Milesight

Smart
Building
Kit

iBox

iBox Smart Building Datasheet
Unboxing Your Next Level IoT Adventure

Why Smart Building Kit

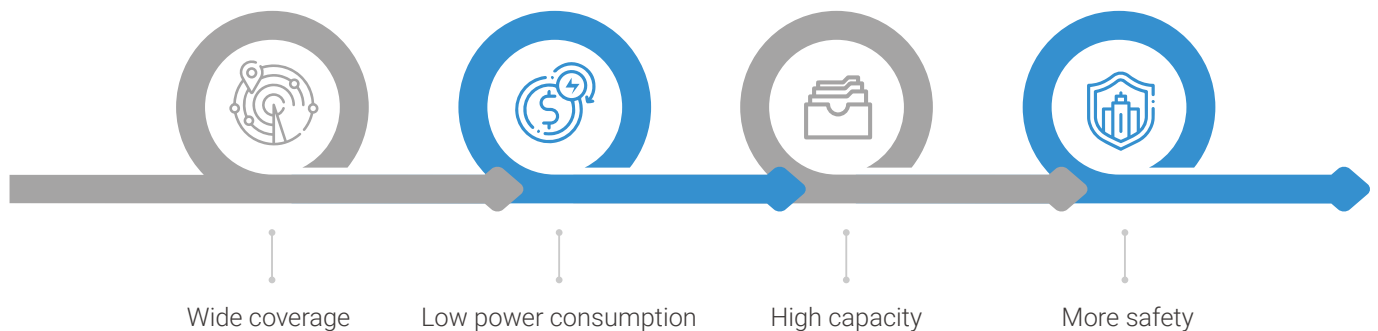Congratulations on beginning the journey of Smart Building towards a greener future.

The Milesight iBox Smart Building Kit is a seamless fusion of hardware and software for pervasive IoT connectivity. With indoor air quality monitoring, power consumption management and many more, smart and modern buildings can be created effortlessly.

" Together with IoT solutions, it's easy to optimize economic benefits and improve your ESG performance." The Milesight Team

Why LoRaWAN®

LoRaWAN® is a long range, wide area, and low-power networking protocol.

Wide coverage   Low power consumption   High capacity   More safety

Why Milesight D2D

Milesight D2D is a device to device communications protocol which enables LoRaWAN® based devices to communicate directly with one another when they are in the same group.

* Independently Developed by Milesight

- Low latency (less than 1 second in the same room)
- Low power for battery operation of both sides
- Long range and as secure as LoRaWAN®
- No useless beaconing and difficult synchronization
- Initial feature which coexists with LoRaWAN®
- No additional hardware and LoRaWAN® gateways are needed

Smart Button

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

LoRaWAN CERTIFIED   **D2D**   N   ☁   </>

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) 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.

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) 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.

3-in-1 IAQ Sensor

AM103 is a compact IAQ sensor for detecting CO_2 concentration, humidity and temperature accurately and economically.

AM103

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
- Light/Dark Color Theme
- Battery Life up to 3 Years

Model		AM103
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_2)	± (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
	Ingress Protection	IP30
	Dimension	68 × 65 × 20.5 mm (2.68 × 2.56 × 0.81 in)
	Installation	Wall Screw Mounting, 3M Tape Mounting

* 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.

LoRaWAN®   D2D   NFC

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 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 Light Controller

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

LoRaWAN®   D2D   NFC   Cloud

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-Switch
Electrical	Input Voltage	100~240 VAC, 50~60 Hz
	Output	8 Passive Switches
	Capacitive & Inductive Load	Maximum 5A per Switch
	Resistive Load	Maximum 10A per Switch
	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

LoRaWAN®/ IoT Controller

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

UC300

Overall Features

- 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

Model		UC300
LoRaWAN® Model	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	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

Industrial LoRaWAN® Gateway

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

LoRaWAN®   ASHRAE BACnet™   </>

UG56

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)

Model		UG56
LoRaWAN®	Chipset	SX1302, 8 Channels (Half-duplex)
	Antenna	1 × 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 × 802.3af Standard PoE Input 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

Milesight IoT Cloud

Milesight IoT Cloud provides unparalleled levels of vertical integration with Milesight LoRaWAN® devices.

AWS Built on AWS to Provide Confidential and Reliable Infrastructure

Licensing with Ease: Just Copy & Paste and Upgrade Is Done

iOS

*Get the **Free Trial** now and begin your data-driven future.*

Transform Real-Time and Historical Data into Drag-and-Drop Widgets on Dashboard

Control Access and Monitor Projects from Anywhere

Email and Mobile Push Notifications based on Triggered Events

Milesight Development Platform

Milesight Development Platform is an integration platform that simplifies integration and device deployment and management. With the technical complexity managed, you can fully focus on developing your IoT project.

- Easy integration & data exchange
- Centralized management of devices, applications, and projects
- Not requiring extensive software/hardware knowledge

Try the Platform Now!

If you need any assistance or clarification, please send an email to evie@milesight.com.

Auto-provisioning   Batch Operations   Remote Access   Over-the-air Updates   Device Sharing

Device Management

Milesight Development Platform

Integration & data exchange

Webhook   Open API

Third-party system

Plan and Pricing

Free Plan - For light users	Professional Plan - For regular business users	Private Cloud
• 10 connected devices • 3 applications for integration	• Connected devices: $1/device/year • Unlimited applications for integration	• Contact us

*Camera product users are charged upon the number of image transmissions.

*For pricing details, visit **Milesight Development Platform***

Milesight

You Can Always Trust Us

Milesight is a multi-dimensional sensing products company transforming how the world is perceived and connected, and delivering safety, efficiency, and business insights.

Our mission is to digitalize the world with connected sensors, deliver the most accurate and valuable data, and extract actionable insights with our partners.

Our vision is to continuously drive the society and environment towards a more connected, efficient, and sustainable future.

EVOLVING

· AM319   · AM307
· AM103   · AM102L
· UG56
· Milesight IoT Cloud

*Enjoy free cloud services for a specified period of time

Indoor Air Quality Solution   **iBox IAQ Kit**

· VS121   · VS340
· DS3604   · UG56
· Milesight IoT Cloud

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Smart Office Solution   **iBox CoWork Kit-A**

· VS121   · WS101
· WS301   · WS156
· UC100   · UG56
· Milesight IoT Cloud

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Smart Office Solution   **iBox CoWork Kit-B**

· WS101   · WS201
· GS301   · VS330
· UC100   · UG56
· Milesight IoT Cloud

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Smart Restroom Solution   **iBox Smart Restroom Kit**

· WS101   · WS301
· AM103   · WS303
· WS558   · UC300
· UG56
· Milesight IoT Cloud

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Smart Building Solution   **iBox Smart Building Kit**

· EM500-SMTC
· UC511
· UG56
· Milesight IoT Cloud

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Smart Agriculture Solution   **iBox Smart Agriculture Kit**

Don't Know Where to Start? Talk with Our Experts

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