

RK600-07A Data Logger with data acquisition, storage, transmission and management, and other functions, is the core component of automatic weather station, which can connect 32 parameter at the same time, has the settings and color LCD display, can communication with sever or cloud via cable or wireless connection, provide communication protocol, convenient for secondary development.

FEATURES

- Local real-time clock display
- Multiple sensor interface
- Large storage
- Multiple communication interfaces
- Wireless optional
- Free app and PC remote monitoring software
- Data cloud platform
- Self-contained clock chip
- Solar power supply optional
- Custom display interface



ADVANTAGE

- Real time Clock data display and storage;
- Adjustable data storage interval; Display DD/MM/YY, Day and Night
- View data table in real time;
- Support remote viewing and exporting data in CSV format;
- Sensor communication status indication;
- Support wireless between sensor and data logger;
- Support wireless between data logger and cloud sever;
- Support U_disk local export data;
- Support exporting data in specified time period;
- The connector supports blind plug, no misplug risk.
- Compatible with DC and AC power supply;
- Low power consumption design which support solar power supply;
- Compact design, the solar power supply system and battery can be installed in the protective box;
- RIKA provide open service of cloud platform with multi-device management; Calculate the amount of water flow
- Windows,IOS,Android; Remote monitoring software available for Windows, IOS, and Android System;
- (RIKA cloud) ; Support video monitoring (by using RIKA 's Cloud)
- Support custom,display control output;Tipping Bucket,Radar Liquid Level,radar velocity meter,camera (option)

- Support customized display interface (including logo, language, etc.);

SPECIFICATION

Item	RK600-07A	RK600-07B
Display	7" color touch screen with backlight	7" color touch screen with backlight
OS	/	Android4.0.3
Screen sleep	Support	Support
Backlight adjustable	Support	Support
Communication status indication	Support	Support
Internal storage	128MB(Data stored once every hour for 6 years, once every 10 minutes for 1 year,	128MB(Data stored once every hour for 6 years, once every 10 minutes for 1 year
External storage	SD Card 16GB (Option)	SD Card 16GB (Option)
RIKA cloud	Support, Need GPRS/2G/3G/4G Module	Not support
User cloud	Support, Need GPRS/2G/3G/4G Module	Not support
API	Support, Need GPRS/2G/3G/4G Module	Not support
Remote monitoring	Not support	Support Windows,Mac & Android
Video & photo	Via RIKA cloud	Not support
Sensor connection	Waterproof connector	Waterproof connector
Communication interface Port	RS232/485,USB	RS232/485,Ethernet,GPRS/2G/3G/4G,WIFI
	RJ45 Ethernet 10/100 (optional)	/
	GPRS/2G/3G/4G(optional)	/
	Lora(optional)	Lora(optional)
	Zigbee(optional)	Zigbee(optional)
Communication protocol	Modbus-Rtu	Modbus-Rtu,Modbus-Tcp
	Modbus-Tcp(with Ethernet module)	/
Supply	Solar power,DC12-24V,AC100-240V	Solar power,DC12-24V,AC100-240V
Measurement parameters	32 max.,support Digital 22 parameters Analog 16bit 10 parameters V,mA (Option)	32 max.
Recording interval	1-240min settable	1-240min settable
U_disk download	Support	Support
Real Time Clock	WDT (UTC , Time Zone)	customized
Average consumption	<3.5W	<3.5W
CPU	ARMCortex-A8 32bit (600MHZ)	ARMCortex-A8 CPU 32bit (720MHZ)
ESD	Class 4, ±8kV	Class 4, ±8kV
Operation temperature	-40-+75℃	-40-+75℃
Shock	10-25Hz(X,Y,Z 2g@30min)	10-25Hz(X,Y,Z 2g@30min)
FCC	Class A	Class A
CE	EN55022 & EN55024	EN55022 & EN55024

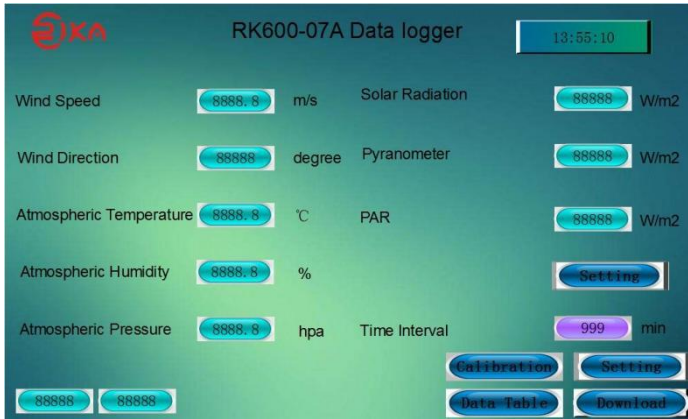
RK600-07A Data Logger



Protection box	400*500*200mm,support solar power system	400*500*200mm,support solar power system
IP(with protection box)	IP55	IP55

DISPLAY INTERFACE

● RK600-07A

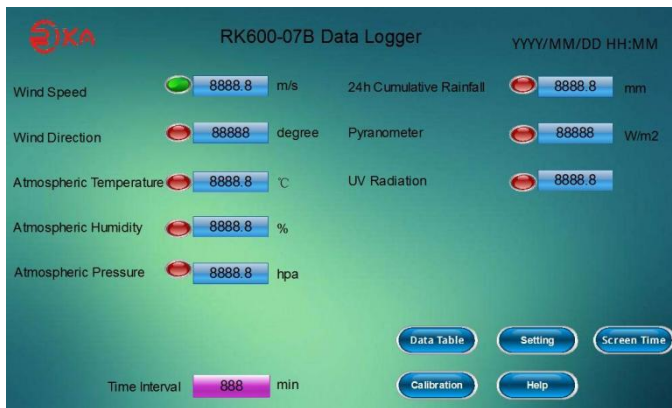


Main Interface



Data Table Interface

● RK600-07B



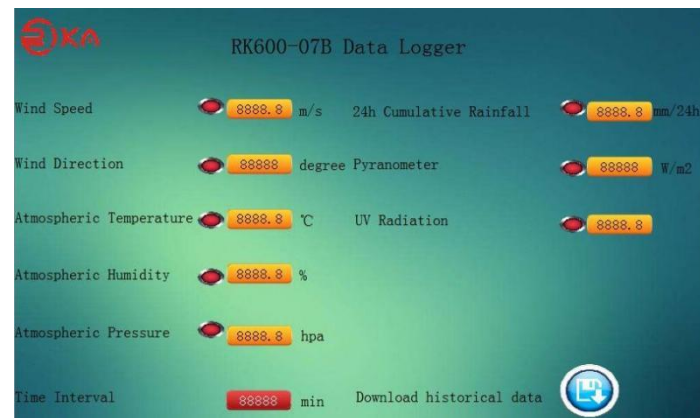
Main Interface



Setting Interface



Data Table Interface

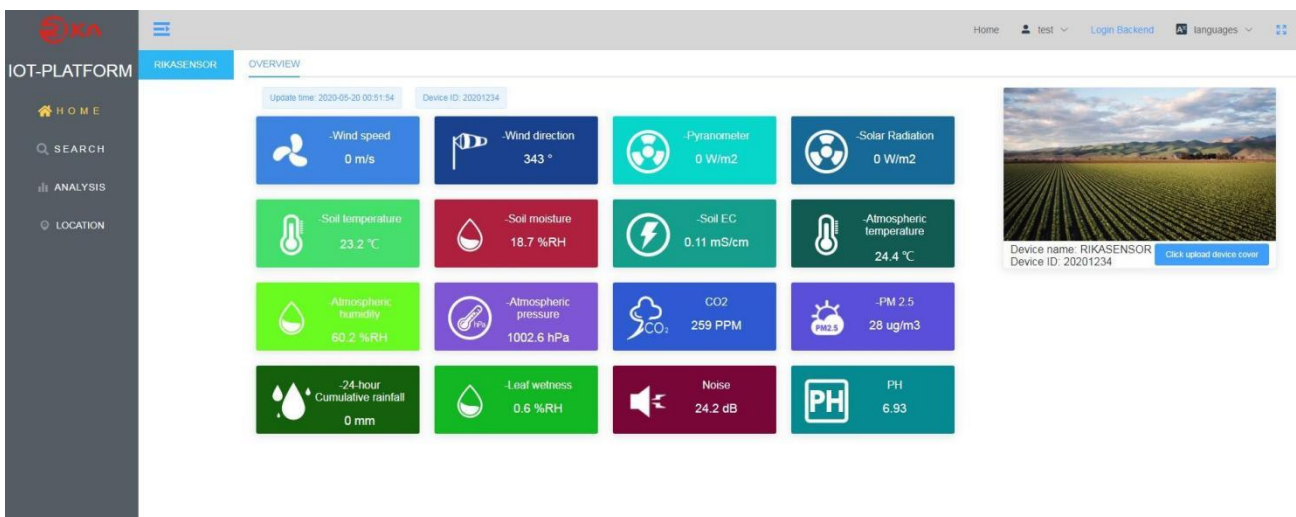


PC & APP Remote Interface

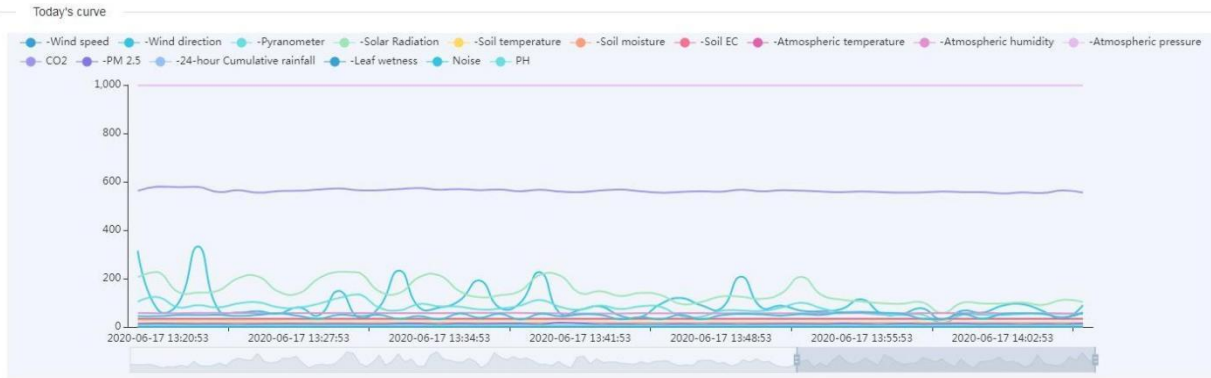
Equipment storage cabinet

- Made from galvanized sheet steel. or synthetic materials that are strong outdoor weather resistant
- With IP54 water protection standard at least.
- The cabinet is flat, double wall (Two layer panel) front and side panels have two layers. in order to better protect the heat from the sun when installed outdoors
- The front door has a manual lever lock and padlocks on the door can work conveniently
- Base has a channel for bringing the signal cable in and out.
- There is a ground wire connected between the cabinet frame and the door cover.
- The QR Code must be installed at each station in a position that is durable, resistant to weather, non-volatile and able to read the QR Code to link to the project's asset management system.

RIKA CLOUD



Real-time Data Interface



Data Curve Interface

RK600-07A Data Logger



Home test Login Backend languages

Start To End Search Export

Date	-Wind speed (m/s)	-Wind direction (°)	-Pyranometer (W/m ²)	-Solar Radiation (W/m ²)	-Soil temperature (°C)	-Soil moisture (%RH)	-Soil EC (mS/cm)	-Atmospheric temperature (°C)	-Atmospheric humidity (%RH)	-Atmospheric pressure (hPa)	CO ₂ (PPM)	PM 2.5 (ug/m ³)	-24-hour Cumulative rainfall (mm)	-Leaf wetness (%RH)	Noise (dB)	PH
2020-06-17 14:09:53	2	67	48	114	31.2	17	0.11	34.2	55.9	998.2	562	12	0	1.1	52.3	5.1
2020-06-17 14:08:53	3.1	71	63	114	31.2	16.7	0.11	34.2	55.5	998.4	557	12	0	1.1	63	5.1
2020-06-17 14:07:53	1.3	60	62	111	31.2	16.7	0.11	34.2	55.6	998.2	557	12	0	1.1	53.5	5.1
2020-06-17 14:06:54	1.3	90	54	103	31.1	16.9	0.11	34.2	55.7	998.2	555	13	0	1.1	59.7	5.1
2020-06-17 14:05:53	1.7	33	55	112	31.1	16.6	0.11	34.2	55.3	998	564	10	0	1.1	40.2	5.1
2020-06-17 14:04:53	3.4	66	57	91	31.1	17.1	0.11	34.2	56	998.2	554	12	0	1.1	53.9	5.1
2020-06-17 14:03:53	1.7	94	54	101	31	16.9	0.11	34.2	56.8	998.1	556	10	0	1.1	56.1	5.1
2020-06-17 14:02:53	2.5	88	49	97	30.9	17	0.11	34.2	56.5	998.1	552	12	0	1.1	53.5	5.1
2020-06-17 14:01:53	0.8	59	50	97	30.9	16.9	0.11	34.2	57.9	998	557	11	0	1.1	34.1	5.1
2020-06-17 14:00:53	0.5	67	50	100	30.8	16.8	0.11	34.2	56.9	998	557	13	0	1.1	53.5	5.1
2020-06-17 13:59:53	0.7	29	17	58	30.8	16.6	0.11	34.2	57.2	998	560	12	0	1.1	30.8	5.1
2020-06-17 13:58:53	1	77	51	102	30.6	17	0.11	34.2	56.9	998	556	11	0	1.1	34.1	5.1
2020-06-17 13:57:53	2.9	54	49	96	30.6	16.4	0.11	34.2	56.5	998.2	555	13	0	1.1	54.4	5.1
2020-06-17 13:56:53	0.8	55	50	98	30.5	16.8	0.11	34.2	56.4	998.2	557	10	0	1.1	58.7	5.1
2020-06-17 13:55:53	0.2	114	57	105	30.5	16.8	0.11	34.2	57.5	998	560	12	0	1.2	62.5	5.1
2020-06-17 13:54:53	1.1	74	60	113	30.4	16.9	0.11	34.2	56.6	998	557	13	0	1.1	60.5	5.1
2020-06-17 13:53:53	1.5	65	77	132	30.3	16.9	0.11	34.2	56.9	998	560	11	0	1.2	49.6	5.1
2020-06-17 13:52:53	1.2	67	100	207	30.3	16.6	0.11	34.2	56.4	998	563	12	0	1.2	52.8	5.1
2020-06-17 13:51:53	2.4	88	80	139	30.3	16.9	0.11	34.3	56.3	998.2	565	12	0	1.1	46.6	5.1
2020-06-17 13:50:53	1.7	81	66	116	30.3	16.7	0.11	34.3	56.4	998.2	561	11	0	1.2	51.7	5.1

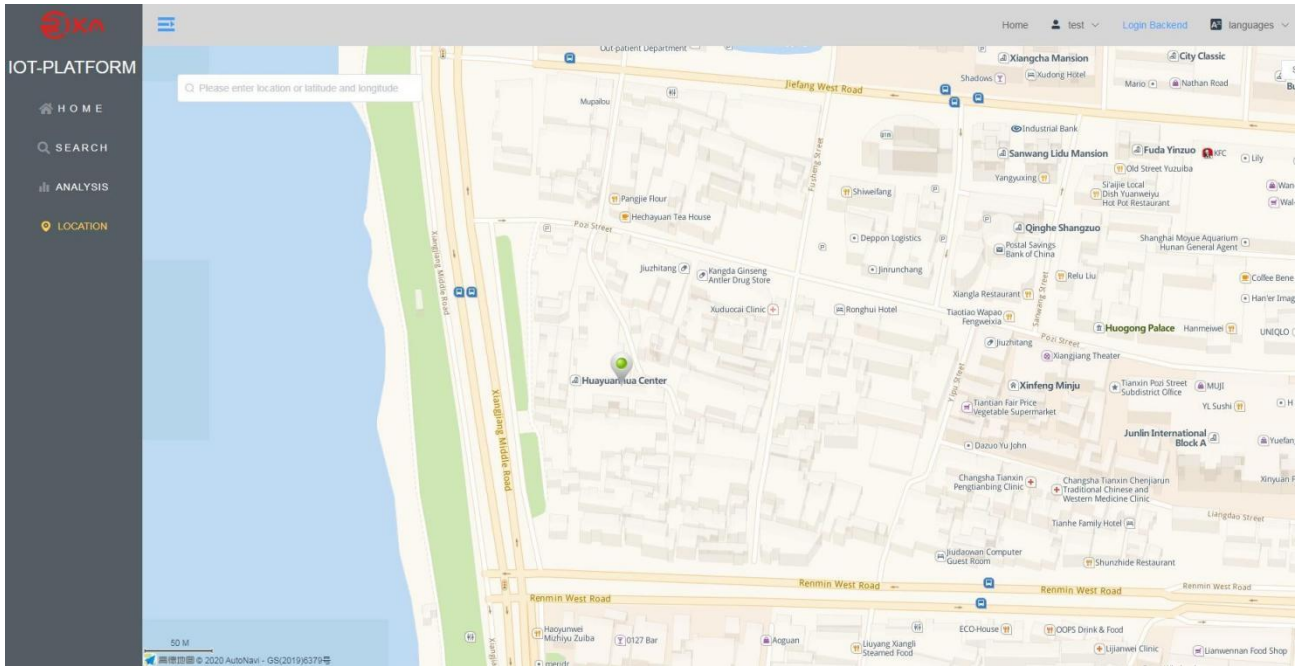
Data Export Interface

Home test Login Backend languages

Today's statistics

channel	name	average	minimum	minimum time	maximum	maximum time
e1	-Wind speed	1.4	0	2020-06-17 05:16:45	3.6	2020-06-17 12:09:55
e2	-Wind direction	93	26	2020-06-17 12:21:53	346	2020-06-17 05:20:45
e3	-Pyranometer	284	0	2020-06-17 05:11:44	908	2020-06-17 12:25:53
e4	-Solar Radiation	363	0	2020-06-17 05:11:44	1051	2020-06-17 12:38:53
e5	-Soil temperature	28.3	26.7	2020-06-17 05:11:44	31.4	2020-06-17 14:11:53
e6	-Soil moisture	16.9	16.1	2020-06-17 12:58:53	17.2	2020-06-17 05:12:45
e7	-Soil EC	0.11	0.1	2020-06-17 05:21:45	0.11	2020-06-17 05:11:44
e8	-Atmospheric temperature	33.6	28.9	2020-06-17 05:11:44	34.9	2020-06-17 12:22:53
e9	-Atmospheric humidity	58.4	54.1	2020-06-17 12:22:53	71.5	2020-06-17 05:11:44
e10	-Atmospheric pressure	998.5	998	2020-06-17 13:49:53	999	2020-06-17 05:12:45
e11	CO ₂	564	542	2020-06-17 12:14:53	613	2020-06-17 11:49:53
e12	-PM 2.5	12.2	10	2020-06-17 12:02:53	19	2020-06-17 05:11:44
e13	-24-hour Cumulative rainfall	0	0	2020-06-17 05:11:44	0	2020-06-17 05:11:44
e14	-Leaf wetness	1.2	1.1	2020-06-17 12:34:53	1.3	2020-06-17 12:13:53
e15	Noise	46.2	30.8	2020-06-17 13:06:53	64	2020-06-17 12:09:55
e16	PH	6.06	5.94	2020-06-17 14:05:53	6.15	2020-06-17 05:11:44

Statistics Interface



Map Positioning Interface

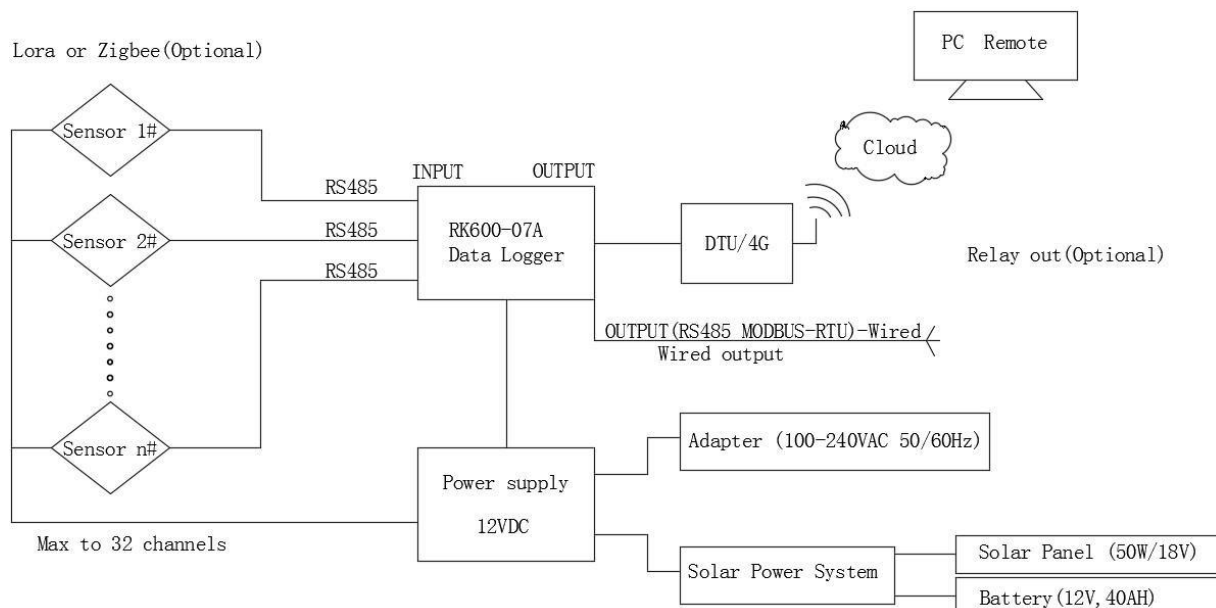


Video Surveillance Interface

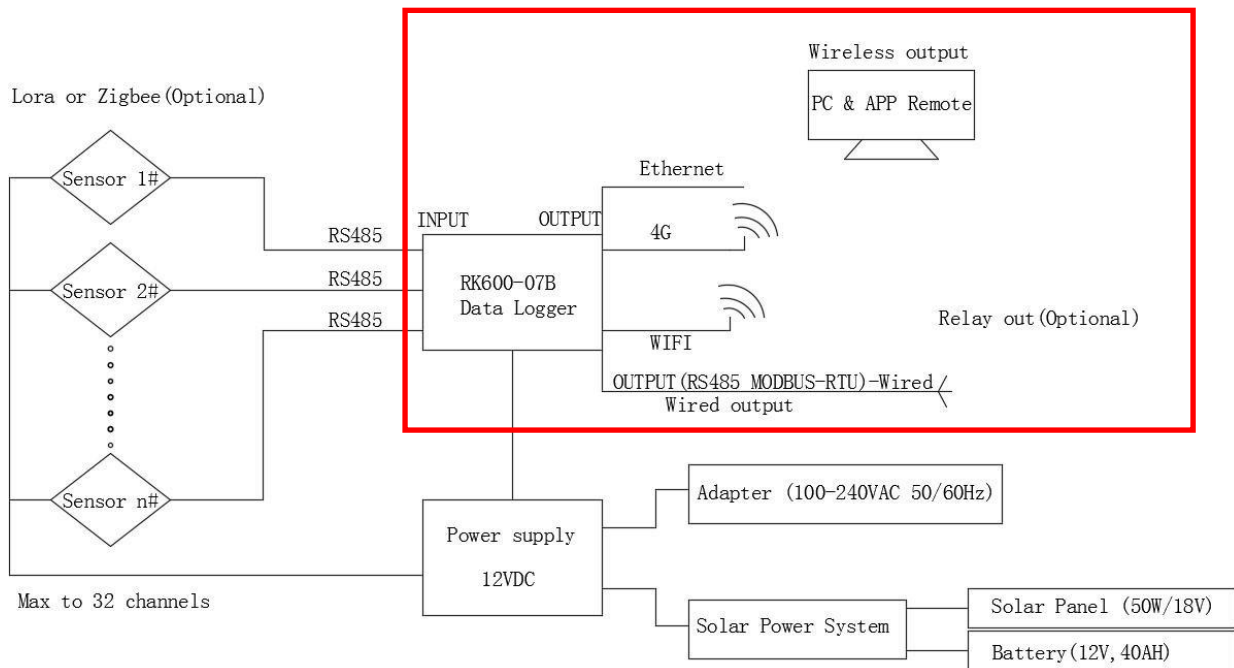
PART LIST

Item	RK600-07A	RK600-07B
Data logger	√	√
Protection box	√	√
Waterproof connector(to sensors)	√	√
Power connection terminal	√	√
USB-RS485 converter	√	√
USB cable	√	√
Power adapter(AC100-240V@12VDC)	√	√
Solar charging controller	Optional	Optional
Solar panel	Optional	Optional
Lead acid battery ^①	Optional	Optional
Ethernet module	Optional	/
GPRS/2G/3G/4G module	Optional	/
Lora module	Optional	Optional
Zigbee module	Optional	Optional
Relay module	Optional	Optional
Other parts	Customizable	Customizable
① Since air transportation is not available, it is recommended that users purchase locally.		

SYSTEM DIAGRAM



RK600-07A SYSTEM DIAGRAM



RK600-07 SYSTEM DIAGRAM

CE Complies with applicable CE directives.

Specifications subject to change without notice. Version 3.0

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