Milesight

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 CO_2, and many more environment data .
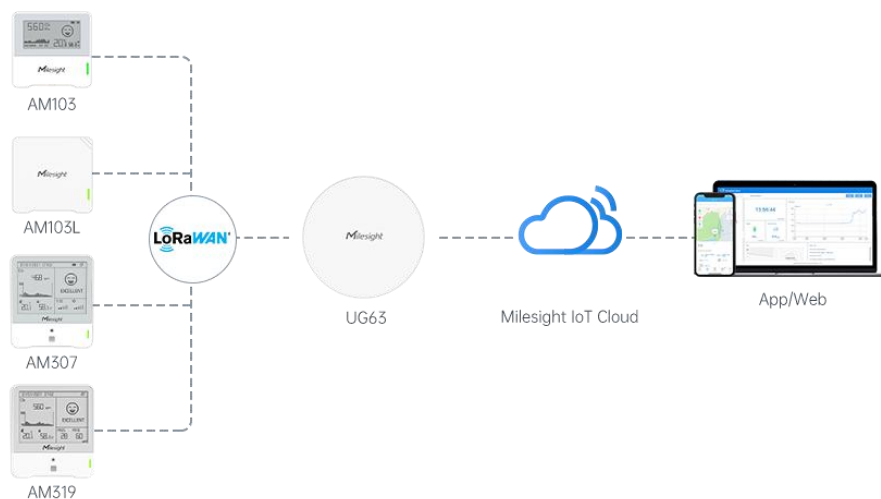
◆ Device List

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:

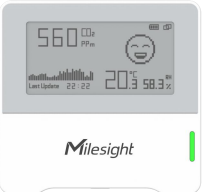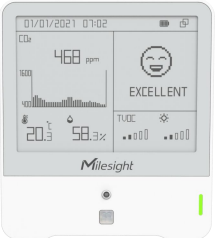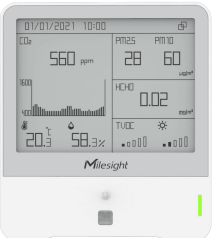| Qty	Model	Description	LoRaWAN® Channel Plan
2	AM103	Indoor Ambience Monitoring IAQ Sensor	CN470/RU864 /IN865/EU868/AU915 /US915/KR920/AS923-1&2& 3&4
2	AM307		
1	UG63	Mini LoRaWAN® Gateway	
1 Year	Milesight IoT Cloud	Pro 1 Standard Subscription	/

◆ 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

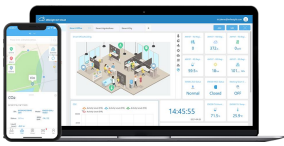| Item	Description	Applications
AM103L IAQ Sensor	AM103 is a 3-in-1 ambience monitoring sensor including the measurement of temperature, humidity and CO_2 concentration and can transmit to network server using LoRaWAN® technology.	• Monitor temperature, humidity and CO_2 levels • Indicate CO_2 levels via traffic light • Suitable for office or school indoor air quality monitoring
AM103 IAQ Sensor	AM103 is a 3-in-1 ambience monitoring sensor including the measurement of temperature, humidity and CO_2 concentration and can display indoor status visually on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.	• Monitor temperature, humidity and CO_2 levels • Indicate CO_2 levels via traffic light or emoticon on the E-ink screen • Suitable for office or school indoor air quality monitoring
AM307 IAQ Sensor	AM307 is a 7-in-1 ambience monitoring sensor including the measurement of temperature, humidity, CO_2 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.	• 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	AM319 is a 9-in-1 ambience monitoring sensor including the measurement of temperature, humidity, CO_2 concentration, TVOC, pressure, light, motion, PM2.5&PM10, $HCHO/O_3$, etc. It can show visually with differ modes on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.	• 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.

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