

# 2022

V2.7

Milesight



# PRODUCT CATALOGUE

5G & AIoT



Milesight is a professional IoT company that leverages the top trending technologies to simplify the process of data collection, storage and retrieval in order to accomplish the goal: connecting "things" to the Cloud

Better Inside, More in Sight



100+ Employees



56% of office staff are working in R&D center



200% CAGR during 2019 to 2021



20K pcs monthly production capacity



15% of revenue invested into R&D



0.7% defect rate



100+ countries and regions covered

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# LoRaWAN® Gateway

UG65 Semi-Industrial Gateway/UG67 Outdoor Gateway



## Embedded Network Server

- Gateway Fleet for receiving data from multiple Milesight gateways
- Real-time data collection & processing
- Save investment of external network service



## Industrial Design

- IP65/IP67 waterproof
- PoE powered device
- -40°C to 70°C operating temperature



## Powerful LoRa Capabilities



- Semtech SX1302 LoRa chip
- LoRaWAN® Class A/Class B/Class C
- Up to 15 kilometers range
- Support CN470/EU868/US915/AS923 and more



## Advanced Gateway Features

- Node-RED development tool for codeless visual programming
- Multicast for sending downlink messages to a group of end-devices
- Noise Analyzer to improve network quality and deployment efficiency

## Specifications

Model		UG65	UG67
Product Image			
LoRaWAN	Channel	8	
	Frequency	CN470/RU864/IN865/EU868/US915/AU915/KR920/AS923-1&2&3&4	
	Sensitivity	-140dBm Sensitivity @292bps	
	Output Power	27 dBm Max	
	Protocol	V1.0/V1.0.2, Class A/Class B/Class C	
Hardware	Processor	Quad-core 1.5 GHz, 64-bit ARM Cortex-A53	
	Memory	512 MB DDR4	
	Flash	8 GB eMMC (pSLC mode)	
	Power Supply	1. 9-24 VDC Jack Connector 2. 1 × 802.3af PoE input	1. 12 VDC with M12 Connector 2. 1 × 802.3af PoE input
Ingress Protection	IP65	IP67	
Connectivity	Cellular (Optional)	1 x SIM Slot, Support Global GSM/3G/4G LTE Frequency Bands	
	Wi-Fi	IEEE 802.11b/g/n	
	Ethernet	1 x 10/100/1000 Mbps	
	GPS	/	Yes



# Mini LoRaWAN® Gateway UG63



# Ambience Monitoring Sensor

3in1



- AM103
- AM103L

This UG63 Mini LoRaWAN® Gateway is delicately designed with a mini size and aesthetic appearance. Apart from standalone deployment, with strong and reliable performance as well as many advanced features like LBT, it fits the LoRaWAN® network coverage for indoor blind spots.



### Gateway Fleet

Transmit received data to one controller gateway



### Listen Before Talk

Enable multiple transmitting nodes to share a same channel



### Blind Spot Coverage

Perfect for covering blind spot of LoRaWAN® network



### Massive Connectivity

Adopting Semtech SX1302 LoRa chip, UG63 supports connection with more than 2000 LoRaWAN® nodes.

## Specifications

Specifications		
LoRaWAN	Channel	8
	Frequency	CN470/RU864/IN865/EU868/US915/AU915/KR920/AS923
	Sensitivity	-140dBm Sensitivity @292bps
	Output Power	27 dBm Max
	Protocol	V1.0/V1.0.2, Class A/Class B/Class C
Hardware	Processor	528 MHz, ARM Cortex-A7
	Memory	256 MB DDR4 RAM
	Flash	4 GB eMMC
	Power Supply	1 × 802.3af standard PoE input 5V by Type-C Port
Ingress Protection	IP30	
Connectivity	Ethernet	1 x 10/100 Mbps

Milesight AM103/AM103L measures 3 key factors including carbon dioxide, temperature, and humidity. The tiny, eye-catching size and long battery life make it worthy for indoor ambience monitoring in offices, schools, hotels, etc.



### 3 Sensors in 1

Built-in high accuracy temperature, humidity and CO<sub>2</sub> sensor



### Screen Display

Visualize sensor data, and CO<sub>2</sub> level with emoticon indication



### Easy Configuration

Configure and switch the device wirelessly via NFC technology



### Long Battery Life

2 replaceable batteries (5400 mAh) can be used for 3 ~ 4 years

## Specifications

Model		AM103	AM103L
Hardware	Screen	2.13-Inch Black & White E-Ink Screen	N/A
	LED	1 × Traffic Light Status Indicator	
	Configuration	Mobile App via NFC	
	Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923-1&2&3&4	
	Work Mode	OTAA/ABP, Class A	
	Power Supply	2 × 2700 mAh ER14505 Li-SOCl <sub>2</sub> Batteries	
Sensors	Temperature	Range	-20°C - 70°C
		Accuracy	0 to 70°C (±0.3°C), -20 to 0°C (±0.6°C)
	Humidity	Range	0% - 100% RH
		Accuracy	10% to 90% RH (±3%), below 10% and above 90% RH (±5%)
	CO <sub>2</sub>	Range	400 - 5000 ppm
		Accuracy	± (30 ppm + 3% of reading)

# Ambience Monitoring Sensor **7in1**



- AM107
- AM104

- Temperature & Humidity
- Barometric Pressure
- Activity Level (PIR)
- TVOC
- Light
- CO<sub>2</sub>



Milesight AM107/AM104 consists of multiple smart sensors that are built specifically for indoor air quality monitoring. It has a clean and modern design that makes it a perfect match for indoor scenarios.

- Clean and Modern Design**  
Bring "less is more" concept to indoor or HVAC environment
- Multiple Sensors in One**  
Temperature, humidity, activity level (PIR), light, CO<sub>2</sub>, TVOC, barometric pressure
- Configure with One Touch**  
NFC technology enables easy configuration and on/off operation
- Better Readability than LCD Monitor**  
E-ink technology offers high display clarity and sunlight visibility
- Low Power Consumption**  
AA alkaline batteries can last for 1 year and ensure low maintenance cost
- Smart Screen Mode**  
Screen will stop updating data if no motion is detected continuously for 20 minutes, which will save more power and prolong the use life of batteries.
- Compliant with ToolBox & Milesight IoT Cloud**  
Manage and configure your sensor easily

Model		AM107	AM104	
Hardware	Frequency	CN470/RU864/IN865/EU868/US915/AU915/KR920/AS923		
	Tx Power	19dBm (470 MHz) / 16dBm (868 MHz) / 20dBm (915 MHz)		
	Sensitivity	-137dBm @300bps		
	Mode	OTAA/ABP, Class A		
	Power Supply	2 × AA alkaline batteries/Powered via Type C port		
	Battery Lifetime	Around 1 Year	Around 1.5 Years	
Sensors	Temperature	Range	-20°C to + 70°C	
		Accuracy	±0.3°C (0 ~ 70°C), ±0.6°C (-20 ~ 0°C)	
	Humidity	Range	0% to 100% RH	
		Accuracy	±3% RH (10 ~ 90%), ±5% RH (0 ~ 10%, 90 ~ 100%)	
	PIR	Detection Area	94° Horizontal, 82° Vertical	
		Detection Distance	5 m	
	Light	Range	60000 lux (Visible + IR, IR)	
		Accuracy	±30%	
	CO <sub>2</sub>	Range	400 ~ 5000 ppm	
		Accuracy	± (30 ppm + 3% of reading)	
	TVOC	Range	0 ~ 60000 ppb (total VOC)	
		Accuracy	±15% of reading	
Long-term Stability		1.3% accuracy drift per year		
Barometric Pressure	Range	300 ~ 1100 hPa (-40 ~ 85°C)		
	Accuracy	±1 hPa		



# LoRaWAN® Ambience Monitoring Sensor

9in1

- AM319
- AM307

- Temperature
- Humidity
- PIR
- Light
- TVOC
- Barometric Pressure
- CO<sub>2</sub> CO<sub>2</sub>
- PM2.5 & PM10
- HCHO
- O<sub>3</sub> O<sub>3</sub>



Milesight AM307/AM319 is an all-round ambience monitoring device designed for indoor air quality monitoring. It collects various indoor ambience conditions through 9 built-in sensors, and delivers the data to both mobile App and its 4.2 inch E-ink screen, to help you to understand the indoor comfort & health level visually.



### Emoticon Indication

Indicating comfort level by emoticon on screen



### Traffic Light Indicator

Presenting ambience conditions in a tri-color LED



### Better Screen Display

Light & dark color theme with three display styles



### Anti-Theft Design

Preventing the device being taken away thoughtlessly

		Specifications		
		AM319	AM307	
Hardware	Model	AM319	AM307	
	Screen	4.2 inch E-ink		
	LED & Buzzer	1 × Traffic Light Status Indicator, 1 × Buzzer		
	Configuration	NFC (mobile App & NFC reader with PC), USB Type-C port		
	Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923-1&2&3&4		
	Work Mode	OTAA/ABP, Class C	OTAA/ABP, Class A	
Power Supply		5V/1A via Type-C Port	4 × 2700 mAh ER14505 Li-SOCl <sub>2</sub> Batteries	
Sensors	Temperature	Range	-40°C - 85°C	
		Accuracy	±1°C	
	Humidity	Range	0% - 100% RH	
		Accuracy	±3%	
	PIR	Detection Area	80 ° Horizontal, 55 ° Vertical	
		Detection Distance	5 m	
	Light	Range	0-60000 Lux (Determine as 6 levels, 0-5)	
	TVOC	Range	0-500 (IAQ Index)	
		Accuracy	±15%	
	Barometric Pressure	Range	300 - 1100 hPa (-40°C - 85°C)	
		Accuracy	±0.6 hPa	
	CO <sub>2</sub>	Range	400 - 5000 ppm	400 - 2000 ppm
Accuracy		± (30 ppm + 3% of reading)	± (50 ppm + 5% of reading)	
PM2.5 & PM10	Range	0 - 1000 µg/m <sup>3</sup>		
	Accuracy	0-100 (±10µg/m <sup>3</sup> ), 100-1000 (±10 %)		
HCHO*	Range	0 - 6 mg/m <sup>3</sup>		
	Accuracy	±10%		
O <sub>3</sub> *	Range	0 - 10 ppm		
	Accuracy	±5% FS		


\* This function is valid in the measurement of either HCHO or O<sub>3</sub>.


# Environment Monitoring Sensor


EM300 Series





Featuring a simple yet modern design, compact size and waterproof capability, EM300 series are ideal to fit into the indoor or outdoor environment.

- 

**Configure with One Touch**  
NFC technology enables easy configuration and on/off operation
- 

**Low Power Consumption**  
Dual batteries (one battery by default) can last for up to 10 years
- 

**Compliant with ToolBox & Milesight IoT Cloud**  
Manage and configure your sensor easily
- 

**Compact & Waterproof**  
Small size with an IP67 rating enclosure
- 

**LoRaWAN® Wireless**  
Up to 15 km wireless communication range

**EM300-TH Temperature & Humidity Sensor** is a sensor suitable for indoor and outdoor temperature and humidity monitoring. It can be widely used in office areas, greenhouses, houses and other environments.

Specifications	
Temperature	±0.3°C (0 ~ 70°C), ±0.6°C (-30 ~ 0°C)
Humidity	±3% RH (10 ~ 90%), ±5% RH (0 ~ 10%, 90 ~ 100%)
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Power Supply	Easily replaceable battery with up to 10 years service life
Operating Temperature	-30 ~ 70°C
Ingress Protection	IP67
Dimensions	88.5 x 85.3 x 27 mm (3.48 x 3.36 x 1.06 in)



Office



Greenhouse



Residence



# Leak Detection Sensor

Preventing assets away from water damage



# Magnetic Contact Switch

Door/window status monitoring



EM300-SLD/ZLD offers reliable performance to detect presence of water or other liquids by remotely alerting you the potential water leak before the issue becomes too serious, thus helping to prevent water damage.

Model	EM300-SLD	EM300-ZLD
Sensor Type	Probe	Rope
Cable Length	1.5 m	3 m
Temperature	±0.3°C (0 ~ 70°C), ±0.6°C (-30 ~ 0°C)	
Humidity	±3% RH (10 ~ 90%), ±5% RH (0 ~ 10%, 90 ~ 100%)	
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923	
Power Supply	Easily replaceable battery with up to 10 years service life	
Ingress Protection	IP67	
Operating Temperature	-30 ~ 70°C	
Dimensions	105.6 x 85.3 x 27 mm (4.16 x 3.36 x 1.06 in)	



Hospital



Warehouse



Server Room

EM300-MCS can be mounted to any door or window to detect an opening or closing event. It adds physical security monitoring to your location by alarming for intrusion or unauthorized entry.

Specifications	
Sensing Distance	20 ~ 30 mm
Cable Length	1.5 m
Temperature	±0.3°C (0 ~ 70°C), ±0.6°C (-20 ~ 0°C)
Humidity	±3% RH (10 ~ 90%), ±5% RH (0 ~ 10%, 90 ~ 100%)
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Power Supply	Easily replaceable battery with up to 10 years service life
Ingress Protection	IP67
Operating Temperature	-30 ~ 70°C
Dimensions	Transceiver: 105.6 x 85.3 x 27 mm (4.16 x 3.36 x 1.06 in) Magnet: 32 x 15 x 8 mm (1.25 x 0.59 x 0.31 in)



Fire Door



Library



Residence





The EM500 Series are LoRaWAN® sensors designed for different professional applications. These sensors adopt a high ingress protection rating enclosure for use in the most challenging outdoor environmental conditions, and are powered by built-in battery for years-long use life.



**High IP Rating Enclosure**

IP rated as "dust tight" and protected against heavy fog or powerful jets of water



**Rich Installations Available**

Pole mounting, wall mounting, DIN rail mounting



**Configure with One Touch**

NFC technology enables easy configuration and on/off operation



**Multiple Applications in Vertical Markets**

Soil monitoring, water management, temperature & humidity measurement, etc.



**Long Battery Use Life**

19000 mAh replaceable battery ensures low maintenance cost



**Compliant with ToolBox Milesight IoT Cloud**

Manage and configure your sensor easily



**Soil Moisture, Temperature and Electrical Conductivity Sensor**  
EM500-SMTC/SMT



**Industrial Temperature Sensor**  
EM500-PT100



**Light Sensor**  
EM500-LGT



**Ultrasonic Distance/Level Sensor**  
EM500-UDL



**Pipe Pressure Sensor**  
EM500-PP



**Carbon Dioxide Sensor (4 in 1)**  
EM500-CO<sub>2</sub>



**Submersible Water Level Sensor**  
EM500-SWL







## Soil Moisture, Temperature and Electrical Conductivity Sensor

- Research-grade accuracy in multiple soil media
- Easy installation into undisturbed soil
- Rapid monitoring of growing conditions



## Light Sensor

- Measuring ranges from 0 to 100,000 lux
- Fast 1-second response
- 10-year battery life with low maintenance cost
- Accurately detect any light changes

**EM500-SMTC/SMT** provides an external probe for receiving accurate and instantaneous information on soil moisture content, temperature, and electrical conductivity. It is an important tool for soil condition monitoring.

Model		EM500-SMTC	EM500-SMT
Moisture	Range	0 ~ 100% RH	0 ~ 100% RH
	Accuracy	±2% (0 ~ 50%), ±3% (50 ~ 100%)	±2% RH
	Resolution	0.01% RH	0.01% RH
Temperature	Range	-40 ~ 80°C	/
	Accuracy	±0.5°C	
	Resolution	0.1°C	
Electrical Conductivity	Range	0 ~ 20000 µS/cm	/
	Accuracy	±3% (0 ~ 10000 µS/cm), ±5% (10000 ~ 20000 µS/cm)	
	Resolution	1 µS/cm	
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923		
Power Supply	Built-in 19000 mAh high-capacity battery can be used for 10 years		
Ingress Protection	Transceiver: IP67 Sensor: IP67		
Operating Temperature	-30 ~ 70°C (Transceiver), -40 ~ 85°C (Sensor)		-30 ~ 70°C (Transceiver), -40 ~ 60°C (Sensor)



Grassland



Farmland



Greenhouse

**EM500-LGT** can accurately monitor the changes in the surrounding light intensity. It is suitable for light measurement and research in agriculture Land, forestry, greenhouse, horticulture, breeding, industrial workshops, warehouses, urban lighting, and buildings.

Specifications	
Range	0 ~ 100000 lux
Accuracy	±3% (Acquired Value)
Resolution	1 lux
Cable length	3 m
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Power Supply	Built-in 19000 mAh high-capacity battery can be used for 10 years
Ingress Protection	Transceiver: IP67 Sensor: IP65
Operating Temperature	-30 ~ 70°C (Transceiver), -30 ~ 60°C (Sensor)



Agriculture Land



Forestry



Greenhouse Cultivation





### Pipe Pressure Sensor

- No leakage danger
- Shock-resistant and vibration-resistant
- Measuring accuracy is less than  $\pm 0.5\%$  FS
- Temperature compensation for correction of temperature changes



### Submersible Water Level Sensor

- Customizable measuring range up to 200 m
- Submersible pressure sensor not affected by foam, wind, or rain
- IP67 full sealed plastic waterproof design (Transceiver is not included)
- Measuring medium: water (Customizable for oil and other non-corrosive media)

EM500-PP is designed for the pressure monitoring of tank level or leakage in pipes.

Specifications	
Range	0 - 1600 kPa (16 Bar)
Accuracy	$\pm 0.5\%$ FS
Resolution	1 kPa (0.01 Bar)
Pressure Type	Gauge Pressure
Overload	150% FS
Long-term Stability	$\pm 0.3\%$ FS/year
Process Connection	G 1/2" Male
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Power Supply	Built-in 19000 mAh high-capacity battery can be used for 10 years
Ingress Protection	Transceiver: IP67 Sensor: IP65
Operating Temperature	-30 ~ 70°C (Transceiver), -10 ~ 60°C (Sensor)

EM500-SWL is designed to measure the tank level or open water applications while fully submerged in liquid. It is robust and sealed to prevent corrosion and failure.

Specifications	
Range	0 ~ 3m/5m/10m (H <sub>2</sub> O), Customizable up to 200 m and for other liquids
Accuracy	$\pm 0.5\%$ FS
Resolution	0.01 m
Pressure Type	Gauge Pressure
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Power Supply	Built-in 19000 mAh high-capacity battery can be used for 10 years
Ingress Protection	Transceiver: IP67 Sensor: IP68
Operating Temperature	-30 ~ 70°C (Transceiver), -10 ~ 60 (Sensor)



Constant Water Supply



Hydraulic Equipment



Barometric Pressure Detection



Reservoir



Tank




Lake






### Industrial Temperature Sensor

- Vibration-resistant construction
- Three-wire circuit
- Customizable temperature (-200 ~ 800°C)
- Terminal heads available in straight tube, armoured, SMT, threaded, magnet




### CO<sub>2</sub> Sensor (4 in 1)



- Measuring ranges from 400 ppm to 5000 ppm
- Easy installation in any enclosed areas or outdoor environment
- 4 in 1 (CO<sub>2</sub>, barometric pressure, humidity, temperature)

EM500-PT100 equips a highly accurate temperature sensor PT100. The platinum resistance temperature detector offers the most stable and precise temperature measurement from -200 to 800°C.

Specifications	
Range	T050: -200 °C to +50 °C T200: -50 °C to +200 °C T500: -50 °C to +500 °C T800: -50 °C to +800 °C (Customizable from -200 °C to +800 °C)
Accuracy	±0.5 °C
Resolution	0.1 °C
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Power Supply	Built-in 19000 mAh high-capacity battery can be used for 10 years
Ingress Protection	Transceiver: IP67 Sensor: IP68 (T200) / IP30 (T050) / IP30 (T500) / IP30 (T800)
Operating Temperature	-30 ~ 70 °C (Transceiver)



Industrial Process



Cold Chain



Laboratory

EM500-CO<sub>2</sub> is designed for the application where knowing CO<sub>2</sub> level is important like greenhouse, building ventilation, fruit and vegetable storage. It also supports temperature, humidity and barometric pressure measurement.

Specifications			
Sensor Specs	Range	Accuracy	Resolution
CO <sub>2</sub>	400 ~ 5000 ppm	± (30 ppm + 3% of reading)	1 ppm
Barometric Pressure	300 ~ 1100 hPa (-40 ~ 85°C)	±1 hPa	0.1 hPa
Temperature	-30°C ~ 70°C	±0.6°C (-40 ~ 0°C), ±0.3°C (0 ~ 70°C)	0.1°C
Humidity	0 ~ 100% RH	±3% RH (10 ~ 90%), ±5% RH (0 ~ 10%, 90 ~ 100%)	0.5% RH
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923		
Power Supply	Built-in 19000 mAh high-capacity battery can be used for 10 years		
Ingress Protection	IP65		
Operating Temperature	-30 ~ 70 °C		



Smart City



Livestock Farming



Forest Fire Monitoring





## Ultrasonic Distance/Level Sensor

- Measuring ranges from 0.3 m to 10 m
- Measurements in very small containers or openings
- Suitable for measuring benign and chemical mediums
- Non-contact detection for any corrosive liquid chemicals or combustibles



## LoRaWAN® Ultrasonic Distance/Level Sensor



EM500-UDL provides highly accurate distance measurement for a variety of applications in harsh environments like flood monitoring, wastewater management, fill level monitoring in grains or fertilizer. The measurement is based on ultrasonic waves transmitted and reflected back from nearby objects.

Specifications	
Range	W050: 0.3 ~ 5 m W100: 0.5 ~ 10 m
Accuracy	±1% FS
Resolution	1 mm
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Power Supply	Built-in 19000 mAh high-capacity battery can be used for 10 years
Ingress Protection	IP67
Operating Temperature	-30 ~ 65°C



Water Treatment



Snow Depth



Grain Silo

Milesight EM310-UDL is an ultrasonic sensor featuring short blind zone and broad range distance measurement. It also has a 3-axis accelerometer to detect the device motion when it is moved or fell down, which is ideal for monitoring of solid or liquid level of containers like waste bin.

Specifications	
Ultrasonic Sensor	Range: 3 - 450 cm, 60° Accuracy: ± (1 + 0.3% × S), S = distance
Accelerometer	Normal/Tilt (device position detection)
Configuration	Mobile App via NFC
LoRaWAN® Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Power Supply	2 × 3500 mAh ER17505 Li-SOCl <sub>2</sub> Batteries
Battery Life	Built-in 1650 mAh battery to use for over 10 years with around 20 triggers per day
Ingress Protection	IP67
Operating Temperature	-15°C to +60°C



Waste Bin



Manhole Cover



Parking Lot



# Outdoor LoRaWAN® Controller

Feature-Rich SensorHub for Connecting Sensors

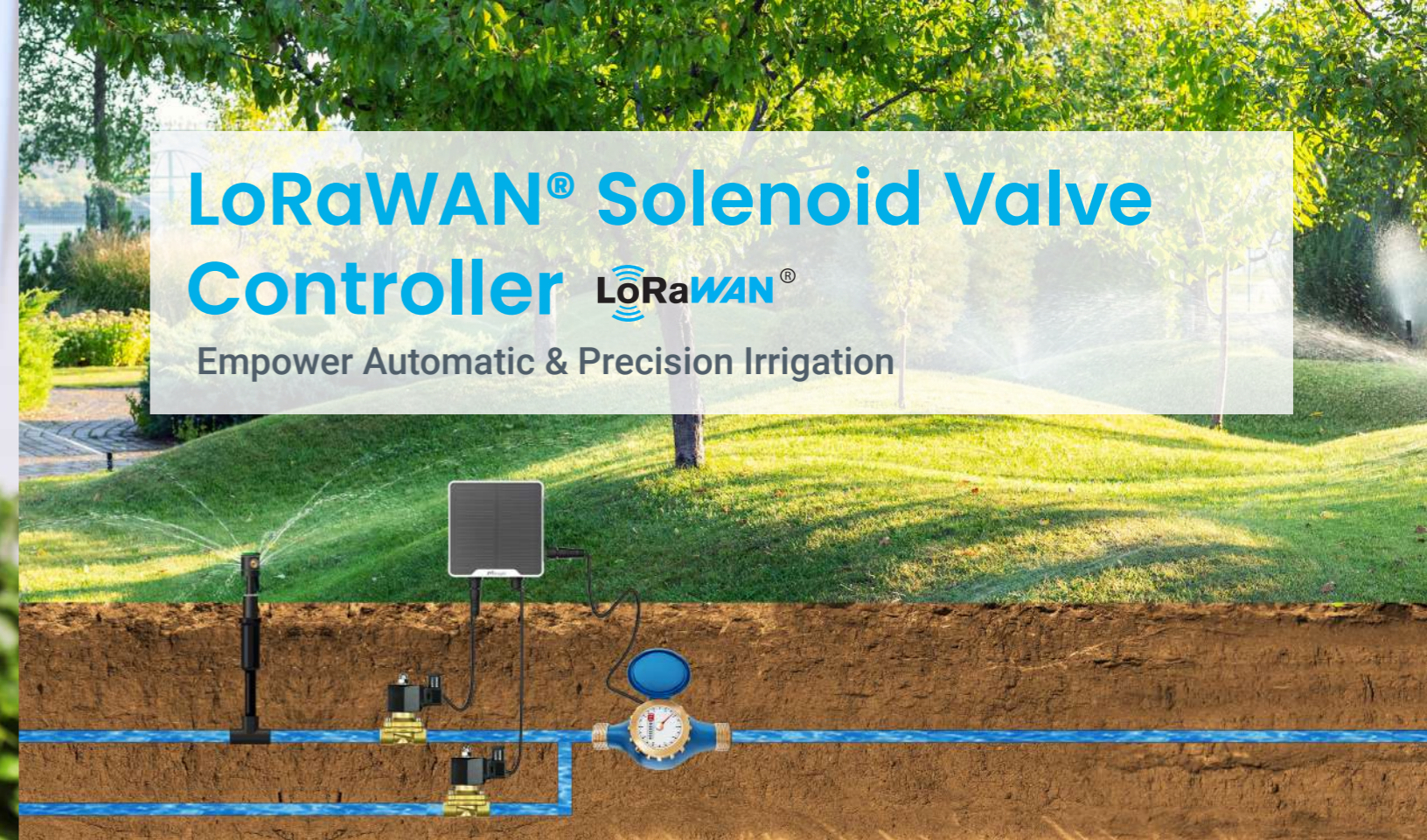


The UC50x Series LoRaWAN® Controller is a fully integrated and battery-powered LoRaWAN® node with solar panel and multiple communication interfaces for connecting to a wide range of external sensors. With quick installation and easy maintenance, the UC50x Series LoRaWAN® Controller is ideal to work in harsh environments for remote monitoring and collecting data from sensors.

Model	UC501	UC502
Power Supply	Rechargeable 5100 mAh battery with solar panel	Non-rechargeable Built-in 27000 mAh Li-SOCl <sub>2</sub> Battery
Interface 1	2 × analog input 1 × 3.3 V output 1 × 5/9/12 V output switchable	
Interface 2	2 × GPIO 1 × RS485/RS232 switchable 1 × 3.3 V output 1 × 5/9/12 V output switchable	
Dimension	116 x 116 x 45.5 mm (4.56 x 4.56 x 1.79 in)	
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923	
Protocol	OTAA/ABP, Class A & Class C	OTAA/ABP, Class A
Ingress Protection	IP67	
Operating Temperature	-20 ~ 60°C	

# LoRaWAN® Solenoid Valve Controller

Empower Automatic & Precision Irrigation



The UC51x Series LoRaWAN® Solenoid Valve Controller provides seamless ultra long range access capability for common irrigation valves. With Milesight IoT Cloud, the valve can be remotely controlled from anywhere at any time. Moreover, the embedded pulse counter feature enables the device to monitor flow easily, as well as to make irrigation precisely.



## Solenoid Valve Control

- Time-Based Open/Close
- Volume-Based Open/Close



## Flow Monitoring

- Connecting up to 2 Meters
- Configurable Volume per Pulse



## Long Term Reliability

- IP67 Waterproof
- 3-Year Battery Life

Model	UC511	UC512
Power Supply	Rechargeable 5100 mAh battery with solar panel 1 month battery life without charging (Class C)	Non-rechargeable Replaceable 27000 mAh Li-SOCl <sub>2</sub> battery Up to 3-year battery life (Class A)
Solenoid Interface	2 × 2-Wire 12 VDC Latching Solenoid	
Pulse Interface	2 × Pulse Input	
Dimension	116 x 116 x 45.5 mm (4.56 x 4.56 x 1.79 in)	
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923	
Protocol	OTAA/ABP, Class A & Class B & Class C	OTAA/ABP, Class A & Class B
Ingress Protection	IP67	
Operating Temperature	-20 ~ 60°C	



# CoWork Series



## LoRaWAN® CoWork Series Smart Button



### Explore the Potential of Workspace

Milesight CoWork Series is designed for transforming the workspace into a smart office to help boost productivity, improve collaboration, reduce energy consumption and enhance security. It aims to build a workspace that works for the present and explore the potential of the future of work.



Better Use of Workspace



Reduce Cost



Boost Productivity



Improve Collaboration

The WS101 LoRaWAN smart button is an ultra-tiny device that allows you to remotely control appliances, triggering a scene or calling for help as whatever and wherever you need it.



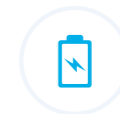
Single/Double/Long Press Mode



Buzzer & LED Light for Status Indication



Easy Configuration via NFC



Over 5 Years Battery Life

Specifications	
Button	1 × Action Button (white and red optional)
Press Mode	Single press, double press, long press
Configuration	Mobile App via NFC
LoRaWAN® Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Power Supply	Built-in 1650 mAh battery to use for over 5 years with around 10 presses per day
Ingress Protection	IP30
Operating Temperature	-30°C to +60°C



# LoRaWAN® AI Workplace Sensor

CoWork Series



VS121

# LoRaWAN® Smart Scene Panel

CoWork Series



WS136 & WS156

Milesight VS121 is an AI powered workplace sensor featuring LoRaWAN® technology. It complies with GDPR and uses anonymous people counting data to help you see and understand your workspace utilization.



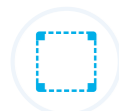
### Anonymous Detection

No facial detection technology being applied nor PII collected



### High Recognition Rate

95% recognition rate to determine objects as human or non-human



### Large Detection Area

Covering up to 5 meters radius at 3 meters height (78 m<sup>2</sup> in total)



### Custom Detection Region

Define 12 custom mapped regions as detection/non-detection region

### Specifications

Specifications	
Field of View	190°Horizontal, 112°Vertical
Recognition Rate	>95%
Wi-Fi	IEEE 802.11b/g/n, as AP for configuration only
LoRaWAN® Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Power Supply	5V/1.5A by Type-C Port
Ingress Protection	IP30
Operating Temperature	-5 ~ +55°C



### Customizable Display

Customizable display contents to match scenes



### One-to-Many Control

Control multiple device simultaneously with one command



### LoRa D2D Protocol

Communicate among LoRa nodes without gateway within 1 second



### Dual Protocol Operation

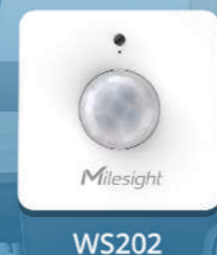
Each button can work in LoRa D2D/LoRaWAN® separately

### Specifications

	WS156	WS136
Model	WS156	WS136
Display	2.9 Inch E-Ink Screen	PVC Sticker
Scene Button	6 × Button with Backlight	
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923	
Configuration	Mobile App via NFC	
Dimensions	86 × 86 × 14 mm (3.39 × 3.39 × 0.55 in)	
Power Supply	1180 mAh battery to use for around 3 years with 20 presses per day	
Operating Temperature	-10°C to + 50°C (E-Ink Screen: 0°C - 50°C)	



# LoRaWAN® CoWork Series PIR & Light Sensor



WS202

# LoRaWAN® CoWork Series Magnetic Contact Switch



WS301

Combined the PIR motion detection technology and brightness measurement, Milesight WS202 can easily determine whether an indoor space is being used by human or not, thus providing reliable support for automatic lighting control system.

- Ultrawide Range Detection**

  - ▶ 120° Horizontal
  - ▶ 100° Vertical
  - ▶ Up to 8 m distance

**Smart Brightness Measurement**

  - ▶ Measurement from 1 to 60000 lux
  - ▶ Custom Bright/Dark conditions threshold

Specifications	
PIR Sensor	120°Horizontal, 100°Vertical Maximum 8 m distance
Light Sensor	1 to 60000 lux (Determine as Bright or Dark according to custom threshold)
Configuration	Mobile App via NFC
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Power Supply	Built-in 1650 mAh battery to use for around 5 years with 30 triggers per day
Ingress Protection	IP30
Operating Temperature	-30°C to +60°C

The WS301 is a 100% wire-free magnetic contact switch. It can be easily installed on a door or window to detect the opening or closing event, and report alarms over the LoRaWAN® network. The minimal magnet is placed inside the portable part, while the sensor is inside the fixed part on door, window or other object.

- Easy Installation**

Double sided tape/Screw

**LED Indicator**

Open/close, tamper and low battery alarm

**NFC Enabled**

Configure device easily and wirelessly

**5-Year Battery Life**

1200 mAh replaceable battery

**Tamper Detection**

Detect any attempt of tamper and report

**Milesight IoT Cloud**

Compliant with Milesight IoT Cloud

Specifications	
Detection Distance	15-20 mm
Button	1 × Power Button (Internal), 1 × Tampering Button
Power Supply	1 × 1200 mAh ER14250 Li-SOCl <sub>2</sub> Battery
Dimensions	Sensor: 50.5 × 31 × 18.5 mm (1.99 × 1.22 × 0.73 in) Magnet: 30 × 13.5 × 10 mm (1.18 × 0.53 × 0.39 in)
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Ingress Protection	IP30
Operating Temperature	-20 ~ 60°C



# LoRaWAN® Smart Portable Socket

CoWork Series



WS52x

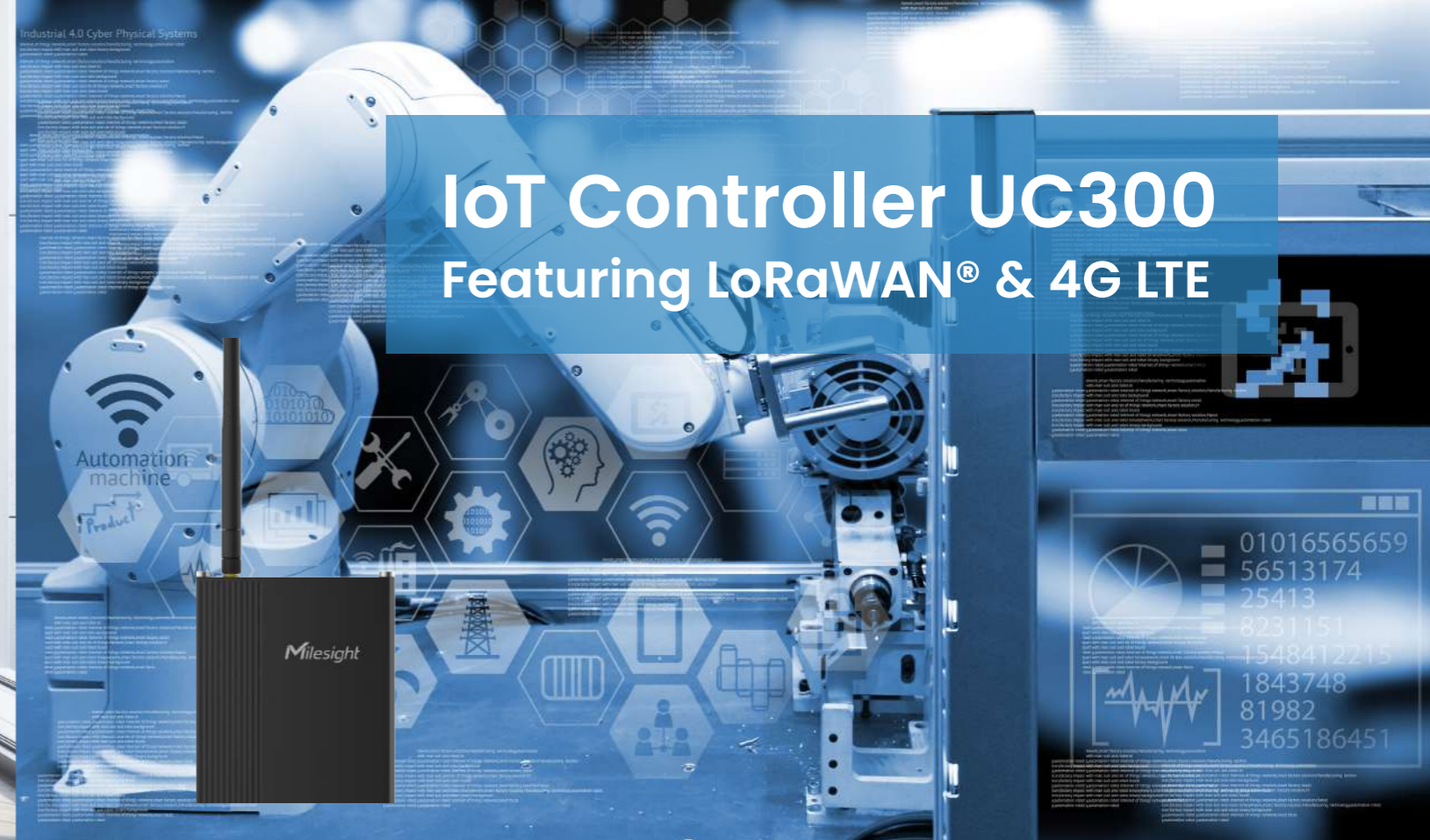
WS52x is a LoRaWAN® Smart Portable Socket for the monitoring and control of electronic appliances. It helps the owner to improve the management efficiency, as well as to reduce the manpower & electricity cost with its remote scheduled on/off control capability and power consumption measurement.

- Remote ON/OFF
- Time-Based ON/OFF
- Power Consumption Measurement
- Overload Protection

Specifications	
Socket & Plug Type	Type A, Type B, Type C, Type G, Type I, etc.
Operating Voltage	100~250 VAC, 50~60 Hz
Max Load Capacity	10A ~ 16A (Optional), 250 VAC
Measurement	Voltage (VAC), Current (mA), Power Factor (%), Power (W), Power Consumption (kWh)
Configuration	Mobile App via NFC
LoRaWAN Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Ingress Protection	IP30
Operating Temperature	-20°C to +60°C

# IoT Controller UC300

## Featuring LoRaWAN® & 4G LTE



Milesight UC300 IoT controller is specially designed to connect sensors or devices on the fields. Its rich industrial interfaces and backhaul connectivities seamlessly build a bridge between legacy devices and the Internet.

- Rich Industrial Interfaces**  
RS232/RS485/GPIO/Analog Input (4~20 mA, 0~10 V, PT100 RTD Input)
- Intelligent Trigger System**  
Up 16 commands based on custom trigger conditions & actions
- Autonomous Operation**  
Executing commands autonomously even when the network is unavailable
- Flexible Cloud Integration**  
Support TCP/UDP/MQTT, compatible with multiple cloud platforms

Specifications		
Wireless Transmission	Technology	LoRaWAN® or 2G/3G/4G (Hardware Optional)
	LoRaWAN®	CN470/RU864/IN865/EU868/US915/AU915/KR920/AS923-1&2&3&4
	Cellular	OTAA/ABP Class C 1 (Micro SIM-3FF) TCP/UDP/MQTT/AWS/ONENet/Milesight IoT Cloud/SMS Application Mode
Data Interfaces	Interface Type	3.5 mm Terminal Block
	GPIO	4 × DI + 2 × DO
	Serial Port	1 × RS232 + 1 × RS485
	Analog Input	2 × 4~20 mA, 2 × 0~10 V, 2 × PT100 RTD Input
Others	Configuration Port	1 × Type-C
	LED Indicators	1 × System, 1 × ACT
	Built-in	Watchdog, Timer
Physical Characteristics	Operating Temperature	-20°C ~ 60°C (-4°F to +140°F)
	Dimensions	93 × 70 × 22 mm (3.66 × 2.76 × 0.87 in)
	Installation	Desktop, Wall Mounting, DIN Rail Mounting
	Power Supply	5-24 VDC



# 5G CPE IP67

Ultra Fast and Futuristic



UF51

Milesight UF51 5G CPE features aesthetic design and outstanding performance with IP67 rating to delivers fast 5G connectivity, higher bandwidth, and low latency to more businesses.



### Fast 5G Connectivity

- 2.5 Gbps Downlink
- 4 × 4 MIMO
- NSA & SA Modes



### Dual Band Wi-Fi

- 1.733 Gbps Peak Speed
- IEEE 802.11b/g/n/ac
- 2 × 2 MIMO



### Outstanding Performance

- Quad-Core Processor
- 512 MB DDR3 RAM
- 8 GB Flash



### Flexible Installation

- Desktop Installation
- Wall & Pole Mounting
- Bottom Screw & Magnet Mounting

# Milesight PoE Switch





Simplify Network Deployment with Power over Ethernet



Milesight PoE switch is a highly-dependable device that transmits data and power simultaneously, which helps to eliminate the need for a separate power supply when you are installing devices with great difficulty to access or without power outlet.

### Versatile Ports

With a wide range of PoE ports from 4, 8, 16 to 24 at maximum, and 2 SFP ports

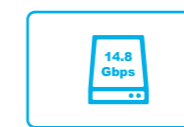
4-Port PoE Switch	8-Port PoE Switch	16-Port PoE Switch	24-Port PoE Switch
			
4 × 10/100 Mbps PoE ports + 2 × 100 Mbps uplink ports	8 × 10/100 Mbps PoE ports + 2 × 100 Mbps uplink ports	16 × 10/100 Mbps PoE ports + 2 × 100 Mbps uplink ports	24 × 10/100 Mbps PoE ports + 2 × 100 Mbps uplink ports



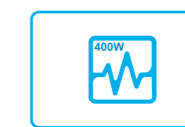
Zero Configuration



250 m  
Extend Mode



Up to 14.8 Gbps  
Switching Capacity



Maximum 400 W  
Power Budget



4 kV  
Surge Protection



# UR32 Lite Lite Series Industrial Cellular Router

UR32 Lite (UR32L) is a featured industrial router that secures reliable cellular-to-ethernet connectivity for IoT applications, such as kiosk, self-service terminals and process automation equipment. Powered by DeviceHub, a remote management platform, UR32 Lite simplifies your process of setup, mass configuration, maintenance and support.



UR32L



### Reliable Connectivity

Major carriers and LTE support make it easy to get connected globally



### Remote Management

Gain easy setup, mass configuration, maintenance and support on remote locations



### Mighty Mite

Combine compact size with powerful ability to provide high performance and reliability

# UR32 & UR35 Pro Series Industrial Cellular Router

Rugged & Programmable 4G Router



UR32



UR35



### High Performance

- NXP Industrial Grade Processor
- -40°C to 70°C Operating Temperature
- Support Wi-Fi, GPS, Serial, I/Os and Voice



### Low Maintenance & Easy Operation

- User-friendly GUI
- MilesightVPN for Remote Access
- DeviceHub Central Management



### Intelligent & Programmable

- Python Programming
- Support Modbus RTU/TCP



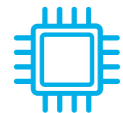
### Lower Investment

- Affordable Price
- PoE-PSE for Less Wire Connection
- Reduce Time Cost by Remote Management



# UR75 High-Performance Ultra Series 5G Industrial Router

Featuring the latest and fastest cellular technology - 5G, UR75 is not only an intelligent industrial IoT router, but also an unrivaled wireless networking solution.



## Outstanding Performance

- 5G NSA & SA Modes
- Qualcomm Quad-Core Processor
- CAT4/6/12/20 Cellular Modem (Optional)



## Rich Connectivities

- 2 x 2 MIMO 802.11ac Wi-Fi
- 1 x RS232 + 1 x RS485
- 1 x Digital Input & Output



## Edge Intelligence

- Azure IoT Edge
- AWS Greengrass
- Python Programming

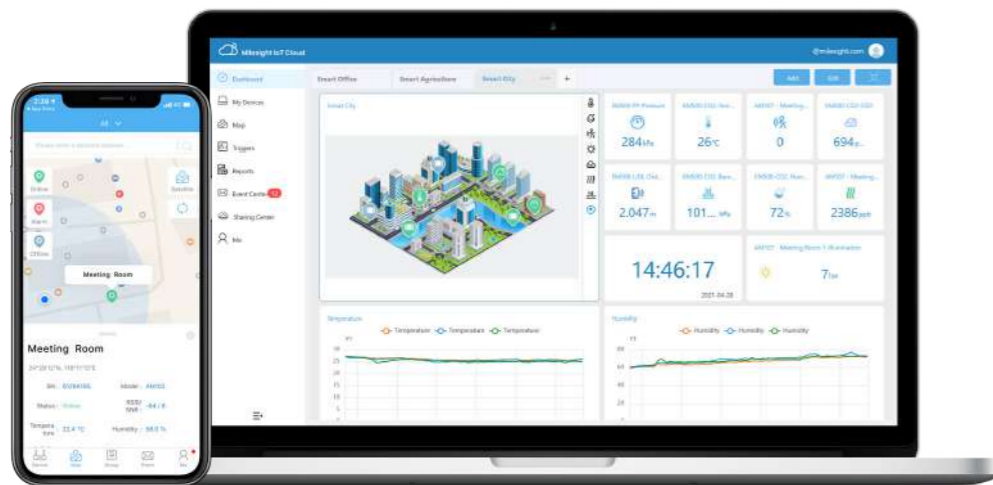
## Specifications

		UR32L	UR32	UR35	UR75
Interfaces	SIM Slots	1	2		
	Ethernet Ports	2 x 10/100 Mbps		5 x 10/100 Mbps	5 x 10/100/1000 Mbps
	Serial Ports	N/A	1 x RS232 or 1 x RS485	1 x RS232 + 1 x RS485	1 x RS232 + 1 x RS485
	DI/DO	N/A	1 x DI + 1 x DO		
	Voice (Optional)	N/A		1 x FXS (RJ11)	N/A
	Antenna Connectors	1 x Cellular Connector	2 x Cellular Connectors 1 x Wi-Fi/GPS Connector	2 x Cellular Connectors 1 x Wi-Fi Connector 1 x GPS Connector	3 x Cellular Connectors 1 x Cellular/GPS Connector 2 x Wi-Fi Connectors
Network	Cellular	4G CAT4			5G, 4G CAT4/6/9/12/20 (Optional)
	Wi-Fi (Optional)	N/A	IEEE 802.11b/g/n		IEEE 802.11a/b/g/n/ac
	Serial Port	N/A	Transparent (TCP Client/Server, UDP), Modbus Gateway (Modbus RTU to Modbus TCP), Modbus Master		
	Network Protocols	PPP, PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, RIP v1/v2, OSPF, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, QoS, SNT, Telnet, VLAN, SSH			
	AAA	RADIUS, TACACS+, LDAP, Local Authentication			
	Firewall	URL Filtering/ACL/DMZ/Port Mapping/MAC Binding/SPI/DoS Protection			
	Reliability	VRRP, WAN Fail-over, Dual SIM Backup			
	VPN	OpenVPN, IPsec, PPTP, L2TP, DMVPN, GRE			
Maintenance	Management	Web, CLI, SMS, Watchdog, On-demand Dial Up			
	Multilevel Authority	Multiple Levels of User Authority			
Capabilities	CPU	528 MHz, 32-bit ARM Cortex-A7			716 MHz, Quad-Core ARM Cortex-A7
	Flash	128 MB			8 GB
	Memory	128 MB DDR3			512 MB DDR3
	Built-in	Watchdog			
	GPS (Optional)	N/A	GPS + GLONASS		
	Extended Memory	N/A	1 x Micro SD Card Slot, Up to 128 GB		1 x M.2 NVMe SSD Slot
Hardware	Power Input	9 ~ 48 VDC			
	Power Output (Optional)	2 x 802.3af/at PoE PSE		4 x 802.3af/at PoE PSE	
	Ingress Protection	IP30			
	Housing & Weight	Metal, 246 g (0.54 lb)	Metal, 271 g (0.60 lb)	Metal, 481 g (1.06 lb)	Metal, 525 g (1.16 lb)
	Dimensions	108 x 90 x 26 mm		135 x 100 x 45 mm	135 x 118 x 45 mm
	Mounting	Desktop, Wall or DIN Rail Mounting			
Others	Operating Temperature	-40°C to +70°C (-40°F to +158°F) Reduced cellular performance above 60°C			
	Storage Temperature	-40°C to +85°C (-40°F to +185°F)			
	Relative Humidity	0% to 95% (non-condensing) at 25°C/77°F			
	Certifications	RoHS, CE, FCC		RoHS, CE, FCC, PTCRB, AT&T, RCM, SPDDI, NBTC	RoHS, CE, FCC
	Frequency Band	EU	LTE: B1/B3/B5/B7/B8/B20/B38/B40/B41		3G: B1/B5/B8 GSM: B3/B8
		AF	LTE: B2/B4/B5/B12/B13/B14/B66/B71		3G: B2/B4/B5 N/A
AU		LTE: B1/B2/B3/B4/B5/B7/B8/B28/B40		3G: B1/B2/B5/B8 GSM: B2/B3/B5/B8	
500GL	5G NR: N1/N2/N3/N5/N7/N8/N12/N20/N28/N41/N66/N71/N77/N78/N79		LTE FDD: B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B21(TBD)/B25/B26/B28/B29/B30/B32/B66/B71 LTE TDD: B34/B38/39/B40/B41/B42/B48		



# Milesight IoT Cloud

The Milesight IoT Cloud provides unparalleled levels of vertical integration with Milesight LoRaWAN<sup>®</sup> gateways, sensors and controllers. It visualizes field data and enables user to monitor and control remote assets on an intuitive dashboard.



## Visualization

Transform real-time and historical data into drag-and-drop widgets on dashboard



## Alerts

Enable email and mobile push notifications based on triggered events



## Monitoring & Control

Control access and monitor your projects from anywhere



## Security & Reliability

Built on AWS to provide the most confidential and reliable infrastructure for your data

# Connectivity Suite

Applicable to Industrial Cellular Router and LoRaWAN<sup>®</sup> Gateway



Milesight DeviceHub is a web-based platform that lets you manage all your Milesight routers and gateways from a single location at any time.

The Milesight DeviceHub is able to monitor all critical parameters of remote routers and gateways, perform configuration, upgrade firmware, analyze system log, create graphic reports and more. It helps to improve productivity, reduce costs, and enhance the intelligence of your network and business operations.

MilesightVPN is the core component of Milesight VPN solution. Typically it's hosted on your own server.

## Software Requirements

- ✓ OS: Ubuntu 20.04
- ✓ Supports installation package
- ✓ Browser: Chrome, Firefox

## Hardware Requirements

Your host hardware must meet the following minimum requirements:

- | For 500 devices | For 1000 devices |
|-----------------|------------------|
| ✓ RAM: 16 GB    | ✓ RAM: 32 GB     |
| ✓ Disk: 512 GB  | ✓ Disk: 1 TB     |





# Milesight IoT Product Naming Convention

## Industrial Cellular Router & 5G CPE & IoT Controller

UR32 - L 04 EU - G - P - W - RS485

- |   |   |  |   |
|---|---|--|---|
| <p>① Model Name</p> <ul style="list-style-type: none"> <li>UR32L</li> <li>UR32</li> <li>UR35</li> <li>UR75</li> <li>UF51</li> <li>UC300</li> </ul> <p>⑥ RS485 (for UR32 only)</p> <ul style="list-style-type: none"> <li>Add RS-485 Serial Interface</li> </ul> | <p>② Cellular Network Type</p> <ul style="list-style-type: none"> <li>L: 4G LTE</li> <li>5: 5G</li> </ul> | <p>③ Modem Manufacturer &amp; Model</p> <p>④ Operating Region</p> <ul style="list-style-type: none"> <li>EU: EMEA/South Korea/Thailand/India</li> <li>AU: Latin America/Australia/New Zealand</li> <li>AF: North America FirstNet</li> <li>GL: Global</li> </ul> | <p>⑤ Function (for routers only)</p> <ul style="list-style-type: none"> <li>G: GPS</li> <li>P: PoE</li> <li>W: Wi-Fi</li> </ul> |
|---|---|--|---|

## LoRaWAN® Gateway

UG65 - L 04 EU - 915M - EA

- |  |  |  |  |
|--|--|--|--|
| <p>① Model Name</p> <ul style="list-style-type: none"> <li>UG63</li> <li>UG65</li> <li>UG67</li> </ul> <p>⑥ External Antenna</p> | <p>② Cellular Network Type</p> <ul style="list-style-type: none"> <li>L: 4G LTE</li> </ul> | <p>③ Modem Manufacturer &amp; Model</p> <p>④ Operating Region</p> <ul style="list-style-type: none"> <li>EU: EMEA/South Korea/Thailand/India</li> <li>AU: Latin America/Australia/New Zealand</li> <li>AF: North America FirstNet</li> </ul> | <p>⑤ LoRaWAN® Module</p> <ul style="list-style-type: none"> <li>470M: CN470</li> <li>868M: RU864/IN865/EU868</li> <li>915M: US915/AU915/KR920/AS923</li> </ul> |
|--|--|--|--|

## LoRaWAN® Sensor

EM500 - UDL 915M

- |  |  |   |
|--|--|---|
| <p>① Model Name</p> <ul style="list-style-type: none"> <li>AM103</li> <li>AM103L</li> <li>AM104</li> <li>AM107</li> <li>AM307</li> <li>AM319</li> <li>EM300</li> <li>EM310</li> <li>EM500</li> </ul> | <p>② Sensor Type</p> <ul style="list-style-type: none"> <li>UDL: Ultrasonic Distance/Level Sensor</li> <li>SMTC/SMT: Soil Sensor</li> <li>SWL: Submersible Water Level Sensor</li> <li>LGT: Light Sensor</li> <li>PT100: PT100 Temperature Sensor</li> <li>CO<sub>2</sub>: CO<sub>2</sub> Sensor</li> <li>PP: Pipe Pressure Sensor</li> <li>TH: Temperature &amp; Humidity Sensor</li> </ul> | <p>③ LoRaWAN® Module</p> <ul style="list-style-type: none"> <li>MCS: Magnetic Contact Switch Sensor</li> <li>SLD: Spot Leak Detection Sensor</li> <li>ZLD: Zone Leak Detection Sensor</li> <li>470M: CN470</li> <li>868M: RU864/IN865/EU868</li> <li>915M: US915/AU915/KR920/AS923</li> </ul> |
|--|--|---|

## LoRaWAN® Controller

UC511 - DI - 915M

- |   |   |  |
|---|---|--|
| <p>① Model Name</p> <ul style="list-style-type: none"> <li>UC300</li> <li>UC501</li> <li>UC502</li> <li>UC511</li> <li>UC512</li> </ul> | <p>② Interface (For UC51x Only)</p> <ul style="list-style-type: none"> <li>Digital Input (Pulse Counter)</li> </ul> | <p>③ LoRaWAN® Module</p> <ul style="list-style-type: none"> <li>470M: CN470</li> <li>868M: RU864/IN865/EU868</li> <li>915M: US915/AU915/KR920/AS923</li> </ul> |
|---|---|--|

## CoWork Series

LoRaWAN® AI Workplace Sensor

VS 1 2 1 - 915M

- |                        |                    |                     |                          |
|------------------------|--------------------|---------------------|--------------------------|
| <p>① Vision Sensor</p> | <p>② MegaPixel</p> | <p>③ Sub-series</p> | <p>④ LoRaWAN® Module</p> |
|------------------------|--------------------|---------------------|--------------------------|

LoRaWAN® Smart Button

WS 10 1 - 915M

- |                           |                            |                          |
|---------------------------|----------------------------|--------------------------|
| <p>① Workplace Sensor</p> | <p>② Number of Buttons</p> | <p>③ LoRaWAN® Module</p> |
|---------------------------|----------------------------|--------------------------|

LoRaWAN® Smart Scene Panel

WS 1 5 6 - 915M

- |                           |  |                            |                          |
|---------------------------|--|----------------------------|--------------------------|
| <p>① Workplace Sensor</p> | <p>② Display</p> <ul style="list-style-type: none"> <li>5: E-Ink Screen</li> <li>3: PVC Sticker</li> </ul> | <p>③ Number of Buttons</p> | <p>④ LoRaWAN® Module</p> |
|---------------------------|--|----------------------------|--------------------------|

LoRaWAN® PIR & Light Sensor

WS 20 2 - 915M

- |                           |                            |                          |
|---------------------------|----------------------------|--------------------------|
| <p>① Workplace Sensor</p> | <p>② Number of Sensors</p> | <p>③ LoRaWAN® Module</p> |
|---------------------------|----------------------------|--------------------------|

LoRaWAN® Magnetic Contact Switch

WS 30 1 - 915M

- |                           |                     |                          |
|---------------------------|---------------------|--------------------------|
| <p>① Workplace Sensor</p> | <p>② Sub-series</p> | <p>③ LoRaWAN® Module</p> |
|---------------------------|---------------------|--------------------------|

LoRaWAN® Smart Portable Socket

WS 52 3 - 915M

- |                           |                          |                          |
|---------------------------|--------------------------|--------------------------|
| <p>① Workplace Sensor</p> | <p>② Number of Holes</p> | <p>③ LoRaWAN® Module</p> |
|---------------------------|--------------------------|--------------------------|

## Industrial PoE Switch

MS - S0 2 04 - E L

- |  |                              |
|--|------------------------------|
| <p>① Uplink Port and SFP Port</p> <ul style="list-style-type: none"> <li>2: 2 × Uplink Ports</li> <li>4: 2 × Uplink Ports + 2 × SFP Ports</li> </ul> | <p>② Number of PoE Ports</p> |
|--|------------------------------|

MS - S0416 - G F

- |  |
|--|
| <p>③ Fast Uplink Port (10/100 Mbps)</p> <p>④ Extend Mode</p> <p>⑤ Gigabit Uplink Port (10/100/1000 Mbps)</p> <p>⑥ Optical Fiber Port (SFP)</p> |
|--|