



## HAC-UAN480/M1 Manual

Version 2.2C



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# Catalogue

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## I. Summarization of HAC-UAN480/M1

HAC-UAN480/M1 is a kind of products that are based on Shenzhen HAC Company's standard HAC-UAN480 radio module. UAN480/M1 adds a serial port converter and a black aluminum enclosure. Please refer to the standard UAN480 manual for the more details and technical specification (such as frequency, power, sensitivity, voltage, current, distance).

The naming methods for HAC-UAN480/MX Series

1. HAC-UAN48 is HAC standard model. The more information can be seen from the specification.
2. MX is the naming methods for Smart series based on the interface format and interface level.
  - ( 1 ) M1 serial port with TTL level, standard RS232 and RS485 serial port.
  - ( 2 ) M2 standard RS232 serial port
  - ( 3 ) M3 standard serial port with TTL level
  - ( 4 ) M4 standard RS485 serial port

## II. Functions of HAC-UAN480/M1

1. It can offer standard serial port with TTL level, RS232 level or RS485 level.
2. It can offer the LED indicator for power and sending/receiving data.
  - a. The power LED: Red light means the module has been electrified.
  - b. The signal LED: Green light means the module is receiving effective data, while Red light means the module is transmitting the effective data.
3. It can offer the selection of power, baud rate and parity by DIP switch.

## III. Definition of DIP switch for HAC-UAN480/M1

Before using the HAC-UAN480/M1, users can do some configurations to confirm the channel and data format according to your need. There is one group of 8-bit DIP switch in HAC-UAN480/M1. When the switch is turned 'ON', it means '0' (i.e. the JP2 of the module has been shorted), otherwise, it means '1'. The configuration methods are shown as follow:

NO.	Name	Function	Remarks
1	PW_S	Power selection	5V power supply: 1=0 50mW ; 1=1 100mW 3.3V power supply: 1=0 20mW ; 1=1 50mW
2	SP_S	Setting of the baud rate	23=00 1200bps ; 23=10 2400bps ;
3			23=01 4800bps ; 23=11 9600bps
4		reservation	
5	F_S	8n1/8e1 selection	5=0 8n1 ; 5=1 8e1



6		reservation	
7		reservation	
8	SET_EN	enable SET	If the pin is in 'ON' state, and the 1 <sup>st</sup> pin of DB9 is defined as SET.

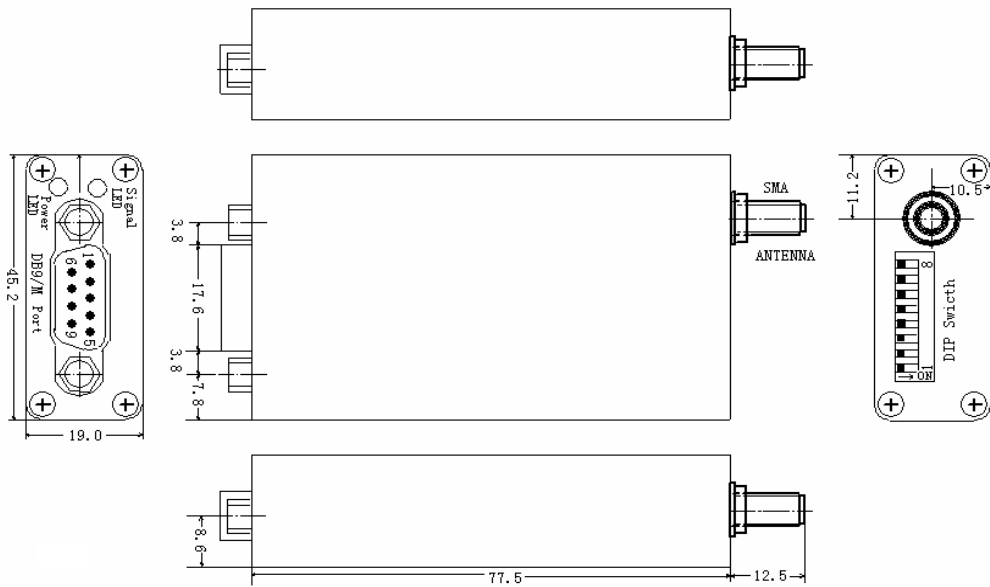
Note: Any changes of DIP switch will be effective after power up module again.

In the setting mode, users can connect Smart series with computer and change the parameter such as working channel by the Studio software or command setting.

#### IV. Port definition of HAC-UAN480/M1 DB9/M

Pin	Definition	Instruction	Level	Connect with terminal	Connect with computer
1	SET	Setup	TTL	The using method is the same as the UAN480 standard module JP1_8.	
2	RxD	RxD for RS-232	RS-232	TxD	Connect to the 3 <sup>rd</sup> pin of computer serial port
3	TxD	TxD for RS-232	RS-232	RxD	Connect to the 2 <sup>nd</sup> pin of computer serial port
4	VCC	Power supply	Same as the standard model	DC power supply	
5	GND	Power ground and Signal ground	0	Ground	Connect to the 5 <sup>h</sup> pin of computer serial port
6	TxD	TxD for TTL	TTL	RxD	
7	RxD	RxD for TTL	TTL	TxD	
8	A	A of RS-485	RS-485	A	
9	B	B of RS-485	RS-485	B	

### V. Dimension and assembly layout for Smart Series ( mm )



### VI. Standard configuration of HAC-UAN480/M1



- 1 . DB9/F Connector
- 2 . A 10cm helical SMA antenna with an elbow-joint called HAC-UAN480-10-ZSMA.
- 3 . A CD with specification documents ( just for samples )
- 4 . Mounting bracket can be purchased separately. The fixing method is shown as follow.

