

CODE: HK-SMGW-BLE

Smart Gateway

(Wi-Fi + BLE)

A high-performance communication hub designed to support intelligent restroom systems. It enables seamless connection between various restroom sensors and the central monitoring platform. It ensures reliable data transmission and secure operation in high-traffic public or commercial restroom environments.



Product Features



BLE Topology Networking

Supported by HX-based Bluetooth Smart Firmware and Protocol Stack, compliant with Bluetooth v5.0 LE Standard



Wi-Fi+BLE Dual-Mode

Dual-core microprocessor supporting 2.4 GHz Wi-Fi (IEEE 802.11b/g/n) and Bluetooth® 5 (LE)



Communication Method

Wireless Mesh Networking



Overall Dimensions

L127 × W87 × H45 mm

Weight: 200g



Material

ABS

Industrial-grade IP68
Water & Dust Resistance



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CODE: HK-HDSO

Hand Soap Level Sensor

The Hand Soap Level Sensor is a smart hygiene monitoring device designed to detect liquid soap levels in dispensers with high-precision capacitive sensing. Using capacitive sensing technology, it supports adaptive segmented monitoring and automatically adjusts detection intervals based on usage patterns. This ensures timely refill alerts and helps maintain consistent hygiene standards.

Product Features



Sensing Method

Capacitive Liquid Level Sensing



Liquid Deficiency Detection

- Supported
- Adaptive Liquid Level Monitoring



Features

Split Design
Low Battery Alert
Universal Liquid Compatibility



Detection Interval

- 5 Minutes/Cycle (Default)
- Platform Allows Custom Monitoring
- Automatically Resets Settings After Refill
- Self-Learning Function



Detection Specifications

- Adaptive Segmented Liquid Level Monitoring
- Automatically Adjusts Detection Intervals



Communication Method

Bluetooth BLE



Overall Dimensions

565 x 565 x 19mm



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CODE: HK-DUBI

Dust Bin Sensor

A smart waste-level monitoring device designed to optimize cleanliness and maintenance in public and commercial restrooms. It provides real-time updates on bin fill levels, helping facility managers schedule timely waste collection and reduce overflow incidents.

Product Features



Modular Design

Supported
Detachable



Detection Frequency

Configurable via cloud platform



Low battery alert

Supported



Overall Dimensions

565*565*19mm



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CODE: HK-TOPD

Toilet Paper Detector

A smart sensing device combines traditional manual-pull dispensing with advanced IoT sensing technology. It enables real-time monitoring of tissue levels, allowing facility managers to manage restocking and reduce maintenance downtime proactively. Featuring high-precision laser detection, remote alerts, and data visualisation, the dispenser ensures an uninterrupted user experience while maintaining operational efficiency. Ideal for high-traffic restrooms and smart facility management systems.



Product Features



Paper Dispensing Method
Manual Pull



Communication Method
Bluetooth BLE



Overall Dimensions
565*565*19mm



Detection Frequency
5 minutes/cycle
(configurable via platform)



Detection Range
 ≤ 510 mm



**Detection Precision
(Granularity)**
10mm

CODE: HK-OCSE

Occupancy Sensor

The Occupancy Sensor is a precision detection device designed to monitor toilet cubicle usage in real time. Using active laser scanning technology, it identifies occupancy status with high accuracy and responsiveness, helping facility managers optimize cleaning schedules and reduce wait times.



Product Features



Sensing Method

Active



Toilet Occupancy Response Cycle

Approx. 3-4 seconds



Detection Accuracy (Granularity)

100-130mm



Communication Method

Bluetooth BLE



Overall Dimensions

565*565*19mm

CODE: HK-PPCO

People Counter

The Intelligent Bi-Directional People Counting Sensor integrates advanced sensing technologies and backend monitoring capabilities to accurately track people entering and exiting designated areas. It is designed to address key requirements such as privacy protection, environmental adaptability, and robust data management, making it ideal for high-traffic environments like restrooms, building entrances, and public facilities.

Product Features



Functionality

Tracks number of entries and exits, ideal for restroom usage monitoring



Counting Direction

Bi-directional
(entry/exit)



Depth Map Resolution

120×90 pixels



Detection Technology

Video analytics with 3D machine vision and trajectory tracking algorithms



Detection Method

ITOF-based area array 3D camera module



Detection Range

0.6 – 5 meters



Frame Rate

Depth Map Output:
5fps / 10fps / 15fps
(default: 15fps)

Optional:

Depth and Amplitude Data Output

CODE: HK-ARQL

Air Quality Sensor

The Air Quality Sensor is a compact and intelligent monitoring device designed to measure key indoor air pollutants in real time. It detects CO₂, TVOC, TVOC-AQI, and formaldehyde (CH₂O) levels with high precision, helping maintain a healthy and safe restroom environment.

Product Features



Monitoring Capabilities

- PM2.5
- Humidity
- Oxygen (O₂)
- Temperature
- Ammonia (NH₃)
- Hydrogen Sulfide (H₂S)



Dimensions

85×85×50mm



Communication Method

Bluetooth Low Energy (BLE)
Networking

Data Reporting Interval

Configurable via cloud platform



Temperature

Range: -40°C to +125°C
Accuracy: ±0.2°C (within 0–65°C)
Resolution: 0.01°C

Oxygen (O₂)

Measurement Range: 0–30% VOL
Recommended Operating
Range: 19.5–23.5% VOL

Humidity

Range: 0–100% RH
Accuracy: ±2% RH
Resolution: 0.01% RH

Hydrogen Sulfide (H₂S)

Range: 0–100 ppm
Resolution: 0.01 ppm
Accuracy: ±1%

Ammonia (NH₃)

Range: 0–100 ppm
Resolution: 0.01 ppm
Accuracy: ±1%

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CODE: HK-AMDT

Ammonia Detector

The Ammonia Detector is a high-precision sensor designed to monitor ammonia (NH_3) levels in restroom environments. It also monitors temperature and humidity with exceptional accuracy, making it a reliable tool for comprehensive environmental sensing. Ideal for maintaining air quality and safety.

Product Features



**Ammonia (NH_3)
Detection Range**
0-100ppm



Temperature Range
-40°C to 125°C



Humidity Range
0-100%RH



Data Reading Frequency
Platform-configurable
monitoring interval



Overall Dimensions
85*85*50mm

CODE: HK-ODDT

Odour Detector

The Odour Detector is a specialized sensor designed to monitor unpleasant gases in restroom environments, with a focus on detecting hydrogen sulfide (H₂S) – a key indicator of foul odours. It ensures accurate and timely identification of odour levels to support ventilation control and hygiene management.



Product Features



**Hydrogen Sulfide (H₂S)
Detection Range**
0-100ppm



Humidity Range
0-100%RH



Temperature Range
-40°C to 125°C



Data Reading Frequency
Platform-configurable
monitoring interval



Overall Dimensions
85*85*50mm

CODE: HK-WTLK

Water Leakage Sensor

The Water Leakage Sensor is a compact and highly sensitive device designed to detect water accumulation in restroom environments. Using capacitive sensing technology, it offers precise and adaptive detection across a wide frequency range, ensuring early alerts for potential leaks or flooding.

Product Features



Technical Features

Low battery reporting
Adaptive capacitive sensing



Functionality

- Water accumulation detection
- Low power consumption
- High detection accuracy
- Fully sealed design
- Waterproof capability



Detection Method

Capacitive sensing
Frequency Range: 1 MHz – 40 MHz



Dimensions

56.5 × 56.5 × 19 mm



Communication Method

Bluetooth BLE Mesh Networking



Material

Flame-retardant ABS housing



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CODE: HK-WKTG

Worker's Location Tag

The Worker's Location Tag is a compact and intelligent BLE beacon designed to track personnel movement within restroom facilities, for real-time location tracking and enhanced operational safety.



Product Features



Function

Contactless and proactive attendance tracking



User Data Fields

- Name
- Position
- Job Role
- Service Area
- Service Hours
- Contact Information
- Etc.



Communication Method

Bluetooth BLE Mesh Networking



Power Supply

3.7V 650mAh Lithium-Ion Battery



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CODE: HK-ARRF

Air Refresher Diffuser

The Air Refresher Diffuser is a smart scent control device designed to enhance restroom environments with automated fragrance dispersion. Interoperable with air quality sensors, it enables precision mist output based on real-time air condition data, ensuring a consistently fresh and pleasant atmosphere.



Product Features



Coverage Area

Up to 200 m²



Essential Oil Capacity

150 ml



Power Supply

DC 5V / 1A

3 × AA batteries

3.7V Lithium Battery (optional)



Material

PP / POM



Dimensions

195 mm × 140 mm

Weight: 350 g



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CODE: HK-SOSB-V

SOS Emergency Alert Device

The Smart SOS Emergency Alert Device is an emergency assistance system that enables rapid response through one-touch activation and voice recognition. It supports voice broadcast through a built-in speaker and connects to a data center for coordinated response, enhancing user safety.



Product Features



Activation Methods

Voice recognition (supports Chinese and English)
Physical push-button trigger



Communication Methods

Wireless Mesh networking
Wi-Fi
LoRa with self-organizing network support



BLE Mesh Networking

Based on HX Bluetooth firmware and protocol stack
Complies with Bluetooth v5.0 LE standard



Alert Broadcast

Voice alerts via built-in speaker
Linkage with data center systems



Operating Temperature

20°C to +105°C



Dimensions

126 × 80 × 37 mm

CODE: HK-SDEO

Smart Deodoriser

Public Toilet Deodorising and Sterilising Machine



Product Features

Powerful Odor Removal

This device combines both active and passive deodorization technologies, achieving an odor removal rate of over 90% in a 30 m³ space within just one hour.

Highly Effective Sterilization

Utilizing advanced ion sterilization technology, it delivers a sterilization rate of over 95% in a 30 m³ space in one hour.

Highly Effective Sterilization

With a power consumption of only 20W, it is energy-efficient and cost-effective. Only the plant fragrance cartridge and medium-efficiency filter need replacement every three months; other parts require only periodic cleaning.

Easy to Use and Maintain

Designed for wall-mounted installation, it saves space and is easy to operate with a one-touch start. The purification unit features a modular, drawer-style structure for quick cleaning and maintenance.

Five-Stage Air Purification

Equipped with five layers of purification:

- Medium-efficiency particulate filtration
- High-energy ion deodorization
- Active oxygen ion deodorization
- Plasma catalytic purification
- Plant-based liquid deodorization

Six Advanced Core Technologies

Incorporates six cutting-edge technologies to ensure superior deodorization and sterilization:

- High-energy ion deodorization
- Ion sterilization
- Active oxygen ion deodorization
- Plasma catalytic purification
- Plant-based liquid odor neutralization

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Interactive Feedback Panel

The Interactive Feedback Panel is a user-friendly device designed for places like public restrooms to gather feedback, and report issues, helping facility managers improve maintenance. The panel also plays promotional videos or images. It's built to work reliably in various lighting and temperature conditions, and with internet connectivity and remote update options, it offers flexibility and convenience for content management.



Product Features



Functions

Supports custom functions:

- Collects user feedback through satisfaction surveys
- Plays advertisements in video or image format
- Allows for customized fault reporting functionality



Dimensions

225W × 172H × 26D mm
Weight: 850g



Mounting

- Wall-mounted,
- VESA 75mm / 100mm
- Recommended height: 150 cm



Environmental Durability

- Anti-light Interference:
Operates reliably under direct sunlight, incandescent, and fluorescent lighting
- Surface Hardness:
 - Chemically tempered explosion-proof glass
 - Mohs hardness level 6
- Operating Temperature: -10°C to +60°C
- Operating Humidity: 0% – 90% RH (non-condensing)



Software & Media Features

- Pre-installed feedback application
- Advertisement support for MP4 / JPG / PNG formats
- Data upload protocol: HTTP POST
- Custom UI services available at additional cost



Display Specifications

- Type:
 - LED LCD (α-Si TFT-LCD with WLED backlight)
 - Grade A
- Size:
 - 10.1 inches (Aspect Ratio: 16:10)
- Active Display Area:
 - 220.51 mm (W) × 139.51 mm (H)
- Resolution: 1280 × 800
- Brightness: 400 cd/m²
- Viewing Angle:
 - Ultra-wide 89° (Left/Right/Up/Down)
 - Contrast Ratio ≥10
- Touch Technology:
 - Projected Capacitive Touchscreen
- Touch Points:
 - 10-point multi-touch (supports gestures like pinch-to-zoom)

