Hardware and Software Complex for Office

JCOM IOT

Hardware and Software Complex

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Determine the status and control modes of remote equipment using TCP and MQTT data transfer protocols (receive, send, configure).
The device is polled with a full description of the protocol interactions and equipment scripts.

The device can poll the following interfaces:

- Ethernet up to 4 devices. Using additional devices
- RS-232 up to 4 devices. Using additional devices
- RS-485/CAN up to 10 devices. Using additional devices

Configuration options:

- Web—for a local connection
- Support for configuration commands via a communication channel
- SMS configuration
- Configuration import/export

Hardware and Software Complex

Characteristics

Form factor	rack-mounted device, 1 unit, depth 300 mm
Power	2 BP: BP1:AC, BP2:ACBP1:DC, BP2:DCBP1:AC, BP2:DC
Local Network	5 ports 10/100/1000 Mbps
Port for providing redundancy of connection channels of the Device	2xWAN ETH порта + 1 Wireless (WiFI)
RAM memory	16 GB DDR4
Drive memory	256 GB (NVMe SSD drive in M.2 PCIe2.0. slot)
Video output (Ability to connect an external monitor)	HDMI
Interface outputs	USB3.0 × 1, USB2.0 × 2, Type-C (USB3.1) ×1
Additional memory	MicroSD card or USB 2.0/3.0 drive
Possibility of connecting 4G modem №1 to provide remote access to the device (option 2*)	Yes
Possibility of connecting 4G modem №2 to ensure traffic routing to the VU System (option 3*)	Yes
Possibility of installing additional SSD memory (option 4*)	Yes
Possibility of embedding a ZigBee coordinator (option 5*)	Yes
Providing the function of logging incoming and outgoing packets (possibly with their filtering) on the capacious memory inside the Controller (for example, SD, USB FLASH or SSD disk)	Yes
Availability of the Watchdog Timer function	Yes
Hardware access control function to the Device (option 6*)	Yes
Storing information in the database	Up to 36 months, then rewriting occurs

Hardware and Software Complex

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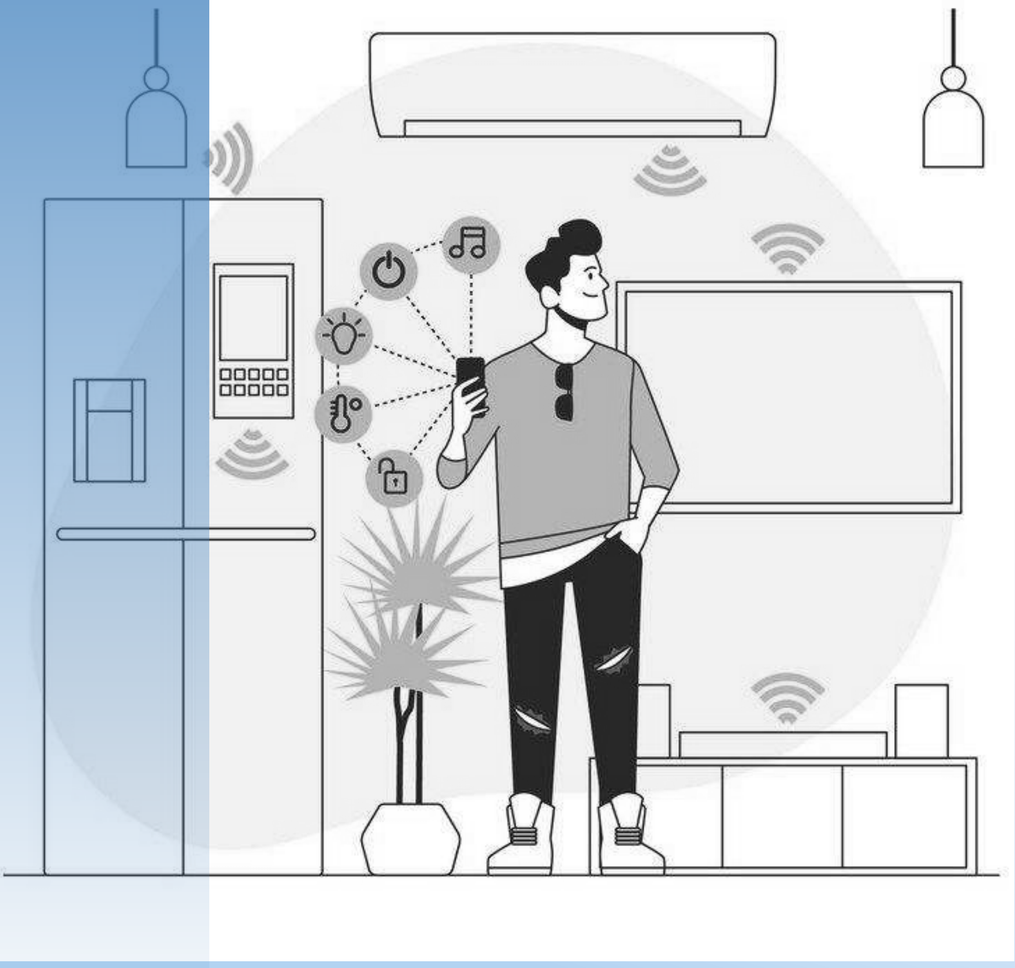
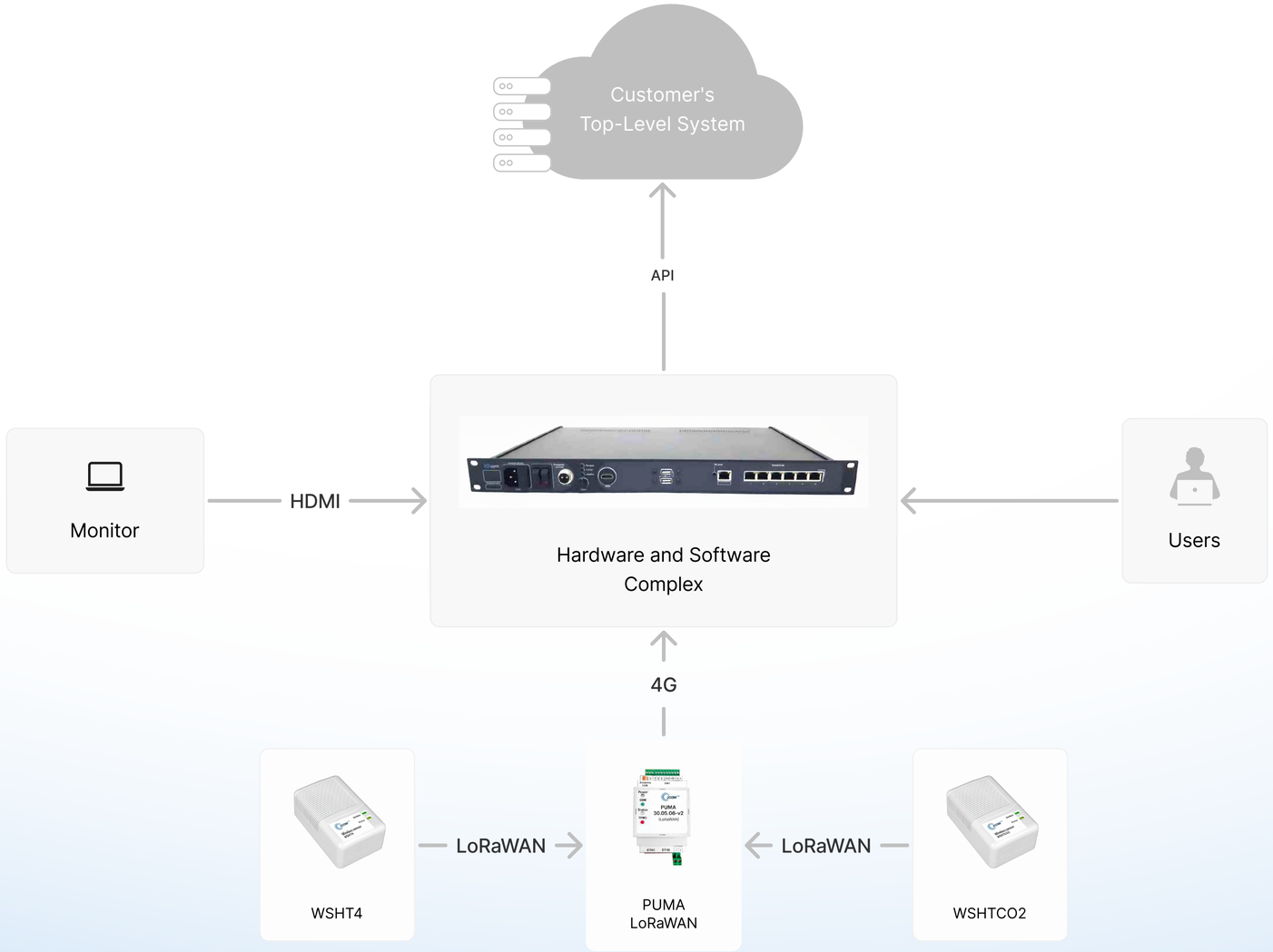
Hardware and Software Complex for Office

1 Eco-Sensors for Offices





1

Functional purpose of the system

Hardware and Software Complex for office eco-sensors is a specialized system, including software and hardware, designed for automated, 24-hour monitoring of environmental quality in office spaces.

Device Purpose

This is a comprehensive solution designed to monitor, collect, process, and visualize various parameters read from environmental sensors:

- Air temperature;
- Humidity;
- Carbon dioxide (CO2) concentration;
- Noise level;
- Illumination level;
- Sensor movement, etc.

Main Functions:

- Monitoring and collecting data from environmental sensors;
- Visualization of information received from environmental sensors (readings, graphs, reports, associated documentation);
- Data storage;
- Device configuration;
- Remote software updates;
- Report generation.

Hardware and Software Complex for Office

1 Equipment

WSHT4

Power characteristics
Rechargeable Li-Ion battery for powering the sensor.

Transmission period of the signal from the sensor
Customizable (from 5 minutes to 24 hours)

Compliance with LoRaWAN 1.0.2 specification
+

Built-in modem type
LoraWAN, class A device

Frequency plans
RU868

Activation method
OTAA

Setting up
USB interface

Indication (LED)
Indicators “Status”, “Network”

Temperature measurement
Range: 0 to +60 degrees C, Error: no more than 0.5 degrees C

PUMA LoRaWAN

Power supply of the device
8-60 VDC

Power consumption
no more than 10W

Voltage for powering external devices
12VDC, 8VDC, 5VDC

User interface for configuration
Web interface

Ethernet interface
2 ports

Data transfer rate via 10\100 Base T interface
up to 100 Mbps

Последовательные интерфейсы с гальванической развязкой
RS485, RS232

Galvanic isolation voltage for RS485, RS232
1000 VDC

Data transfer rate via interfaces (RS485, RS232)
1200-115200 bps

WSHTCO2

Power characteristics
Rechargeable Li-Ion battery for powering the sensor.

Transmission period of the signal from the sensor
Customizable (from 5 minutes to 24 hours)

Compliance with LoRaWAN 1.0.2 specification
+

Built-in modem type
LoraWAN, class A device

Frequency plans
RU868

Activation method
OTAA

Setting up
USB interface

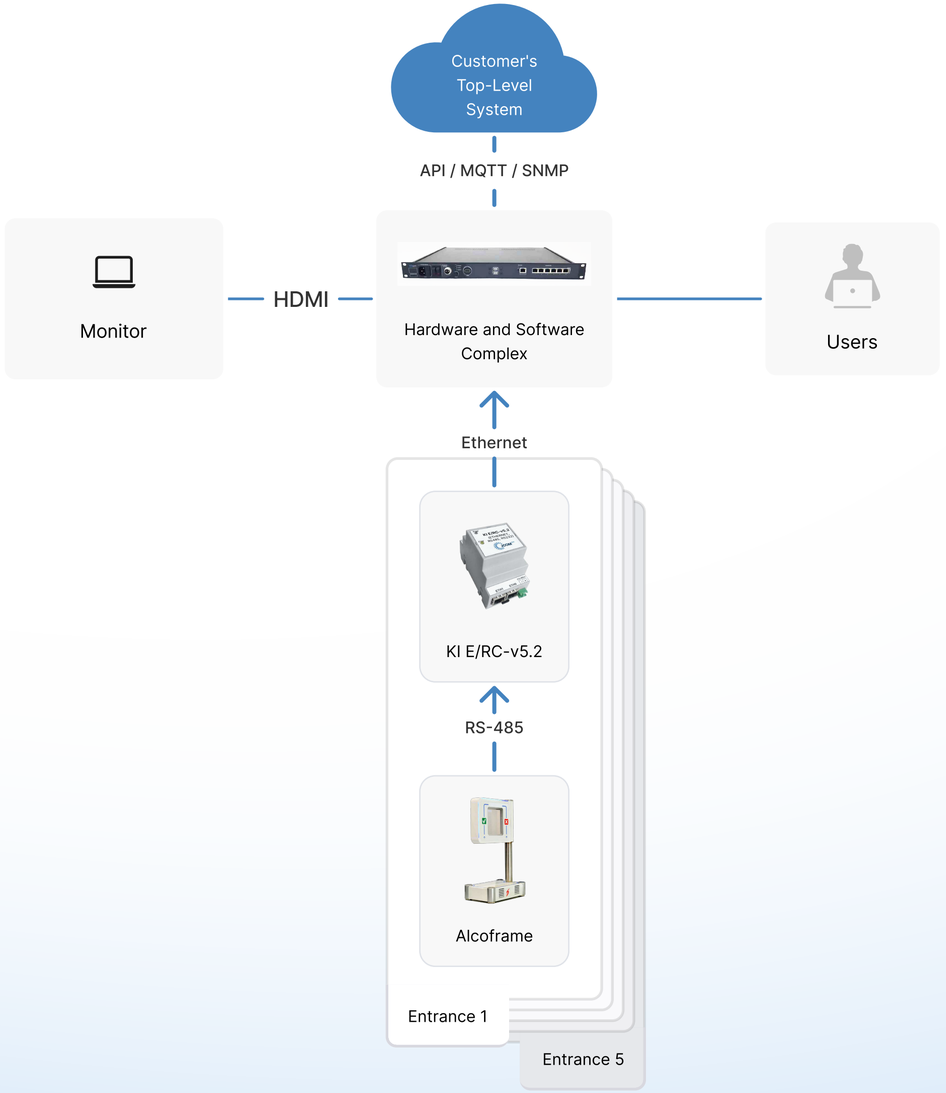
Indication (LED)
Indicators “Status”, “Network”

CO2 Sensor Specifications
Measurement range: 400–5000 ppm, error no more than 30 ppm

2

Hardware and Software Complex for Office

Timekeeping



2

Functional purpose of the system

Hardware and Software Complex for the Alcoframe is specialized software for working with alcoframes (analyzer of ethanol vapor in human exhalation).

Specialized software allows you to maintain a unified database of all measurements from Alcoframe devices at your facility and receive detailed reports on the test results of all employees based on specified parameters (employee ID card, date and time of testing, test result in ppm or milligrams per liter, etc.).

2 Equipment

KI E/RC-v5.2

Ethernet ports
LAN 2 pcs

Supply voltage
12-60V

Interfaces
RS232, RS485 with group galvanic isolation

Isolation voltage of the GR interface
1000V

Device housing
Plastic. 35mm DIN rail mount

Питание внешних устройств
+5В/+8В/+12В (не более 50мА)

Possibility of connecting a temperature sensor (with 1Wire interface)
+

Alcoframe

Exhaled ethanol vapor detection threshold*, mg/L
0,135

Time to prepare the product for testing from the moment the power is turned on, min, no more than
7

Test duration, sec, no more than
1

Time of readiness for the subsequent test in the absence of ethanol vapor in the previous exhalation**, s, no more than
2

Time of readiness for the subsequent test upon detection of ethanol vapor in the previous exhalation**, s, no more than
5

Time of readiness for the subsequent test with a weak or incomplete exhalation**, s, no more than
5

Interface
Ethernet, Wiegand, RS-485***, TTL in/out

We are ready to help from the idea to serial production

Types of electronic equipment development:

1. Device hardware development:

   Changing the number of ports, adding new interfaces, connectors, channels, electrical characteristics, changing dimensions, and materials.

2. Firmware development:

   Changing or adding new software features to the device's firmware.

Additional device protection for harsh operating conditions:

- Design of an enclosure with the required IP rating;
- External and internal connectors with locking mechanism for use in high-vibration environments;
- Various types of enclosure mechanical modifications for installation in hard-to-reach locations;
- Additional testing and vibration resistance and electromagnetic compatibility testing according to customer-specified conditions in a climatic chamber.

How we work:

1. You send us the technical specifications for the product you need.
2. Dentification of development requirements, quantity of equipment in the batch and project deadlines.
3. Preparation of a commercial proposal.
4. The process of developing customization or new equipment.
5. Verification. Testing and trialing of the equipment according to the customer's specifications.
6. The process of selling and shipping the developed equipment to the end customer.

JCOM IOT

Contacts

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