast / Group / Peer to Peer
Main Unit Dimensions	10 x 10 x 2.98 cm (Not include antenna)
Weight	140 g
Input Power Supply	12V ~ 30V DC / 1A
Output Power Supply	5V DC / 200mA (Max.)
Power Consumption	24V 15mA @868 / 920MHz receive, 24V 400mA @868 / 920MHz transmit 2W
Special Specification	Flame Retardant

	WW-3C28	WW-3D28
Product Type	Outdoor	
Air Stream Protocol	LoRa Wireless Protocol (No support LoRaWan)	
Operating Frequency Range	410 ~ 525MHz / 862 ~ 1020MHz(According to the local regulatory compliance.)	
Sensitivity	Up to -136dBm@SF=7 / 10.4K bandwidth	
Transmit RF Power	Maximum 2W	
Interface	RS-485 x 1 / Analog or Digital Input x 1 / Digital Output x 1	RS-485 x 1 / Analog or Digital Input x 5 / Digital Output x 5
RS-485 Protocol	Modbus RTU	
Serial Interface Baud Rate	1200bps / 2400bps / 4800bps / 9600bps / 19200bps / 38400bps / 57600bps / 115200bps / 230400bps	
Analog Input	Analog Input Support 0~10 V / 0~20 mA / 4~20 mA / ADC (0~10 V)	
Digital Input	Digital Input Support High / Low Signal Judge	
Digital Output	Digital Output Support PWM / Latch Mode	
Operating Temperature	-40°C ~ 85°C	
Topology	Broadcast / Group / Peer to Peer	
Main Unit Dimensions	10 x 10 x 4.8 cm (Not include antenna and external connect)	
Weight	195 g	250 g
Waterproof	IP 68	
Input Power Supply	12V ~ 36V DC / 1A	
Output Power Supply	5V DC / 200mA (Max.)	Main Port: 10V DC / 100mA (Max.), AUX 2~ AUX 5: 10V DC / 50mA (Max.)
Power Consumption	24V 15mA @868 / 920MHz receive, 24V 400mA @868 / 920MHz transmit 2W	
Special Specification	Flame Retardant	

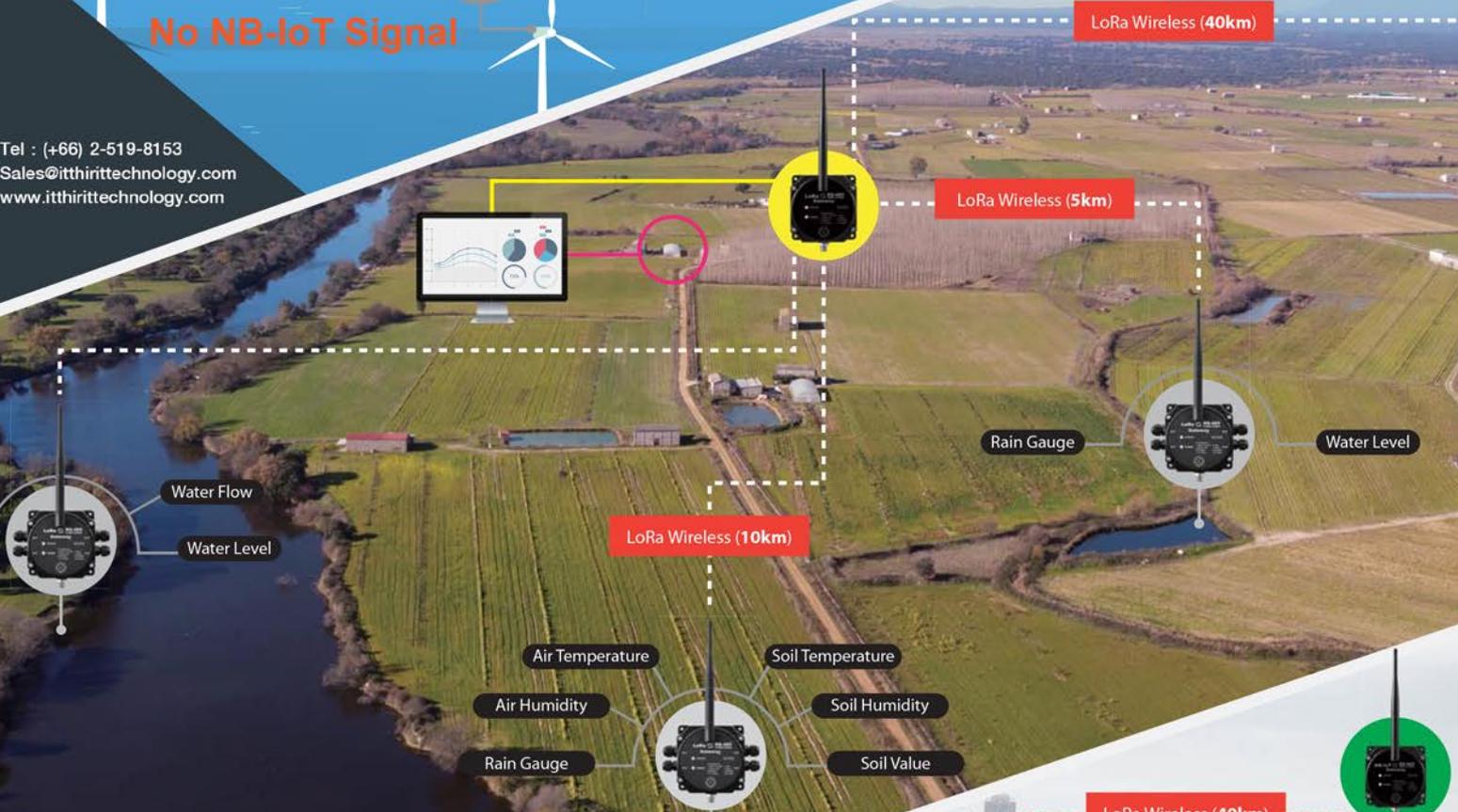* Specifications are subject to change, in the interest of technical improvement, without notice or obligation.

Host
PC

APP

itthirit

LoRa
WB-3628

SENSOR

LoRa Wireless(20-30km)

NB-IoT
WW-5C20

LoRa
WW-3C28

LoRa Wireless(20-30km)

LoRa
WW-3C28

SENSOR SENSOR ... SENSOR

LoRa Wireless Internet

LoRa Wireless(20-30km)

LoRa
WW-3C28

SENSOR SENSOR ... SENSOR

LoRa Wireless(20-30km)

LoRa
WW-3C28

SENSOR SENSOR ... SENSOR

LoRa
Network

LoRa
WB-3628

SENSOR

LoRa Wireless(20-30km)

Host
PC

LoRa
WW-3C28

LoRa Wireless(20-30km)

LoRa
WW-3C28

SENSOR SENSOR ... SENSOR

LoRa Wireless(20-30km)

LoRa Wireless Intranet

LoRa
WW-3C28

SENSOR SENSOR ... SENSOR

LoRa Wireless(20-30km)

LoRa
WW-3C28

SENSOR SENSOR ... SENSOR

Cloud

itthirit

Smart Wind Farm Solutions

No NB-IoT Signal

Tel : (+66) 2-519-8153
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LoRa Wireless (**40km**)

LoRa Wireless (**5km**)

Rain Gauge   Water Level

Water Flow

Water Level

LoRa Wireless (**10km**)

Air Temperature   Soil Temperature

Air Humidity   Soil Humidity

Rain Gauge   Soil Value

Agricultural Irrigation – Farm Management Solutions

LoRa Wireless (**40km**)

Temperature

Wind Meter

LoRa Wireless (**20km**)

LoRa Wireless (**5km**)

PM2.5 Sensor

LoRa Wireless Environment Monitor

Rain Gauge

Pump
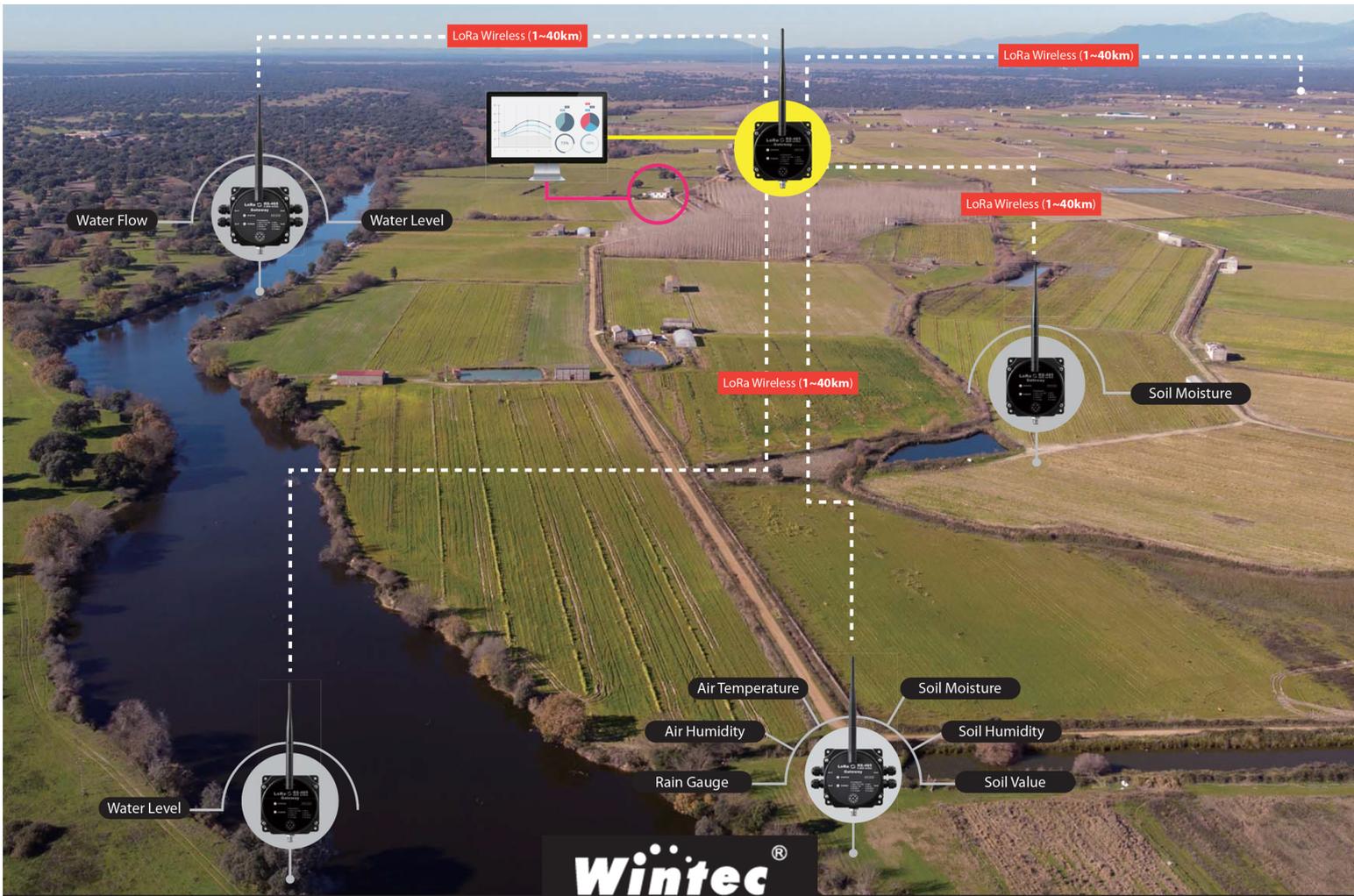
RFaaS Industrial Wireless Gateway is used for a variety of detections, which is suitable outdoor and indoor environment to resist the water, dust, temperature and shock and meet with the IP68 standard. In internet of wireless sensor, our Industrial Wireless Gateway is designed to efficiency and saving energy and used of wireless communication to transmit data, which can save much wiring cost, and more convenient.

Industrial Wireless Gateway collect much data that are detected by the sensing devices for the environments such as temperature, humidity, brightness, vibration, etc., and transmit to the center for analysis and monitoring. We base on the information collected to control the state of environments and make decisions immediately.

The application range is quite wide and suitable a variety areas and environments. For example, automated farm / garden detecting system, bridge safety monitoring system, river-water stage warning and smart lighting control system.

RFaaS provides wireless customized design and services. Integrating all kinds of sensing, combining IoT system to develop more intelligent products and create more innovative product values.

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