RK600-07E Data Logger AWS

RK600-07E 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;

➤ RIKAprovideopenserviceofcloudplatformwithmulti-device management;

➤ 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; AWS

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

Storage cabinet for station measuring equipment

(1) Manufactured from galvanized steel sheet or strong synthetic material painted to withstand outdoor weather
(2) The cabinet is a two-layer panel where the front and side panels have two layers to better protect against heat from the sun when installed outdoors.
(3) Have a protection standard of at least IP65
(4) The front door has a manual lever lock Can open more than 170 degrees and there is a key Master Key that can be used anywhere
(5) Behind the cabinet there is a bracket for hanging
(6) The edge of the front door and the roof have some special seals around them to prevent water from entering
(7) There is a ground wire between the lid and the door
(8) The base has a channel for input and output cables

SPECIFICATION

| Item	RK600-07A (E)	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 External storage	128M(Data stored once every hour for 6 years, once every 10 minutes for 1 year, SD Card 16GB (Option)	128(Data stored once every hour for 6 years, once every 10 minutes for 1 year 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

Protection box	400*500*200mm,support solar power system	400*500*200mm,support solar power system
IP(with protection box)	IP55,IP65 (option)	IP55,IP65 (option)

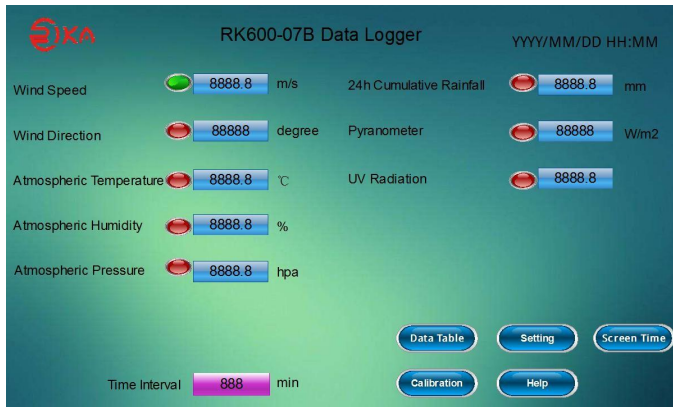## DISPLAY INTERFACE

- RK600-07A
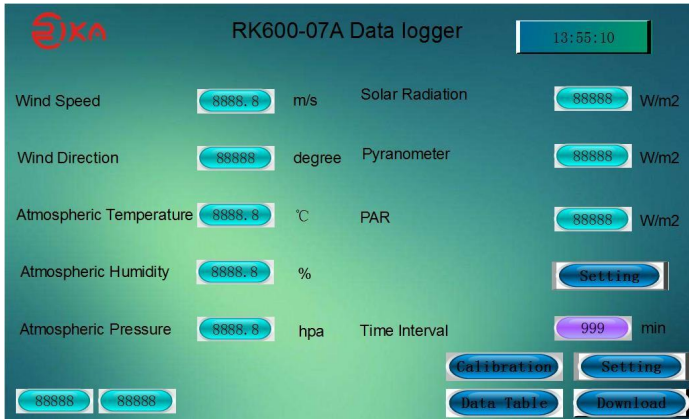
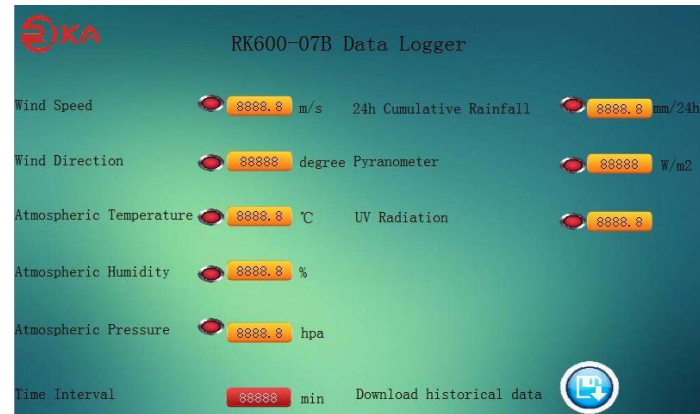**Main Interface**

Data Table Interface
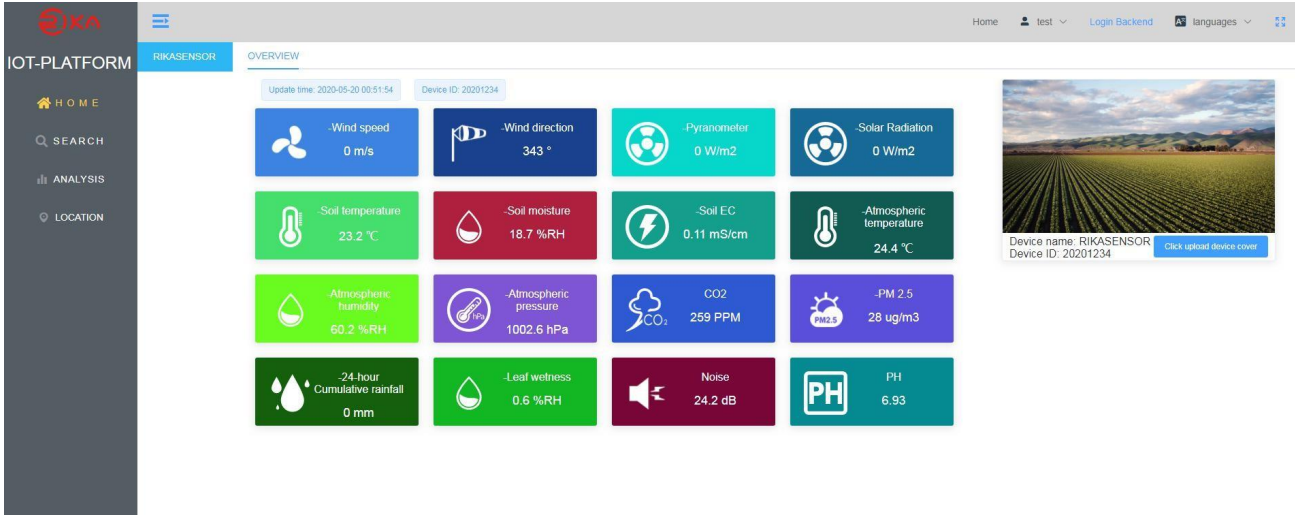
- RK600-07B

Main Interface

Setting Interface

Data Table Interface

PC & APP Remote Interface

RIKA CLOUD

Real-time Data Interface
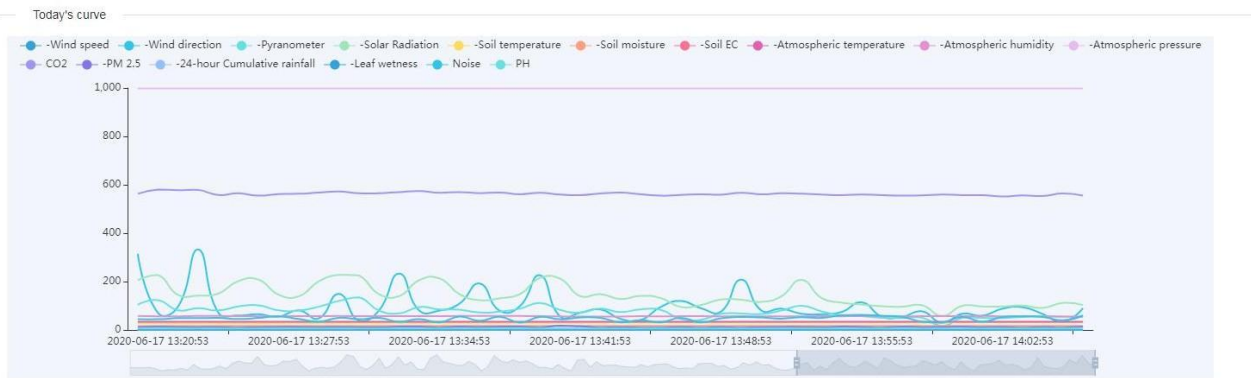
Data Curve Interface

Date	-Wind speed (m/s)	-Wind direction (°)	-Pyranometer (W/m2)	-Solar Radiation (W/m2)	-Soil temperature (°C)	-Soil moisture (%RH)	-Soil EC (mS/cm)	-Atmospheric temperature (°C)	-Atmospheric humidity (%RH)	-Atmospheric pressure (hPa)	CO2 (PPM)	-PM 2.5 (ug/m3)	-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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9
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	5.9

Data Export Interface

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	CO2	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
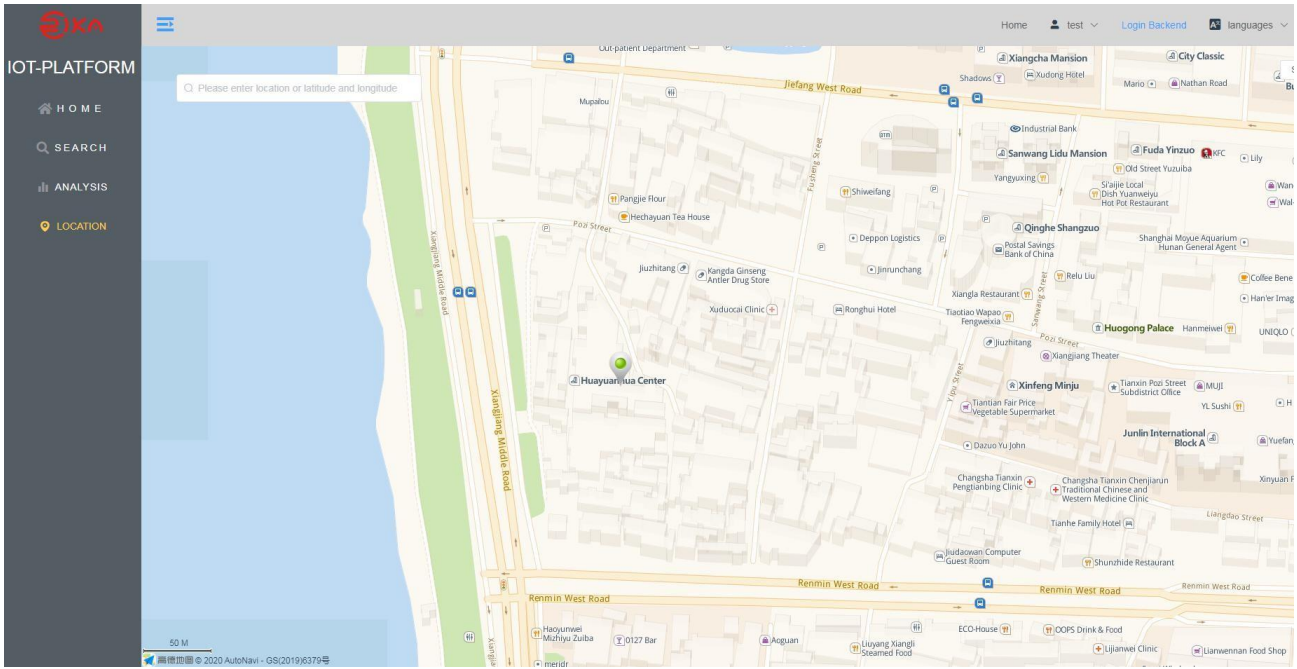
Map Positioning Interface
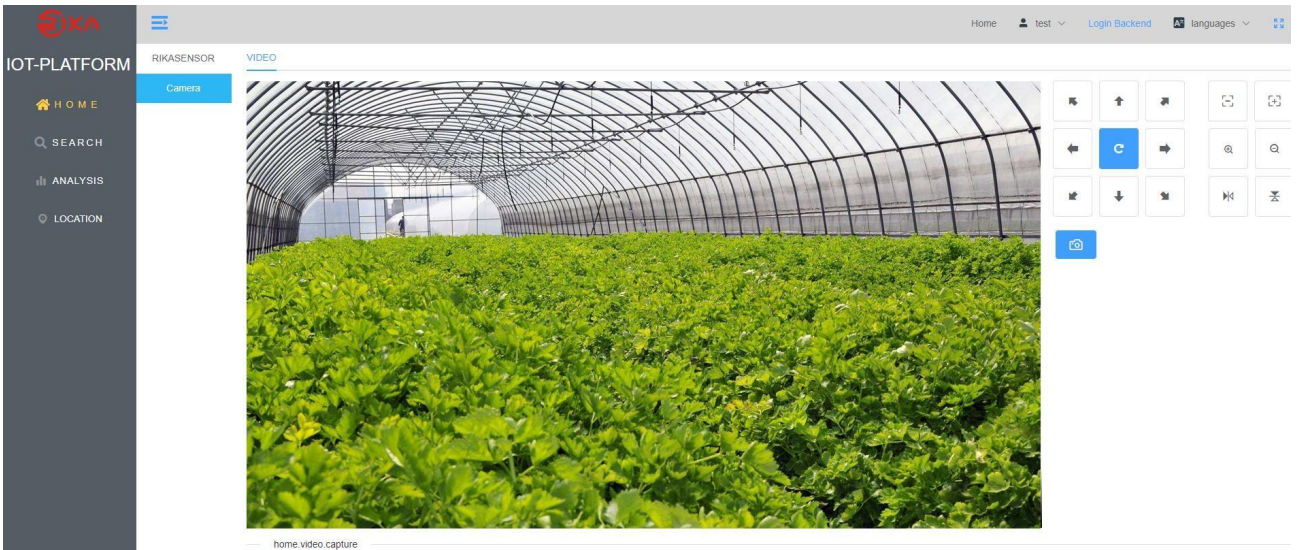

Video Surveillance Interface

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 battery①	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
①Since air transportation is not available, it is recommended that users purchase locally.		

SYSTEM DIAGRAM
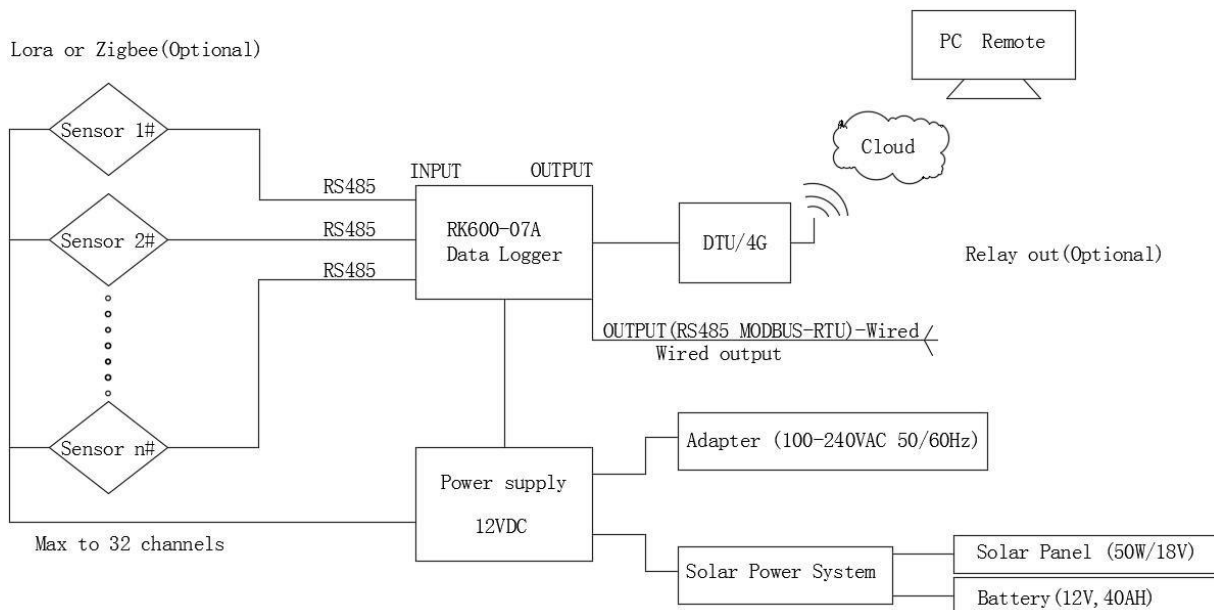
RK600-07A SYSTEM DIAGRAM
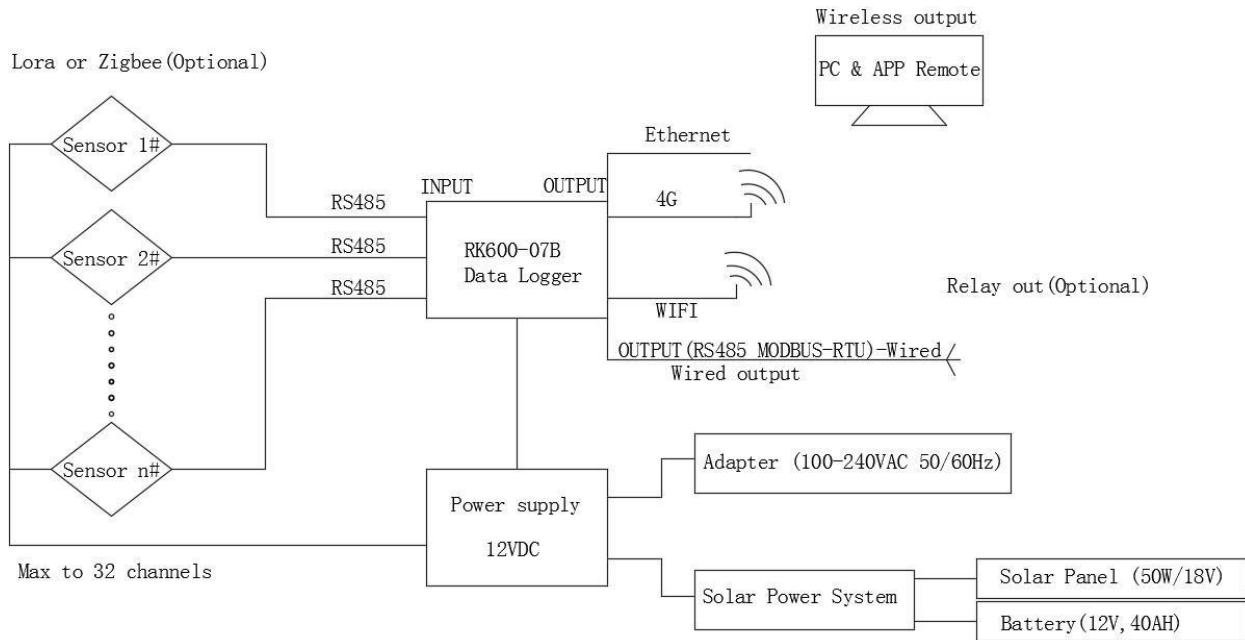
RK600-07B SYSTEM DIAGRAM

Complies with applicable CE directives.
Specifications subject to change without notice. Version 3.0
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