



iBox

IAQ KIT DATASHEET



Milesight IoT Cloud



◆ Introduction

Milesight iBox IAQ Kit offers an easy-to-install LoRaWAN® indoor air quality monitoring solution including ambience monitoring sensors, gateway and cloud platform. This kit can definitely bring comfort feels to your indoor space by monitoring the temperature, humidity, concentration of CO₂, and many more environment data .

◆ Device List

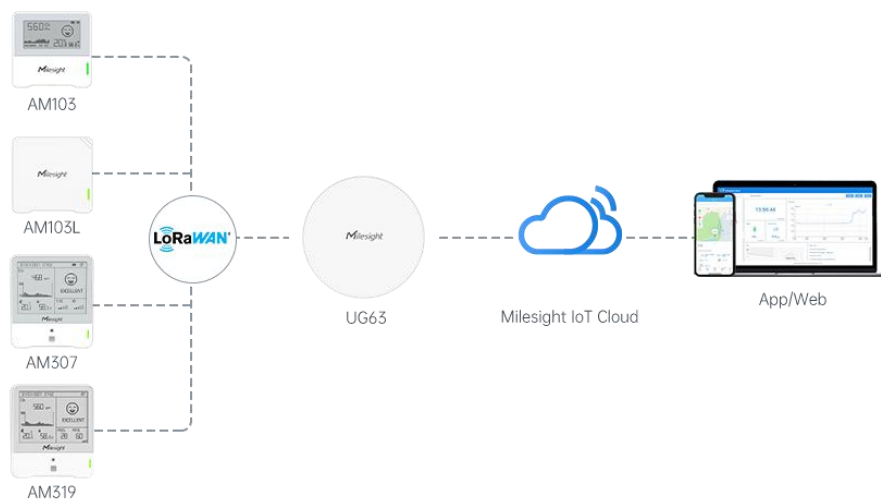
Set A:

| Qty | Model | Description | LoRaWAN® Channel Plan |
|--------|---------------------|---------------------------------------|---|
| 1 | AM103 | Indoor Ambience Monitoring IAQ Sensor | CN470/RU864 /IN865/EU868/AU915 /US915/KR920/AS923-1&2& 3&4 |
| 1 | AM103L | | |
| 1 | AM307 | | |
| 1 | AM319 | | |
| 1 | UG63 | Mini LoRaWAN® Gateway | |
| 1 Year | Milesight IoT Cloud | Pro 1 Standard Subscription | / |

Set B:

| Qty | Model | Description | LoRaWAN® Channel Plan |
|--------|---------------------|---------------------------------------|---|
| 2 | AM103 | Indoor Ambience Monitoring IAQ Sensor | CN470/RU864 /IN865/EU868/AU915 /US915/KR920/AS923-1&2& 3&4 |
| 2 | AM307 | | |
| 1 | UG63 | Mini LoRaWAN® Gateway | |
| 1 Year | Milesight IoT Cloud | Pro 1 Standard Subscription | / |


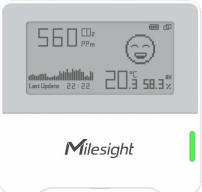
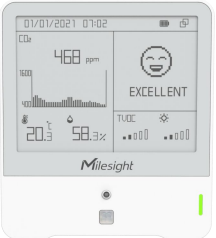
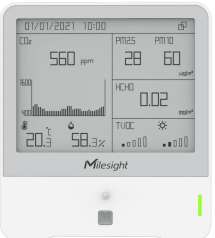
◆ Application Topology



◆ Benefits

- Compact and futuristic design to suit offices, classrooms and any other indoor environment
- Plug and play, set up a LoRaWAN® solution quickly within a few steps
- Support worldwide LoRaWAN® frequency plans including 470 MHz to 928 MHz
- Monitor data locally via E-ink screen or remotely via cloud webpage or mobile App
- Support local alarms via traffic light indicator and buzzer or remote email & mobile push notifications
- Customize dashboards and maps to know the indoor environment status intuitively

◆ Features

| Item | Description | Applications |
|--|---|--|
| AM103L IAQ Sensor  | <p>AM103 is a 3-in-1 ambience monitoring sensor including the measurement of temperature, humidity and CO₂ concentration and can transmit to network server using LoRaWAN® technology.</p> | <ul style="list-style-type: none"> ● Monitor temperature, humidity and CO₂ levels ● Indicate CO₂ levels via traffic light ● Suitable for office or school indoor air quality monitoring |
| AM103 IAQ Sensor  | <p>AM103 is a 3-in-1 ambience monitoring sensor including the measurement of temperature, humidity and CO₂ concentration and can display indoor status visually on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.</p> | <ul style="list-style-type: none"> ● Monitor temperature, humidity and CO₂ levels ● Indicate CO₂ levels via traffic light or emoticon on the E-ink screen ● Suitable for office or school indoor air quality monitoring |
| AM307 IAQ Sensor  | <p>AM307 is a 7-in-1 ambience monitoring sensor including the measurement of temperature, humidity, CO₂ concentration, TVOC, pressure, light, motion, etc. It can show visually with differ modes on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.</p> | <ul style="list-style-type: none"> ● Monitor main pollutants in indoor environment ● Indicate polluted levels via traffic light or emoticon on the screen ● Suitable for office or school indoor ambience monitoring |
| AM319 IAQ Sensor  | <p>AM319 is a 9-in-1 ambience monitoring sensor including the measurement of temperature, humidity, CO₂ concentration, TVOC, pressure, light, motion, PM2.5&PM10, HCHO/O₃, etc. It can show visually with differ modes on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.</p> | <ul style="list-style-type: none"> ● Monitor main pollutants in indoor environment ● Indicate polluted levels via traffic light or emoticon on the screen ● Suitable for office or school indoor ambience monitoring |

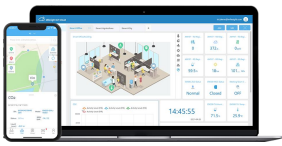
UG63 Mini LoRaWAN® Gateway



UG63 Mini LoRaWAN® Gateway provides stable connectivity between sensors and mainstream network servers or Milesight IoT cloud.

- Collect data from LoRaWAN® sensors
- Forward data to Milesight IoT Cloud or mainstream network servers via Ethernet

Milesight IoT Cloud



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

- Drag & drop dashboard to display data
- Real-time alarm notifications
- Exportable historical data and generate reports
- Custom trigger conditions & actions to enable collaborative interaction among end-devices
- Android & iOS versions available

◆ Specifications

➤ IAQ Sensors

| Model | AM319 | AM307 | AM103 | AM103L |
|----------------------------|------------------------------------|------------------------|-----------------|--------|
| Hardware Interfaces | | | | |
| Screen | 4.2 Inch E-ink | | 2.13 Inch E-Ink | - |
| LED | 1 × Traffic Light Status Indicator | | | |
| Buzzer | Support | | - | - |
| Configuration | NFC or USB Type-C Port | NFC or USB Type-C Port | NFC | NFC |
| Sensors | | | | |
| Temperature | √ | √ | √ | √ |
| Humidity | √ | √ | √ | √ |
| CO ₂ | √ | √ | √ | √ |
| PIR | √ | √ | - | - |
| Light | √ | √ | - | - |
| TVOC | √ | √ | - | - |
| Barometric Pressure | √ | √ | - | - |
| PM 2.5 & PM 10 | √ | - | - | - |
| HCHO/O ₃ | Alternative | - | - | - |

| Physical Characteristics | | | | |
|--------------------------|---|--|---|---|
| Power Supply | 5V/1A by Type-C Port | 4 × 2700 mAh ER14505 Li-SOCl ₂ Batteries or Type-C Port | 2 × 2700 mAh ER14505 Li-SOCl ₂ Batteries | 2 × 2700 mAh ER14505 Li-SOCl ₂ Batteries |
| Battery Life | - | Up to 3 Years | Up to 3 Years | Up to 4 Years |
| Dimension | 100.8 × 114 × 22 mm | | 68 × 65 × 20.5 mm | |
| Operating Temperature | -20 to +60 °C (E-Ink Screen: 0 to +40 °C) | | | |
| Ingress Protection | IP30 | | | |
| Installation | Wall Mounting | | | |

Click [here](#) to get more AM300 series specification details, click [here](#) to get more AM103/AM103L specification details.

➤ UG63 Mini LoRaWAN® Gateway

| LoRaWAN | |
|--------------------------|---|
| Chip | SX1302 |
| Antenna | 2 × Internal Antennas |
| Channel | 8 (Half/Full-Duplex) |
| LBT | Support |
| Package forwarder | Semtech, Basic Station, Chirpstack, etc. |
| Network Server | Support |
| Hardware Interfaces | |
| Ethernet Port | 1 × 10/100/1000 Mbps (PoE PD) |
| Console Port | 1 × Type-C |
| LED Indicators | 1 × SYS, 1 × LoRa |
| Reset Button | 1 × RST |
| Built-in | Watchdog, RTC, Timer |
| Physical Characteristics | |
| Power Supply | 1. 1 × 802.3af Standard PoE Input 2. 5V by Type-C Port |
| Operating Temperature | -20°C to +50°C |
| Ingress Protection | IP30 |
| Dimension | Φ 115 × 21 mm |
| Installation | Desktop, Wall or Ceiling Mounting |

Click [here](#) to get more specification details.

➤ Milesight IoT Cloud

| Features | Free | Pro 1 | Pro 2 | Pro 3 |
|--|-------|-------|--------|--------|
| Manage Device | | | | |
| Manage numbers(gateways +sensors) | 10 | 50 | 100 | 300 |
| Check historical data and chart | | √ | | |
| Export historical data and chart | | √ | | |
| Dashboard | | | | |
| Create dashboards | 2 | | 10 | |
| Widgets per dashboard | 20 | | 50 | |
| Add custom map and charts | | √ | | |
| Share the dashboard | | √ | | |
| Control device in dashboard | | √ | | |
| Trigger | | | | |
| Add trigger rules | 20 | 100 | 200 | 600 |
| Trigger execution times monthly | 1,000 | 5,000 | 10,000 | 30,000 |
| Report | | | | |
| Generate daily/weekly/monthly report | - | | √ | |
| Send reports via Emails | - | | √ | |
| Check and export historical report | - | | √ | |
| Event Notification | | | | |
| Record device status and threshold events | | √ | | |
| Send Email notifications monthly | 100 | | 1,000 | |
| Share and Transfer | | | | |
| Share devices to other accounts with different permissions | - | | √ | |
| Transfer devices to other accounts | | √ | | |

Contact Milesight sales if you need to upgrade the subscription in the kit.

