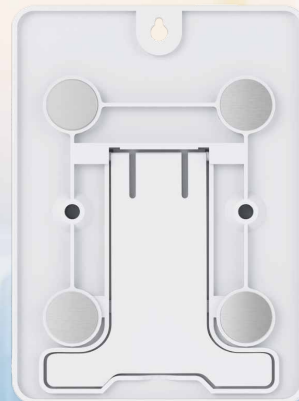# HUATO

S700 wireless data logger is a collection of temperature, temperature & humidity, thermocouple, PT100, carbon dioxide, pressure difference and other data acquisition and remote real-time monitoring. Internet of things terminal device with data overrun alarm light function.
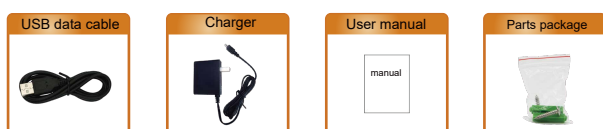
Features:

◆ Ultra-long battery life, using a large-capacity battery, uploading data every 10 minutes, can stand for one year.

◆ Support wall mount bracket, back magnet adsorption, and some series products support desktop type.

◆ IP54 protection level.

◆ A variety of sensor types are available, with powerful functions.

◆ Provide binary input and electromagnetic switch control.

◆ Large-capacity storage, with a storage capacity of 43,000, which can be expanded.

◆ WIFI connection, wireless transmission, remote server monitoring.

◆ Host size (L×H×D): 95.5*75*28mm；Weight: 0.23kg.

◆ With sound and light alarm, users can configure the alarm limit according to their own needs.
　If the data exceeds the limit value, an alarm will be issued.
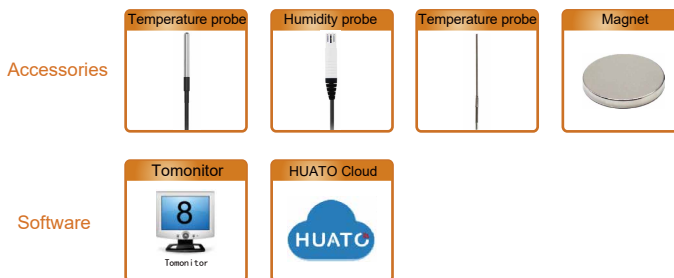
◆ Large display screen, display area: 58.8*56.4mm.

Technical Specifications

Sampling interval	10~86400S
Logging interval	10~86400S,Need to be greater than the sampling interval
LCD size	58.8*56.4mmLCD display
USB interface	Micro USB
Communication frequency	802.11 a/b/g/n
Battery capacity	3.7V 2900mAh
Indicator light	Red、Green、Blue
Working environment	Internal sensor -20~60℃、0%RH~95%RH
	External sensor -40~85℃，0%RH~95%RH

Standard accessories

USB data cable	Charger	User manual	Parts package
		manual	

Optional accessories

Accessories

Temperature probe	Humidity probe	Temperature probe	Magnet

Software

Tomonitor	HUATO Cloud
8 Tomonitor	HUATO

Application

◆ Places covered by WiFi signals such as large warehouses, food and medicine storage.

◆ Supports wall-mounted brackets, back magnet adsorption, and some products support desktop models

➢ S700-TH
➢ S705-TH

➢ S700-EX
➢ S705-EX

➢ S700-ET
➢ S705-ET

➢ S700-DT
➢ S705-DT

➢ S700-RT1
➢ S705-RT1

➢ S700-RT2
➢ S705-RT2

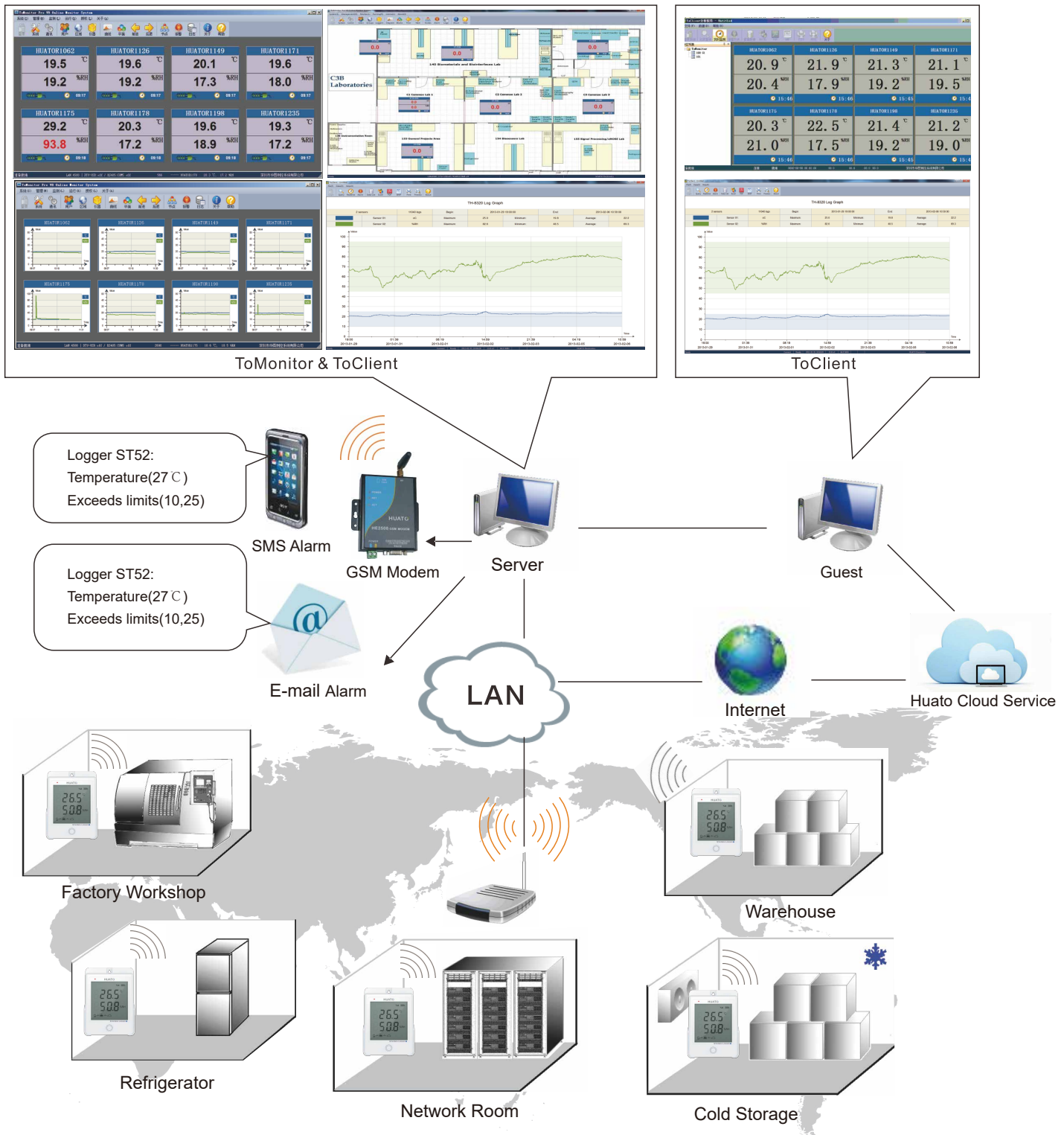➢ S700-TC1

➢ S700-TC2

➢ S700C-ET
➢ S703C-ET
➢ S703C-EX

➢ S700-EX-IC

Model List

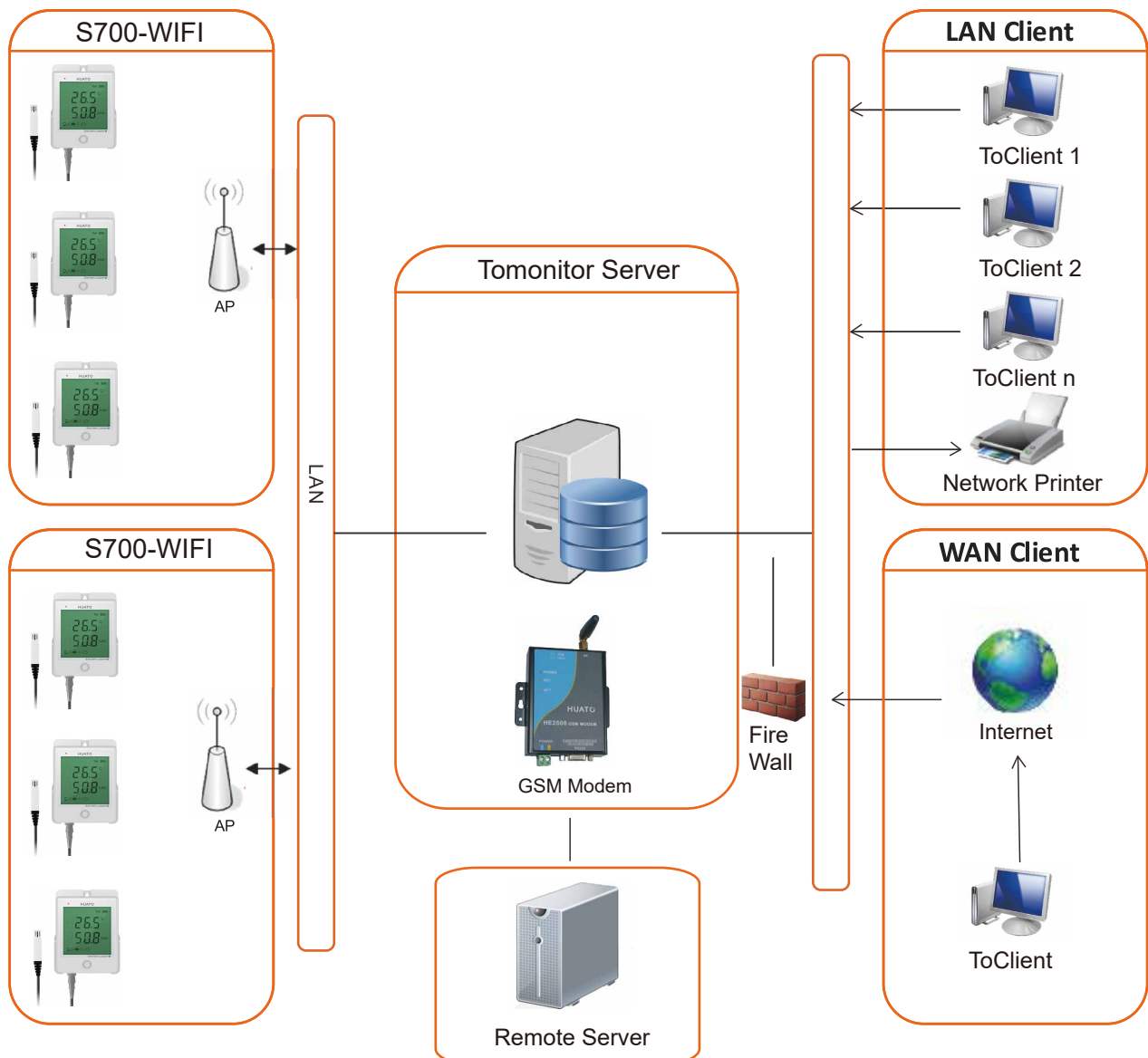| Name	Model	Temperature Accuracy	Humidity Accuracy	Gas accuracy	Temperature Measurement Range	Temperature Measurement Range	Gas Measurement Range	Sensor Type
S700/705 WIFI built-in temperature& humidity data logger	S700-TH	±0.5℃	±5%RH	/	-20~60℃	0%RH~95%RH	/	Internal sensor
	S705-TH	±0.3℃	±3%RH	/	-20~60℃	0%RH~95%RH	/	Internal sensor
S700/705 WIFI external temperature& humidity data logger	S700-EX	±0.3℃ (0~65℃)other±0.5℃	±3%RH	/	-40~85℃	0%RH~95%RH	/	External sensor
	S705-EX	±0.3℃	±3%RH	/	-40~85℃	0%RH~95%RH	/	External sensor
S700/705 WIFI external single temperature data logger	S700-ET	±0.5℃ (-10~85℃) other±1℃	/	/	-40~85℃	/	/	External sensor
	S705-ET	±0.3℃ (-10~85℃) other±0.5℃	/	/	-40~85℃	/	/	External sensor
S700/705 WIFI external dual temperature data logger	S700-DT	±0.5℃ (-10~85℃)other±1℃	/	/	-40~85℃	/	/	External sensor
	S705-DT	±0.3℃ (-10~85℃)other±0.5℃	/	/	-40~85℃	/	/	External sensor
S700/705 WIFI PT100 wide temperature single temperature data logger	S700-RT1	±0.5℃(Probe Dependent) ± 0.06Ω (60.26Ω to 175.86.1 Ω)	/	/	-100~200℃&0~400℃	/	/	External sensor
	S705-RT1	±0.1℃(Probe Dependent) ± 0.034Ω (60.26Ω to 175.86.1 Ω)	/	/	-100~200℃&0~400℃	/	/	External sensor
S700/705 WIFI PT100 wide temperature dual temperature data logger	S700-RT2	±0.5℃(Probe Dependent) ± 0.06Ω (60.26Ω to 175.86.1 Ω)	/	/	-100~200℃&0~400℃	/	/	External sensor
	S705-RT2	±0.1℃(Probe Dependent) ± 0.034Ω (60.26Ω to 175.86.1 Ω)	/	/	-100~200℃&0~400℃	/	/	External sensor
S700/705 WIFI K-type thermocouple single temperature data logger	S700-TC1	0.8±2‰℃	/	/	-200~260℃	/	/	External sensor
	S700-TC2	0.8±2‰℃	/	/	-200~260℃	/	/	External sensor
S700/705 WIFI CO2 external temperature &humidity data logger	S700C-EX	±0.3℃	±3%RH	CO2error±(30ppm+3% of reading)	(Working temperature range)0~50℃	0%RH~85%RH	CO2:400~5000ppm	External sensor
	S703C-EX	±0.3℃	±3%RH	CO2error±(50ppm+3% of reading)	(Working temperature range)0~50℃	0%RH~90%RH	CO2: (0~20%)	External sensor
S700/705 WIFI CO2 external temperature data logger	S700C-ET	±0.3℃	/	CO2:400-5000ppm error±(30ppm+3% of reading)	(Working temperature range)0~50℃	0%RH~85%RH	CO2:400~5000ppm	External sensor
	S703C-ET	±0.3℃	/	CO2error±(50ppm+3% of reading)	(Working temperature range)0~50℃	0%RH~90%RH	CO2: (0~20%)	External sensor
S700/703 WIFI differential pressure data logger	S700-DP	/	/	±(3% of reading)(PD)	/	/	-125~125Pa	External sensor
	S703-DP	/	/	±(3% of reading)(PD)	/	/	-500~500Pa	External sensor
S700/703 WIFI control equipment	S700-EX-IC	±0.3℃ (0~60℃) other±0.5℃	±3%RH	/	-40~85℃	0%RH~95%RH	/	External sensor

HUATO

• Network topology

There are many monitoring base station in this system, it adopt TCP/IP protocol to ensure networking reliability and use Ethernet and wireless hybrid networking. The base station collects data and transmit it to Tomonitor server in real-time. This system adopt client/server framework, it will not be affected when some monitoring points are out of order. We greatly improved system reliability by unite monitoring, independent measurement and control. Below is the network topology of this system.

ToMonitor & ToClient

ToClient

Logger ST52:
Temperature(27℃)
Exceeds limits(10,25)

SMS Alarm

GSM Modem

Server

Guest

Logger ST52:
Temperature(27℃)
Exceeds limits(10,25)

E-mail Alarm

LAN

Internet

Huato Cloud Service

Factory Workshop

Warehouse

Refrigerator

Network Room

Cold Storage

• Network topology

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Note: Toclient is a client software, user can use it to view real-time data and look up historic data. Tomonitor monitoring system includes 3 parts: user layer(monitoring), control layer(computer room) and device layer(warehouse and showroom). Tomonitor is an easy to control, fully automatic, high precision system which fullymeets the requirements of temperature and humidity monitoring.

• ToMonitor software for networking

1. Alarm users when data value exceeds limits, device went offline or there's power failure. Alarm the administrator when the device stopped uploading data for a certain time.

2. Each monitoring point supports up to four kinds of sensors, sensor's resolution can be set by users.

3. It is a highly extendable system, supports RJ45, GPRS, RS485, wireless devices hybrid networking.

4. ToMonitor take full advantage of multi-core CPU, it supports multi-thread processing and successfully increases system throughput rate. When sending a message or alarm, it will not affect system performance.
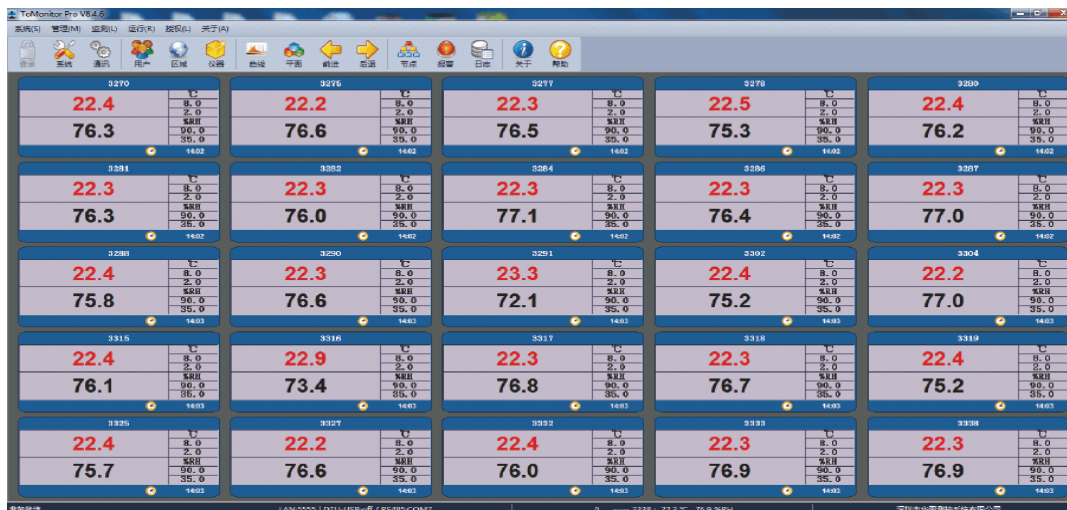

• ToClient software

1. The system adopts the client/server architecture to support internal LAN access, users does not need to go to the server room to download data.

2. Instruments/Relay subnet networking, unmanned operation, easy to add new devices.

3. encrypted data transmission effectively prevent data leakage.

4. Providing real-time data list display and curvilinear graphical display function, users can view real-time monitoring data and running information of monitoring points.
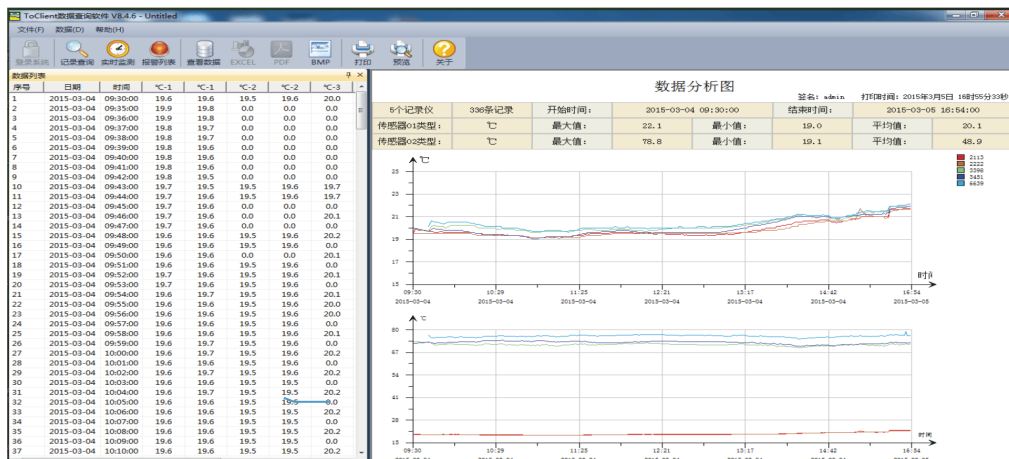
• HUATO Cloud Platform

Cold Chain APP is a mobile phone client software for object flow monitoring application.This software can provide users with a more convenient real-time monitoring service of cold chain logistics, so that users can understand the operation of equipment through the software, and provide convenience for users to freeze logistics.
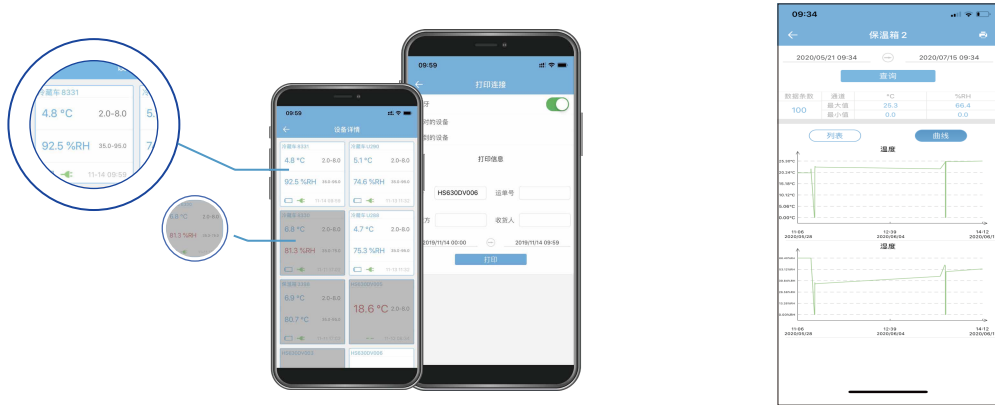
HUATO cold chain transport cloud platform is an organic combination of wireless communication technology and background data to form an efficient wireless cold chain transport system and provide users with a more convenient monitoring and management platform.It is mainly used for real-time monitoring of temperature, humidity, position, operation status and other information of goods and facilities in the cold chain logistics process.At the same time provides the map monitoring function, may track the cargo movement track.It is convenient for users to master the whole process of cold chain..

Login interface. Switch the large screen to display all real-time data, and view the real-time data of the device according to the status of the device:

Switch large screen display effect

Query the historical data recorded by the partitioning device over a period of time