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IoT 10x Series Connect to KPIIOT Cloud Platform FAQ

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This instruction is special for IoT10x Series Wireless IoT Module

(Sensor to Cloud) connect to KPIIOT Cloud Platform.



Step 1:

Please ensure you device has the license code to access the KPIIOT Cloud Platform. Usually should buy the license code from King Pigeon or its agents or distributors.

Step 2:

After you got the license code, King Pigeon Sales or its agents or distributors will provide an account and password to you. **Please write down this information, you will use them while setup and login the KPIIOT and APPs.**

Step 3:

Please read the user manual and to setup the IoT10 firstly. Below are necessary settings for communicate the KPIIOT, please follow it.

(1) Open the "Basic Settings" page, fill in the **device ID = 1, and click "Save"**;

(2) Setup the parameters:

Please Note:

Almost all of the problems are caused by this step.

So please pay attention to it. No Blank before or after the content.

- 1) Protocol: Choose 1: Modbus RTU over TCP
- 2) Access Point Name(APN)+User Name+Password: Provided by you SIMCard Operator.
- 3) Server 1 IP/DNS:modbusrtu.kprtu.com
- 4) Server 1 Port:4000
- 5) Login Message: **This is to setup the license code of the device, only this license code correctly, then the KPIIOT will allow the device connection. This license code should release by King Pigeon or its agents or distributors after payment. And the license code must be the same as the "Device ID" in Step 6 mentioned.**
- 6) Heartbeat:30
- 7) Heartbeat Message:req
- 8) Heartbeat ACK Message:res
- 9) Please click "Save", and restart the unit, try to read the parameters to review one by one parameters.



Sensor to Cloud 1.0

Serial Port COM1 Refresh Device Password **** Connect 语言 English

Read Save Load Export Reset Reboot

Basic Settings Number Settings Network Settings I/O Settings Timer Settings Debug

Protocol 1:Modbus RTU over TCP Choose Modbus RTU Over TCP

Network Connection

Access Point Name (Max40) MQTT Username (Max60)

Network Username (Max40) MQTT Password (Max60)

Network Password (Max40) MQTT Path (Max60)

Server 1 IP/DNS modbusrtu.kprtu.com (Max32) Server 1 Port 4000 (0-65535)

Server 2 IP/DNS (Max32) Server 2 Port (0-65535)

Server Connection

Pls contact King Pigeon Sales Staff for Login Messages

Advance

How many times to resend when no ACK from server? (1~9)

When to go offline / reconnect without data? S (0-65535s)

How long to reconnect after resendings failed? S (0-65535s)

MQTT Data Publish Period S (0~86400s)

Server Heartbeat

Heartbeat Interval 30 S(1~9999s) CapsLock OFF

Heartbeat Message ASCII req (Max60)

Heartbeat ACK Message ASCII res (Max60)

Step 4:

Access the KPIIOT Cloud Platform Website and Login with you account and password, the website is: <http://www.KPIIOT.COM> Company website is: <http://www.iot-solution.com>

Step 5:

After login the KPIIOT, please create device information of the IoT10x, see below:

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Home Monitor Center Device Management Device Management Device Group Management Task Management User Center Data Analysis Logo Management

Home x Device Management x Device Group Management x

Device Status Device Name Device ID Dept.

User

Start Time ~ End Time Search Reset Create Device

Status	Device Name/Address	Device ID	Dept.	User	Protocol	Create Time	Operate
⊕	RTU5023 广东省深圳市宝安区福永街道成明楼	KINGPIGEONT EST32	A Engineering Solutions	KingPigeon	MODBUS RTU	2019-07-06 08:50:49	Details Edit Delete

Step 6:

Setup the Device ID, this Device ID is the license code was provided by King Pigeon or its distributor or Agents. The KPIIOT will identify this license code to allow the IoT Devices connection. In the IoT Device, also should setup this license code at Login Message in the IoT Device, see Step 3 (5).



Add Device

* Device ID: Input the Device License into here. this license was provided by King Pigeon or its Distributor or Agents.

Product Name: Protocol:

* Device Name:

* Device Offline Timer: Seconds

* Device Address:

Hidden Map:

Data Point

Step 7:

Except IoT100 with *RS485* should setup the Data Point according to the *RS485 Device Modbus Address*, the other models' data point was prepared already, no need to setup it any more.

OverTime Time: Seconds

* Device Address:

Hidden Map:

Data Point

Data Name	Unit	Slave Address	Function Code	Register Address	Data Format	Data Bit	Byte Order	Decimal Digits	Minimum Value	Maximum Value	Minimum Original Value	Maximum Original Value	Collect Or Not	Collection Cycle	Operate
Ter	9	1	Read-only register(04) v	0	16-bit Signed Integer v		AB v	2	0	1	0	10	Yes v	60	Delete
Hu	9	1	Read-only register(04) v	1	16-bit Signed Integer v		AB v	2	0	0	0	0	Yes v	60	Delete
Ext	v	1	Read-only register(04) v	2	16-bit Unsigned Integer v		AB v	2	0	1	0	10	Yes v	60	Delete

A total of 3 records page 1

Please Note:

IoT100 With RS485 Port Configuration Notices

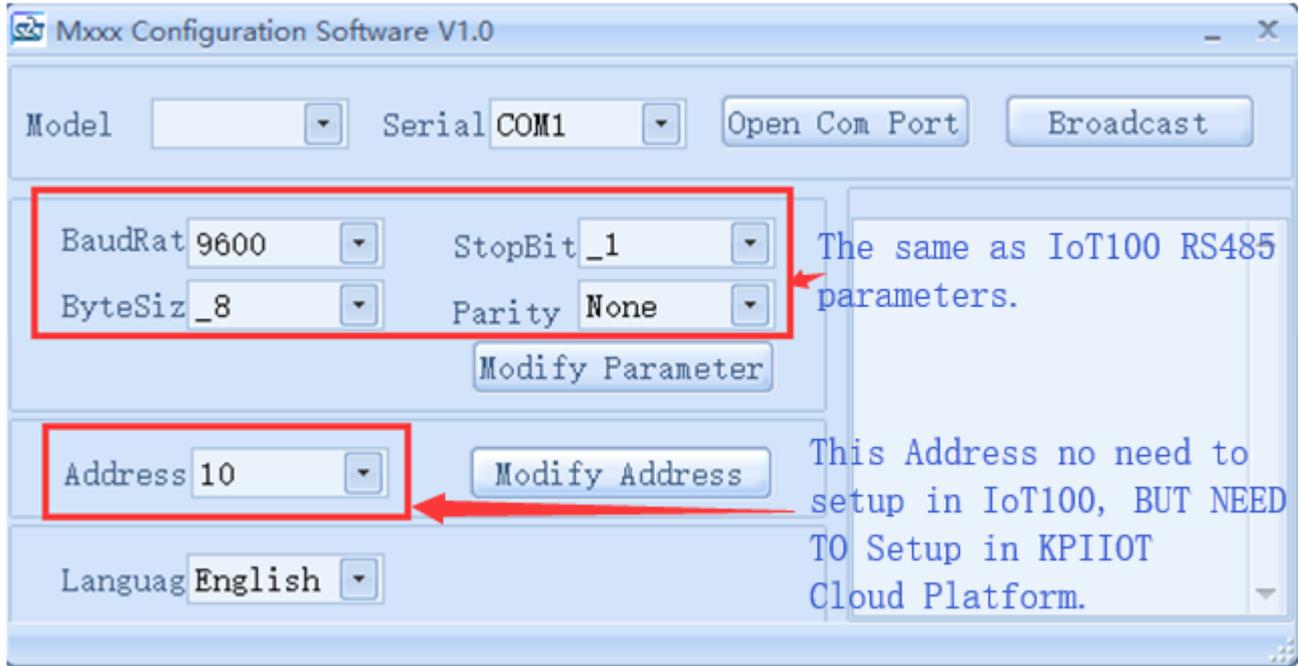
If the IOT10x series device you purchased is not the RS485 type, please ignore the following and read step8 directly.

If you purchased is the IoT100, supports RS485 port, you need to follow the steps below :

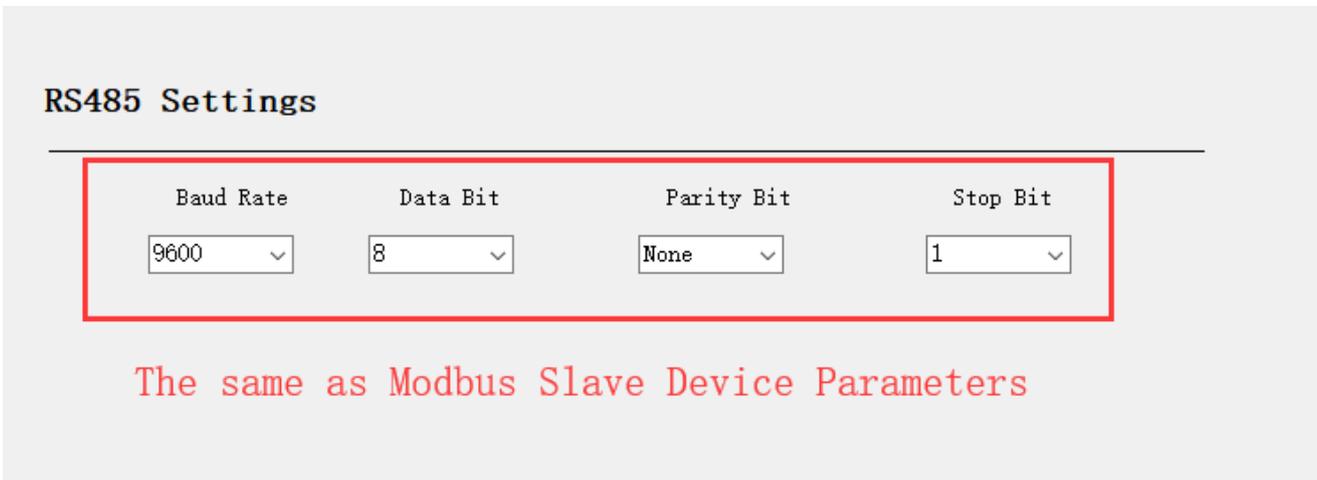
1) Confirm the serial port parameters of your RS485 device(ie Modbus Slave Device), including RS485 baud rate, data bits, parity, etc. *Note: These parameters must be consistent with the parameters of IOT10 RS485.* In addition, it also includes the Device Address (ie Modbus Slave ID). *About this Address will be*



used in after mentioned step 4) while setting up KPIIOT Cloud Platform. The specific picture is shown below: (Here is an example of our I/O acquisition device Mxxx series.)



2) Set the RS485 serial port parameters of the IOT10 RS485 device, including baud rate, data bits, parity, and so on. *Note: These parameters must be consistent with the parameters of your RS485 device that you have confirmed in step 1).* As shown below:



3) Find the user manual for your RS485 device and find the introduction about the communication protocol. You will see a list of Registers containing **Modbus Function Code, Register Address, Data Type** ,etc., as shown below: (Here is an example of our I/O acquisition device Mxxx series.)



8.2 Read and Write Holding Coil (Function Code 1: Read Coil, Function Code 5: Write Single Coil, Function Code 15: Write multi Coils.)

Read and Write Holding Coil (Function Code 1, Function Code, Function Code 15.)			
Channel	Register Address	Data Type	Description
DO 1	0	1Bit	DO1 Value, Read/Write, 0=Open,1=Close.
DO 2	1	1Bit	DO2 Value, Read/Write, 0=Open,1=Close.
DO 3	2	1Bit	DO3 Value, Read/Write, 0=Open,1=Close.
DO 4	3	1Bit	DO4 Value, Read/Write, 0=Open,1=Close.
DO 5	4	1Bit	DO5 Value, Read/Write, 0=Open,1=Close.
DO 6	5	1Bit	DO6 Value, Read/Write, 0=Open,1=Close.
DO 7	6	1Bit	DO7 Value, Read/Write, 0=Open,1=Close.
DO 8	7	1Bit	DO8 Value, Read/Write, 0=Open,1=Close.

4) Access the KPIIOT Cloud Platform Website and Login with you account and password, click on "Device Management", find the IOT100 RS485 device you created, click "Edit", add the I/O point of your RS485 device as described in the manual. The screenshot below is what I set up according to the screenshot in step 3). The Slave Address in the picture is the Device Address mentioned in step1).

Tips: Boolean type=1Bit;

It is your Modbus Slave Device Address.
If your RS485 device address is 8,
then here should write 8.

All the settings here are according to your Modbus Slave Device user manual.

Data Name	Unit	Slave Address	Function Code	Register Address	Data Format	Data Bit	Byte Order	Decimal Digits	Minimum Value	Maximum Value	Minimum Original Value	Maximum Original Value	Colle
DO1		10	R&W switch (01/05)	0	Bool								Yes
DO2		10	R&W switch (01/05)	1	Bool								Yes
DO3		10	R&W switch (01/05)	2	Bool								Yes
DO4		10	R&W switch (01/05)	3	Bool								Yes
DO5		10	R&W switch (01/05)	4	Bool								Yes
DO6		10	R&W switch (01/05)	5	Bool								Yes
DO7		10	R&W switch (01/05)	6	Bool								Yes

Step 8:

After create the device, then can create the Group if you require. The KPIIOT not support to create group before creating device.

Step 9:

Go to the Monitor Center, and Switch ON the IoT Device, waiting for 30~60seconds, then click the Device List, and you can see the device.



Status	Name	Address	Device ID	User	Dept.	Data Point
✓	265	广东省深圳市宝安区福永街道...	KINGPIGEONT EST50	KingPigeon	A Engineering...	18

Data Point	Status	Function Code	Latest Update	Current Value	Operate
DO-1	✓	R&W switch (01/05)	2019-08-06 15:48:10	OFF	Active Acquisition Historical Query

Step 10:

Download KP-IIOT Apps from Google Market, Name: KP-IIOT. (Only Android App available at present, IOS version will release soon.) Login the APP with the **Account and Password,see Step 2.**

After above steps setup, if the device still cannot communicate to the KPIIOT, then please review the **Step 3 and Step 6 and Step 9.**

The End!

Any questions please help to contact us feel free.

[Http://www.iot-solution.com](http://www.iot-solution.com)