

V3.1



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Better Inside, More in Sight

**UNIQUE  
MICRO  
DESIGN**  
...Engineering IoT Solutions

**Milesight**

# Milesight IoT Product UMD Catalogue

5G, AI & Sensing Technology



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# SENSING INSIGHT

SENSING THE INFINITY TO DRIVE THE WORLD



### Sensing by Products:

Ingest the original environment from the sensing devices, whether they are network cameras or environmental sensors.



### Insight on Environment:

Through IoT technologies, convert the original resource into visualized, automated, and value-added data that is critical to the physical world.



### Drive the Digital World:

Massive critical information about the environment gathered becomes insights. The outcome, such as decision-making and future planning, tells us how to create a more efficient and intelligent world.

#### Digital Sensing



Sensing Nodes

#### Connectivity



LoRaWAN® Gateway

4G/5G Industrial Routers

5G Super-Speed Suit

#### Interaction



IoT Display

Visualized Data on IAQ Sensor

#### Application



Smart Workplace

Smart City

Smart Agriculture



# Mini LoRaWAN® Gateway

UG63 is a mini-sized indoor LoRaWAN® gateway that fits the LoRaWAN® network coverage for blind spots and standalone deployment.



## Overall Features

- Mini Size for Flexible Installation
- Gateway Fleet for Better Blind Spot Coverage
- Listen Before Talk (LBT) for Downlink Data Integrity
- Semtech SX1302 Chip for Standalone Deployment
- Embedded Network Server Compatible with TTN, ChirpStack, Everynet, Senet, etc.

UG63

| Model                    |                    | UG63  |
|--------------------------|--------------------|---|
| LoRaWAN®                 | Chipset            | SX1302, 8 Channels (Half/Full-duplex)                           |
|                          | Frequency          | CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4         |
|                          | Protocol           | V1.0 Class A/Class B/Class C and V1.0.2 Class A/Class B/Class C |
| Connectivity             | Ethernet           | 1 x RJ45 (PoE PD Supported), 10/100 Base-T (IEEE 802.3)         |
| Hardware                 | CPU                | 528 MHz, ARM Cortex-A7  |
|                          | Built-in           | Watchdog, RTC, Timer  |
|                          | Power Supply       | ① 1 x 802.3af Standard PoE Input<br>② 5V by Type-C Port         |
| Physical Characteristics | Ingress Protection | IP30  |
|                          | Dimension          | Φ 115 x 21 mm (Φ 4.52 x 0.83 in)                                |
|                          | Installation       | Desktop, Wall or Ceiling Mounting                               |

# Industrial LoRaWAN® Gateway

UG56 is a high-performance 8-channel LoRaWAN® gateway that offers reliable connectivity for industrial applications.



## Overall Features

- Industrial-Grade Design with Compact Size
- Stay Connected via Ethernet, Cellular, and Wi-Fi
- Gateway Fleet for Comprehensive Networking
- Listen Before Talk (LBT) for Downlink Data Integrity
- Semtech SX1302 Chip with High-Performance Quad-Core CPU
- Embedded Network Server Compatible with TTN, ChirpStack, Everynet, Senet, etc.
- BACnet/IP Support for Seamless Integration into Existing Building Management Systems (BMS)

UG56

| Model                    |                    | UG56  |
|--------------------------|--------------------|---|
| LoRaWAN®                 | Chipset            | SX1302, 8 Channels (Half-duplex)                                    |
|                          | Antenna            | 1 x 50 Ω SMA Connector (Center PIN: SMA Female)                     |
|                          | Frequency          | CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4             |
|                          | Protocol           | V1.0 Class A/Class B/Class C and V1.0.2 Class A/Class B/Class C     |
| Connectivity             | Ethernet           | 1 x RJ45 PoE PD Port, 10/100 Base-T (IEEE 802.3)                    |
|                          | Wi-Fi              | IEEE 802.11b/g/n, 2.4 GHz   |
|                          | Cellular (Opt.)    | 1 x Mini SIM-2FF Slot, Support Global GSM/3G/4G LTE Frequency Bands |
| Hardware                 | CPU                | Quad-core 1.3 GHz, 64-bit ARM Cortex-A35                            |
|                          | Power Supply       | ① 1 x 802.3af Standard PoE Input<br>② 5V, 2A by Type-C Port         |
| Physical Characteristics | Ingress Protection | IP30  |
|                          | Dimension          | 110 x 75 x 24 mm (4.33 x 2.95 x 0.94 in)                            |
|                          | Installation       | Desktop, Wall Mounting  |



# Semi-Industrial LoRaWAN® Gateway

UG65 is a robust 8-channel LoRaWAN® gateway that is ideally suited to smart office, smart building and many other indoor applications.



### Overall Features

- IP65 Rated and UV Resistance
- Stay Connected via Ethernet, Cellular, and Wi-Fi
- Gateway Fleet for Comprehensive Networking
- Listen Before Talk (LBT) for Downlink Data Integrity
- Semtech SX1302 Chip with High-Performance Quad-Core CPU
- Embedded Network Server Compatible with Actility, AWS, TTN, ChirpStack, Everynet, Senet, etc.
- BACnet/IP Support for Seamless Integration into Existing Building Management Systems (BMS)

UG65

| Model                    |                    | UG65  |
|--------------------------|--------------------|---|
| LoRaWAN®                 | Chipset            | SX1302, 8 Channels (Half/Full-duplex)                                       |
|                          | Antenna            | 1 × 50 Ω N-Female External Connector (Opt.)                                 |
|                          | Frequency          | CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4                     |
|                          | Protocol           | V1.0 Class A/Class B/Class C and V1.0.2 Class A/Class B/Class C             |
| Connectivity             | Ethernet           | 1 x RJ45 PoE PD Port, 10/100/1000 Base-T (IEEE 802.3)                       |
|                          | Wi-Fi              | IEEE 802.11b/g/n, 2.4 GHz   |
|                          | Cellular (Opt.)    | 1 x Mini SIM-2FF Slot, Support Global GSM/3G/4G LTE Frequency Bands         |
| Hardware                 | Processor          | Quad-core 1.5 GHz, 64-bit ARM Cortex-A53                                    |
|                          | Built-in           | Watchdog, RTC, Timer  |
|                          | Power Supply       | ① 1 × 802.3 af Standard PoE Input<br>② 9 ~ 24 VDC by DC Male Jack Connector |
| Physical Characteristics | Ingress Protection | IP65  |
|                          | Dimension          | 180 x 110 x 56.5 mm (7.09 x 4.33 x 2.22 in)                                 |
|                          | Installation       | Desktop, Wall or Pole Mounting  |

# Outdoor LoRaWAN® Gateway

UG67 is a robust 8-channel LoRaWAN® gateway that is well-matched to smart agriculture, smart metering and many other outdoor applications.



### Overall Features

- IP67 Rated and UV Resistance
- Stay Connected via Ethernet, Cellular, and Wi-Fi
- Gateway Fleet for Comprehensive Networking
- Listen Before Talk (LBT) for Downlink Data Integrity
- Semtech SX1302 Chip with High-Performance Quad-Core CPU
- Embedded Network Server Compatible with Actility, AWS, TTN, ChirpStack, Everynet, Senet, etc.
- BACnet/IP Support for Seamless Integration into Existing Building Management Systems (BMS)

UG67

| Model                    |                    | UG67  |
|--------------------------|--------------------|---|
| LoRaWAN®                 | Chipset            | SX1302, 8 Channels (Half/Full-duplex)                               |
|                          | Antenna            | 2 × 50 Ω N-Female External Connectors                               |
|                          | Frequency          | CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4             |
|                          | Protocol           | V1.0 Class A/Class B/Class C and V1.0.2 Class A/Class B/Class C     |
| Connectivity             | Ethernet           | 1 x RJ45 PoE PD Port, 10/100/1000 Base-T (IEEE 802.3)               |
|                          | Wi-Fi              | IEEE 802.11b/g/n, 2.4 GHz   |
|                          | Cellular (Opt.)    | 1 x Mini SIM-2FF Slot, Support Global GSM/3G/4G LTE Frequency Bands |
|                          | GPS                | Support (Internal Antenna)  |
| Hardware                 | Processor          | Quad-core 1.5 GHz, 64-bit ARM Cortex-A53                            |
|                          | Built-in           | Watchdog, RTC, Timer  |
|                          | Power Supply       | ① 1 × 802.3 af Standard PoE Input<br>② 12 VDC with M12 Connector    |
| Physical Characteristics | Ingress Protection | IP67  |
|                          | Dimension          | 240 x 164 x 90.9 mm (9.45 x 6.46 x 3.58 in)                         |
|                          | Installation       | Wall or Pole Mounting   |



# AI Workplace Occupancy Sensor

VS121 delivers curated insights by real-time occupancy data to unleash potential, especially for workplace and buildings.



## Overall Features

- LoRaWAN® & PoE Versions for Broader Applications
- High Ceiling Mount Version up to 7 Meters High Is Available
- Embedded AI Algorithm Realizes Up to 98% Accuracy Counting
- Compliant with GDPR & 100% Anonymous Detection
- 78m² Large Detection Area with 16 Custom Detection Regions
- Bi-Directional People Counting via In/Out Counting
- Smart U-Turn Detection via the U-Shape Tracks of People Flow
- Milesight D2D with Communication Latency to <1 Sec

VS121  
VS121-P

| Model                    |                     | VS121   | VS121-P   |
|--------------------------|---------------------|---|---|
| Wireless Transmission    | Technology          | LoRaWAN® , Milesight D2D  |   |
|                          | Frequency           | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4   |   |
|                          | Mode                | OTAA/ABP Class C  |   |
| Ethernet Transmission    | Ethernet Port       | -   | 1× RJ45 10/100 Mbps (PoE PD)                    |
|                          | Network Protocol    |   | MQTT(S), HTTP, RTSP, NTP, SSH, etc.             |
| Measurement              | Field of View       | Standard Version: 190° Horizontal, 112° Vertical<br>High Ceiling Mount Version: 129.4° Horizontal, 68.4° Vertical       |   |
|                          | Recognition Range   | Standard Version: a Radius of 5 Meters, At the Height of 3m<br>High Ceiling Mount Version:18m × 7m, At the Height of 7m |   |
|                          | Recognition Rate    | Region Counting: Up to 95%<br>Line Crossing Counting: Up to 98%<br>People Flow Analysis: Up to 98%                      |   |
|                          | Installation Height | Standard Version: 2.5m to 4m<br>High Ceiling Mount Version: 5m to 7m  |   |
|                          | Advanced Feature    | Mapped Detection Region Customization, Filter U-Turns, Privacy Mask   |   |
| Physical Characteristics | Configuration       | Wi-Fi   | Ethernet  |
|                          | Power Supply        | 5 VDC / 1.5A by Type-C Port   | 1.5VDC / 2A by Terminal Block<br>2. 802.3af PoE |
|                          | Installation        | Ceiling Mounting  |   |

\* Tested under laboratory conditions and for guideline purposes only

# AI ToF People Counting Sensor

VS133 is a people counting sensor Gen 2 with combination of AI and upgraded ToF technology to offer line crossing people counting data in real-time to get precise and valuable statistics for facility operators.



## Overall Features

- Combination of On-board AI Algorithm and 2nd Generation ToF Technology
- Industry-Leading 99.8% Accuracy
- Support Staff Detection and Adults/Children Differentiation
- Compliant with GDPR & 100% Anonymous Detection
- Smart U-Turn Detection Suitable for Real World Scenarios
- Bi-Directional People Counting via In/Out Counting
- High-Capacity of Storing a Million Data Locally
- User-Friendly Management on DeviceHub

VS133  
VS133-P

| Model                    |                       | VS133   | VS133-P                      |
|--------------------------|-----------------------|---|------------------------------|
| Wireless Transmission    | Technology            | LoRaWAN®  |                              |
|                          | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4   |                              |
|                          | Mode                  | OTAA/ABP Class C  |                              |
| Ethernet Transmission    | Ethernet Port         | -   | 1× RJ45 10/100 Mbps (PoE PD) |
|                          | Network Protocol      |   | HTTP, MQTT, NTP, etc.        |
| Measurement              | ToF                   | FoV: 98° Horizontal, 80° Vertical<br>Light Beam: 940nm (Invisible)                                    |                              |
|                          | Accuracy              | <3.5 cm   |                              |
|                          | Range                 | 0.5~3.5 m   |                              |
|                          | Recognition Rate      | Up to 99.8%   |                              |
| Physical Characteristics | Configuration         | Wi-Fi   | Ethernet                     |
|                          | Power Supply          | 12VDC / 2A  | 802.3 at PoE                 |
|                          | Operation Temperature | -20°C ~ +50°C   |                              |
|                          | Ingress Protection    | IP40  |                              |
|                          | Installation          | Ceiling Mounting, Extended Ceiling Mounting & Lintel Mounting (with Optional Multifunctional Bracket) |                              |

\* Tested under laboratory conditions and for guideline purposes only



# Bathroom Occupancy Sensor

VS330 combines ToF and PIR technology for accurate detection, solving the ultimate difficulty in public toilets and bathrooms.



## Overall Features

- Combine PIR & ToF Technology with Low Power Consumption
- Detection & Report with Smart Logic Achieving 99.5% Accuracy
- Compliant with GDPR & 100% Anonymous Detection
- Real-Time Data Collection at a 10-Second Intervals for Prompt and Accurate Updates
- Conformal Coating on PCBA and Rotatable Probe for Reliable Usage

VS330

| Model                    |                    | VS330                       |   |
|--------------------------|--------------------|-----------------------------|---|
| Wireless Transmission    | Technology         |                             | LoRaWAN®  |
|                          | Frequency          |                             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4     |
|                          | Mode               |                             | OTAA/ABP Class A  |
| Measurement              | ToF                | ToF FoV                     | 27°   |
|                          |                    | Detetion Accuracy and Range | ±2cm, 0.040 ~ 3.500m  |
|                          | PIR                | Detection Area              | 80°   |
|                          |                    | Detection Distance          | Maximum 2.5m  |
|                          | Others             | Sensor Adjustable Angle     | 0°, 15°, 30°, 45°, 60°, 75°                                 |
| Physical Characteristics | Configuration      |                             | Mobile App via NFC  |
|                          | Power Supply*      |                             | Easily Replaceable Batteries with up to 4-Year Battery Life |
|                          | Button             |                             | 1 × Power/Reset Button                                      |
|                          | Ingress Protection |                             | IP30  |
|                          | Dimension          |                             | Φ100 x 24 mm (Φ3.94 x 0.95 in)                              |
|                          | Installation       |                             | Ceiling Mount or Wall Mount via Screws or 3M tapes          |

# iBox Kit Series

Milesight iBox Kit is designed for users to quickly evaluate the LoRaWAN® technology with testified devices and services. Going comprehensively digital transformation with more certainty, these solutions are the one step before users to scale connected device deployments securely with high reliability.



## Overall Features

- Starters Enjoy It for Putting PoCs into Action with Reduced Time & Cost
- Operators Need It for New Projects and Potential Market Demands
- Deployers Love It for Easy to Deploy and Integrate with Multiple NS Platforms



- AM319
- AM307
- AM103
- AM103L
- UG63
- Milesight IoT Cloud
- \*Pro1 Valid for One Year



Indoor Air Quality Solution **iBox IAQ Kit**

- VS121
- WS156
- UG63
- WS101
- WS202
- WS301
- Milesight IoT Cloud
- \*Pro1 Valid for One Yea



Smart Office Solution **iBox CoWork Kit**

- UC300
- UG65
- EM300
- WS101
- WS301
- AM103
- Milesight IoT Cloud
- \*Pro1 Valid for One Yea



Smart Building Solution **iBox Smart Building Kit**



# Smart Button

WS101 allows users to remotely control appliances, triggering a scene or calling for help.



## Overall Features

- Single/Double/Long Press Mode for Customized Application
- LoRaWAN® Wireless Deployment with Low Power Consumption
- Built-in LED Indicator & Buzzer for Status Indication
- Milesight D2D with Communication Latency to <1 Sec
- Convenient Size with 5 Years Battery Life

WS101

| Model                    |                    | WS101  |
|--------------------------|--------------------|--|
| Wireless Transmission    | Technology         | LoRaWAN®, Milesight D2D  |
|                          | Frequency          | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4              |
|                          | Mode               | OTAA/ABP Class A   |
| Physical Characteristics | Power Supply*      | Easily Replaceable Battery with over 5-year Battery Life             |
|                          | Ingress Protection | IP30   |
|                          | Dimensions         | 50 × 50 × 18 mm (1.97 × 1.97 × 0.71 in)<br>Button: Φ20 mm (Φ0.79 in) |
|                          | Installation       | On the Flat Surfaces with Screws or 3M Tapes, Lanyard                |
| Others                   | Configuration      | NFC  |
|                          | Button             | 1 × External Button + 1 × Reset Button (Internal)                    |
|                          | Advanced Feature   | Milesight D2D Controller   |

\* Tested under laboratory conditions and for guideline purposes only.

# Smart Scene Panel

WS136/WS156 offers occupant with predefine 6 scenes with different surrounding ambiances which can be fast changed by pressing the button.



## Overall Features

- 100% Wire-Free with Multiple Scenes Control
- Customizable Display/Stickers Suitable for Various Scenarios
- Control Multiple Devices Simultaneously with One Command
- LoRaWAN® Wireless Deployment with Low Power Consumption
- Milesight D2D with Communication Latency to <1 Sec

WS136  
WS156

| Model                    |                    | WS136/WS156  |
|--------------------------|--------------------|--|
| Wireless Transmission    | Technology         | LoRaWAN®, Milesight D2D                                    |
|                          | Frequency          | CN470/RU864/IN865/EU868/US915/AU915/KR920/AS923-1&2&3&4    |
|                          | Mode               | OTAA/ABP Class A   |
| Physical Characteristics | Power Supply*      | Easily Replaceable Batteries with over 3-Year Battery Life |
|                          | Ingress Protection | IP30   |
|                          | Dimensions         | 86 × 86 × 14 mm (3.39 × 3.39 × 0.55 in)                    |
|                          | Display            | 2.9-Inch Black & White E-Ink Screen (WS156 Only)           |
|                          | Installation       | Desktop, 3M Tape Mounting, 86 Box Mounting                 |
| Others                   | Configuration      | NFC  |
|                          | Button             | 6 Scene Buttons (Blue Light) & 1 Reset Button (Internal)   |
|                          | Advanced Feature   | Milesight D2D Controller, Screen Display Customization     |

\* Tested under laboratory conditions and for guideline purposes only.



# Smart Fill Level Monitoring Sensor

WS201 monitors container fill levels in real time with high accuracy through ToF technology to optimize management.



## Overall Features

- Detection Ranges from 1cm to 55cm
- Suitable for Diverse Toilet Paper Dispenser
- Accurate Fill Level Monitoring with ToF Technology
- Up to 2 Years Battery Life with One Coin Cell Battery
- LoRaWAN® Wireless Deployment with Low Power Consumption

WS201

| Model                    |                       | WS201   |
|--------------------------|-----------------------|---|
| Wireless Transmission    | Technology            | LoRaWAN®  |
|                          | Frequency             | CN470/ IN865/RU864/EU868/US915/AU915/KR920/AS923- 1&2&3&4                                     |
|                          | Mode                  | OTAA/ABP Class A  |
| Measurement              | ToF FoV               | 25°(Accuracy± 5°)   |
|                          | Range&Accuracy        | 1 ~ 55 cm (Accuracy: ± 1 cm)  |
|                          | Resolution            | 1mm (1.0 ≤X ≤15.0cm)<br>2mm (15.0<X≤ 35.0cm)<br>3mm (35.0<X≤55.0cm)<br>X = Detection Distance |
| Physical Characteristics | Dimension             | 66 × 38 × 12 mm (2.60 × 1.50 × 0.47 in)   |
|                          | Configuration         | NFC   |
|                          | Power Supply*         | Easily Replaceable Battery with 2-Year Battery Life   |
|                          | Operation Temperature | -10°C ~ +60°C   |
|                          | Ingress Protection    | IP30  |
|                          | Installation          | On the Flat Surface with 3M Tapes   |

\* Tested under laboratory conditions and for guideline purposes only

# PIR & Light Sensor

WS202 provides PIR motion detection and brightness measurement, providing reliable supports for automatic lighting control system.



## Overall Features

- PIR & Light Sensor for Occupancy/Motion Detection
- Wide Detection Range up to 8m in Distance
- Customizable Bright/Dark Conditions Threshold
- Milesight D2D with Communication Latency to <1 Sec
- Convenient Size with 5 Years Battery Life

WS202

| Model                    |                    | WS202   |
|--------------------------|--------------------|---|
| Wireless Transmission    | Technology         | LoRaWAN®, Milesight D2D   |
|                          | Frequency          | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923                                     |
|                          | Mode               | OTAA/ABP Class A  |
| Measurement              | PIR                | 120° Horizontal, 100° Vertical, Maximum 8 m   |
|                          | Light Status       | Bright/Dark (Determine 1-60000 lux as Bright or Dark According to Custom Threshold) |
| Physical Characteristics | Power Supply*      | Easily Replaceable Battery with up to 4-Year Battery Life                           |
|                          | Ingress Protection | IP30  |
|                          | Dimension          | 50 × 50 × 23.8 mm (1.97 × 1.97 × 0.94 in)   |
|                          | Installation       | On the Flat Surfaces with Screws or 3M Tapes  |
| Others                   | Configuration      | NFC   |
|                          | Advanced Feature   | Milesight D2D Controller  |

\* Tested under laboratory conditions and for guideline purposes only.



# Magnetic Contact Switch

WS301 detects the opening or closing event, sending alarms accordingly. The minimal magnet is placed inside the portable part, while the sensor is inside the fixed part on door, window or other projects.



## Overall Features

- 100% Wire-Free with Double Sided Tape/Screw
- Real-Time Tamper Detection & Report
- Built-in LED Indicator for Status Indication
- Milesight D2D with Communication Latency to <1 Sec
- Convenient Size with 5 Years Battery Life

WS301

| Model                    |                    | WS301  |
|--------------------------|--------------------|--|
| Wireless Transmission    | Technology         | LoRaWAN®, Milesight D2D  |
|                          | Frequency          | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923  |
|                          | Mode               | OTAA/ABP Class A   |
| Measurement              | Detection Distance | 10-15 mm   |
| Physical Characteristics | Power Supply*      | Easily Replaceable Battery with over 5-year Battery Life   |
|                          | Ingress Protection | IP20   |
|                          | Dimension          | Sensor: 50.5 × 31 × 18.5 mm (1.99 × 1.22 × 0.73 in)<br>Magnet: 30 × 13.5 × 10 mm (1.18 × 0.53 × 0.39 in) |
|                          | Installation       | On the Flat Surfaces with Screws or 3M Tapes   |
| Others                   | Configuration      | NFC  |
|                          | Button             | 1 × Reset Button (Internal), 1 × Tampering Button  |
|                          | Alarms             | Open/Close Status, Tamper  |
|                          | Advanced Feature   | Milesight D2D Controller   |

\* Tested under laboratory conditions and for guideline purposes only.

# Sound Level Sensor

WS302 can not only measure noise levels and generate various values via LoRaWAN® network, but also supports multiple weighting measurements for different application scenarios.



## Overall Features

- Accurate Sound Level Measurement in Decibels (dB)
- Support A, C and Fast Time Weighting
- Built-in LED Indicator for Status Indication
- LoRaWAN® Wireless Deployment with Low Power Consumption
- Convenient Size with 5 Years Battery Life

WS302

| Model                    |                    | WS302   |
|--------------------------|--------------------|---|
| Wireless Transmission    | Technology         | LoRaWAN®  |
|                          | Frequency          | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4   |
|                          | Mode               | OTAA/ABP Class A  |
| Measurement              | Sound Level        | ± 3 dB (0°C to +45°C), 30 dBA to 120 dBA, 35 dBC to 120 dBC   |
|                          | Frequency Range    | 30 Hz to 8 kHz  |
|                          | Weighting          | A and C Fast Weighting  |
|                          | Measurement Unit   | SPL Actual, Leq, Lmax   |
| Physical Characteristics | Power Supply*      | Easily Replaceable Batteries with over 4-Year Battery Life (Fast Time Weighting Disabled)<br>And over 1.5 Years (Fast Time Weighting Enabled) |
|                          | Ingress Protection | IP30  |
|                          | Dimension          | 68 × 65 × 20.5 mm (2.68 × 2.56 × 0.81 in)   |
|                          | Installation       | On the Flat Surfaces with Screws or 3M Tapes  |
| Others                   | Configuration      | NFC   |
|                          | Button             | 1 × Power/Reset Button  |

\* Tested under laboratory conditions and for guideline purposes only.



# Mini Leak Detection Sensor

WS303 detects the presence of leaks and raises alarms locally and remotely, which is ideal for smart offices, buildings, houses, etc.



## Overall Features

- IP67 Rated for Harsh Environment
- Water Leak Detection with 0.5mm to Trigger Alert
- Immediate Warning Locally and Remotely
- Up to 5 Years Battery Life with One Coin Cell Battery
- LoRaWAN® Wireless Deployment with Low Power Consumption
- Milesight D2D with Communication Latency to <1 Sec

WS303

| Model                    |                       | WS303   |
|--------------------------|-----------------------|---|
| Wireless Transmission    | Technology            | LoRaWAN®, Milesight D2D                                   |
|                          | Frequency             | CN470/ IN865/RU864/EU868/US915/AU915/KR920/AS923- 1&2&3&4 |
|                          | Mode                  | OTAA/ABP Class A  |
| Measurement              | Trigger Condition     | Conductive Liquid<br>When Liquid Level Reaches 0.5 mm     |
| Physical Characteristics | Configuration         | NFC   |
|                          | Power Supply*         | Easily Replaceable Battery with 5-Year Battery Life       |
|                          | Operation Temperature | -10°C to +60°C  |
|                          | Ingress Protection    | IP67  |
|                          | Dimension             | 63 × 63 × 14 mm   |
|                          | Installation          | 3M Tape Mounting, Desktop                                 |

\* Tested under laboratory conditions and for guideline purposes only

# Smart Wall Switch

WS50x is designed for the local and remote control of lights and electrical appliances. It adopts two standard sizes for most of international wall switch types, which can replace the traditional wall switches directly.



## Overall Features

- Time-Delay, Schedule, Remote and Scene-Based Control
- Support 1/2-Gang with 3-Wire/2-Wire Circuit Design
- Built-in LED Indicator for Status Indication
- Multicast for Remote Control in Bulk
- Milesight D2D with Communication Latency to <1 Sec

WS50x

| Model                    |                    | WS50x  |   |
|--------------------------|--------------------|--|---|
| Wireless Transmission    | Technology         | LoRaWAN®, Milesight D2D  |   |
|                          | Frequency          | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4  |   |
|                          | Mode               | OTAA/ABP Class C   | OTAA/ABP Class B, Class C to B, Class C |
| Electrical               | Circuit Type       | 3-Wire   | 2-Wire                                  |
|                          | Maximum Current    | Inductive: 5 A per Gang, Total 10 A<br>Resistive: 10 A per Gang, Total 10 A                              |   |
|                          | Rated Load         | Max 1000 W per Gang, total 0 ~ 2000 W  | Max 1000 W per Gang, total 38 ~ 2000 W  |
|                          | Measurement        | Voltage (VAC), Current (mA),<br>Power Factor (%), Power (W),<br>Power Consumption (kWh)                  | -                                       |
| Physical Characteristics | Dimensions         | 86 Type: 86 × 86 × 40 mm (3.39 × 3.39 × 1.57 in)<br>120 Type: 118 × 72 × 46.9 mm (4.65 × 2.83 × 1.85 in) |   |
|                          | Ingress Protection | IP20   |   |
| Operation                | Configuration      | NFC  |   |
|                          | Switch Control     | Local Press or Remote Control  |   |
|                          | Advanced Features  | Schedule Switch, Switch Lock, Overcurrent Protection, Multicast, D2D Controller, Milesight D2D Agent     |   |



# Smart Portable Socket

WS523 is designed for the remote scheduled on/off control of electronic applications as well as power consumption measurement.



## Overall Features

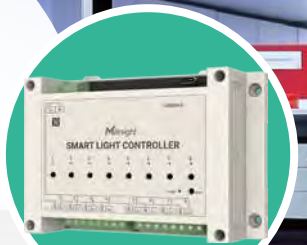
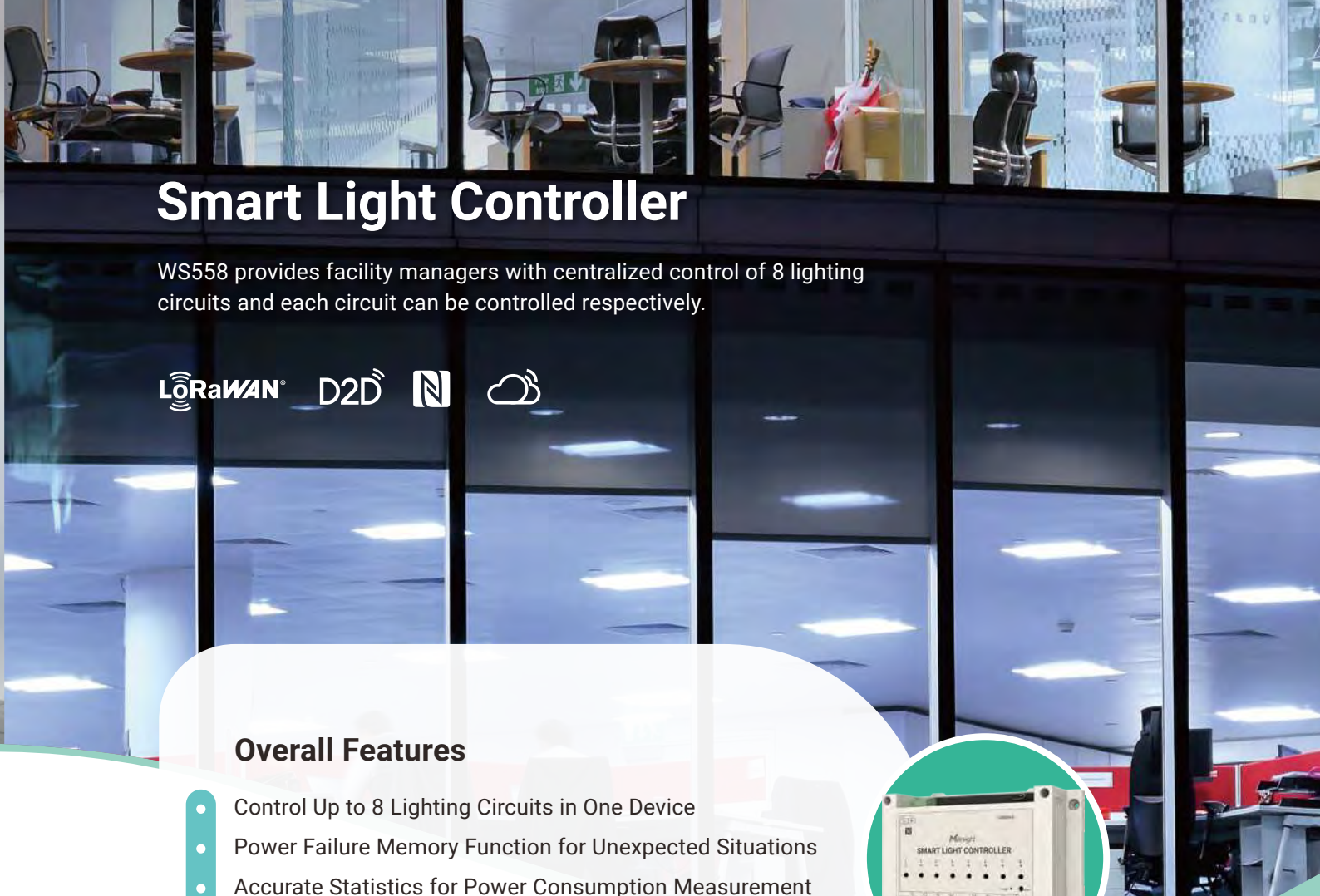
- Schedule, Remote and Scene-Based Control
- Accurate Statistics for Power Consumption Measurement
- Overcurrent Protection/Alarm for Safer Operation
- Multicast for Remote Control in Bulk
- Milesight D2D with Communication Latency to <1 Sec

WS523

| Model                    |                    | WS523  |
|--------------------------|--------------------|--|
| Wireless Transmission    | Technology         | LoRaWAN®, Milesight D2D  |
|                          | Frequency          | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4  |
|                          | Mode               | OTAA/ABP Class C   |
| Measurement              | Socket & Plug Type | US/EU/AU/UK/CN, etc.   |
|                          | Operating Voltage  | 100 ~ 250 VAC, 50 ~ 60 Hz  |
|                          | Max Load Capacity  | 10 A ~ 16 A (Optional), 250 VAC  |
|                          | Measurement        | Voltage (VAC), Current (mA), Power Factor (%), Power (W), Power Consumption (kWh), ±1 % Accuracy               |
| Physical Characteristics | Dimensions         | 110 × 62.3 × 34.6 mm (4.33 × 2.45 × 1.36 in)   |
|                          | Ingress Protection | IP30   |
| Others                   | Configuration      | NFC or Downlink  |
|                          | Switch Control     | Button or Remote Control   |
|                          | Button             | ON/OFF, Reset  |
|                          | Advanced Features  | Schedule Switch, Button Lock, Overcurrent Protection/Alarm, Multicast, Power Outage Alert, Milesight D2D Agent |

# Smart Light Controller

WS558 provides facility managers with centralized control of 8 lighting circuits and each circuit can be controlled respectively.



## Overall Features

- Control Up to 8 Lighting Circuits in One Device
- Power Failure Memory Function for Unexpected Situations
- Accurate Statistics for Power Consumption Measurement
- Overcurrent Protection for Safer Operation
- Multicast for Remote Control in Bulk
- Schedule, Remote and Scene-Based Control
- Milesight D2D with Communication Latency to <1 Sec

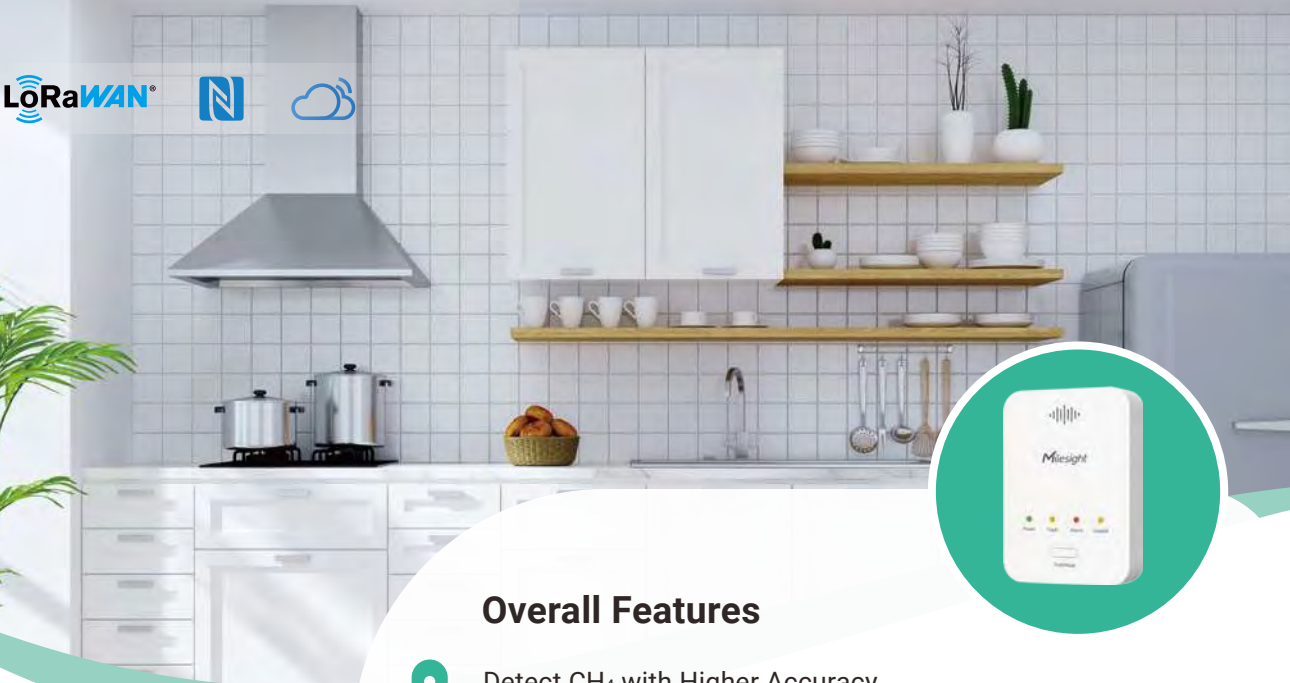
WS558

| Model                    |                             | WS558-LN  | WS558-Switch           |
|--------------------------|-----------------------------|---|------------------------|
| Electrical               | Input Voltage               | 100~240 VAC, 50~60 Hz   |                        |
|                          | Output                      | 8 Active Outputs  | 8 Passive Switches     |
|                          | Capacitive & Inductive Load | Maximum 5A per Output, Total 16A  | Maximum 5A per Switch  |
|                          | Resistive Load              | Maximum 10A per Output, Total 16A   | Maximum 10A per Switch |
|                          | Electrical Measurement      | Voltage (VAC), Current (mA), Power Factor (%), Power (W), Power Consumption (kWh) | -                      |
|                          | Switch Control              | Local Press or Remote Control   |                        |
| Wireless Transmission    | Protocol                    | LoRaWAN®, Milesight D2D   |                        |
|                          | Frequency                   | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4                           |                        |
|                          | Mode                        | OTAA/ABP Class C  |                        |
| Physical Characteristics | Dimensions                  | 145 × 90 × 40 mm (5.7 × 3.54 × 1.57 in)   |                        |
|                          | Installation                | Wall Mounting, DIN Rail Mounting  |                        |
| Others                   | Configuration               | NFC, USB Type-C or Downlink   |                        |
|                          | Advanced Features           | Multicast, Remote Schedule Switch, Overcurrent Protection, Milesight D2D Agent    |                        |



Gas Detector

GS101 detects methane (CH<sub>4</sub>) leakage in residential space such ass houses, apartments, hotels, etc., features a gas alarm threshold as low as 8% Lower Explosive Limit (LEL) that quickly alerts residents to an emergency.



Overall Features

- Detect CH<sub>4</sub> with Higher Accuracy
- Event Trigger via Relay Output/Solenoid Valve Output
- Built-in Self-Test Function for Safer Operation
- Built-in LED Indicator & Buzzer for Status Indication
- Support Retransmission for Reliable Communication
- Store Capacity with 800 Sets of Historical Data Records
- LoRaWAN® Wireless Deployment with Low Power Consumption

GS101

| Model                    |                            | GS101   |
|--------------------------|----------------------------|---|
| Wireless Transmission    | Technology                 | LoRaWAN®  |
|                          | Frequency                  | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4   |
|                          | Mode                       | OTAA/ABP Class C  |
| Measurement              | Detecting Gas              | Methane (CH <sub>4</sub> )  |
|                          | Alarm Level                | 8% LEL  |
|                          | Historical Records Storage | Alarm Records, Alarm Dismissed Records, Device Fault Records, Device Fault Recovered Records, Device Power on Records, Device Power off Records, Device Invalid Records |
|                          | Alarm System               | Sound (8% LEL), LED Indicators  |
| Physical Characteristics | Configuration              | NFC   |
|                          | Power Supply               | 12VDC, 1A through DC Jack Connector   |
|                          | Ingress Protection         | IP30  |
|                          | Dimension                  | 120 × 85 × 32.5 mm (4.72 × 3.35 × 1.28 in)  |
|                          | Installation               | Wall Mounting   |

Bathroom Odor Detector

GS301 can be applied to measure the concentration of harmful gases such as ammonia and hydrogen sulfide in real-time.



Overall Features

- Detect NH<sub>3</sub> & H<sub>2</sub>S with Higher Accuracy
- Built-in Buzzer & Traffic Light Status Indicator for Alarming
- Up to 3 Years Battery Life for Easy Maintenance
- Support LoRaWAN® & Milesight D2D Simultaneously
- LoRaWAN® Wireless Deployment with Low Power Consumption
- Milesight D2D with Communication Latency to <1 Sec

GS301

| Model                    |                                     | GS301   |
|--------------------------|-------------------------------------|---|
| Wireless Transmission    | Technology                          | LoRaWAN®, Milesight D2D                                     |
|                          | Frequency                           | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4     |
|                          | Mode                                | OTAA/ABP Class A  |
| Measurement              | Ammonia (NH <sub>3</sub> )          | ± 5% (-40 - 35°C), 0 ~ 10 ppm                               |
|                          | Hydrogen Sulfide (H <sub>2</sub> S) | ± 5% (-40 - 35°C), 0 ~ 5 ppm                                |
|                          | Temperature                         | ± 0.2°C (-40 - 85°C)  |
|                          | Humidity                            | ± 2%RH (0 - 100%)   |
| Physical Characteristics | Configuration                       | NFC   |
|                          | Power Supply*                       | Easily Replaceable Batteries with up to 3-Year Battery Life |
|                          | Ingress Protection                  | IP30  |
|                          | Dimension                           | 120 × 85 × 32.5 mm (4.72 × 3.35 × 1.28 in)                  |
|                          | Alarm System                        | 1 × Status/Alarm Indicator + 1 × Buzzer                     |
|                          | Installation                        | Wall Mounting   |

\* Tested under laboratory conditions and for guideline purposes only.



# 3-in-1 Indoor Air Quality Sensor

AM103/AM103L is a compact IAQ sensor for detecting CO<sub>2</sub> concentration, humidity and temperature accurately and economically.



## Overall Features

- Traffic Light Status Indicator for Direct Notification
- Wireless Installation with Anti-theft Protection
- Support Data Storage and Retransmission
- Smart Screen Mode & Hibernation Mode for Ultra-Low Power Consumption
- 2.13 -Inch E-Ink Screen with Vivid Emoticon Indication (AM103)
- Light/Dark Color Theme with Multiple Display Styles (AM103)
- Battery Life up to 3 Years (AM103) / 4 Years (AM103L)

AM103  
AM103L

| Model                    |                                   | AM103   | AM103L  |
|--------------------------|-----------------------------------|---|---|
| Wireless Transmission    | Technology                        | LoRaWAN®  |   |
|                          | Frequency                         | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4     |   |
|                          | Mode                              | OTAA/ABP Class A  |   |
| Measurement              | Temperature                       | ± 0.2°C (-20°C ~ 60°C)                                      |   |
|                          | Humidity                          | ± 2% RH (0% ~ 100%)   |   |
|                          | Carbon Dioxide (CO <sub>2</sub> ) | ± (30 ppm + 3% of Reading), 400 to 5000 ppm                 |   |
| Physical Characteristics | Configuration                     | NFC   |   |
|                          | Display                           | 2.13-inch Black & White E-Ink Screen                        | -   |
|                          | Alarm System                      | 1 × Traffic Light Status Indicator                          |   |
|                          | Power Supply*                     | Easily Replaceable Batteries with up to 3-Year Battery Life | Easily Replaceable Batteries with up to 4-Year Battery Life |
|                          | Ingress Protection                | IP30  |   |
|                          | Dimension                         | 68 × 65 × 20.5 mm (2.68 × 2.56 × 0.81 in)                   |   |
|                          | Installation                      | Wall Mounting   |   |

\* Tested under laboratory conditions and for guideline purposes only.

# 7-in-1 Indoor Air Quality Sensor

AM107 is a well-qualified IAQ sensor for monitoring CO<sub>2</sub> concentration, temperature, humidity, light, TVOC, barometric pressure and motion in indoor scenarios.



## Overall Features

- 2.13-Inch E-Ink Screen with Intuitive Display
- Smart Screen Mode for Low Power Consumption
- Powered via USB Type-C for Stable Power Supply
- Battery Life up to 1 Year

AM107

| Model                    |                                   | AM107   |
|--------------------------|-----------------------------------|---|
| Wireless Transmission    | Technology                        | LoRaWAN®  |
|                          | Frequency                         | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4     |
|                          | Mode                              | OTAA/ABP Class A  |
| Measurement              | Temperature                       | ±0.3°C (-20°C ~ 70°C), ±0.6°C (-20°C ~ 0°C)                 |
|                          | Humidity                          | ± 3%RH (10% ~ 90%), ± 5%RH (0%~10%,10% ~ 90%)               |
|                          | PIR                               | 94 ° Horizontal, 82 ° Vertical, 5 m                         |
|                          | Light                             | ±30%, 60000 lux (Visible + IR, IR)                          |
|                          | Carbon Dioxide (CO <sub>2</sub> ) | ± (30 ppm + 3% of Reading), 400 ~ 5000 ppm                  |
|                          | TVOC                              | ±15% (0 ~ 60000 ppb)  |
|                          | Barometric Pressure               | ±1 hPa, 300 ~ 1100 hPa (-40°C ~ 85°C)                       |
| Physical Characteristics | Configuration                     | NFC, USB Type-C Port  |
|                          | Power Supply*                     | Easily Replaceable Batteries with up to 1-Year Battery Life |
|                          | Ingress Protection                | IP30  |
|                          | Dimensions                        | 105 × 70.4 × 21.2 mm (4.1 × 2.8 × 0.8 in)                   |
|                          | Display                           | 2.13-inch Black & White E-Ink Screen                        |
|                          | Installation                      | Wall Mounting   |

\* Tested under laboratory conditions and for guideline purposes only.



# 9-in-1 Indoor Air Quality Sensor

AM307/AM308/AM319 is a comprehensive IAQ sensor for detecting CO<sub>2</sub> concentration, temperature, humidity, light, HCHO/O<sub>3</sub> level, TVOC, barometric pressure, PM2.5, PM10 and motion.



## Overall Features

- 4.2-Inch E-ink Screen with Vivid Emoticon Indication
- Traffic Light Status Indicator and Built-In Buzzer for Alarming
- Flexible Installation with Anti-theft Protection
- Support Retransmission for Reliable Communication
- Store Capacity with 18,000 Sets of Historical Data Records
- Smart Screen Mode for Low Power Consumption
- Powered via USB Type-C for Stable Power Supply
- Battery Life up to 3 Years (AM307) / 1 Year (AM308)

AM307  
AM308  
AM319

| Model                 |                                   | AM307   | AM308  | AM319   |
|-----------------------|-----------------------------------|---|--|---|
| Wireless Transmission | Technology                        | LoRaWAN®  |  |   |
|                       | Frequency                         | CN470/RU864/IN865/EU868/US915/AU915/KR920/AS923-1&2&3&4             |  |   |
|                       | Work Mode                         | OTAA/ABP Class A  | OTAA/ABP Class A   | OTAA/ABP Class C                              |
| Measurement           | Temperature                       | ± 0.2°C (-20°C - 60°C)  |  |   |
|                       | Humidity                          | ±2%RH (0% ~ 100%RH)   |  |   |
|                       | Motion                            | Vacant/Occupied (Status)  |  |   |
|                       | Light                             | 0-60000 Lux (Determine as 6 Levels, 0-5)                            |  |   |
|                       | TVOC (IAQ Rating)                 | 1.00 - 5.00, ±1 Accuracy  |  |   |
|                       | Barometric Pressure               | ±0.5 hPa (260 ~ 1260 hPa)   |  |   |
|                       | Carbon Dioxide (CO <sub>2</sub> ) | ± (30 ppm + 3% of Reading),<br>400 ~ 5000 ppm                       |  | ± (50 ppm + 5% of Reading),<br>400 ~ 2000 ppm |
|                       | PM2.5 & PM10                      | -   | ±10µg/m3 (0-100 µg/m³), ±10% (100 ~ 1000µg/m³)           |   |
|                       | Formaldehyd(HCHO)*                | -   |  | ±10% (0 - 1.25 mg/m³)                         |
|                       | Ozone (O <sub>3</sub> )*          | -   |  | ±5% FS (0 - 10 ppm)                           |
|                       | Physical Characteristics          | Configuration   | NFC, USB Type-C Port                                     |   |
| Power Supply**        |                                   | Easily Replaceable Batteries with up to 3-Year Battery Life         | Easily Replaceable Battery with over 1-Year Battery Life | 5V/1A by Type-C Port                          |
| Ingress Protection    |                                   | IP30  |  |   |
| Dimensions            |                                   | 100.8 × 114 × 22 mm (3.97 × 4.49 × 0.87 in) & 4.2-inch E-Ink Screen |  |   |
| Installation          |                                   | 3M Tape Mounting, Wall Screw Mounting, 86 Box Mounting              |  |   |

\* HCHO or O<sub>3</sub> sensor is alternative option and both support replacement.  
\*\* Tested under laboratory conditions and for guideline purposes only.



## Smart Restroom Solution

Reshape Restroom, Release the Values of Smartness

Milesight Smart Restroom Solution seamlessly integrates advanced operational and environmental sensors and IoT technologies breaking the limitations of traditional restrooms.



- Effective Toilet Paper Replacement with Fill Level Monitoring
- Advanced HVAC Systems Based on H<sub>2</sub>S and NH<sub>3</sub> Detection Data
- Detect Leaks Immediately with Leak Detection and Take Countermeasures.
- Integrated Information Displayed for Users Can Have a Visual View of the Restroom Conditions
- Metering Management in Real Time to Improve Energy Utilization and Energy Saving
- Occupancy Mastery Based on Cubicles Vacancy Data



# IoT E-ink Display

DS3604 with high-definition e-ink display is great for flexible content presentation in retail, warehouse and logistics management, smart production lines and more.



## Overall Features

- Bigger E-ink Screen Featuring Red/White/Black Color Display
- Customized Templates in Multiple Modules and Languages
- Low Power Consumption with up to 5 Years Battery Life
- Open API and a LoRaWAN® Button Enable Various Applications
- Support Local and Remote Control for Bulk Deployment
- LoRaWAN® Wireless Deployment with Low Power Consumption

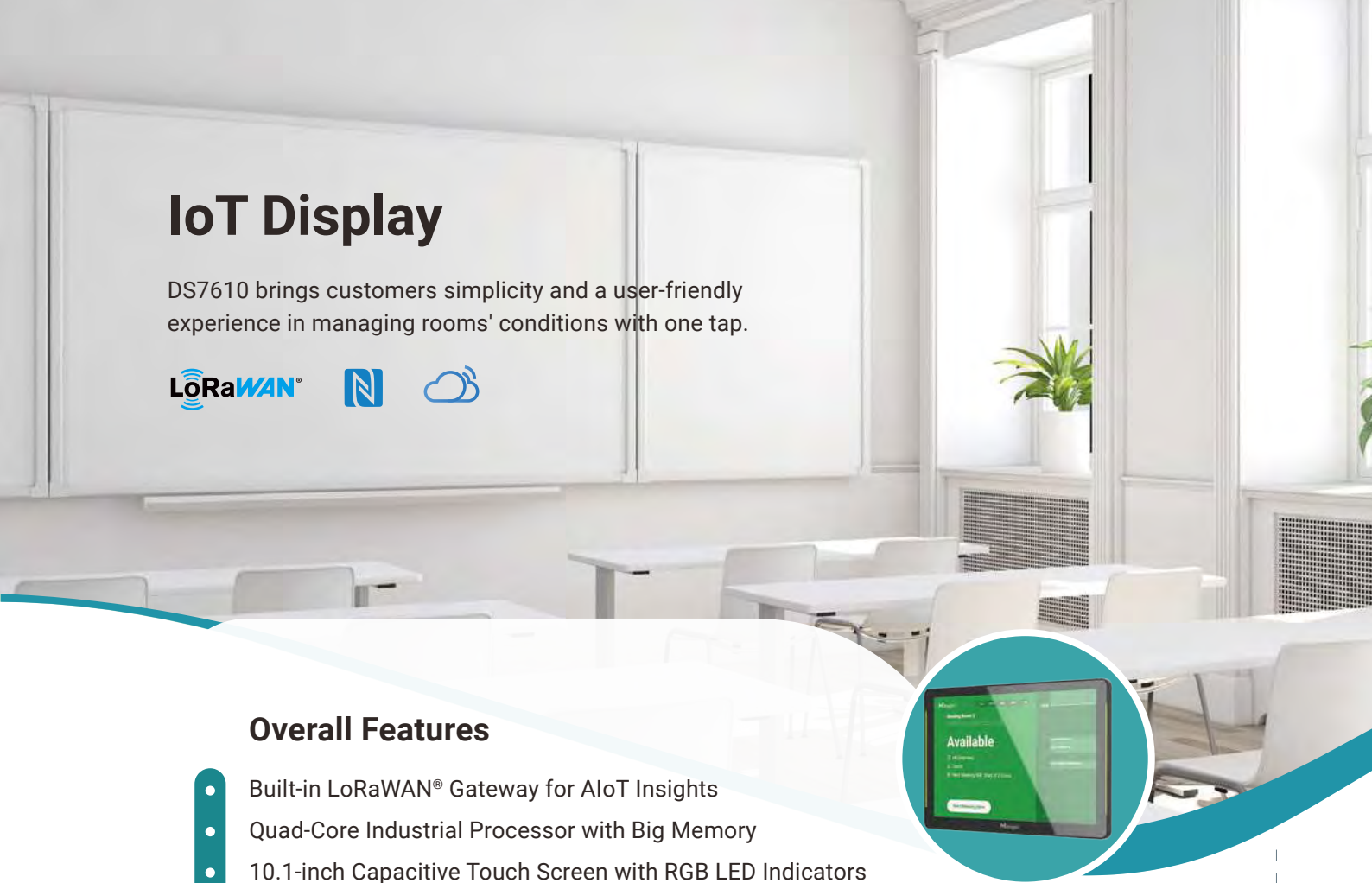
DS3604

| Model                    |                       | DS3604   |
|--------------------------|-----------------------|--|
| Wireless Transmission    | Technology            | LoRaWAN®   |
|                          | Frequency             | CN470/ IN865/RU864/EU868/US915/AU915/KR920/AS923- 1&2&3&4  |
|                          | Mode                  | OTAA/ABP Class A/Class B (Default OTAA Class B)  |
| Display                  | E-Ink Screen          | 4.2-inch Black & White & Red E-Ink Screen  |
|                          | Resolution            | 400 x 300 Pixels   |
|                          | Refresh Rate          | 16s (10 - 40°C)  |
| Physical Characteristics | Configuration         | NFC  |
|                          | Battery Life*         | Around 5 Years (Class A Mode + 1 Screen Refresh per Day)<br>Around 1 Year (Class B Mode + 12 Screen Refreshes per Day) |
|                          | Operation Temperature | 0°C ~ +40°C  |
|                          | Dimension             | 99 x 87 x 10.5 mm (3.90 x 3.43 x 0.41 in)  |
|                          | Installation          | 3M Tape Mounting, Wall Screw Mounting  |

\* Tested under laboratory conditions and for guideline purposes only.

# IoT Display

DS7610 brings customers simplicity and a user-friendly experience in managing rooms' conditions with one tap.



## Overall Features

- Built-in LoRaWAN® Gateway for AIoT Insights
- Quad-Core Industrial Processor with Big Memory
- 10.1-inch Capacitive Touch Screen with RGB LED Indicators
- Powerful SDK Capabilities for Secondary Developer
- Support Third-party Android Applications
- More User-Friendly with NFC Enabled Applications
- Smart Screen Mode for Low Power Consumption
- Optional Docking Station with Flexible Connection Options

DS7610

| Model                    |                    | DS7610   |
|--------------------------|--------------------|--|
| Display                  | LCD Screen         | 10.1-inch TFT LCD Touch Screen (STB 74.88%)                              |
|                          | Resolution         | 1280 x 800 Pixels  |
|                          | Indicators         | RGB Side LED Indicators, Stepless Adjustment                             |
| Sensors & NFC            | Proximity Sensor   | Detection Distance: 1 m (Max.)   |
|                          | Light Sensor       | 5 Brightness Level Adjustment  |
|                          | NFC                | 13.56 MHz  |
| Wireless Transmission    | LoRaWAN® Channel   | Single Channel   |
|                          | LoRaWAN® Frequency | CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4                  |
|                          | LoRaWAN® Protocol  | V1.0.3 Class A/Class C   |
|                          | Wi-Fi              | IEEE 802.11 b/g/n, 2.4 GHz, IEEE 802.11 a/n/ac, 5 GHz                    |
|                          | Bluetooth          | Bluetooth 5.0  |
| Physical Characteristics | Ethernet           | 1 x RJ45 10/100/1000 Mbps Ethernet Port (PoE PD Supported)               |
|                          | Processor          | Quad-core ARM Cortex-A55   |
|                          | Operating System   | Android 11.0   |
|                          | Power Supply       | ① 802.3af PoE ② 12V/1A by DC Jack Connector ③ 5V/2A by Type-C Port       |
|                          | Ingress Protection | IP30   |
|                          | Installation       | Wall Mounting, 3M Tape Mounting, VESA Desktop Stand Mounting (75 x 75mm) |



# Pulse Counter

EM300-DI is a LoRaWAN® pulse counter which transforms traditional water meters into wireless intelligent meters at ease.



## Overall Features

- IP67 Rated for Harsh Environment
- Support Digital Filtering for More Accurate Counters
- Embedded Pulse/Digital Signals & Temp & Humidity
- Support Retransmission for Reliable Communication
- Store Capacity with 1,000 Sets of Historical Data Records
- Up to 5 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

### EM300-DI

- IP67
- Pulse Counting
- 5-Year Battery Life

| Model                    |                       | EM300-DI   |
|--------------------------|-----------------------|--|
| Wireless Transmission    | Technology            | LoRaWAN®   |
|                          | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4    |
|                          | Mode                  | OTAA/ABP Class A   |
| Measurement              | GPIO                  | 1 x GPIO Interface, Work as Pulse Counter                  |
|                          | Temperature           | ±0.3°C (0°C ~ 70°C), ±0.6°C (-30°C ~ 0°C)                  |
|                          | Humidity              | ±3%RH (10%RH ~ 90%RH), ±5%RH (below 10%RH and above 90%RH) |
| Physical Characteristics | Configuration         | NFC  |
|                          | Power Supply*         | Easily Replaceable Battery with up to 5-Year Battery Life  |
|                          | Operation Temperature | -30°C ~ 70°C   |
|                          | Ingress Protection    | IP67   |
|                          | Dimension             | 105.6 × 85.2 × 27 mm (4.15 × 3.35 × 1.06 in)               |
|                          | Installation          | Screw Mounting   |

\* Tested under laboratory conditions and for guideline purposes only.

# Magnetic Contact Switch

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



## Overall Features

- IP67 Rated and UV Resistance
- Detect Temperature, Humidity and Door/Window Status
- High Sensitivity with 20 to 30 mm Open/Close Sensing Distance
- Customized Alarm Reporting Interval/Times for Various Usage
- Support Retransmission for Reliable Communication
- Store Capacity with 2,800 Sets of Historical Data Records
- Up to 5 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

### EM300-MCS

| Model                    |                       | EM300-MCS   |
|--------------------------|-----------------------|---|
| Wireless Transmission    | Technology            | LoRaWAN®, Milesight D2D   |
|                          | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4   |
|                          | Mode                  | OTAA/ABP Class A  |
| Measurement Door Magnet  | Detection Distance    | 20-30 mm  |
|                          | Cable Length          | 1.5 m   |
|                          | Temperature           | ±0.3°C (0°C ~ 70°C), ±0.6°C (-30°C ~ 0°C)   |
|                          | Humidity              | ±3%RH (10%RH ~ 90%RH), ±5%RH (below 10%RH and above 90%RH)  |
| Physical Characteristics | Configuration         | NFC   |
|                          | Power Supply*         | Easily Replaceable Battery with up to 10-year Battery Life  |
|                          | Operation Temperature | -30°C ~ 70°C  |
|                          | Ingress Protection    | IP67  |
|                          | Dimension             | Transceiver: 105.6 × 85.3 × 27 mm (4.16 × 3.36 × 1.06 in)<br>Magnet: 32 × 15 × 8 mm (1.25 × 0.59 × 0.31 in) |
|                          | Installation          | Wall Mounting   |

\* Tested under laboratory conditions and for guideline purposes only.



# Temperature & Humidity Sensor

EM300-TH is suitable for indoor and outdoor temperature and humidity monitoring. It can be widely used in office areas, greenhouses and other environments



### Overall Features

- IP67 Rated and UV Resistance
- Detect Temperature and Humidity with Higher Accuracy
- Support Retransmission for Reliable Communication
- Store Capacity with 2,800 Sets of Historical Data Records
- Up to 10 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

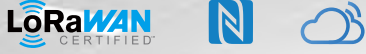
EM300-TH

| Model                    |                       | EM300-TH   |
|--------------------------|-----------------------|--|
| Wireless Transmission    | Technology            | LoRaWAN®, Milesight D2D                                    |
|                          | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4    |
|                          | Mode                  | OTAA/ABP Class A   |
| Measurement              | Temperature           | ±0.3°C (0°C ~ 70°C), ±0.6°C (-30°C ~ 0°C)                  |
|                          | Humidity              | ±3%RH (10%RH ~ 90%RH), ±5%RH (below 10%RH and above 90%RH) |
| Physical Characteristics | Configuration         | NFC  |
|                          | Power Supply*         | Easily Replaceable Battery with up to 10-Year Battery Life |
|                          | Operation Temperature | -30°C ~ 70°C   |
|                          | Ingress Protection    | IP67   |
|                          | Dimension             | 88.5 × 85.3 × 27 mm (3.48 × 3.36 × 1.06 in)                |
|                          | Installation          | Wall Mounting  |

\* Tested under laboratory conditions and for guideline purposes only.

# Leak Detection Sensor

EM300-SLD/ZLD is suitable for detecting presence of water or other liquids and remotely alerting users the potential water leak accordingly.



### Overall Features

- IP67 Rated and UV Resistance
- Conductive Liquids Leak Detection with 5mm to Trigger Alert
- Embedded Temperature & Humidity Sensors with High Accuracy
- Customized Alarm Reporting Interval/Times for Various Usage
- Support Retransmission for Reliable Communication
- Store Capacity with 2,800 Sets of Historical Data Records
- Up to 10 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

EM300-SLD  
EM300-ZLD

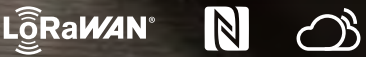
| Model                         |                       | EM300-SLD  | EM300-ZLD          |
|-------------------------------|-----------------------|--|--------------------|
| Wireless Transmission         | Technology            | LoRaWAN®, Milesight D2D                                    |                    |
|                               | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4    |                    |
|                               | Mode                  | OTAA/ABP Class A   |                    |
| Measurement Leakage Detection | Temperature           | ±0.3°C (0°C ~ 70°C), ±0.6°C (-30°C ~ 0°C)                  |                    |
|                               | Humidity              | ±3%RH (10%RH ~ 90%RH), ±5%RH (below 10%RH and above 90%RH) |                    |
|                               | Trigger Condition     | When Conducting Liquid Level Reaches 5 mm                  |                    |
| Physical Characteristics      | Cable Length          | 1.5 m (Customizable)                                       | 3 m (Customizable) |
|                               | Configuration         | NFC  |                    |
|                               | Power Supply*         | Easily Replaceable Battery with up to 10-Year Battery Life |                    |
|                               | Operation Temperature | -30°C ~ 70°C   |                    |
|                               | Ingress Protection    | IP67   |                    |
|                               | Dimension             | 105.6 × 85.3 × 27 mm (4.16 × 3.36 × 1.06 in)               |                    |
|                               | Installation          | Wall Mounting  |                    |

\* Tested under laboratory conditions and for guideline purposes only.



# Tilt Sensor

EM310-TILT is suitable for angle measurement and asset movement based on angle changes and send threshold alarms.



## Overall Features

- IP67 Rated for Harsh Environment
- 3-Axis Accelerometer for Accurate Detection
- Built-in Zero Adjustment for Smart Measurement
- 36 Customized Trigger Rules for Various Applications
- Up to 5 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

EM310-TILT

| Model                    |                       | EM310-TILT   |
|--------------------------|-----------------------|--|
| Wireless Transmission    | Technology            | LoRaWAN®   |
|                          | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4    |
|                          | Mode                  | OTAA/ABP Class A   |
| Measurement              | Axis                  | X, Y, Z  |
|                          | Range                 | ± 1°, (- 90° ~ +90°)                                       |
|                          | Resolution            | 0.01°  |
| Physical Characteristics | Configuration         | NFC  |
|                          | Power Supply*         | Easily Replaceable Batteries with over 5-Year Battery Life |
|                          | Operation Temperature | -20°C ~ 60°C   |
|                          | Ingress Protection    | IP67   |
|                          | Dimension             | 111 × 62 × 33 mm (4.37 × 2.44 × 1.30 in)                   |
|                          | Installation          | On the Flat Surfaces with Screws                           |

\* Tested under laboratory conditions and for guideline purposes only.

# Ultrasonic Distance/Level Sensor

EM310-UDL features short blind zone and broad range distance measurement. It is suitable for various applications such as smart parking, smart waste bin and so on.



## Overall Features

- IP67 Rated for Harsh Environment
- Non-Contact Distance Detection with 3-450cm Measurement Range
- 3-Axis Accelerometer for Accurate Measurement
- Up to 10 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

EM310-UDL

| Model                    |                       | EM310-UDL   |
|--------------------------|-----------------------|---|
| Wireless Transmission    | Technology            | LoRaWAN®  |
|                          | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923             |
|                          | Mode                  | OTAA/ABP Class A  |
| Measurement              | Distance Range        | ± (1+0.3%*S) cm, S=distance (3 ~ 450 cm)                    |
|                          | Distance Resolution   | 1 mm  |
|                          | Device Position       | Normal/Tilt (Status)  |
| Physical Characteristics | Configuration         | NFC   |
|                          | Power Supply*         | Easily Replaceable Batteries with over 10-year Battery Life |
|                          | Operation Temperature | -15°C ~ 60°C  |
|                          | Ingress Protection    | IP67  |
|                          | Dimension             | 111 × 62 × 40 mm (4.37 × 2.44 × 1.57 in)                    |
|                          | Installation          | On the Flat Surfaces with Screws                            |

\* Tested under laboratory conditions and for guideline purposes only.



# Temperature & Humidity Sensor

EM320-TH is suitable for indoor and outdoor temperature and humidity monitoring. It can be widely used in cold chain.



## Overall Features

- IP67 Rated for Harsh Environment
- FDA-Approved Food Contact Materials
- Support Subtle Changes Monitoring with Higher Accuracy
- Standard & Magnetic Version for Practical Usage
- Support Retransmission for Reliable Communication
- Store Capacity with 3,000 Sets of Historical Data Records
- Up to 5 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

EM320-TH

| Model                    |                       | EM320-TH   |
|--------------------------|-----------------------|--|
| Wireless Transmission    | Technology            | LoRaWAN®   |
|                          | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4                          |
|                          | Mode                  | OTAA/ABP Class A   |
| Measurement              | Temperature           | ±0.2°C (-30°C ~ 60°C)  |
|                          | Humidity              | ±2%RH (0%RH ~ 100%RH)  |
| Physical Characteristics | Configuration         | NFC  |
|                          | Power Supply*         | Easily Replaceable Batteries with over 5-year Battery Life                       |
|                          | Material              | PC + ABS (Food-Grade)  |
|                          | Operation Temperature | -30°C ~ 60°C   |
|                          | Ingress Protection    | IP67   |
|                          | Dimension             | 85 × 58 × 18 mm (3.34 × 2.28 × 0.70 in)  |
|                          | Installation          | Wall or Pole Mounting (Standard Version)<br>Magnetic Adsorption (Magnet Version) |

\* Tested under laboratory conditions and for guideline purposes only.

# Tilt Sensor

EM320-TILT is suitable for angle measurement and asset movement based on angle changes and send threshold alarms.



## Overall Features

- IP67 Rated for Harsh Environment
- 3-Axis Accelerometer for Accurate Detection
- Built-In Zero Adjustment for Smart Measurement
- 36 Customized Trigger Rules for Various Applications
- Up to 3 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

EM320-TILT

| Model                    |                       | EM320-TILT   |
|--------------------------|-----------------------|--|
| Wireless Transmission    | Technology            | LoRaWAN®   |
|                          | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4    |
|                          | Mode                  | OTAA/ABP Class A   |
| Measurement              | Axis                  | X, Y, Z  |
|                          | Range&Accuracy        | -90° ~ +90° (Accuracy : ±1°)                               |
| Physical Characteristics | Configuration         | NFC  |
|                          | Power Supply*         | Easily Replaceable Batteries with over 3-Year Battery Life |
|                          | Operation Temperature | -30°C ~ +60°C  |
|                          | Ingress Protection    | IP67   |
|                          | Dimension             | 85 × 58 × 18 mm (3.34 × 2.28 × 0.70 in)                    |
|                          | Installation          | Wall Mounting, Pole Mounting                               |

\* Tested under laboratory conditions and for guideline purposes only.



# Insertion Temperature Sensor

TS101 provides high precision and reliable consistency with an advanced measuring unit that offers a wide temperature measuring range.



### Overall Features

- ±0.5°C Detection Accuracy
- Food-Grade Enclosure and Probe
- IP67 Rated for Harsh Environment
- IK10 Rated Transceiver for Impact Resistance
- Support Retransmission for Reliable Communication
- Store Capacity with 1,200 Sets of Historical Data Records
- Up to 10 Years Battery Life for Easy Maintenance

TS101

| Model                    |                    | TS101  |
|--------------------------|--------------------|--|
| Wireless Transmission    | Technology         | LoRaWAN®   |
|                          | Frequency          | CN470/ IN865/RU864/EU868/US915/AU915/KR920/AS923- 1&2&3&4  |
|                          | Mode               | OTAA/ABP Class A   |
| Measurement              | Range              | -30°C ~ +70°C (Accuracy: ±0.5°C)   |
|                          | Resolution         | 0.1°C  |
| Physical Characteristics | Configuration      | NFC  |
|                          | Power Supply*      | Easily Replaceable Battery with 10-Year Battery Life   |
|                          | Material           | Transceiver: ABS + PC<br>Sensor Probe: 316 Stainless Steel<br>(Food-Grade, Phosphine &Corrosion Resistant) |
|                          | Ingress Protection | IP67   |
|                          | Impact Protection  | IK10(Transceiver)  |
|                          | Dimension          | Transceiver: Φ 92 × 92 × 26 mm (Φ 3.62 × 3.62 × 1.02 in)<br>Sensor Probe: Φ 7 × 400 mm (Φ 0.28 × 15.75 in) |
|                          | Installation       | Insert Installation  |

\* Tested under laboratory conditions and for guideline purposes only.

# ToF Laser Distance Sensor

EM400-TLD is designed for small & mini trash bins, boasts a range of powerful features, including the ability to detect overflowing garbage, the status of the garbage bin lid, and trash combustion.



### Overall Features

- Detection Ranges from 2cm to 350cm
- Designed for Level Monitoring in Small Trash Bins
- LoRaWAN® & NB/Cat.M Version
- IP67 Rated for Harsh Environment
- High Accuracy and Almost No Blind Spot with ToF Technology
- 3-Axis Accelerometer for Asset Status Management
- Embedded NTC Thermistor for Fire Alarms
- Two Pre-set Modes for Seamless User Experience
- Up to 10 Years Battery Life for Easy Maintenance
- Positioning Function Enabled by GNSS Modules (NB-IoT Version)

EM400-TLD

| Model                    |                    | EM400-TLD  |   |
|--------------------------|--------------------|--|---|
| Wireless Transmission    | Technology         | LoRaWAN®   | NB-IoT/Cat M  |
|                          | Frequency          | CN470/IN865/RU864/EU868/US915 /AU915/KR920/AS923-1&2&3&4                           | Cat M1: B1/B2/B3/B4/B5/B8/B12/B13/B18 /B19/B20/B25/B26/B27/B28/B66/B85<br>Cat NB2: B1/B2/B3/B4/B5/B8/B12/B13/B18 /B19/B20/B25/B28/B66/B71/B85           |
|                          | Mode               | OTAA/ABP Class A   | -   |
| Measurement              | ToF FoV            | 27°  |   |
|                          | Range&Accuracy     | Range: 2 ~ 350 cm<br>Accuracy: ±2 cm (-20°C~70°C)<br>Resolution:1 mm               |   |
|                          | Temperature        | -40°C ~125°C   |   |
|                          | Position           | Normal/Tilt  |   |
|                          | Location           | -  | Longitude & Latitude (GNSS)   |
| Physical Characteristics | Configuration      | NFC  |   |
|                          | Battery Life*      | Around 10 years<br>(Standard Mode -10min Interval, Bin Mode -20min Interval, 25°C) | TCP/UDP—Around 10 Years<br>MQTT/AWS—Around 5 Years<br>(4 Times Report Per Day, Per Report Includes 12 Packages with 30-min Collection Interval, 25°C)** |
|                          | Ingress Protection | IP67   |   |
|                          | Installation       | On the Flat Surface with Screws  |   |

\*Tested under laboratory conditions and for guideline purposes only.

\*\*PSM is required for SIM card and will be impacted by cellular base station signals.



# Multifunctional Ultrasonic Distance Sensor

M400-MUD is equipped with multiple application modes catering to a variety of scenarios such as smart waste management, smart parking and other distance / level measurement applications.



## Overall Features

- Detection Ranges from 3cm to 450cm
- Specialized in Distance Detection in Trash Bin and Parking Lot
- LoRaWAN® & NB/Cat.M Version
- IP67 Rated for Harsh Environment
- Pre-set Modes: Standard Mode & Bin Mode
- Support Pre-set Parking Lot Mode (LoRaWAN® Version Only)
- Ultrasonic Technology with Small Blind Spots Calibration
- 3-Axis Accelerometer for Asset Status Management
- Embedded NTC Thermistor for Fire Alarms
- Up to 10 Years Battery Life for Easy Maintenance
- Positioning Function Enabled by GNSS Modules (NB-IoT Version)

EM400-MUD

| Model                    |                       | EM400-MUD  |   |
|--------------------------|-----------------------|--|---|
| Wireless Transmission    | Technology            | LoRaWAN®   | NB- IoT/Cat M   |
|                          | Frequency             | CN470/ IN865/RU864/EU868/US915 /AU915/KR920/AS923- 1&2&3&4   | Cat M1: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85<br>Cat NB2: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B28/B66/B71/B85             |
|                          | Mode                  | OTAA/ABP Class A   | -   |
| Measurement              | Detection Range       | 3 ~ 450 cm   |   |
|                          | Detection Accuracy    | ± (1+0.3%*S) cm (-15°C ~ 60°C), S=distance   |   |
|                          | Temperature           | -40°C ~125°C   |   |
|                          | Position              | Normal/Tilt  |   |
|                          | Location              | -  | Longitude & Latitude (GNSS)   |
| Physical Characteristics | Configuration         | NFC  |   |
|                          | Battery Life*         | Standard Mode: >10 years (10min Interval, 25°C)<br>Bin Mode: >10 years (20min Interval, 25°C)<br>Parking Lot Mode: 5 years (12 Triggers Per Day, 25°C) | TCP/UDP~Around 10 Years<br>MQTT/AWS~Around 5 Years<br>(4 Times Report Per Day, Per Report Includes 12 Packages with 30-min Collection Interval, 25°C)** |
|                          | Operation Temperature | -30°C ~ +70°C  |   |
|                          | Ingress Protection    | IP67   |   |
|                          | Dimension             | 118 × 65 × 32.5 mm   |   |
|                          | Installation          | On the Flat Surface with Screws  |   |
|                          |                       |  |   |

\*Tested under laboratory conditions and for guideline purposes only.  
\*\*PSM is required for SIM card and will be impacted by cellular base station signals.

# Ultrasonic Distance Sensor

M400-UDL offers three versions (Standard, Pro, and Snow Level) with varying detection range, resolution, and accuracy, which is designed to cater to the demands of professional applications.



## Overall Features

- Detection Ranges from 25cm to 1000cm
- Professional for Detecting Water Level in Reservoir, Industrial Tank Level and etc.
- LoRaWAN® & NB/Cat.M Version
- IP67 Rated for Harsh Environment
- Non-Contact Distance Measurement
- Ultrasonic Technology with Small Blind Spots Calibration
- 3-Axis Accelerometer for Asset Status Management
- Embedded NTC Thermistor for Fire Alarms
- Up to 10 Years Battery Life for Easy Maintenance
- Positioning Function Enabled by GNSS Modules (NB-IoT Version)

EM400-UDL






| Model                    |                       | EM400-UDL   |  |   |
|--------------------------|-----------------------|---|--|---|
| Wireless Transmission    | Technology            | LoRaWAN®  |  | NB- IoT/Cat M   |
|                          | Frequency             | CN470/ IN865/RU864/EU868/US915/ AU915/KR920/AS923-1&2&3&4 |  | Cat M1:<br>B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85<br>Cat NB2:<br>B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B28/B66/B71/B85 |
|                          | Mode                  | OTAA/ABP Class A  |  | -   |
| Measurement              | Model                 | Standard  | Pro  | Snow Level Detection  |
|                          | Detection Range       | C050: 25 ~ 500 cm<br>C100: 25 ~ 1000 cm                   | W050: 30 ~ 500 cm<br>W100: 50 ~ 1000 cm  | S050: 50 ~ 500 cm   |
|                          | Detection Accuracy    | ± (1+0.3%*S) cm, S=distance (- 15°C ~ 60°C)*              | ± 1% FS (- 30°C ~ 65°C)  | ± 1% FS (- 30°C ~ 65°C)   |
|                          | Temperature           | -40°C ~ +125°C  |  |   |
|                          | Position              | Normal/Tilt   |  |   |
|                          | Location              | -   | Longitude & Latitude (GNSS)  |   |
| Physical Characteristics | Configuration         | NFC   |  |   |
|                          | Battery Life**        | > 10 Years (10min Interval, 25°C)                         | (4 Times Report Per Day, Per Report Includes 12 Packages with 30-min Collection Interval, 25°C)*** |   |
|                          | Operation Temperature | -30°C ~70°C   |  |   |
|                          | Ingress Protection    | IP67  |  |   |
|                          | Installation          | On the Flat Surface with Screws                           |  |   |


\*This accuracy is applicable to the measuring range of 25~800cm.  
\*\*Tested under laboratory conditions and for guideline purposes only.  
\*\*\*PSM is required for SIM card and will be impacted by cellular base station signals.



# Outdoor Asset Tracker

AT101 allows asset/property owners to ensure awareness for critical assets comes first via highly accurate positioning data from GNSS and Wi-Fi scanning.





### Overall Features

- High-Accurate GNSS Positioning and Cooperate with Wi-Fi Positioning
- Support Geofencing for Targeted Messaging to Secure the Assets and Area
- Provide Motion/Periodic/Timing Modes
- IP67 Rated for Harsh Environment
- IK09 Rated for Impact Resistance
- Easy Configuration via NFC or Bluetooth
- 3-Axis Accelerometer for Asset Status Management
- Embedded NTC Thermistor for Fire Alarms
- Support Retransmission for Reliable Communication
- Store Capacity with 1,000 Sets of Historical Data Records
- Over 15 Years Battery Life for Easy Maintenance

AT101

| Model                    |                    | AT101   |
|--------------------------|--------------------|---|
| Wireless Transmission    | Technology         | LoRaWAN®  |
|                          | Frequency          | CN470/ IN865/RU864/EU868/US915/AU915/KR920/AS923- 1&2&3&4   |
|                          | Mode               | OTAA/ABP Class A  |
| Measurement              | Positioning        | GNSS<br>Resolution:0.000001(Longitude/Latitude)<br>Accuracy:5.0m (Direct Line of Sight)                                   |
|                          |                    | Wi-Fi<br>Wi-Fi Parameters: BSSID, RSSI<br>Wi-Fi Standard: 802.11b/g/n 2.4GHz  |
| Physical Characteristics | Motion             | Normal/Tilt   |
|                          | Temperature        | -40°C ~ 125°C   |
|                          | Configuration      | NFC, Bluetooth® 5.3   |
|                          | Battery Life*      | Twice Daily Location Updates - 15+ Years<br>Tenth Daily Location Updates - 8+ Years<br>Hourly Location Updates - 4+ Years |
|                          | Ingress Protection | IP67  |
|                          | Impact Protection  | IK09  |
|                          | Installation       | Wall Screw Mounting, 3M Tape Mounting, Cable-tie Mounting   |

\* Tested under laboratory conditions and for guideline purposes only.

# CO2 Sensor (4 in 1)

EM500-CO<sub>2</sub> is designed for monitoring CO<sub>2</sub> concentration, temperature, humidity and barometric pressure in outdoor scenarios.





### Overall Features

- IP65 Rated for Harsh Environment
- 4 Sensors in 1 for Various Outdoor Usage
- Measuring Ranges from 400 ppm to 5,000 ppm
- Up to 10 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

EM500-CO<sub>2</sub>

| Model                    |                                   | EM500-CO <sub>2</sub>  |
|--------------------------|-----------------------------------|--|
| Wireless Transmission    | Technology                        | LoRaWAN®   |
|                          | Frequency                         | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4          |
|                          | Mode                              | OTAA/ABP Class A   |
| Measurement              | Carbon Dioxide (CO <sub>2</sub> ) | ± (30 ppm + 3% of reading), 400 - 5000 ppm (0°C ~ 50°C, 0~85%RH) |
|                          | Temperature                       | ±0.3°C (0°C ~ 70°C), ±0.6°C (-30°C ~ 0°C)                        |
|                          | Humidity                          | ±3%RH (10%RH ~ 90%RH), ±5%RH (below 10%RH and above 90%RH)       |
|                          | Barometric Pressure               | ±1 hPa, 300 ~ 1100 hPa (-40°C ~ 85°C)                            |
| Physical Characteristics | Configuration                     | NFC, USB Type-C Port   |
|                          | Power Supply*                     | Built-in 19000 mAh Can be Used for up to 10 Years                |
|                          | Operation Temperature             | -30°C ~ 70°C   |
|                          | Ingress Protection                | IP65   |
|                          | Dimensions                        | 147.9 × 71 × 69.5 mm (5.8 × 2.8 × 2.7 in)                        |
|                          | Installation                      | Pole, Wall or DIN Rail Mounting                                  |

\* Tested under laboratory conditions and for guideline purposes only.



# Light Sensor

EM500-LGT can accurately monitor changes in the surrounding light intensity.



## Overall Features

- IP67 Rated and UV Resistance
- Measuring Ranges from 0 lux to 100,000 lux
- Fast 1-Sec Response for Accurate Monitoring
- Up to 10 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

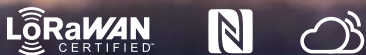
## EM500-LGT

| Model                    |                       | EM500-LGT   |
|--------------------------|-----------------------|---|
| Wireless Transmission    | Technology            | LoRaWAN®  |
|                          | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923   |
|                          | Mode                  | OTAA/ABP Class A  |
| Measurement              | Light                 | 0 ~ 100000 lux  |
|                          | Accuracy              | ±3%   |
| Physical Characteristics | Configuration         | NFC, USB Type-C Port  |
|                          | Power Supply*         | Built-in 19000 mAh Can be Used for up to 10 Years   |
|                          | Operation Temperature | -30°C ~ 60°C  |
|                          | Ingress Protection    | IP67 (Transceiver)/IP65 (Light Sensor)  |
|                          | Dimension             | Transceiver: 105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in)<br>Light Sensor: 64 × 58 × 34 mm (2.5 × 2.3 × 1.3 in)<br>Cable Length: 3 m |
|                          | Installation          | Pole, Wall or DIN Rail Mounting   |

\* Tested under laboratory conditions and for guideline purposes only.

# Pipe Pressure Sensor

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



## Overall Features

- IP67 Rated and UV Resistance
- Measuring Ranges from 0 kPa to 1,600 kPa
- Shock & Vibration & Corrosion Resistant
- ±0.5% FS Measuring Accuracy to Prevent Leakage Danger
- Temperature Compensation for Correcting Temperature Changes
- Up to 10 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

## EM500-PP

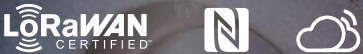
| Model                    |                       | EM500-PP  |
|--------------------------|-----------------------|---|
| Wireless Transmission    | Technology            | LoRaWAN®  |
|                          | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4   |
|                          | Mode                  | OTAA/ABP Class A  |
| Measurement              | Pressure Type         | Gauge Pressure  |
|                          | Range                 | ± 0.5% FS, 0 - 1600 kPa (16 Bar)  |
|                          | Overload              | 150% FS   |
|                          | Long-term Stability   | ± 0.3% FS/year  |
| Physical Characteristics | Configuration         | NFC, USB Type-C Port  |
|                          | Power Supply*         | Built-in 19000 mAh Can be Used for up to 10 Years   |
|                          | Operation Temperature | -30°C ~ 70°C (Transceiver)/-10°C ~ 70°C (Pipe Pressure Sensor)  |
|                          | Ingress Protection    | IP67 (Transceiver)/IP65 (Pipe Pressure Sensor)  |
|                          | Dimension             | Transceiver: 105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in)<br>Pipe Sensor: 67.5 × Φ27 mm (2.7 × Φ1.1 in)<br>Cable Length: 1.5 m |
|                          | Installation          | Pole, Wall or DIN Rail Mounting   |

\* Tested under laboratory conditions and for guideline purposes only.



# Industrial Temperature Sensor

EM500-PT100 equips a highly accurate temperature sensor PT100, platinum resistance temperature detector, to provide temperature measurement from -200°C to 800°C.



## Overall Features

- IP67 Rated and UV Resistance
- Measuring Ranges from -200°C to 800°C
- Support Various Terminal Heads including Straight Tube, Armored, SMT, Threaded and Magnet
- 3-Wire Circuit Design for Stable Connection
- Up to 10 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

EM500-PT100

| Model                    |                       | EM500-PT100  |
|--------------------------|-----------------------|--|
| Wireless Transmission    | Technology            | LoRaWAN®   |
|                          | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4  |
|                          | Mode                  | OTAA/ABP Class A   |
| Measurement              | Connection Type       | 3-wire connection  |
|                          | Range                 | T050: -200°C ~ 50°C, T500: -50°C ~ 500°C<br>T200: -50°C ~ 200°C, T800: -50°C ~ 800°C<br>(Customizable from -200°C ~ 800°C) |
|                          | Accuracy              | ±0.5°C   |
| Physical Characteristics | Configuration         | NFC, USB Type-C Port   |
|                          | Power Supply*         | Built-in 19000 mAh Can be Used for up to 10 Years  |
|                          | Operation Temperature | -30°C ~ 70°C   |
|                          | Ingress Protection    | Transceiver: IP67, Sensor: Differ Based on Temperature Ranges  |
|                          | Dimension             | 105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in)  |
|                          | Probe Type            | Straight Tube (Customizable)   |
|                          | Cable Length          | 1.5 m (Customizable)   |

\* Tested under laboratory conditions and for guideline purposes only.

# Ultrasonic Distance/Level Sensor

EM500-UDL provides highly accurate distance measurement for a variety of applications in harsh environment.



## Overall Features

- IP67 Rated and UV Resistance
- Measurements in Small Containers or Openings
- Measuring Ranges from 0.3m to 10 m
- Range is Customizable for Snow Level Detection Usage
- Support Detection of Corrosive Liquid, Chemicals or Combustibles with Non-Contact Design
- Up to 10 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

EM500-UDL

| Model                    |                       | EM500-UDL   |
|--------------------------|-----------------------|---|
| Wireless Transmission    | Technology            | LoRaWAN®  |
|                          | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4   |
|                          | Mode                  | OTAA/ABP Class A  |
| Measurement              | Range & Accuracy      | W050: 0.3 ~ 5 m, ±1% FS<br>W100: 0.5 ~ 10 m, ±1% FS<br>S050: 0.3 ~ 5 m (Snow Version), ±1% FS<br>C050: 0.25 ~ 5 m, ± (1+0.3%*S) cm, S=Distance<br>C100: 0.25 ~ 8 m, ± (1+0.3%*S) cm, S=Distance |
| Physical Characteristics | Configuration         | NFC, USB Type-C Port  |
|                          | Power Supply*         | Built-in 19000 mAh Can be Used for up to 10 Years   |
|                          | Operation Temperature | W050/W100/S050: -30°C ~ 65°C<br>C050/C100: -15°C ~ 60°C   |
|                          | Ingress Protection    | IP67  |
|                          | Dimension             | 156.1 × 71 × 69.5 mm (6.1 × 2.8 × 2.7 in)   |
|                          | Installation          | Pole, Wall or DIN Rail Mounting   |

\* Tested under laboratory conditions and for guideline purposes only.



# Soil Moisture, Temperature and Electrical Conductivity Sensor

EM500-SMTC/SMT is suitable for soil condition monitoring. With an external probe, it can accurately and instantly detect conditions on soil moisture content, temperature, and electrical conductivity.



## Overall Features

- IP67 Rated and UV Resistance
- Research-Grade Accuracy in Multiple Soil Media
- Rapid Monitoring of Growing Conditions
- Temperature Compensation for Correcting Temperature Changes
- Up to 10 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

### EM500-SMTC

| Model                    |                       | EM500-SMTC  |
|--------------------------|-----------------------|---|
| Wireless Transmission    | Technology            | LoRaWAN®  |
|                          | Frequency             | CN470/ IN865/RU864/EU868/US915/AU915/KR920/AS923- 1&2&3&4   |
|                          | Mode                  | OTAA/ABP Class A  |
| Measurement              | Moisture              | Range: 0% ~ 100% RH<br>Accuracy: ±2%(0~50%), ± 3%(50%~100%)<br>Resolution: 0.01%                    |
|                          | Temperature           | Range: -40°C ~ 80°C<br>Accuracy: ±0.5°C<br>Resolution: 0.1°C  |
|                          | Conductivity          | Range: 0~20000 µs/cm<br>Accuracy: ±3%(0~10000 µs/cm), ±5%(10000~20000 µs/cm)<br>Resolution: 1 µs/cm |
| Physical Characteristics | Configuration         | NFC, USB Type-C Port  |
|                          | Battery Life*         | Built-in 19000 mAh Can be Used for up to 10 Years   |
|                          | Operation Temperature | -30°C to +70°C  |
|                          | Cable Length          | 2m  |
|                          | Ingress Protection    | IP67 (Transceiver)/IP68(Soil Sensor)  |
|                          | Installation          | Pole, wall or DIN Rail Mounting   |

\* Tested under laboratory conditions and for guideline purposes only.

# Submersible Water Level Sensor

EM500-SWL is designed to measure the tank level or open water applications while fully submerged in liquid.



## Overall Features

- IP67 Rated and UV Resistance
- Accurate Detection without Affecting by Foam, Wind, or Rain
- Support Water Detection & Customizable for Oil and Other Non-Corrosive Media
- Measuring Range is Customizable up to 200 m
- ±0.5% FS Measuring Accuracy for Better Detection
- Up to 10 Years Battery Life for Easy Maintenance
- LoRaWAN® Wireless Deployment with Low Power Consumption

### EM500-SWL

| Model                    |                       | EM500-SWL  |
|--------------------------|-----------------------|--|
| Wireless Transmission    | Technology            | LoRaWAN®   |
|                          | Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4  |
|                          | Mode                  | OTAA/ABP Class A   |
| Measurement              | Pressure Type         | Gauge Pressure   |
|                          | Range                 | ± 0.5% FS, (0 ~ 3m/5m/10m (H2O))<br>(Customizable up to 200 m and for Other Liquids)   |
|                          | Long-term Stability   | ≤ ± 0.3% FS/Year   |
| Physical Characteristics | Configuration         | NFC, USB Type-C Port   |
|                          | Power Supply*         | Built-in 19000 mAh Can be Used for up to 10 Years  |
|                          | Operation Temperature | -30°C ~ 70°C (Transceiver)<br>-10°C ~ 70°C (Level Sensor)  |
|                          | Ingress Protection    | IP67 (Transceiver)/IP68 (Level Sensor)   |
|                          | Dimension             | Transceiver: 105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in)<br>Level Sensor: 140 × φ28 mm (5.5 × φ1.1 in)<br>Cable Length: At Least 1 ~ 1.5 m Longer than Measuring Range |
|                          | Installation          | Pole, wall or DIN Rail Mounting  |

\* Tested under laboratory conditions and for guideline purposes only.



# X1 Sensing Camera

X1 builds a connection between objects, people, and scenarios through images to realize easy upgrades or enable unlimited sensing insights for more possibilities.



## Overall Features

- Inspire Sensing Insights through Images
- 2MP High-Definition Images for Valuable Information
- Easy-to-Get Wireless Deployment
- Long Service Life with Low Power Consumption
- Multi-Object Catching & Multi-Capturing Modes
- Compact Design & Powerful Camera Capacity
- Collaborate with AIoT Sensing Platform
- Well Compatible with the Third-Party Platforms

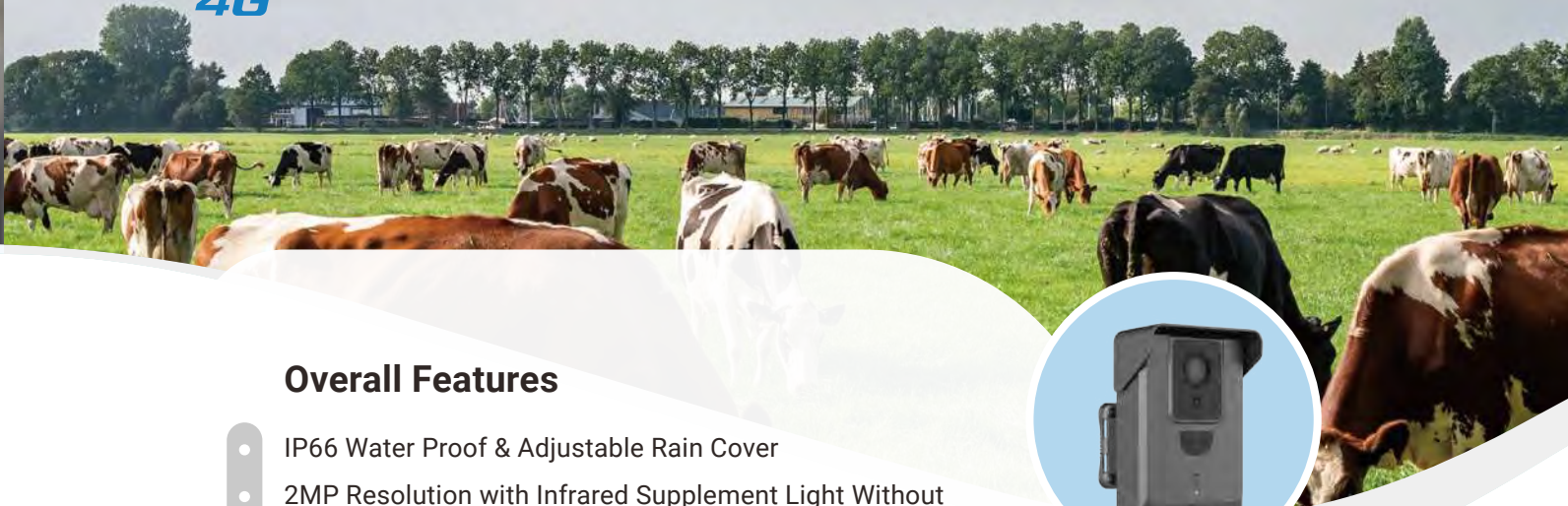
SC541

| Model                    |                       | X1   |
|--------------------------|-----------------------|--|
| Wireless Transmission    | Wi-Fi                 | IEEE 802.11 b/g/n , 2.4GHz (AP & STA)                                |
|                          | Protocol              | MQTT   |
| Measurement              | Resolution            | 1920 x 1080 Pixels   |
|                          | Aperture              | F2.4   |
|                          | Focal Length          | 4.8 mm   |
|                          | Field of View         | 77°  |
|                          | Capture Mode          | Scheduled Capture(Interval & Timed) /Alarm-in Capture/Button Capture |
| Physical Characteristics | Battery Life*         | Up to 2 Years (3 Captures per Day, Supplement Light Off, 25°C)       |
|                          | Operation Temperature | 0°C~50°C   |
|                          | Ingress Protection    | IP30   |
|                          | Dimension             | 62 x 62 x 25 mm  |
|                          | Installation          | Universal Camera Bracket Mounting                                    |

\*DC and PoE supply cannot be used at the same time.

# X5 Sensing Camera

X5 captures photos when there is an trespass based on radar or PIR, and alarming immediately.



## Overall Features

- IP66 Water Proof & Adjustable Rain Cover
- 2MP Resolution with Infrared Supplement Light Without Disturbance
- Wireless Deployment Based on 4G Transmission & WiFi Configuration
- Active Based on Time, DI, PIR, Radar, Temperature or Noise
- Power Supply via Battery, Type-C and Solar Power
- Low Power Consumption with Hibernate Mode
- Collaborate with AIoT Sensing Platform
- Support GPS for Various Applications

SC311

| Model                 |                       | X5   |
|-----------------------|-----------------------|--|
| Wireless Transmission | 4G                    | NA: B2/ B4/ B5/ B12/ B13/ B25/ B26<br>EU: B1/ B3/ B7/ B8/ B20/ B28<br>AU: B1/ B2/ B3/ B4/ B5/ B7/ B8/ B28/ B66 |
|                       | SIM Card              | 1× Mini-2FF SIM Slot   |
| Connectivity          | Resolution            | 1920 x 1080 Pixels   |
|                       | Focal Length          | 2.8 mm   |
|                       | Field of View         | >100°  |
|                       | Trigger Capture       | PIR Awake; Radar Awake; Time Awake; DI Awake; Temp. Awake; Noise Awake.  |
|                       | Configuration         | Wi-Fi 802.11b/g/n 2.4GHz   |
| Others                | Power Source          | Solar Panel with Chargeable Battery/Type-C   |
|                       | Operation Temperature | -20°C ~60°C  |
|                       | Ingress Protection    | IP66   |
|                       | Installation          | Wall or Pole Mounting  |

\*DC and PoE supply cannot be used at the same time.



# 5G Dongle

UF31 is a 5G-to-wire device which offers a 4G to 5G migration solution for mobility, embedded system, smart buildings and etc.



## Overall Features

- Ultra-Fast 4G/5G Connectivity with SA & NSA Modes
- Plug & Play Networking with Pint-Sized Design
- Support Power & Networking Supply via USB Type-C Port
- Higher Performance with 2 GHz Quad-Core Processor
- Industrial-Grade Design with Heavy Cast Aluminum Casing
- Support Devicehub Management for Easy Maintenance

UF31

| Model        |                       | UF31  |
|--------------|-----------------------|---|
| Hardware     | Processor             | Quad-core ARM Cortex-A55, 2 GHz   |
|              | Memory                | 1 GB LPDDR4X RAM and 1 GB NAND Flash  |
|              | Button                | 1 × Reset Button (Internal)   |
|              | GNSS                  | 1 × 50 Ω SMA Connector  |
| Connectivity | Cellular Interface    | 5G NR SA&NSA/4G LTE/WCDMA   |
|              | Ethernet Interface    | 1 × 10/100/1000 Mbps LAN Port   |
| Others       | Network Protocols     | IPv4/IPv6, TCP, UDP, DHCPv4/DHCPv6, HTTP, HTTPS, DNS, ARP, Telnet, SSH, etc.                    |
|              | Power Input           | ① 5-24 VDC, with Surge-Protection and Reverse Polarity Protection<br>② 5V/3A by USB Type-C Port |
|              | Ingress Protection    | IP30  |
|              | Operating Temperature | -20°C ~ +50°C(-4°F to +122°F)   |
|              | Dimension             | 90 x 72 x 15 mm (3.54 x 2.83 x 0.59 in)   |
|              | Installation          | Desktop, Wall Mounting, DIN Rail Mounting   |

\*DC and PoE supply cannot be used at the same time.

# 5G CPE

UF51 features aesthetic design and outstanding performance with IP67 rating to deliver fast 5G connectivity, higher bandwidth, and low latency to more business.



## Overall Features

- IP67 Rated and UV Resistance
- Ultra-Fast 5G Connectivity with SA & NSA Modes
- Dual Band Wi-Fi 6 with up to 3.6 Gbps Download Speed
- Equipped with Qualcomm Quad-Core Processor
- Aesthetic Design with Flexible Installation Ways
- Support Devicehub Management for Easy Maintenance

UF51

| Model        |                            | UF51   |
|--------------|----------------------------|--|
| Hardware     | Processor                  | Quad-core ARM Cortex-A55, 2 GHz  |
|              | Memory                     | 1 GB LPDDR4X RAM and 1 GB NAND Flash   |
| Connectivity | Cellular Interface         | 5G NR SA&NSA/4G LTE/WCDMA (1 × Micro-3FF SIM Slot)   |
|              | Ethernet Interface         | 1 × 10/100/1000/ Mbps (LAN2)<br>1 × 10/100/1000/2500 Mbps (LAN1/WAN)   |
|              | Wi-Fi Interface (Optional) | IEEE 802.11b/g/n/ax 4 x 4 MIMO, 2.4 GHz<br>IEEE 802.11a/n/ac/ax 4 x 4 MIMO, 5 GHz  |
|              | Serial Interface           | 1 × RS485 (RS232 Hardware Optional)  |
|              | DI/DO                      | 1 × DI+ 1 × DO, Galvanic Isolation   |
| Others       | Network Protocols          | IPv4/IPv6, TCP, UDP, DHCP, HTTP, HTTPS, ARP, NTP, DNS, ARP, SSH, etc.  |
|              | Ingress Protection         | IP67   |
|              | Dimension                  | No Waterproof Connector: ϕ105 x 110 x 187 mm (ϕ4.13 x 4.33 x 7.36 in)<br>With Waterproof Connector: ϕ105 x 110 x 218 mm (ϕ4.13 x 4.33 x 8.58 in) |
|              | Installation               | Desktop, Pole Mounting, Wall Mounting, Bottom Screw Mounting   |

\*DC and PoE supply cannot be used at the same time.



# 5G AIoT 4X/12X Pro Bullet Plus Network Camera

Milesight 5G AIoT 4X/12X Pro Bullet Plus Network Camera provides a fresh experience of UHD image quality, low latency and fast transmission speed to some scenarios where wiring is inconvenient.



## Overall Features

- Built-in LoRaWAN® Gateway for AIoT Insights
- Embedded Network Server for Easy Deployment
- Better AI Video Analytics, Face Detection, People Counting via AI Deep Learning
- 5G Wireless Communication with Higher Bandwidth, Higher Mobility, Higher Scalability, Lower Latency

## Camera

| Model                    |                      | 5G AIoT 4X Pro Bullet Plus Network Camera  | 5G AIoT 12X Pro Bullet Plus Network Camera |
|--------------------------|----------------------|--|--|
| Camera                   | Megapixel            | 2MP  | 4K   |
|                          | Image Sensor         | 1/2.8" Progressive Scan CMOS   | 1/1.8" Progressive Scan CMOS               |
|                          | Lens                 | 5.3~64mm, 12X Optical Zoom   | 8~32mm, 4X Optical Zoom                    |
|                          | Field of View        | H61°~H5°/D69°~D5°/V36°~V2°   | H44°~H13°/D51°~D15°/V25°~V7°               |
|                          | Max.Image Resolution | 1920x1080  | 3840x2160                                  |
| LoRaWAN®                 | Chipset              | SX1302, 8 Channels (Half/Full-duplex)  |  |
|                          | Antenna              | 2 x Internal Antennas + 2 x 50 Ω N-Female External Connectors  |  |
|                          | Frequency            | CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4  |  |
|                          | Protocol             | V1.0 Class A/Class B/Class C and V1.0.2 Class A/Class B/Class C  |  |
| Connectivity             | Cellular             | Support 5G/4G/3G ( 1 x Nano SIM Slot )   |  |
|                          | Ethernet             | 1*RJ45 10M/100M Ethernet Port  |  |
|                          | Audio I/O            | 1/1  |  |
|                          | Alarm I/O            | 1/1  |  |
| Physical Characteristics | Power Supply         | PoE (802.3at) / DC 12V±10%   |  |
|                          | Ingress Protection   | IP67(Only for Camera Body)   |  |
|                          | Dimension            | 320 x 134 x 126 mm (12.60 x 5.28 x 4.96 in)<br>320 x 134 x 292 mm (12.60 x 5.28 x 11.50 in) (With 5G Antennas) |  |

# 5G Industrial Router

The Milesight Ultra-Series Industrial Cellular Router UR75 delivers 5G connectivity for wireless networking solutions



## Overall Features

- Ultra-Fast 5G Connectivity with Superb Download Speed up to 4.67 Gbps
- Strong Wi-Fi Performance with up to 1.8 Gbps Download Speed
- Equipped with Quad-Core CPU Arm Cortex-A55 for Faster Data Transmission
- Advanced OpenCPU System for More Simplified Yet Efficient Frame Work
- Support Transmission of Data via RS232/RS485/ DI/DO
- Support GPS & Wi-Fi for Various Applications

## UR75

| Model        |                            | UR75  |
|--------------|----------------------------|---|
| Hardware     | Processor                  | Quad-core ARM Cortex-A55, 2 GHz   |
|              | Memory                     | 1 GB DDR4x RAM and 1 GB NAND Flash  |
|              | Extendable Storage         | 1 x M.2 NVMe SSD Interface  |
|              | Button                     | 1 x Reset Button  |
|              | GNSS                       | 1 x 50 Ω SMA Connector  |
| Connectivity | Cellular Interface         | 5G NR SA & NSA/4G LTE/WCDMA   |
|              | Ethernet Interface         | 1 x WAN + 4 x LAN ( 5 x 10/100/1000 Mbps)   |
|              | Wi-Fi Interface (Optional) | IEEE 802.11b/g/n/ax 2 x 2 MIMO, 2.4 GHz<br>IEEE 802.11a/n/ac/ax 2 x 2 MIMO, 5 GHz |
|              | Serial Port                | 1 x RS232 + 1 x RS485   |
|              | DI/DO                      | 1 x DI + 1 x DO   |
|              | Ingress Protection         | IP30  |
| Others       | Dimension                  | 135 x 115 x 36.4 mm (5.31 x 4.53 x 1.43 in)                                       |
|              | Installation               | Desktop, Wall or DIN Rail Mounting  |



# Modbus to LoRaWAN® IoT Controller

UC100 is used for remote control and data acquisition from Modbus RS485 devices via LoRaWAN® networks.



## Overall Features

- Modbus RS485 to LoRaWAN® Transmission
- Data Collection up to 16 Registers for Various Usage
- Compact Size with Embedded LoRa® Antenna
- Support Autonomous Operation even when the Network is Unavailable
- Built-in LED Indicator for Status Indication
- USB Type-C Port for Local Configuration & LoRa® Downlink for Remote Configuration
- Milesight D2D with Communication Latency to <1 Sec

UC100

| Model                    |                    | UC100  |
|--------------------------|--------------------|--|
| Wireless Transmission    | Technology         | LoRaWAN®, Milesight D2D                                  |
|                          | Frequency          | CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4  |
|                          | Mode               | OTAA/ABP Class C   |
|                          | Advanced Feature   | Milesight D2D Controller/Agent                           |
| Data Interfaces          | Connector          | 3.5 mm Terminal Block Connector                          |
|                          | Port               | 1 × RS485  |
|                          | Protocol           | Modbus RTU, Support Reading 16 Register Values           |
| Physical Characteristics | Configuration      | USB Type-C Port  |
|                          | Power Supply       | ① 5 ~ 24 VDC by Terminal Block<br>② 5 VDC by Type-C Port |
|                          | Power Consumption  | < 0.5 W  |
|                          | Ingress Protection | IP30   |
|                          | Dimension          | 70 × 45 × 13 mm (2.75 × 1.77 × 0.51 in)                  |
|                          | Installation       | Desktop, Wall Mounting                                   |

# LoRaWAN®/4G IoT Controller

UC300 is designed to connect devices on fields via rich industrial interfaces and backhaul connectivity.



## Overall Features

- Support LoRaWAN® & 4G LTE Version
- Integrated Rich Interfaces:  
DI/DO/AI/RS232/RS485/PT100/RTD Input
- Data Collection up to 16 Registers for Various Usage
- Autonomous Operation when the Network is Unavailable
- Industrial-Grade Design with Heavy Cast Aluminum Casing
- Milesight D2D with Communication Latency to <1 Sec
- Bridge Modbus Data between Serial and Ethernet Network

UC300

| Model                     |                    | UC300   |
|---------------------------|--------------------|---|
| LoRaWAN® Model (Option A) | Technology         | LoRaWAN®, Milesight D2D                                     |
|                           | Frequency          | CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4     |
|                           | Mode               | OTAA/ABP Class C  |
|                           | Advanced Feature   | Milesight D2D Controller/Agent                              |
| Cellular Model (Option B) | Network            | 4G LTE/3G/2G  |
|                           | Application Mode   | TCP/UDP/MQTT/AWS/Milesight IoT Cloud/SMS                    |
| Data Interfaces           | Interface Type     | 3.5 mm Terminal Block                                       |
|                           | IO                 | 4 × DI + 2 × DO   |
|                           | Serial Port        | 1 × RS232(Transparent) + 1 × RS485(Transparent, Modbus RTU) |
|                           | Analog Input       | 2 × 4 ~ 20 mA, 2 × 0 ~ 10 V, 2 × PT100 RTD Input            |
| Physical Characteristics  | Configuration Port | USB Type-C port   |
|                           | Built-in           | Watchdog, Timer   |
|                           | Power Supply       | 5 ~ 24 VDC  |
|                           | Ingress Protection | IP30  |
|                           | Dimension          | 93 × 70 × 22 mm (3.66 × 2.76 × 0.87 in)                     |
|                           | Installation       | Desktop, Wall Mounting, DIN Rail Mounting                   |



# Multi-Interface LoRaWAN® Controller

UC50x is fully integrated and battery-powered with multiple communication interfaces.



### Overall Features

- IP67 Rated and UV Resistance Enclosure with M12 Connectors
- Integrated Rich Interfaces: RS232, RS485, GPIO, Analog Input and SDI-12
- Solar Powered and Built-In Batteries for Flexible
- Power Supply Options
- Support Configuration via NFC or Wired USB Type-C Port
- Bridge Modbus Data between Serial and Ethernet Network via LoRaWAN®

UC50x

| Model                    |                       | UC501  | UC502  |
|--------------------------|-----------------------|--|--|
| Wireless Transmission    | Technology            | LoRaWAN®   |  |
|                          | Antenna               | Internal Antenna or External Antenna (Hardware Optional)<br>External Antenna (EA) Version: 1 × 50 Ω SMA Female Connector |  |
|                          | Frequency             | CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4  |  |
|                          | Mode                  | OTAA/ABP Class A, Class C  | OTAA/ABP Class A                                     |
| Data Interfaces          | Interface Type        | M12 A-Coded Male   |  |
|                          | IO Port               | 2 × GPIO   |  |
|                          | Serial Ports          | 1 × RS232 or RS485 (Switchable) (Transparent/Modbus RTU)   |  |
|                          | Analog Input          | 2 × 4 ~ 20 mA (or 0 ~ 10 V) (Switchable)   |  |
|                          | SDI-12                | 1 × SDI-12 (V1.4)  |  |
|                          | Power Output          | 2 × 3.3 V@Max 100mA, 2 × 5/9/12 V@Max 100 mA (Switchable)  |  |
| Physical Characteristics | Configuration         | NFC, USB Type-C Port   |  |
|                          | Power Supply          | ① 2 × Chargeable Batteries<br>② Solar Powered (6 V, 1.7 W)<br>③ 5 ~ 24 VDC   | ① 3 × 9000 mAh Replaceable Batteries<br>② 5 ~ 24 VDC |
|                          | Operation Temperature | -20°C ~ +60°C  |  |
|                          | Ingress Protection    | IP67   |  |
|                          | Dimension             | 116 × 116 × 45.5 mm (4.56 × 4.56 × 1.79 in)  |  |
|                          | Installation          | Wall or Pole Mounting  |  |

# LoRaWAN® Solenoid Valve Controller

UC51x provides access capabilities for common irrigation vales with embedded pulse counter to monitor flow precisely.



### Overall Features

- IP67 Rated and UV Resistance Enclosure with M12 Connectors
- Water Flow Monitoring with Programmable Unit per Pulse
- Solar Powered and Built-in Batteries for Flexible Power
- Supply Options
- Support Configuration via NFC or Wired USB Type-C Port

UC51x

| Model                    |                       | UC511  | UC512                              |
|--------------------------|-----------------------|--|------------------------------------|
| Wireless Transmission    | Technology            | LoRaWAN®   |                                    |
|                          | Antenna               | Internal Antenna or External Antenna (Hardware Optional)<br>External Antenna (EA) Version: 1 × 50 Ω SMA Female Connector |                                    |
|                          | Frequency             | CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4  |                                    |
|                          | Mode                  | OTAA/ABP Class A, Class B, Class C, Class C to B   | OTAA/ABP Class A, Class B          |
| Data Interfaces          | Interface Type        | M12 A-Coded Male   |                                    |
|                          | Solenoid Interface    | 2 × Solenoid Interfaces, 5/9/12 VDC Switchable   |                                    |
|                          | GPIO Interface        | 2 × GPIO Interfaces (Digital Input, Pulse Counter)   |                                    |
| Physical Characteristics | Configuration         | NFC, USB Type-C Port   |                                    |
|                          | Power Supply          | ① Solar Powered (6V, 1.7W)<br>② 2 × Chargeable Batteries<br>③ 5-24 VDC (EA Version Only)                                 | 3 × 9000 mAh Replaceable Batteries |
|                          | Operation Temperature | -20°C to +60°C   |                                    |
|                          | Ingress Protection    | IP67   |                                    |
|                          | Dimension             | 116 × 116 × 45.5 mm (4.56 × 4.56 × 1.79 in)  |                                    |
|                          | Installation          | Wall or Pole Mounting  |                                    |



# Mini Series Industrial Router

UR41 is a compact size 4G router for IoT applications with low-cost and high efficiency.

4G



## Overall Features

- Secure 4G Connectivity in a Compact Design
- Power Consumption as Low as 60mA in Idle Mode
- Protect Power Sources by Dropping Power Consumption to a Target of 6.3mA in Standby Mode
- Fast Network Response from Standby Mode Triggered by Timers, DI, Cellular, Ethernet or Serial Port
- Remote and Bulk Management for Easy Maintenance
- Support GPS & Multiple Interfaces for Various Applications

UR41

| Model           |                    | UR41   |
|-----------------|--------------------|--|
| Hardware System | Processor          | ARM Cortex-A7, 528 MHz   |
|                 | Memory             | 128 MB DDR3 RAM and 128MB Flash  |
| Connectivity    | Cellular Interface | 4G LTE (CAT 4)/WCDMA/GSM (1 x Nano SIM Slot)   |
|                 | Ethernet Interface | 1 x 10/100 Mbps LAN Port   |
|                 | GNSS               | 1 x 50 Ω SMA Connector (Center PIN: SMA Female), GPS/GLONASS/Beidou/Galileo/QZSS   |
|                 | Serial Interface   | 1 x RS232 or 1 x RS485 (Software Switchable)   |
|                 | DI/DO              | 1 x DI + 1 x DO  |
| Others          | Network Protocols  | IPv4/IPv6, PPP, PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, RIPv1/v2, OSPF, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, QOS, SNTP, Telnet, VLAN, SSH, etc. |
|                 | Power Input        | ① 5-24 VDC, with Surge-Protection and Reverse Polarity Protection<br>② 5V/1A by USB Type-C Port  |
|                 | Ingress Protection | IP30   |
|                 | Dimension          | 70 x 55 x 22 mm (2.76 x 2.17 x 0.87 in) ( Antenna Excluded)  |
|                 | Installation       | Desktop, Wall Mounting   |

# Lite Series Industrial Router

UR32L is rugged and secured 4G router for IoT applications with low-cost and high efficiency.

4G



## Overall Features

- Industrial-Grade Design with Rugged Metal Casting
- Equipped with NXP Industrial Grade Processor
- Support Operating Temperature from -40°C to 70°C
- PoE-PSE for Less Wire Connection Option
- Reliable Connectivity with 4G/Ethernet Failover
- Support Milesight VPN & Devicehub Management for Easy Maintenance

UR32L

| Model           |                    | UR32L   |
|-----------------|--------------------|---|
| Hardware System | Processor          | ARM Cortex-A7, 528 MHz  |
|                 | Memory             | 128 MB DDR3 RAM and 128MB Flash   |
|                 | Button             | 1 x Reset Button  |
| Connectivity    | Cellular Interface | 4G LTE (CAT 4)/WCDMA/GSM (1 x Mini SIM Slot)  |
|                 | Ethernet Interface | 1 x WAN + 1 x LAN or 2 x LAN ( 2 x 10/100 Mbps)   |
| Others          | Network Protocols  | IPv4/IPv6, PPP, PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, RIPv1/v2, OSPF, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, QOS, SNTP, Telnet, VLAN, SSH, TR069, MQTT, etc. |
|                 | Power Consumption  | Typical 1.8 W, Max 2.2 W (In Non-PoE Mode)  |
|                 | Ingress Protection | IP30  |
|                 | Dimension          | 108 x 90 x 26 mm (4.25 x 3.54 x 1.02 in)  |
|                 | Installation       | Desktop, Wall or DIN Rail Mounting  |



# Pro Series Industrial Router

UR32/UR35 secures reliable cellular-to-ethernet connectivity for IoT applications, such as kiosk, self-service terminals and process automation equipment.



## Overall Features

- Support Modbus RTU/TCP & Python Programming
- Industrial-Grade Design with Rugged Metal Casting
- Equipped with NXP Industrial Grade Processor
- Support Operating Temperature from -40°C to 70°C
- PoE-PSE for Less Wire Connection Option
- Reliable Connectivity with 4G/Ethernet/Wi-Fi Failover & Dual SIM Backup
- Support Milesight VPN & Devicehub Management for Easy Maintenance
- Verizon Open Development Certification (UR32)

UR32  
UR35

| Model           |                            | UR32  | UR35  |
|-----------------|----------------------------|---|---|
| Hardware System | Processor                  | ARM Cortex-A7, 528 MHz  |   |
|                 | Memory                     | 128 MB DDR3 RAM and 128MB Flash   |   |
|                 | Extendable Storage         | 1 x Micro SD Slot   |   |
|                 | Button                     | 1 x Reset Button  |   |
| Connectivity    | Cellular Interface         | 4G LTE (CAT 4)/WCDMA/GSM (2 x Mini SIM Slots)   |   |
|                 | Ethernet Interface         | 2 x 10/100 Mbps (1 x WAN + 1 x LAN or 2 x LAN)  | 5 x 10/100 Mbps (1 x WAN + 4 x LAN)             |
|                 | Wi-Fi Interface (Optional) | IEEE 802.11 b/g/n, 2.4GHz   |   |
|                 | Serial Interface           | 1 x RS232( 1 x RS485 Optional)  | 1 x RS232 + 1 x RS485 (2 x RS485 Optional)      |
|                 | DI/DO                      | 1 x DI + 1 x DO   |   |
|                 | GPS (Optional)             | 1 x 50 Ω SMA Connector  |   |
| Others          | Network Protocols          | IPv4/IPv6, PPP, PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, RIPv1/v2, OSPF, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, QoS, SNTP, Telnet, VLAN, SSH, MQTT, TR069, etc. |   |
|                 | Power Input                | 9-48 VDC, 2-pin 5.08 mm Terminal Block  |   |
|                 | Power Output               | 2 x 802.3 af/at PoE PSE on LAN Ports (Optional)   | 4 x 802.3 af/at PoE PSE on LAN Ports (Optional) |
|                 | Ingress Protection         | IP30  |   |
|                 | Dimension                  | 108 x 90 x 26 mm (4.25 x 3.54 x 1.02 in)  | 135 x 103 x 45 mm (5.31 x 4.06 x 1.77 in)       |
|                 | Installation               | Desktop, Wall or DIN Rail Mounting  |   |

# Ultra Series Industrial Router 5G

Milesight Ultra-Series Industrial Cellular Router UR75 delivers 5G connectivity for wireless networking solutions.



## Overall Features

- Ultra-Fast 5G Connectivity with Superb Download Speed up to 4.67 Gbps
- Strong Wi-Fi Performance with up to 1.8 Gbps Download Speed
- Equipped with Quad-Core CPU Arm Cortex-A55 for Faster Data Transmission
- Advanced OpenCPU System for More Simplified Yet Efficient Frame Work
- Support Transmission of Data via RS232/RS485/ DI/DO
- Support GPS & Wi-Fi for Various Applications

\*For more specification, please refer to Page 44.

UR75



# Milesight PoE Switch

Milesight PoE Switch transmits data and power simultaneously, which is suitable for installation environment where power outlet is limited.



## Overall Features

- Multiple Options for Ports from 4, 8, 16 to Maximum 24 Ports
- Up to 14.8 Gbps Switching Capacity with Full Link-Speed Forwarding
- Maximum 400W Power Budget with 4 Kv Surge Protection
- Allow Different Camera Variations to be Configured

# PoE Switch

| Model              | MS-S0204-EL   | MS-S0208-EL                   | MS-S0208-GL             | MS-S0216-GL                    | MS-S0416-GF          | MS-S0224-GL                    | MS-S0424-GF         |
|--------------------|---|-------------------------------|-------------------------|--------------------------------|----------------------|--------------------------------|---------------------|
| Ports              | 8X10/100Mbps PoE Ports (RJ45)                         | 8X10/100Mbps PoE Ports (RJ45) |                         | 16X10/100Mbps PoE Ports (RJ45) |                      | 24X10/100Mbps PoE Ports (RJ45) |                     |
|                    | 2X100Mbps Uplink Ports                                |                               | 2X1000Mbps Uplink Ports |                                |                      |                                |                     |
|                    | -   | -                             | -                       | -                              | 2X1000Mbps SFP Ports | -                              | 2X1000Mbps SF Ports |
| Switching Capacity | 1.6Gbps   | 2Gbps                         | 11.8Gbps                | 14.8Gbps                       |                      |                                |                     |
|                    | Non-blocking  |                               |                         |                                |                      |                                |                     |
| Power              | Built-in Switching Power Supply, AC 100~240V, 50-60Hz |                               |                         |                                |                      |                                |                     |
| Supply             | 1A  | 2.2A                          |                         | 2.5A                           | 3A                   | 5A                             |                     |
| PoE Standard       | IEEE802.3af/at  |                               |                         |                                |                      |                                |                     |

# IoT Weather Station

WTS305/WTS50x is an ultimate all-in-one weather monitoring system with WTS Sensors, WTS Hub, and solar panel for various atmospheric conditions, including wind speed, wind direction, temperature, humidity, barometric pressure and rainfall.



## Overall Features

- IP65 Rated for WTS Sensors & IP67 Rated for WTS Hub
- Reliable Measurement for Standard Version (WTS305)
- Research-Grade Measurement for Professional Version (WTS50x)
- Solar-Powered & Chargeable Batteries Backup for Better Operation
- Support Normal Work for 7 Days without Sunlight
- Support Retransmission for Reliable Communication
- Store Capacity with 19, 000 Sets of Historical Data Records



# WTS305 WTS50x

| Model                    |                      | WTS305  |  | WTS505                                 |                              | WTS506                                 |  |
|--------------------------|----------------------|---|--|--|------------------------------|--|--|
| WTS Sensors              | Temperature          | ±0.3°C, (-40°C ~ 85°C)  |  |  |                              |  |  |
|                          | Humidity             | ±5% RH (0% ~ 100%)  |  |  | ±3% RH (0% ~ 100%)           |  |  |
|                          | Wind Direction       | ±3° (0° ~ 360°), 1°   |  |  | 0° ~ 360°, 0.1°              |  |  |
|                          | Wind Speed           | ± (0.5 + 0.02 V) m/s (0 ~ 60m/s)                                      |  |  | ±0.3 m/s or ±3% (0 ~ 60 m/s) |  |  |
|                          | Barometric Pressure  | ±1 hPa (500 ~ 1100 hPa)   |  |  | ±0.5 hPa (500 ~ 1100 hPa)    |  |  |
|                          | Rainfall             | -   |  | -                                      |                              | ±0.5 mm (0~10 mm)                      |  |
| WTS Hub                  | LoRaWAN® Frequency   | CN470/RU864/IN865/EU868/US915/AU915/KR920/AS923-1&2&3&4               |  |  |                              |  |  |
|                          | LoRaWAN® Work Mode   | OTAA/ABP Class A  |  |  |                              |  |  |
| Solar Panel              | Open-Circuit Voltage | 18 V (± 0.3 V)  |  |  |                              |  |  |
|                          | Rated Voltage        | 15 V (±0.3 V)   |  | Rated Current                          |                              | 1 A (±5%)                              |  |
|                          | Maximum Power        | 15 W (±5%)  |  | Minimal Power                          |                              | 14.5 W (±5%)                           |  |
| Physical Characteristics | Configuration        | NFC, USB Type-C Port  |  |  |                              |  |  |
|                          | Power Supply         | Solar Powered (15 W, 1 A) & 2 × 2550 mAh Replaceable Batteries Backup |  |  |                              |  |  |
|                          | Ingress Protection   | IP65 (WTS Sensors), IP67 (WTS Hub)                                    |  |  |                              |  |  |
|                          | Dimension            | φ140 x 248 x φ50 mm<br>(WTS305 Sensor)                                |  | φ160 x 252 x φ73 mm<br>(WTS505 Sensor) |                              | φ160 x 263 x φ73 mm<br>(WTS506 Sensor) |  |
|                          |                      | 116 x 116 x 45.5 mm (WTS Hub)<br>343 x 283 x 16.5 mm (Solar Panel)    |  |  |                              |  |  |
|                          | Installation         | Pole Mounting (WTS Sensor, Solar Panel)<br>Screw Mounting (WTS Hub)   |  |  |                              |  |  |



# Milesight IoT Product Naming Covention

## Occupancy & People Counting Sensor

### AI Workplace Occupancy Sensor

VS 1 2 1 – 915M

① ② ③ ④

- ① Occupancy & People Counting Sensor
  - VS121
  - VS133
  - VS330
- ② Detection Type
  - 1: People Counting
  - 3: Continuous Perception
- ③ Detection Technology Type
  - 2: RGB
  - 3: ToF
- ④ LoRaWAN® Module

## LoRaWAN® Gas Sensor

### LoRaWAN® Gas Sensor

GS 1 01 – 915M

① ② ③

- ① Gas Sensor
  - GS101
  - GS301
- ② Sub-Series
- ③ LoRaWAN® Module

## IoT Weather Station

### IoT Weather Station

WTS 3 0 5 – 915M

① ② ③ ④

- ① Weather Station
  - WTS305
  - WTS505
  - WTS506
- ② Sub-Series
  - 3: Standard Version
  - 5: Professional Version
- ③ Number of Sensors
- ④ LoRaWAN® Module

## Display Screen

### LoRaWAN® IoT Display

DS 7 6 10 – 915M

① ② ③ ④

- ① Display Screen
- ② Screen Type
  - 7: Android Electronic Screen
  - 3: Three-Pigment E-ink Screen
- ③ Screen Size
  - 10: 10.1 Inch
  - 04: 4.2 Inch
- ④ LoRaWAN® Module

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

UR32 - L 04 EU - G - P - W - RS 485

① ② ③ ④ ⑤ ⑥

- ① Model Name
  - UR41
  - UR32L
  - UR32
  - UR35
  - UR75
  - UF51
  - UC300
- ② Cellular Network Type
  - L: 4G LTE
  - 5: 5G
- ③ Modem Manufacturer & Model
- ④ Operating Region
  - EU: EMEA/South Korea/Thailand/India
  - AU: Latin America/Australia/New Zealand
  - AF: North America FirstNet
  - GL: Global
- ⑤ Function (for routers only)
  - G: GPS
  - P: PoE
  - W: Wi-Fi
- ⑥ RS485 (for UR32 only)
  - Add RS-485 Serial Interface

## LoRaWAN® Gateway

UG65 - L 04 EU - 915M - EA

① ② ③ ④ ⑤ ⑥

- ① Model Name
  - UG63
  - UG56
  - UG65
  - UG67
- ② Cellular Network Type
  - L: 4G LTE
- ③ Modem Manufacturer & Model
- ④ Operating Region
  - EU: EMEA/South Korea/Thailand/India
  - AU: Latin America/Australia/New Zealand
  - AF: North America FirstNet
- ⑤ LoRaWAN® Module
  - 470M: CN470
  - 868M: RU864/IN865/EU868
  - 915M: US915/AU915/KR920/AS923
- ⑥ External Antenna

## LoRaWAN® Sensor

EM500 – UDL 915M

① ② ③

- ① Model Name
  - AM103
  - AM103L
  - AM107
  - AM307
  - AM308
  - AM319
  - EM300
  - EM310
  - EM320
  - EM400
  - EM500
  - TS101
- ② Sensor Type
  - UDL: Ultrasonic Distance/Level Sensor
  - SMTC/SMT: Soil Sensor
  - SWL: Submersible Water Level Sensor
  - LGT: Light Sensor
  - PT100: PT100 Temperature Sensor
  - CO<sub>2</sub>: CO<sub>2</sub> Sensor
  - PP: Pipe Pressure Sensor
  - TH: Temperature & Humidity Sensor
  - MCS: Magnetic Contact Switch Sensor
  - SLD: Spot Leak Detection Sensor
  - ZLD: Zone Leak Detection Sensor
  - DI: Pulse Counter
  - TLD: ToF Laser Distance
  - MUD: Multifunctional Ultrasonic Distance
- ③ LoRaWAN® Module
  - 470M: CN470
  - 868M: RU864/IN865/EU868
  - 915M: US915/AU915/KR920/AS923

## LoRaWAN® Controller

UC511– DI - 915M -EA

① ② ③ ④

- ① Model Name
  - UC100
  - UC300
  - UC501
  - UC502
  - UC511
  - UC512
- ② Interface (For UC51x Only)
  - Digital Input (Pulse Counter)
- ③ LoRaWAN® Module
  - 470M: CN470
  - 868M: RU864/IN865/EU868
  - 915M: US915/AU915/KR920/AS923
- ④ External Antenna



CoWork Series

LoRaWAN® Smart Button

WS 10 1 – 915M

- ①
- ②
- ③
- ① Workplace Sensor
- ② Number of Buttons
- ③ LoRaWAN® Module

LoRaWAN® Smart Scene Panel

WS 1 5 6 – 915M

- ①
- ②③
- ④
- ① Workplace Sensor
- ② Display
  - 5: E-Ink Screen
  - 3: PVC Sticker
- ③ Number of Buttons
- ④ LoRaWAN® Module

LoRaWAN® PIR & Light Sensor

WS 20 2 – 915M

- ①
- ②
- ③
- ① Workplace Sensor
- ② Number of Sensors
  - 1: ToF
  - 2: PIR & Light
- ③ LoRaWAN® Module

LoRaWAN® Magnetic Contact Switch

WS 30 1 – 915M

- ①
- ②
- ③
- ① Workplace Sensor
- ② Sub-series
  - 1. Magnetic Contact Switch
  - 2. Sound Level Sensor
  - 3. Mini Leak Detection Sensor
- ③ LoRaWAN® Module

LoRaWAN® Smart Portable Socket

WS 52 3 – 915M

- ①
- ②
- ③
- ① Workplace Sensor
- ② Grounding
  - 2. No Grounding
  - 3. Grounding
- ③ LoRaWAN® Module

Smart Light Controller

WS 55 8 – 915M

- ①
- ②
- ③
- ① Workplace Sensor
- ② Number of Circuits
- ③ LoRaWAN® Module

Industrial PoE Switch

MS – S0 2 04 – E L MS – S0416 – G F

① ②

③ ④

⑤ ⑥

- ① Uplink Port and SFP Port
  - 2: 2 × Uplink Ports
  - 4: 2 × Uplink Ports + 2 × SFP Ports
- ② Number of PoE Ports
- ③ Fast Uplink Port (10/100 Mbps)
- ④ Extend Mode
- ⑤ Gigabit Uplink Port (10/100/1000 Mbps)
- ⑥ Optical Fiber Port (SFP)

Asset Tracker

Outdoor Asset Tracker

AT 101 – 915M

- ①
- ②
- ① Asset Tracker
  - AT101
- ② LoRaWAN® Module

Sensing Camera

X1 Sensing Camera

SC 541

- ①
- ① Sensing Camera
  - SC541
  - SC311