



Better Inside, More in Sight



At Milesight we are passionate about the connectivity of “things” to the cloud. We leverage the value of the top trending technologies that transform the world we live in and are committed to our partners who share the same passion. We believe that the complexity of data collection, storage and retrieval can be simplified into the Cloud-intelligence. Our development and distribution of these appliances and services demonstrates our commitment to the digital transformation and continues to deliver compelling connectivity for IoT world.

Contents

LoRaWAN® Gateway

UG65/UG67

Ambience Monitoring Sensor

AM104/AM107

Environment Monitoring Sensor

Temperature & Humidity Sensor EM300-TH
Leak Detection Sensor EM300-SLD/ZLD
Magnetic Contact Switch EM300-MCS

Outdoor Environment Monitoring Sensor

EM500 series
Soil Moisture, Temperature and Electrical Conductivity Sensor EM500-SMTC/SMT
Light Sensor EM500-LGT
Pipe Pressure Sensor EM500-PP
Submersible Water Level Sensor EM500-SWL
Industrial Temperature Sensor EM500-PT100
CO₂ Sensor (4 in 1) EM500-CO₂
Ultrasonic Distance/Level Sensor EM500-UDL

Compact Controller

4G/LoRaWAN®

Outdoor LoRaWAN® Controller

UC501/UC502
UC511/UC512

Industrial Cellular Router

UR32 Lite
UR32 & UR35
UR75 5G

Milesight IoT Cloud

Data Visualization Platform

Connectivity Suite

DeviceHub & MilesightVPN



LoRaWAN[®] Gateway

UG65 Semi-Industrial Gateway/UG67 Outdoor Gateway



Embedded Network Server

- Real-time data collection & processing
- Receiving data from multiple Milesight gateways
- Save investment of external network service



Powerful LoRa Capabilities

- Semtech SX1302 LoRa chip
- Up to 15 kilometers range
- High capacity of up to 2000 nodes
- Support CN470/EU868/US915/AS923 and more



Industrial Design



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




Optimized Packet Forwarder

- Forwarding data to multiple network servers simultaneously
- Strengthened security and efficiency of data delivery to TTN, ChirpStack and Link WAN

Specifications




Model		UG65	UG67
Product Image			
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/V1.1.0, Class A and Class C	
Hardware	Processor	Quad-core 1.5GHz, 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 × 802.3 af PoE input	1. 12 VDC with M12 Connector 2. 1 × 802.3 af 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

Indoor Ambience Monitoring Sensor

-  Temperature & Humidity
-  Barometric Pressure
-  Motion (PIR)
-  TVOC
-  Light
-  CO₂



Milesight AM100 Series consists of multiple smart sensors that are built specifically for indoor ambience measurements. It has a clean and modern design that makes it discrete in indoor ambience.

-  **Clean and Modern Design**
Bring "less is more" concept to indoor or HVAC environment
-  **Multiple Sensors in One**
Temperature, humidity, motion (PIR), CO₂, 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	17dBm (470) / 16dBm (868) / 20dBm (915)		
	Sensitivity	-147dBm @300bps		
	Mode	OTAA/ABP		
	Power Supply	2 × AA alkaline batteries/Powered by Type C port		
	Battery Lifetime	1 year (SF7), 0.9 year (SF10)	1.5 year (SF7), 1.2 year (SF10)	
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 ₂	Range	400 ~ 5000 ppm	
		Accuracy	±30 ppm or ±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		

Environmental 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

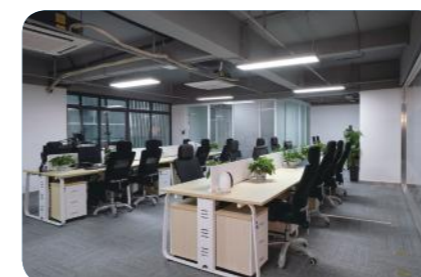


100% Wire-Free

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	ER18505 Li-SOCI2 Battery (4000 mAh/8000 mAh)
Operating Temperature	-30 ~ 70°C
Ingress Protection	IP67
Dimensions	88 x 87 x 27 mm (3.46 x 3.42 x 1.06 in)



Office



Greenhouse



Residence

Leak Detection Sensor

Preventing assets away from water damage



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	ER18505 Li-SOCI2 Battery (4000 mAh/8000 mAh)	
Ingress Protection	IP67	
Operating Temperature	-30 ~ 70°C	
Dimensions	88 x 87 x 27 mm (3.46 x 3.42 x 1.06 in)	



Hospital



Warehouse



Server Room

Magnetic Contact Switch

Door/window status monitoring



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	ULI 1007 22AWG, 260mm
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	ER18505 Li-SOCI2 Battery (4000 mAh/8000 mAh)
Ingress Protection	IP67
Operating Temperature	-30 ~ 70°C
Dimensions	88 x 87 x 27 mm (3.46 x 3.42 x 1.06 in)



Fire Door



Library



Residence



Outdoor Environment Monitoring Sensor



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



CO₂ Sensor (4 in 1)
EM500-CO₂



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 salinity. It is an important tool for soil condition monitoring.

Model	EM500-SMTC	EM500-SMT
Moisture	0 ~100% RH	0 ~ 100% RH
	2% RH (0 ~ 50%)	±2% RH
	3% RH (50 ~ 100%)	0.25% RH
Temperature	-40 ~ 80°C	/
	±0.5°C	
	0.1°C	
Electrical Conductivity	0 ~ 20000 µS/cm	/
	±3% (0 ~ 10000 µS/cm), ±5% (10000 ~ 20000 µS/cm)	
	10 µS/cm (0 ~ 10000 µS/cm), 50 µS/cm (10000 ~ 20000 µS/cm)	
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923	
Power Supply	Built-in 19000 mAh Li-SOCl2 battery, up to 10 years service life	
Ingress Protection	IP66 (Transceiver, IP67 as required)	
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, 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 Li-SOCl2 battery, up to 10 years service life
Ingress Protection	IP66 (Transceiver, IP67 as required), IP65 (Sensor)
Operating Temperature	-30 ~ 70°C (Transceiver), -30 ~ 60°C (Sensor)



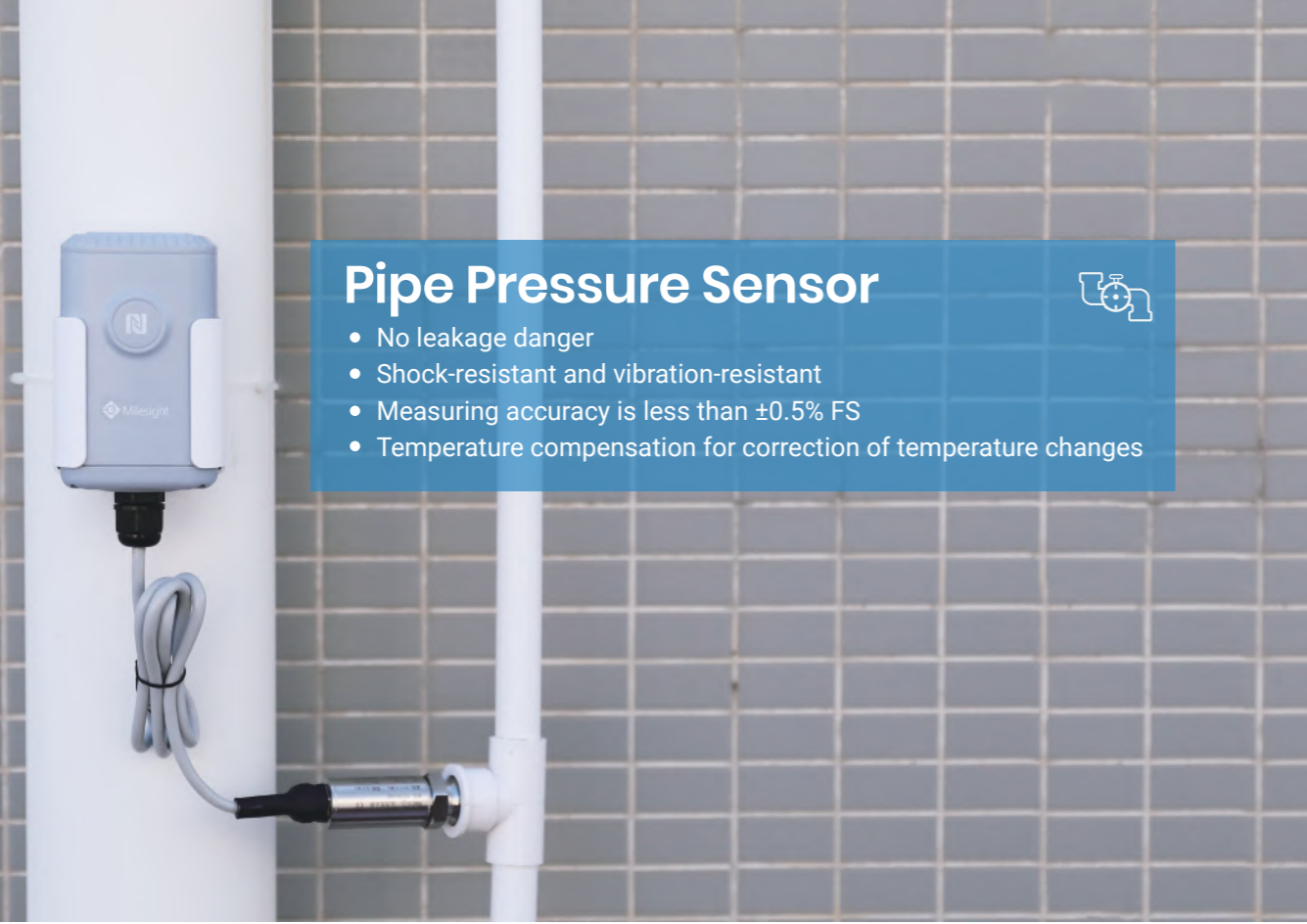
Agriculture



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 1/4" Female
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923
Power Supply	Built-in 19000 mAh Li-SOCl2 battery, up to 10 years service life
Ingress Protection	IP66 (Transceiver, IP67 as required), IP65 (Sensor)
Operating Temperature	-30 ~ 70°C (Transceiver), -30 ~ 80°C (Sensor)



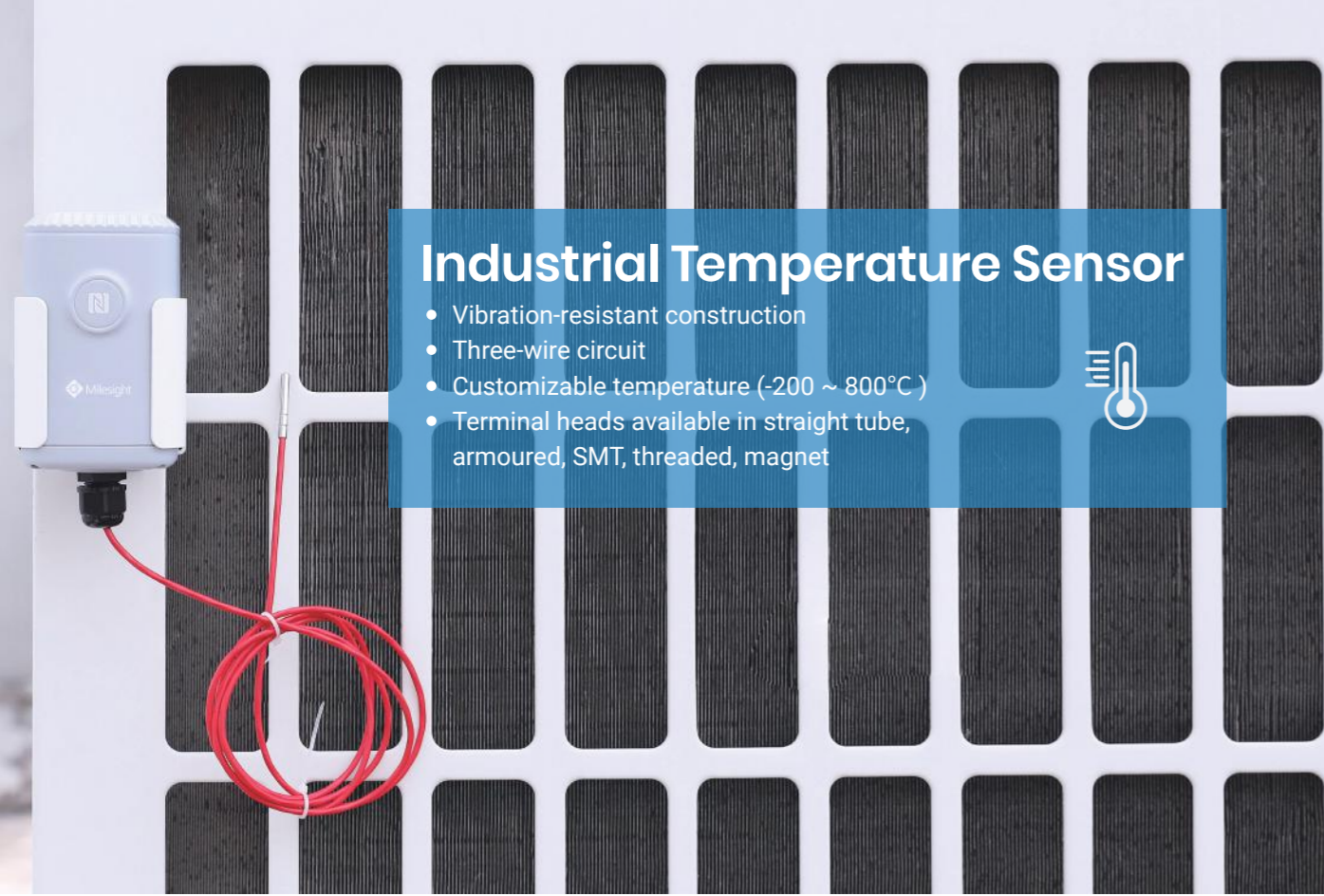
Constant Water Supply Hydraulic Equipment Barometric Pressure Detection

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 ₂ 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 Li-SOCl2 battery, up to 10 years service life
Ingress Protection	IP66 (Transceiver, IP67 as required), IP68 (Sensor)
Operating Temperature	-30 ~ 70°C (Transceiver), -30 ~ 80°C (Sensor)



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



CO₂ Sensor (4 in 1)



- Measuring ranges from 400ppm to 5000ppm
- Easy installation in any enclosed areas or outdoor environment
- 4 in 1 (CO₂, 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 Li-SOCl2 battery, up to 10 years service life
Ingress Protection	IP66 (IP67 as required)
Operating Temperature	-30 ~ 70°C (Transceiver)



Industrial Process



Cold Chain



Laboratory

EM500-CO₂ is designed for the application where knowing CO₂ 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 ₂	400 ~ 5000 ppm	±30 ppm or ±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 Li-SOCl2 battery, up to 10 years service life		
Ingress Protection	IP66		
Operating Temperature	-30 ~ 70°C		



Smart City



Livestock Farming



Forest Fire Monitoring



Ultrasonic Distance/Level Sensor

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



EM500-UDL provides highly accurate distance measurement for a variety of applications in harsh environments like flood monitoring, waster water 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 Li-SOCI2 battery, up to 10 years service life
Ingress Protection	IP66
Operating Temperature	-30 ~ 65°C



Water Treatment



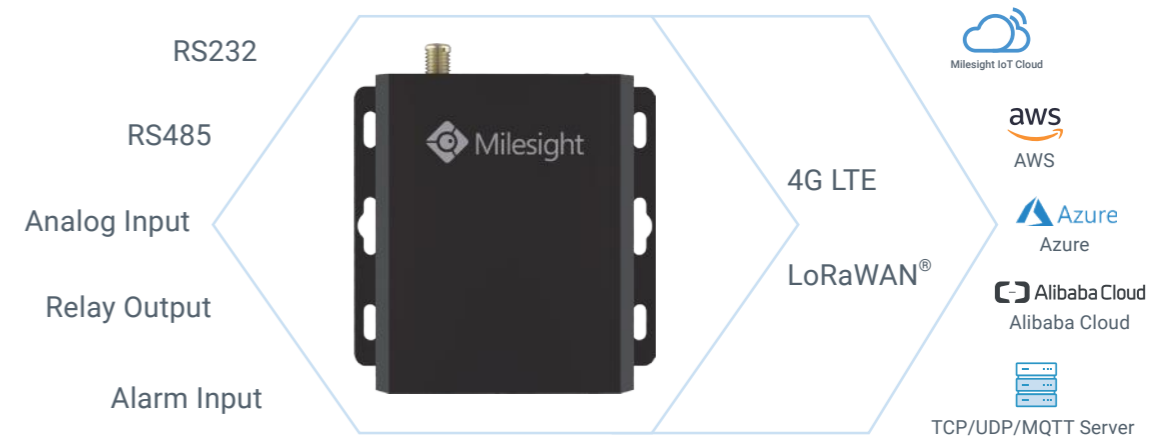
Snow Depth



Grain Silo

Compact Controller

The Compact Controller is designed for monitoring and controlling field devices, and collecting data onto cloud.



Specifications

Model	Analog Input	Digital Input	Relay Output	RS232	RS485	Network
UC1114	—	2	2	—	—	LoRaWAN®
UC1122	2	1	1	—	—	
UC1152	—	1	1	1	1	
UC3414	—	2	2	—	—	2G/3G/4G
UC3422	2	1	1	—	—	
UC3452	—	1	1	1	1	

Outdoor LoRaWAN® Controller

Multi-interface Platform 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 UC500 Series LoRaWAN® Controller is ideal to work in harsh environments for remote monitoring and collecting data from sensors.

Model	UC501	UC502
Power Supply	Rechargeable 4900 mAh battery with solar panel	Non-rechargeable Built-in 19000 mAh Li-SOCl2 battery
Interface 1	2 × GPIO 1 × RS485/RS232 switchable 1 × 3.3 V output 1 × 5/9/12 V output switchable	
Interface 2	2 × analog input 1 × 3.3 V output 1 × 5/9/12 V output switchable	
Dimension	120.1 × 120.1 × 55.4 mm (4.73 × 4.73 × 2.18 in)	
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923	
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 anytime. 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 4900 mAh battery with solar panel 1 month battery life without charging (Class C)	Non-rechargeable Replaceable 19000 mAh Li-SOCl2 battery Up to 3-year battery life (Class A)
Solenoid Interface	2 × 2-Wire 12 VDC Latching Solenoid	
Pulse Interface	2 × Pulse Input	
Dimension	120.1 × 120.1 × 55.4 mm (4.73 × 4.73 × 2.18 in)	
Frequency	CN470/RU864/IN865/EU868/AU915/US915/KR920/AS923	
Ingress Protection	IP67	
Operating Temperature	-20 ~ 60°C	

UR32 Lite 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

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

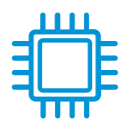
- Affordable Price
- PoE-PSE for Less Wire Connection
- Reduce Time Cost by Remote Management

UR75 High-Performance 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.



UR75



Outstanding Performance

- 5G NSA & NA 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	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, SNTP, 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)	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	246g (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	E	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[®] 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[®] Gateway



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

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 16.04
- ✓ 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

UR32 – L 00 E – G – P – W – RS485

① ② ③ ④ ⑤ ⑥

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

LoRaWAN® Gateway

UG65 – L 00 E – 915M – EA

① ② ③ ④ ⑤ ⑥

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

LoRaWAN® Sensor

EM500 – UDL – 915M

① ② ③

- | | | |
|---|--|---|
| ① Model Name | ② Sensor Type | ③ LoRaWAN® Module |
| <ul style="list-style-type: none"> • AM100 • EM300 • EM500 | <ul style="list-style-type: none"> • UDL: Ultrasonic Distance/Level Sensor • SMTC/SMT: Soil Sensor • SWL: Submersible Water Level Sensor • LGT: Light Sensor • PT100: PT100 Temperature Sensor • CO₂: CO₂ Sensor • PP: Pipe Pressure Sensor • TH: Temperature & Humidity Sensor • MCS: Magnetic Contact Switch Sensor • SLD: Spot Leak Detection Sensor • ZLD: Zone Leak Detection Sensor | <ul style="list-style-type: none"> • 470M: CN470 • 868M: RU864/IN865/EU868 • 915M: US915/AU915/KR920/AS923 |

LoRaWAN® Controller

UC511 – DI – 915M

① ② ③

- | | | |
|--|---|---|
| ① Model Name | ② Interface (For UC51x Only) | ③ LoRaWAN® Module |
| <ul style="list-style-type: none"> • UC501 • UC502 • UC511 • UC512 • UC1114 • UC1122 • UC1152 | <ul style="list-style-type: none"> • Digital Input (Pulse Counter) | <ul style="list-style-type: none"> • 470M: CN470 • 868M: RU864/IN865/EU868 • 915M: US915/AU915/KR920/AS923 |