WxS8813-423071

LoRaWAN 3-in- I IAQ (Temperature+Humidity+CO2) Smart Sensor Terminal with 4.2" Ink Display (Indoor, ER18505H/M)

Product Highlights

- LoRaWAN 3-in- I IAQ (Temperature+Humidity+CO2) Smart Sensor Terminal with 4.2" Ink Display (Indoor, ER18505H/M)
- Battery powered (ER18505M/ER18505H)
- Ultralow power design, batteries powered up to 10 years
- Temperature , humidity and CO2 (temperature: - 40 ℃~125 ℃; humidity: 0~100% RH;CO2:0-5,000ppm) in the environment can be monitored and transmitted in real time
- Terminal and sensor parameters configurable with Configuration Tool running on PC
    - LoRaWAN ISM Global Bands Supported and SW Configurable
    - LoRaWAN Uplink Transmission Cycle Configurable
    - Sensor Parameters Configurable
    - Sensor Data Report Cycle Configurable
- FOTA (Over The Air) firmware upgrade, including to upgrade loader and application images
- OTA (Over The Air) terminal running parameters supported
- Integrated internal antenna, or optional external SMA/IPEX antenna
- The transmission reaches 5km in NLoS (non-line of sight) and 18km in LoS (line of sight) environment
- Optional (Public/Private) IoT cloud platform PolySuite iView and LoRaWAN network iServer
- LoRaWAN Compliance

Specifications

Parameters	Value
Smart Terminal	
Data Report	MQTT Protocol, Jason format; Cross-threshold report, plus periodic report (the threshold and the periodic report cycle are both user-configurable)
Wireless	
ISM Regional Parameters	AS923 (AS923-1, AS923-2, AS923-3, AS923-4) AU915 CN470 CN779 EU433 EU868 IN865 KR920 RU864 US915

Maximum Link Budget	168dB
Distance	Up to 5km in NLOS; up to 18km in LOS
Antenna	Integrated internal antenna or external 1/2 wavelength whip antenna (SMA)
Mechanical	
Dimension	100*86*28mm
IP Grade	IP30
Operating Temperature	-40C to +85C
Total Weight	120 g
Electrical	
Supply Voltage	3.6VDC
Power Type	2*ER18505M/H
Compliance/Certification	

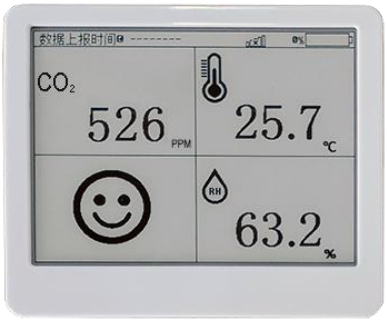
Products includes following parts:

- PST-xx13-423071 3-in-1 IAQ (Temperature+Humidity+CO2) Smart Sensor Terminal with 4.2" Ink Display (Indoor, ER18505H/M)
- WxS88xx WxS Terminal LoRa Communications Board

Configuration Tool

- iEdge4.0 WxS IoT Terminal products can be configured with PolySuite software-visual based Configuration Tool or CLI interface command or OTA via IoT platform, such as PolySuite PaaS platform iView.
- Download link http://ota.polysense.online/wincc/ConfigurationTool.rar

Product Image



PST-xx13-423071

3-in-1 IAQ (Temperature+Humidity+CO2) Smart Sensor Terminal with 4.2" Ink Display (Indoor, ER18505H/M)

Product introduction

PST-xx13-423071 is a product with an ink screen display that integrates temperature, humidity and carbon dioxide sensors. Battery powered, it can detect carbon dioxide, temperature and humidity in the environment in real time.Mounted with screw or adhesive tape, suitable for indoor scenes.

Detection principle

Temperature and Humidity: Semiconductor
CO2: advanced non dispersive infrared (NDIR) technology

Product features

- Sensor parameters: ambient temperature and humidity, CO2
- 4.2 "ink screen, real-time display of temperature and humidity data
- Ultra low power design, battery powered up to 10 years
- Batteries: 2*ER18505

Product parameters

Parameters	
Measuring range	Temperature: - 40 ℃～ 125 ℃ Humidity: 0~100% RH CO2:0-5000ppm
Accuracy	Temperature: 0 ～ 65 ℃,± 0.2 ℃； Other,± 0.6 ℃ Humidity: 10~90%, ± 2% RH; Other,± 4% RH CO2: ± (50ppm+5% reading) at 25 ℃± 2 ℃
Resolution	Temperature: 0.01 ℃ Humidity: 0.01%RH
Response time	Temperature:>2s (T63%) Humidity: 8^6s
Long term drift	Temperature:<0.03 ℃/yr Humidity:<0.25% RH/yr
Display screen	Ink screen 4.2“
Mechanics	
Size	100mm*86mm*28mm
Working conditions	- 10~50 ℃; Below 0~95% RH (non condensing)
Storage conditions	- 30~60 ℃; Below 0~95% RH (non condensing)
IP Grade	IP30
Power	
Power	3.6V;
Battery type	Replaceable ER18505M or ER18505H lithium battery

Application

It is widely used in indoor environment testing.

Ordering Guide

- PST-xx13-423071 needs to be used together with WxS series communication boards (WxS88xx, WxS98xx and WxS99xx) to form intelligent IoT terminals with different communication modes;
- Example of products are as follows:

  - WxS8813-423071 LoRaWAN Series IAQ (Temperature+Humidity+CO2) Smart Sensor Terminal with 4.2" Ink Display
  - WxS9813-423071 NB-IoT (China) Series IAQ (Temperature+Humidity+CO2) Smart Sensor Terminal with 4.2" Ink Display
  - WxS9913-423071 NB-IoT (Global) Series IAQ (Temperature+Humidity+CO2) Smart Sensor Terminal with 4.2" Ink Display

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution

Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Information

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.