

HR-8000 Wireless Meter Reading Module

User Manual



ORIENTAL HUARAY GROUP LIMITED

Tel: 86 755 81782516 Cell phone: 86 15813856667 Fax: 86 755 81782518

Address: Huaxia Industrial park, Jingbei, Shiyan, BaoAn district, Shenzhen, China Postal code: 518108

Website: www.ohgrf.com E-mail: sales@ohgrf.com or jet.zhang8@gmail.com

I 、 Pin configuration and function description

HR-8000 Meter module connect with other equipment method as figure 1, Pin function description as chart 1.

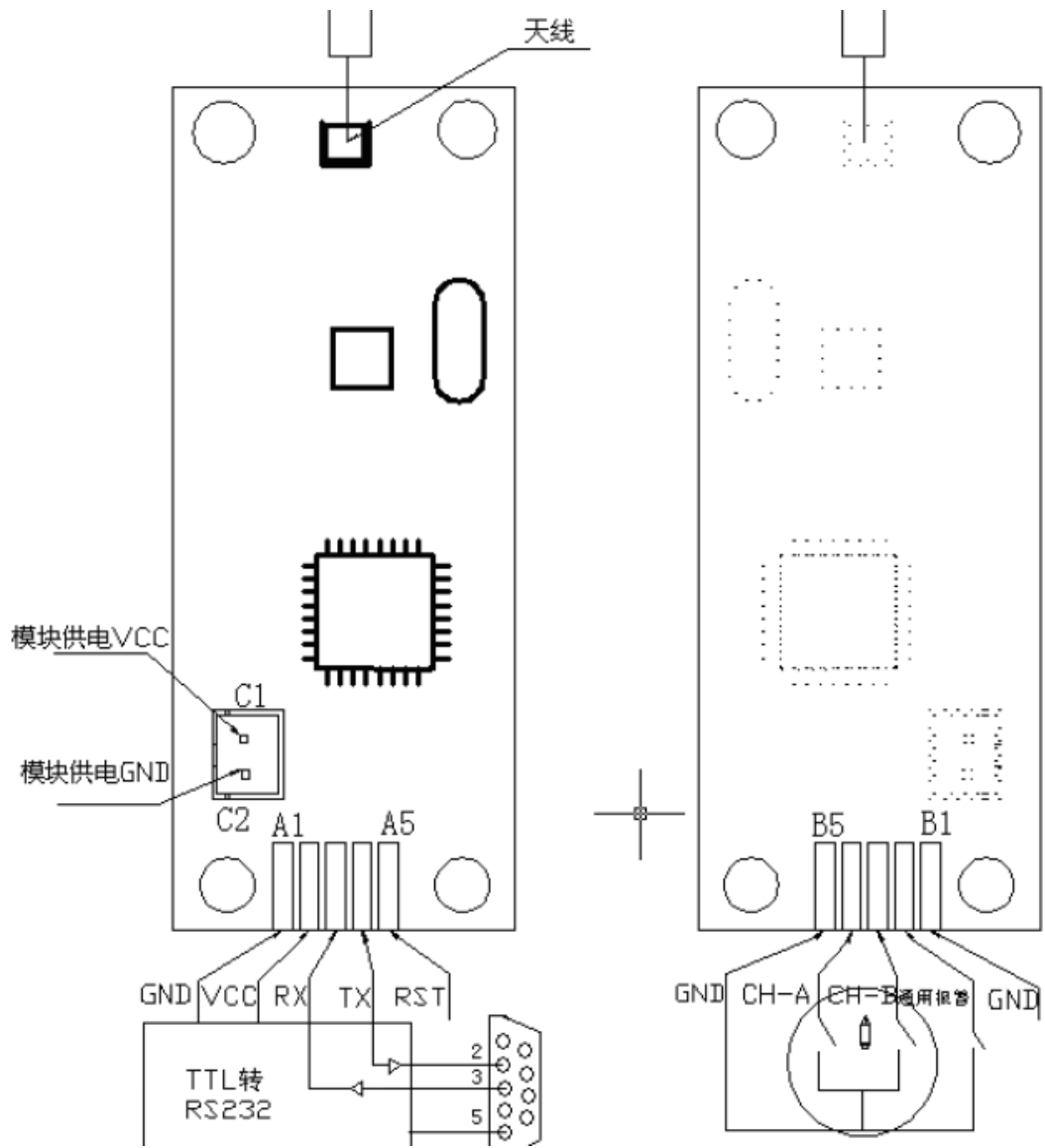


Figure 1

Chart 1, meter module function summary

Sequence	Pin Description	Function Description	Note
C1	Work Supply GND	Module Work Supply Pin GND	Work Voltage range : 2.7~5V
C2	Work Supply VCC	Module Work Supply Pin VCC	
A1	Parameter Setting Power Supply GND	Parameter Setting Power Supply Pin GND	Work Voltage range : 2.7~5V
A2	Parameter Setting Power Supply VCC	Parameter Setting Power Supply Pin VCC	
A3	RX	Parameter Setting RX Data Pin(TTL)	Connect with PC As Figure 1 Show
A4	TX	Parameter Setting TX Data Pin(TTL)	
A5	RST	Module Reset after the Pin Return to High From Low	During Work It is Disconnect
B2	General Alarm Check	A Switch Signal can be Connected	Logic '0' is Normal, Logic '1' will alarm
B3、B4	Sensor A、B	Consume Water Sample Signal	Logic '0' is accepted
	Rf antenna		Decided with your Using Freq Band

Meter module connect illumination as follow:

1. Parameter setting

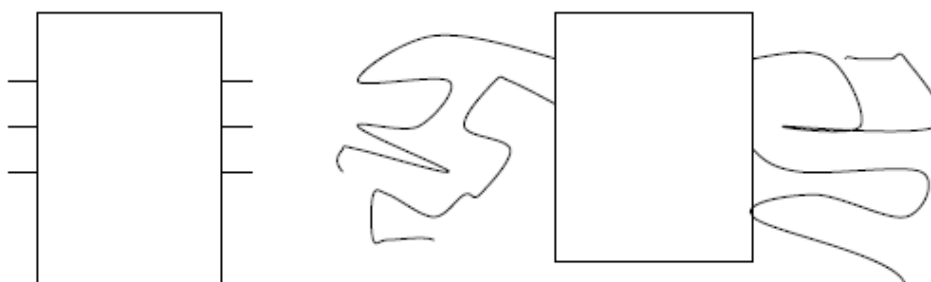
Connect the module with PC as figure 1 show, use the meter parameter setting software to set each parameter.

2. Sensor connection

Connect the sensor A, B as figure 1 show module will sample, the sensors and process the signal (D or S type is decided by the software setting)

3. Process connection for not in use Pin

No connection, but not no connection with long not in use line, as the follow figure show:



Right connection (reserve)	Wrong connection (have interference)
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NOTE (WARNING) : Not No Connection with Long Not in Use Line

4. Generous alarm Pin connection method

This Pin is connected with a switch signal, it can be used as a user define meaning detection, normally it is logic '0', when the Pin change from '0' to '1' it will cause the general alarm flag be set

II、HR-8000 Meter module operation sequence:

1. Parameter setting

Before any operation, you must set the right parameter for the meter module for more setting information, please reference the HR-8000 meter module parameter setting protocol (V1.1) and HR-8000 meter module wireless operation protocol (V1.1). The two operations can be achieved through the HR-8000 module parameter setting and function test software(V1.1).

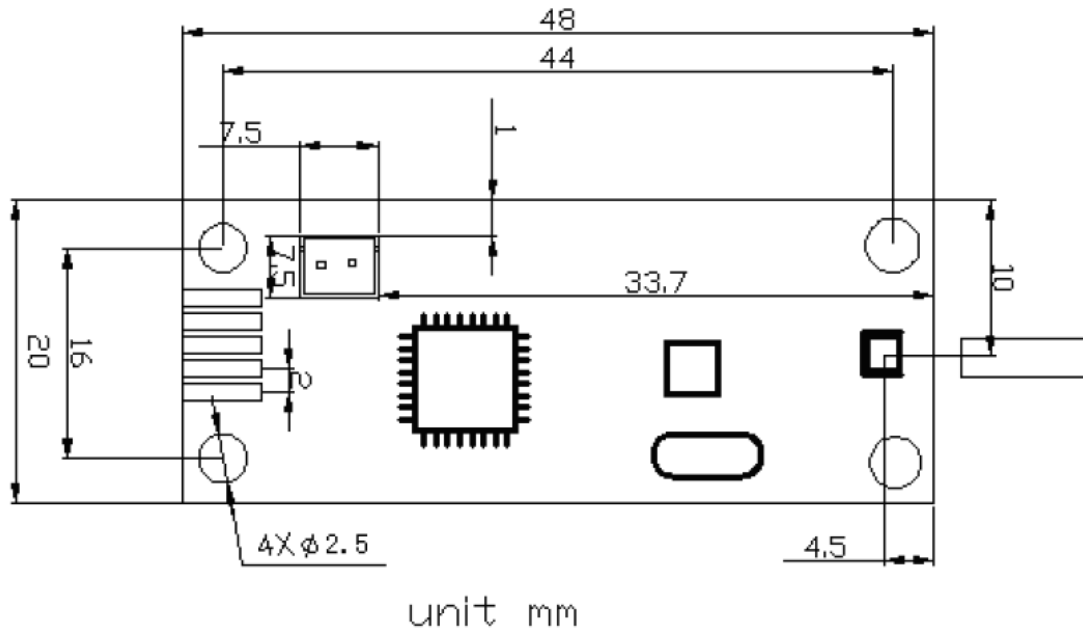
2. Module work description

After the module is powered, the module is loop the work state and the sleeping state in turn, any operation can be executed by the PC software and the Handset (wake up Cyc is 2.5S).

III、Electrical characteristics

SN	parameter	unit	min	typical	max	note
1	Work voltage	V	3	3.3	5	Sample only when low voltage
2	Average current	uA	30	35	43	VCC=3.6V
4	Work Current	mA	20	25	30	VCC=3.6V
5	Transmit Current	mA	30	35	40	
6	Work temperature	°C	-40	-20-75	80	Effected by Crystal oscillator
7	IO Output elctricity	mA		40		
8	Work freq Band	MHz	470	471	475	
9	modulation	FSK/GFSK				
10	Output power	≤mW	9.5	10	10.5	
11	Transmit bandwidth	kHz	<200			
12	Receive sensitivity	-dBm	109	110	111	
13	Freq Steable	kHz	-20		+20	
14	Receive bandwidth	kHz		50		

VII、Physical size:



V、Technology support and after service:

We offer sufficient technology support for user use the module and second development for free: mending broken module one year for free, always offer sold service, to adapt different user structure, we can develop smaller module or various size modules