

A lot of fake modules in the market
Such as HC-08 and CC41-A is the copycat company
copied from our products,
If you buy a fake, please apply for a refund guarantee your
legitimate rights and interests



Jnhuamao Technology Company

Dual mode Bluetooth module

Datasheet

- 2 Professional bluetooth products suppliers.
- 2 Remote control module provider
- 2 data transmission module provider
- 2 PIO state acquisition module provider
- 2 Customizable bluetooth module and bluetooth solutions
- 2 Jinan high and new technology enterprise
- 2 SIG members

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WebSite: <http://www.huamaosoft.com>

Mail: webmaster@jnhuamao.cn

**The most complete, most convenient, the most stable of
Bluetooth data transmission, remote control, PIO state
collects modules**

---- Master and slave role in one

---- Remote control without other MCU

---- The PIO state collects without other MCU

13. Product parameters

- Ø BT Version: Bluetooth Specification V4.0 & BLE
- Ø UART send and receive max bytes is 512.
- Ø Other device to module in SPP mode: 60 Bytes per packet
- Ø Other device to module in BLE mode: 20 Bytes per packet.
- Ø Two data transmission mode, balance mode and high speed mode.
- Ø Working frequency: 2.4GHz ISM band
- Ø Modulation method: GFSK(Gaussian Frequency Shift Keying)
- Ø RF Power: -23dbm, -6dbm, 0dbm, 6dbm.
- Ø Speed: Asynchronous: 2-6K Bytes
Synchronous: 2-6K Bytes
- Ø Security: Authentication and encryption
- Ø Service: Slave SPP, Peripheral BLE, UUID FFE0,FFE1
- Ø Power: +3.3VDC 50mA
- Ø Long range: SPP 30 meters, BLE 60 meters.
- Ø Power: SPP 13.5mA, BLE 9.5mA.
- Ø Working temperature: -5 ~ +65 Centigrade
- Ø Size: HM-12 27mm x 13mm x 2.2 mm;
- Ø Size: HM-13 18 x 13 x 2.2mm

2. Product overview

Thanks for you choose our products. If you want to know more, www.jnhuamao.cn can help you (Videos, New version datasheet, Module work flow, project Codes, etc.)

HM Bluetooth module use CSR or TI CC2540 or cypress chips, Master and slave roles in one, transmission version and remote control version and PIO state acquisition functions in one, Support the AT command modify module P1meters, Convenient and flexible.

Transmission version can be used to transmit data between two Bluetooth devices.

Remote Control version can be used to Control PIO ports output high or low level without any other MCU.

The PIO state acquisition version can be used to acquisition PIO ports state without any other MUC. (Only support Bluetooth V2.1)

HM-01, HM-02, HM-03, HM-04, HM-05, HM-06, HM-07, HM-08, HM-09 is Bluetooth V2.1 version.

HM-10, HM-11 is Bluetooth V4.0 BLE version.

HM-12, HM-13 is Bluetooth Dual mode support EDR 4.0 and BLE 4.0

HM-16, HM-17 is Bluetooth V4.1 BLE version.

HM-18, HM-19 is Bluetooth V4.2 BLE version.

HM-01, HM-02, HM-09, HM-10, HM-16, HM-18 is Pins to Pins.

HM-05, HM-06, HM-07, HM-11, HM-17, HM-19 is Pins to Pins.


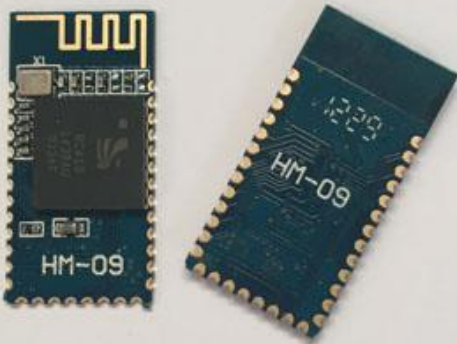
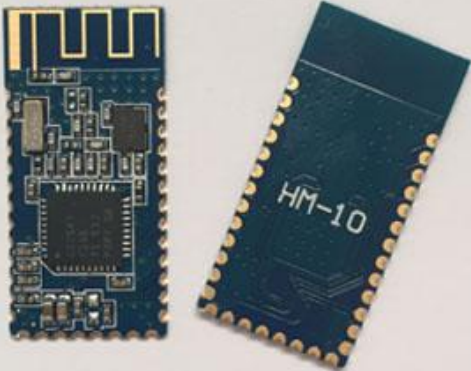
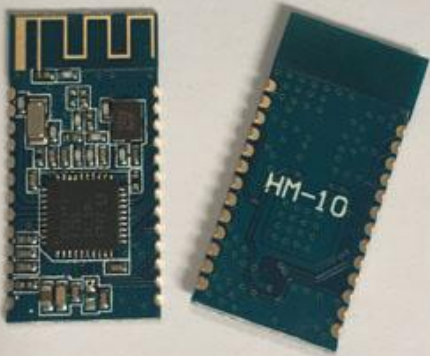
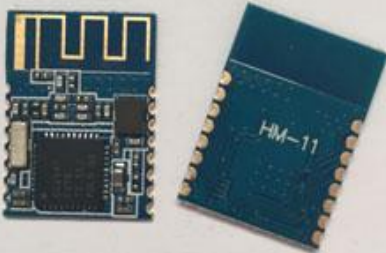
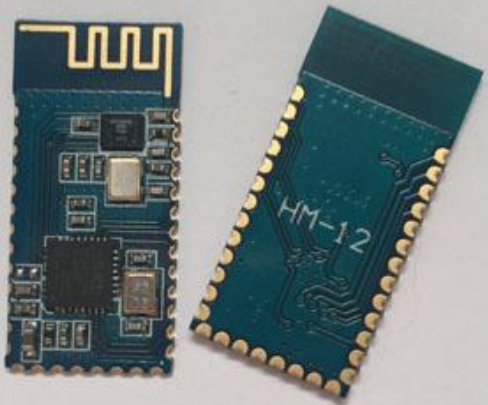
3. Product model

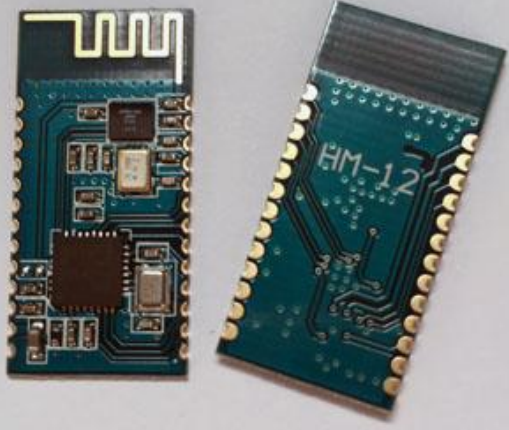
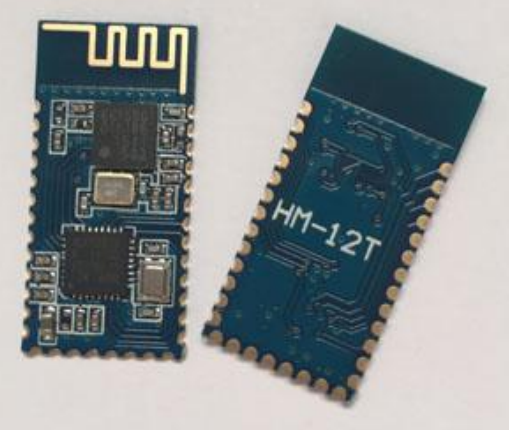

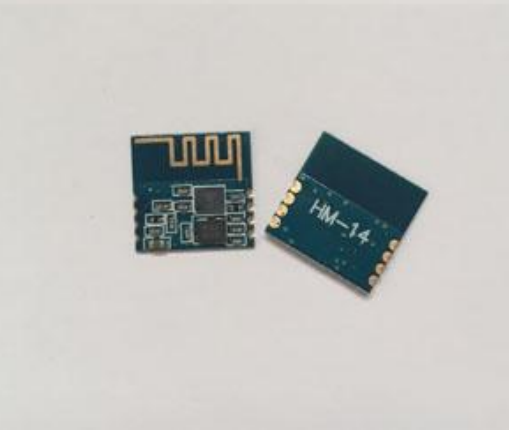


Modules	VDD	Size(mm)	Flash	Chip	BT Version
HM-01	2.5-3.7V	27 * 13 * 2.2	8M	BC417143	V2.1+EDR
HM-02A	2.5-3.7V	27 * 13 * 2.2	6M	BC31A223	V2.1
HM-02B	2.5-3.7V	27 * 13 * 2.2	6M	BC41C671	V2.1+EDR
HM-03A	2.5-3.7V	27 * 12.5 * 4.3	6M	BC31A223	V2.1
HM-03B	2.5-3.7V	27 * 12.5 * 4.3	6M	BC41C671	V2.1+EDR
HM-04A	2.5-3.7V	Not for sale			
HM-04B	2.5-3.7V	Not for sale			
HM-05/06A	2.5-3.7V	18 * 13 * 2.2	6M	BC31A223	V2.1
HM-05/06B	2.5-3.7V	18 * 13 * 2.2	6M	BC41C671	V2.1+EDR
HM-07	2.5-3.7V	18 * 13 * 2.2	8M		V2.1+EDR
HM-08	2.5-3.7V	27 * 13 * 2.5	8M	Class 1	V2.1+EDR
HM-09	2.5-3.7V	27 * 13 * 2.2	8M		V2.1+EDR
HM-10	2.2-3.7V	27 * 13 * 2.2	256Kb	CC2540/1	V4.0 BLE
HM-11	2.2-3.7V	18 * 13 * 2.2	256Kb	CC2540/1	V4.0 BLE
HM-12	2.5-3.9V	27 * 13 * 2.2	64KB	Dual mode	EDR 40 + BLE 40
HM-13	2.5-3.9V	18 * 13 * 2.2	64KB	Dual mode	EDR 40 + BLE 40
HM-14	2.2-4.0V	13 * 12 * 2.0		Dual mode	EDR40 + BLE 40
HM-15	5V	65 * 32 * 16	256Kb	CC2540	BLE V4.0
HM-16	2.1-5.5V	27 * 13 * 2.2	128KB		BLE V4.1
HM-17	2.1-5.5V	18 * 13 * 2.2	128KB		BLE V4.1
HM-18	2.1-5.5V	27 * 13 * 2.2	256KB		BLE V4.2
HM-19	2.1-5.5V	18 * 13 * 2.2	256KB		BLE V4.2

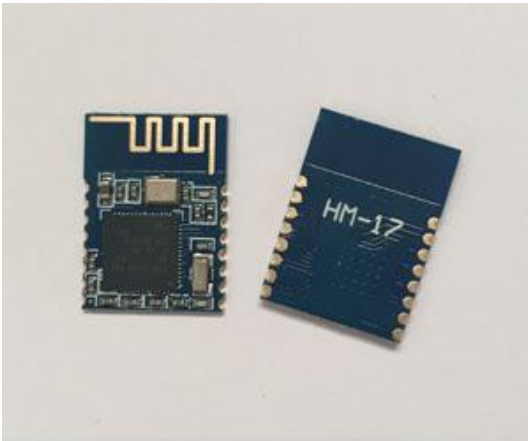
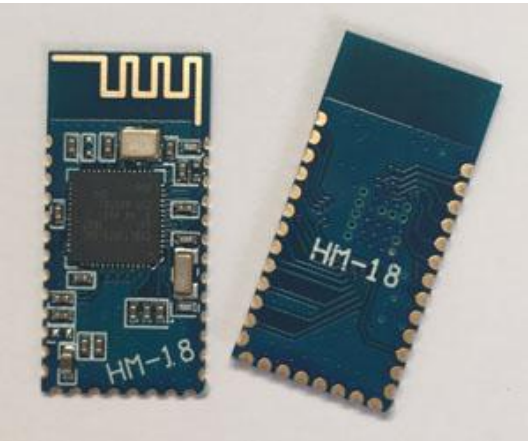


4. Product certificate

Products have CE, RoHS. You can download certification from www.jnhuamao.cn or www.huamaosoft.com

5. Product Picture

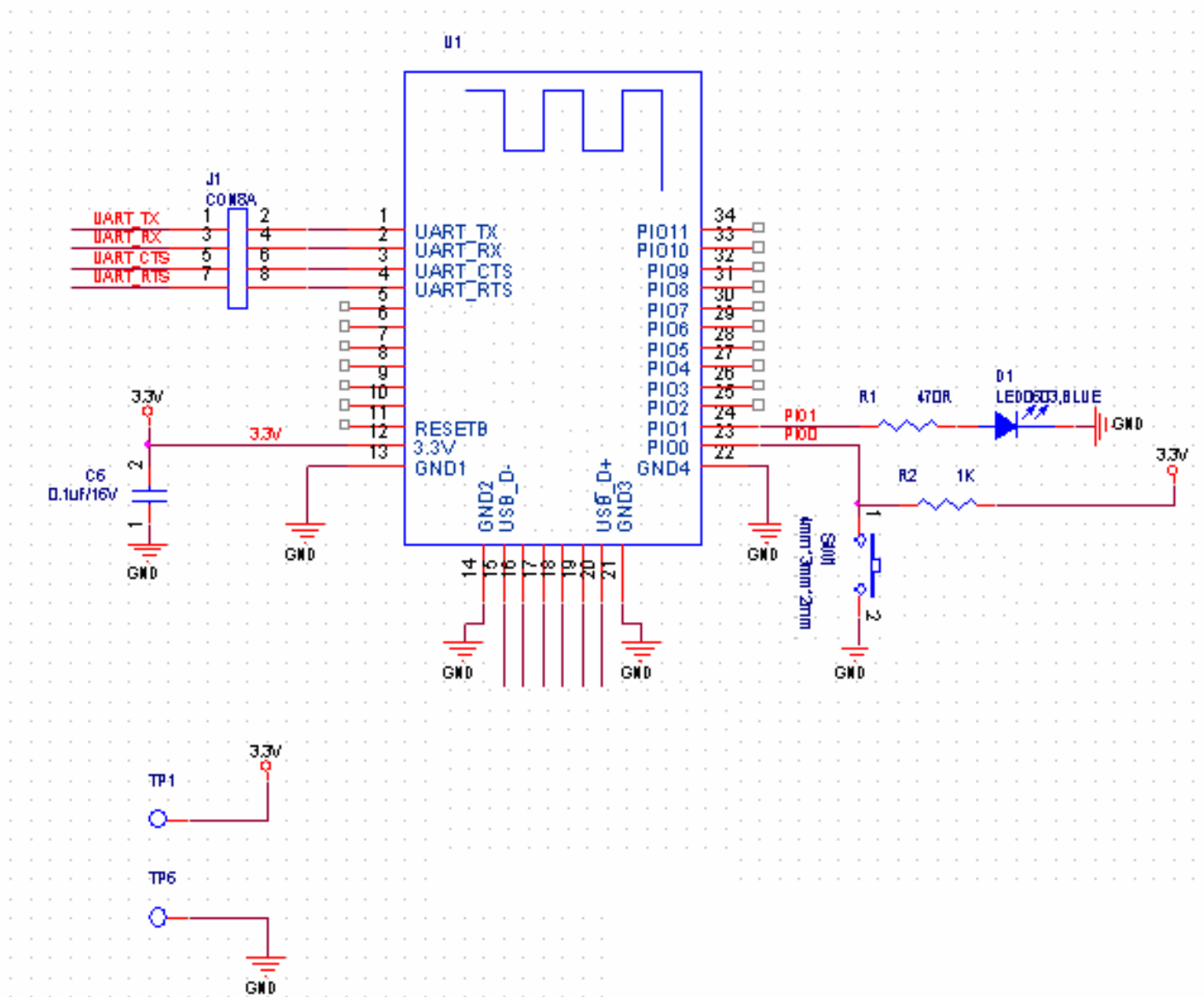
	
<p>HM-06 EDR 2.1 HMSoft V621</p>	<p>HM-09 EDR 2.1 HMSoft V621</p>
	
<p>HM-10S BLE 4.0 HMSoft V540</p>	<p>HM-10C BLE 4.0 HMSoft V540</p>
	
<p>HM-11 BLE 4.0 HMSoft V540</p>	<p>HM-12S Dual (EDR 4.0 & BLE 4.0) HMSoft V313</p>

	
<p>HM-12C Dual (EDR 4.0 & BLE 4.0) HMSoft V313</p>	<p>HM-12T Dual (EDR 4.0 & BLE 4.0) HMSoft V311</p>
	
<p>HM-13 Dual (EDR 4.0 & BLE 4.0) HMSoft V313</p>	<p>HM-14 Dual (EDR 4.0 & BLE 4.0) HMSoft V218</p>
	
<p>HM-15 BLE 4.0 USB Dongle HMSoft V530</p>	<p>HM-16 BLE 4.1 HMSoft V108</p>

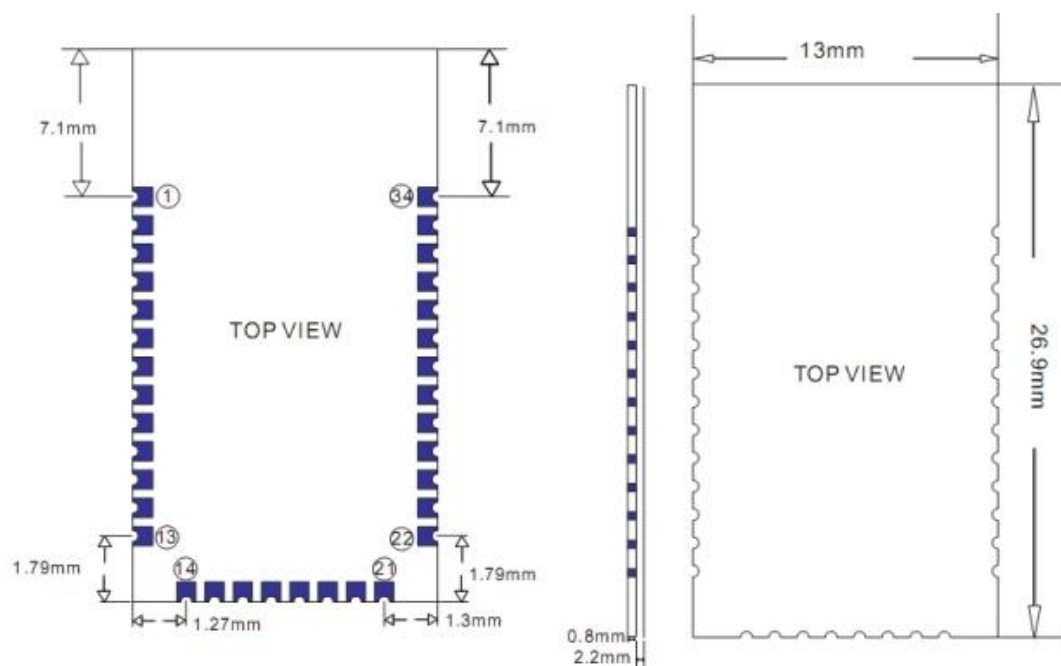
	
<p>HM-17 BLE 4.1 HMSoft V108</p>	<p>HM-18 BLE 4.2 HMSoft V108</p>
	
<p>HM-19 BLE 4.2 HMSoft V108</p>	<p>HM Beacon BLE 4.0 HMBeacon V524</p>
<p>WIFI Testing Coming soon</p>	<p>WIFI+BLE Testing Coming soon</p>
<p>HM-20</p>	<p>HM-21</p>

6. Product technical specifications

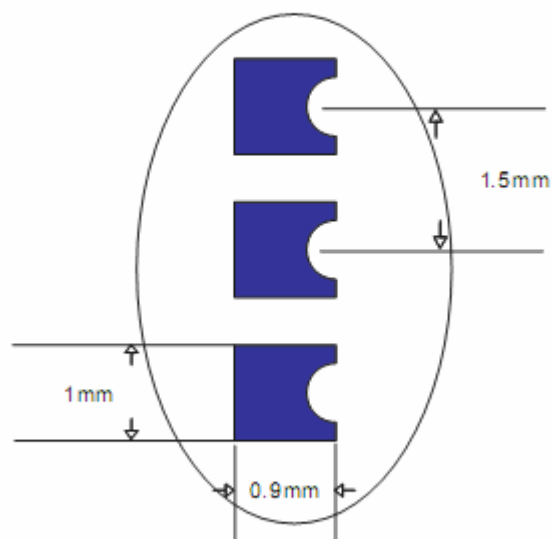
6.1 HM-12 Schematic



6.2 HM-12 Size



6.3 HM-12 package information



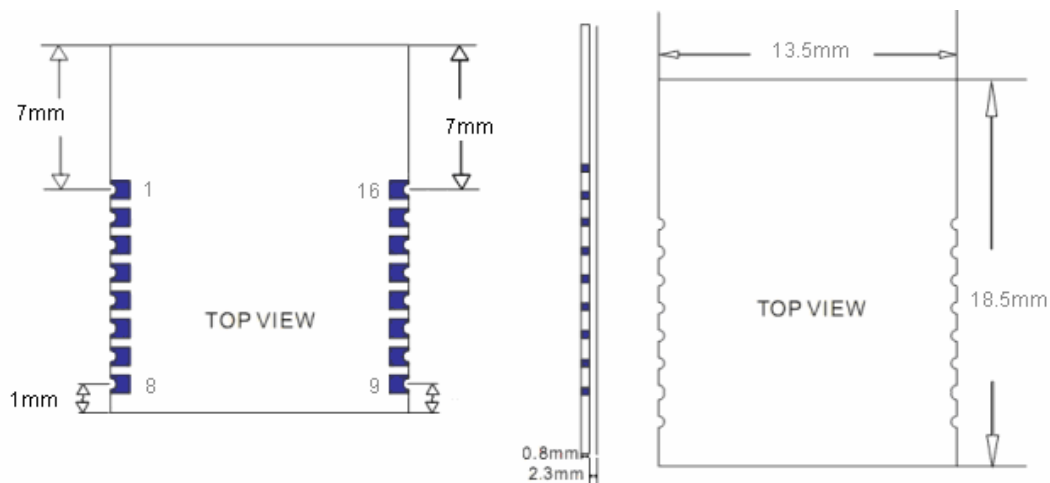
6.4 HM-12 Device Terminal Functions

No	Name	Description	Note
1	UART_TX	UART interface	
2	UART_RX	UART interface	
3	UART_CTS	UART interface	

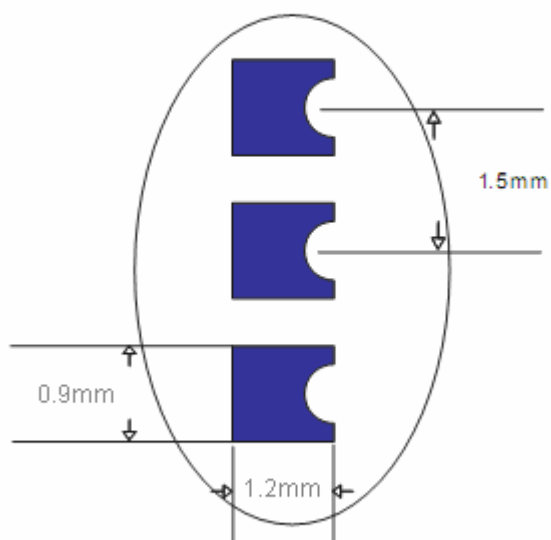
4	UART_RTS	UART interface	
5	NC	NC	
6	NC	NC	
7	NC	NC	
8	NC	NC	
9	NC	NC	
10	NC	NC	
11	RESETB	Reset if low >1000ms.	
12	VCC	3.3V	
13	GND	Ground	
14	GND	Ground	HM-12C doesn't have
15	NC	NC	HM-12C doesn't have
16	NC	NC	HM-12C doesn't have
17	NC	NC	HM-12C doesn't have
18	NC	NC	HM-12C doesn't have
19	NC	NC	HM-12C doesn't have
20	NC	NC	HM-12C doesn't have
21	GND	Ground	HM-12C doesn't have
22	GND	Ground	
23	PIO0	System Key	
24	PIO1	System LED	
25	PIO2	input/output pin	
26	PIO3	input/output pin	
27	PIO4	input/output pin	
28	PIO5	input/output pin	
29	PIO6	input/output pin	
30	PIO7	input/output pin	
31	PIO8	input/output pin	
32	PIO9	input/output pin	

33	PIO10	input/output pin	
34	PIO11	input/output pin	

6.5 HM-13 Size



6.6 HM-13 Package information



6.7 HM-13 Device Terminal Functions

No	Name	Description	Note
1	UART_RTS	UART interface	
2	UART_TX	UART interface	

3	UART_CTS	UART interface	
4	UART_RX	UART interface	
5	NC	NC	
6	NC	NC	
7	NC	NC	
8	NC	NC	
9	VCC	V3.3	
10	NC	NC or VCC	
11	RESETB	Reset if low <1000ms	
12	GND	Ground	
13	PIO3	input/output pin	
14	PIO2	input/output pin	
15	PIO1	System LED	
16	PIO0	System KEY	

7. System function

System KEY function (PIO0) (Add in V208)

Press if Low > 1000ms:

7.3.1 If Module has already connected to remote device

Module will disconnect from remote device.

7.3.2 If Module is standby mode

Module will reset to default configuration. Then restart.

System MAC address

Each dual mode module contains two IEEE addresses, like follow:

00: 0E: 0E: XX: XX: XX (00: 0E: 0E is SPP address)

00: 0E: 0B: XX: XX: XX (00: 0E: 0B is BLE address)

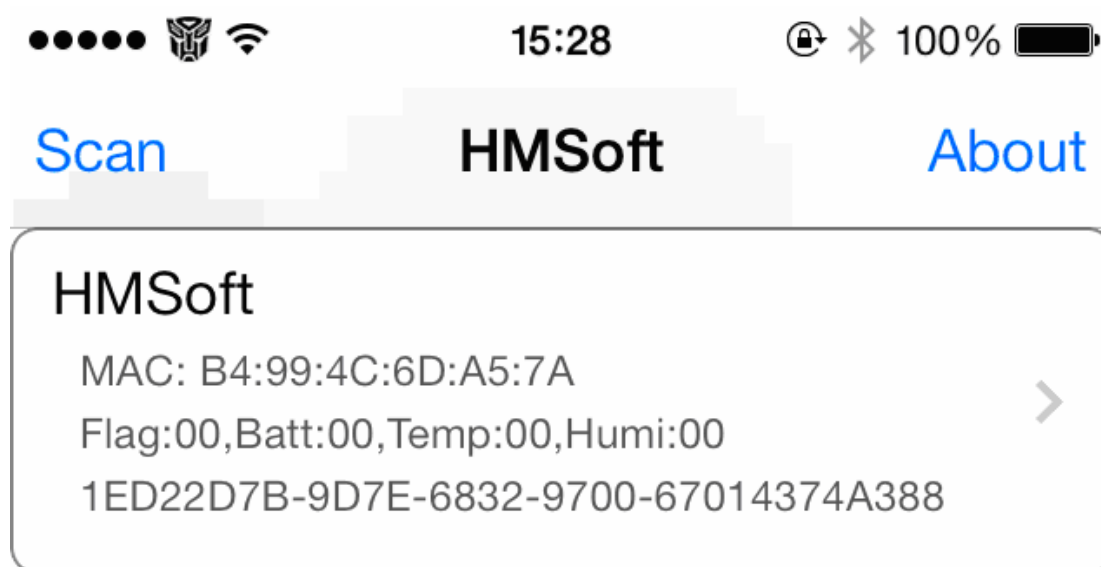
In BLE mode, we also put address information into the advert package.

Under iOS, you can use `CBAvertisementDataManufactureDataKey` property to get it, string format like follow:

0x48, 0x4D, 0x00, 0x0E, 0x0B, 0xXX, 0xXX, 0xXX

0x48 and 0x4D is “HM” string.

0x00: 0x0E: 0x0B: 0xXX: 0xXX: 0xXX is BLE MAC Address.



System LED function (PIO1)

If “AT+PIO10” is setup

Unconnected status: Output High 500 ms, Low 500 ms

Connected status: Output High

If AT+PIO11 is setup

Unconnected status: Output Low.

Connected status: Output High.

8. AT Commands

Factory default setting:

EDR Name HMSoft, Slave role, PinCode 1234

BLE Name HMSoft, Slave role, PinCode 000000

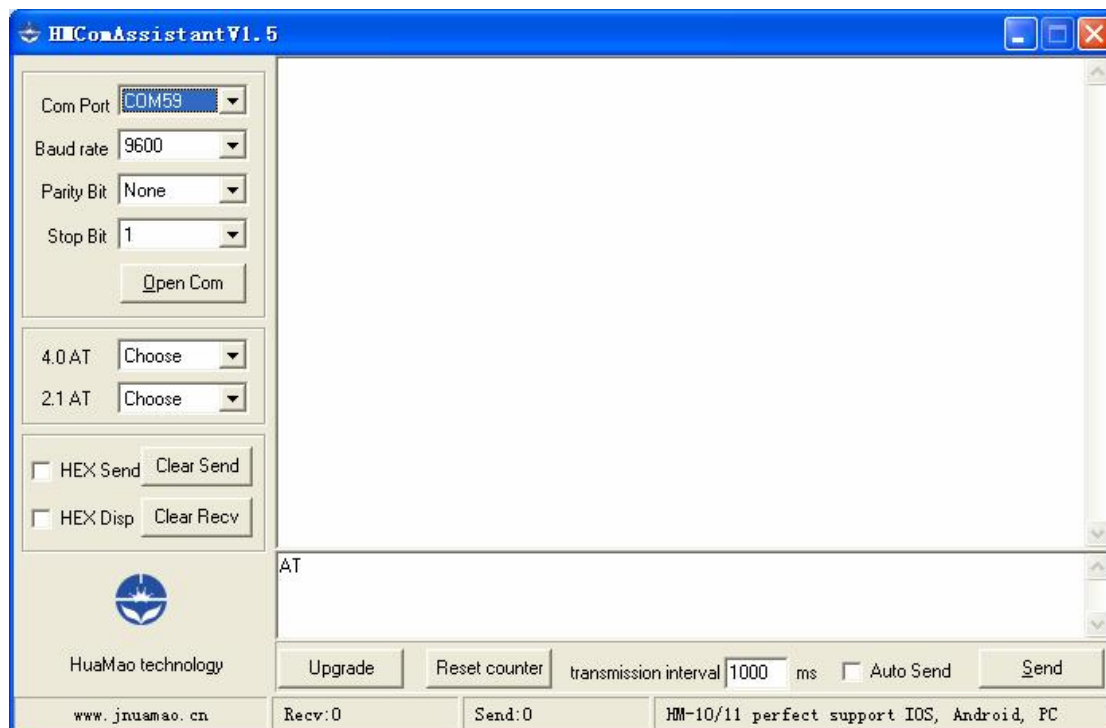
Baud: 115200, N, 8, 1;

Before V216: Key function is open as default settings. You must pull up.

Since V216: Key function is off as default settings. PIO0 could be NC.

AT Command format:

Uppercase AT command format. string format, without any other symbol. (e.g. \r or \n).



1. Test Command Or Disconnect Command

Send	Receive	Parameter
AT	OK/ER/Disconnect link	None

If module is not connected to remote device will receive: "OK"

If module has an error, will receive: "ER"

If Module has connected, module will disconnected from remote device, if "AT + NOTI" is setup to 1, will receive information string

2. Query module EDR address

Send	Receive	Parameter
AT+ADDE?	OK+ Get: MAC	None

3. Query module BLE address

Send	Receive	Parameter
AT+ADDB?	OK+ Get: MAC	None

4. Query/Set Authentication mode

Send	Receive	Parameter
Q: AT+AUTH?	OK+ Get:<P1>	P1: 0, 1, (Default: 0) 0 – Not authentication 1 – Must authentication
S: AT+AUTH<P1>	OK+ Set:<P1>	

AT+AUTH0: allow made an insecure connection.

AT+AUTH1: every connection must with authentication.

5. Query/Set A to B mode

Send	Receive	Parameter
Q: AT+ATOB?	OK+ Get:<P1>	P1: 0, 1, (Default: 0) 0 – Not Open ATOB 1 – Open ATOB mode
S: AT+ATOB<P1>	OK+ Set:<P1>	

This command must work with AT+MODE0(In V209 AT+MODE command change to AT+DUAL command) command.

When A device (SPP mode) connect to the module and B device (BLE mode) is also connect to the module, The data string from A device send to the module will send to B device. The data string from B device send to the module is also send to the A device.

6. Query/Set baud rate

Send	Receive	Parameter
Q: AT+BAUD?	OK+ Get:<P1>	P1: 1~7, (Default: 6). 1 - 4800 2 – 9600 3 – 19200 4 – 38400 5 – 57600 6 – 115200 7 - 230400
S: AT+BAUD<P1>	OK+ Set:<P1>	

e.g.

Query baud:

Send: AT+BAUD?

Receive: OK+Get:0

Setup baud:

Send: AT+BAUD1

Receive: OK+Set:1

7. Clear bond information

Send	Receive	Parameter
AT+BONDE	OK+BONDE	Clear EDR bond info
AT+BONDB	OK+BONDB	Clear BLE bond info

BLE mode not supports it yet.

8. Clear Last Connected EDR Device Address

Send	Receive	Parameter
AT+CLEAE	OK+CLEAE	None

* Added in V211

9. Clear Last Connected BLE Device Address

Send	Receive	Parameter
AT+CLEAB	OK+CLEAB	None

* Added in V211

10. Query/Set Module Class of Device(COD)

Send	Receive	Parameter
Q: AT+COFD?	OK+ Get:<P1>	P1: 000000~FFFFFFE Default: 001F00 Note: Hex format
S: AT+COFD<P1>	OK+ Set:<P1>	

Added in V311

11. Query/Set The switch of update connection parameter (BLE protocol)

Send	Receive	Parameter
Q: AT+COUP?	OK+ Get:<P1>	P1: 0: Doesn't update 1: Update
S: AT+COUP<P1>	OK+ Set:<P1>	

		Default: 0
--	--	------------

This command is used by slave role, when BLE connection is made, if AT+COUP1 is setup; module will try to update connection parameter as follow:

Interval Max 40ms

Interval Min 20 ms

Slave Latency 0

Connection Supervision Timeout 6 seconds

Added in V316

12. Query/Set Module DUAL Work Mode

Send	Receive	Parameter
Q: AT+DUAL?	OK+ Get:<P1>	P1: 0, 1, (Default: 0) 0 – Allow dual connect. 1 – Allow one connect.
S: AT+DUAL<P1>	OK+ Set:<P1>	

AT+DUAL0: allow two connections at same time (SPP and BLE).

AT+DUAL1: Only allow one connection at same time (SPP or BLE)

AT+ATOB command must work with AT+DUAL0 in V209 version.

This command added in V208.

13. Query/Set hardware flow control switch

Send	Receive	Parameter
AT+FIOW?	OK+ Get:<P1>	P1: 0, 1, (Default: 0) 0: Hardware flow control off 1: Hardware flow control on
AT+FIOW<P1>	OK+ Set:<P1>	

Add since V211.

14. Query/Set module data transmission speed mode

Send	Receive	Parameter
AT+HIGH?	OK+ Get:<P1>	P1: 0, 1, (Default: 0) 0: Balance mode 1: High speed mode
AT+HIGH<P1>	OK+ Set:<P1>	

In balance mode, we balanced SPP and BLE with a steady speed.

In high speed mode, we don't control speed, so SPP mode will get high speed.
In high speed mode, module lost RESETB pin function, but you still could use "AT+RESET" command to reset module.

Add since V212.

15. System Help Information

Send	Receive	Parameter
AT+HELP?	Help Information	None

16. Query/Set module EDR work type

Send	Receive	Parameter
AT+IMME?	OK+ Get:<P1>	P1: 0, 1,?, (Default: 0) 0: Automatic work 1: Use AT+STARE start work
AT+IMME<P1>	OK+ Set:<P1>	

This command will take effect after next power on.

If AT+IMME1 setup, the module will start work until receive AT+STARE.

Added in V301 .

17. Query/Set module BLE work type

Send	Receive	Parameter
AT+IMMB?	OK+ Get:<P1>	P1: 0, 1,?, (Default: 0) 0: Automatic work 1: Use AT+STARB start work
AT+IMMB<P1>	OK+ Set:<P1>	

This command will take effect after next power on.

If AT+IMMB1 setup, the module will start work until receive AT+STARB.

Added in V301 .

18. Query/Set module loaded notify

Send	Receive	Parameter
AT+INIT?	OK+ Get:<P1>	P1: 0, 1,?, (Default: 0) 0: Loaded notify Off 1: Loaded notify on
AT+INIT<P1>	OK+ Set:<P1>	

When "AT+INIT1" is setup, after module loaded, module will output

“OK+INIT” string through UART.

Added in V211 .

19. Query/Set Module iBeacon switch

Send	Receive	Parameter
AT+IBEA?	OK+Get:<P1>	P1: 0, 1 0: Turn off iBeacon 1: Turn on iBeacon Default: 0
AT+IBEA<P1>	OK+Set:<P1>	

Default iBeacon UUID is: 74278BDA-B644-4520-8F0C-720EAF059935.

This command is added since V309 version.

20. Query/Set iBeacon UUID

Send	Receive	Parameter
AT+IBE0?	OK+Get:<P1>	P1: 00000001~ FFFFFFFFFE Default: 74278BDA
AT+IBE0<P1>	OK+Set:<P1>	

iBeacon UUID is: 74278BDA-B644-4520-8F0C-720EAF059935.

This command can change red color string in iBeacon UUID.

This command is added since V309 version.

e.g.: Send: AT+IBE012345678 to change iBeacon UUID red color string to “12345678”

21. Query/Set iBeacon UUID

Send	Receive	Parameter
AT+IBE1?	OK+Get:<P1>	P1: 00000001~ FFFFFFFFFE Default: B6444520
AT+IBE1<P1>	OK+Set:<P1>	

iBeacon UUID is: 74278BDA-B644-4520-8F0C-720EAF059935.

This command can change red color string in iBeacon UUID.

This command is added since V309 version.

e.g.: Send: AT+IBE112345678 change iBeacon UUID red color string to

“12345678”

22. Query/Set iBeacon UUID

Send	Receive	Parameter
AT+IBE2?	OK+Get:<P1>	P1: 00000001~ FFFFFFFFE Default: 8F0C720E
AT+IBE2<P1>	OK+Set:<P1>	

iBeacon UUID is: 74278BDA-B644-4520-8F0C-720EAF059935.

This command can change red color string in iBeacon UUID.

This command is added since V309 version.

e.g.: Send: AT+IBE112345678 change iBeacon UUID red color string to “12345678”

23. Query/Set iBeacon UUID

Send	Receive	Parameter
AT+IBE3?	OK+Get:<P1>	P1: 00000001~ FFFFFFFFE Default: AF059935
AT+IBE3<P1>	OK+Set:<P1>	

iBeacon UUID is: 74278BDA-B644-4520-8F0C-720EAF059935.

This command can change red color string in iBeacon UUID.

This command is added since V309 version.

e.g.: Send: AT+IBE112345678 change iBeacon UUID red color string to “12345678”

24. Query/Set Module iBeacon Marjor version

Send	Receive	Parameter
AT+MAJO?	OK+Get:<P1>	P1: 0001~FFFE Default: FFE0
AT+MAJO[para1]	OK+Set:[para1]	

E.g. Change marjor version to 0102

Send: AT+MARJ0102, if all is okay, module will send back OK+Set: 0102

This command is added since V309 version.

25. Query/Set Module iBeacon minor

Send	Receive	Parameter
AT+MINO?	OK+Get:<P1>	P1: 0001~FFFE Default: FFE1
AT+MINO<P1>	OK+Set:<P1>	

This command is added since V309 version.

26. Query/Set Module iBeacon Measured power

Send	Receive	Parameter
AT+MEAS?	OK+Get:<P1>	P1: 00~FF Default: C5
AT+MEAS<P1>	OK+Set:<P1>	

This command is added since V309 version.

27. Query/Set Module MTU Size

Send	Receive	Parameter
AT+MTUS?	OK+Get:<P1>	P1: 0: 60 Bytes 1: 120 Bytes Default: 0
AT+MTUS <P1>	OK+Set:<P1>	

Please read <HM-12_HM-13 MTU Size.pdf> get more information

This command is added in V316 version

28. Query/Set Module Work Mode

Send	Receive	Parameter
Q: AT+MODE?	OK+ Get:<P1>	P1: 0, 1, (Default: 0) 0 – Data transmission. 1 – Remote control.
S: AT+MODE<P1>	OK+ Set:[para1]	

AT+MODE0: Only transfer data when connection establishment.

AT+MODE1: Transfer data and response AT commands.

This command is changed in V209. Before V209 this command is used to change DUAL work mode(please see AT+DUAL command).

29. Query/Set Notify information

Send	Receive	Parameter
Q: AT+NOTI?	OK+ Get:<P1>	P1: 0, 1, (Default: 0) 0: Don't Notify
S: AT+NOTI<P1>	OK+ Set:<P1>	

		1: Notify
--	--	-----------

After AT+NOTI1, module will send connect or disconnect string through UART when module state is change:

OK+CONE ===== EDR connect

OK+LSTE ===== EDR disconnect

OK+CONB===== BLE connect

OK+LSTB ===== BLE disconnect

OK+LSTA ===== except disconnect, module will reset after 500 ms.

30. Query/Set notify mode

Send	Receive	Parameter
Q: AT+NOTP?	OK+ Get<P1>	P1: 0, 1; default: 0 0: without address 1: with address
Q: AT+NOTP<P1>	OK+ Set<P1>	

This command must work with “AT+NOTI1”, if this switch is open, when the module connect to disconnect, the prompt string will include the remote address.

OK+CONB:001122334455, OK+LSTB:001122334455

OK+CONE:001122334455, OK+LSTE:001122334455

Added since V213

31. Query/Set Module EDR name

Send	Receive	Parameter
Q: AT+NAME?	OK+ Get<P1>	P1: module EDR name, Max length is 28. Default: HMSoft
Q: AT+NAME<P1>	OK+ Set<P1>	

e.g.

change module name to bill_gates

S: AT+NAMEbill_gates

R: OK+Set:bill_gates

32. Query/Set Module BLE name

Send	Receive	Parameter
Q: AT+NAMB?	OK+ Get:<P1>	P1: module BLE name, Max length is 28. Default: HMSoft
S: AT+NAMB<P1>	OK+ Set:<P1>	

33. Query/Set Whether to use BLE MAC address

Send	Receive	Parameter
Q: AT+ONEM?	OK+ Get:<P1>	P1: 0, 1; default: 0 0: Use BLE address 1: Doesn't use
Q: AT+ONEM<P1>	OK+ Set:<P1>	

If you want use BLE mode in android system, then doesn't use this command.

After setup "AT+ONEM1", BLE and EDR will use same MAC address.

Added since V311

34. Query/Set PIO0 function (System Key)

Send	Receive	Parameter
Q: AT+PIO0?	OK+ Get:<P1>	P1: 0, 1,(default: 0) 0: Key function is off. 1: Key function is open.
S: AT+ PIO0<P1>	OK+ Set:<P1>	

Added since V216

35. Query/Set PIO1 output status (System LED)

Send	Receive	Parameter
Q: AT+PIO1?	OK+Get:<P1>	P1: 0, 1 0: Unconnected Output 500ms High 500ms Low, Connected output High. 1: Unconnected output Low, Connected output High. Default: 0
S: AT+ PIO1 <P1>	OK+Set:<P1>	

36. Query/Set PIO output status

Send	Receive	Parameter
Q: AT+PIO<P1>?	OK+ Get:<P1>[P2]	P1: 2~B (HM-12) P2: 2~3 (HM-13) 0: Output Low 1: Output High ?: Query
S: AT+ PIO<P1>[P2]	OK+ Set:<P1>[P2]	

Note: Add in V209

37. Query/Set EDR Pin Code

Send	Receive	Parameter
Q: AT+PINE?	OK+ Get:<P1>	P1: module EDR Code Max length: 6 Default: 1234
S: AT+PINE<P1>	OK+ Set:<P1>	

38. Query/Set BLE Pin Code

Send	Receive	Parameter
Q: AT+PINB?	OK+ Get:<P1>	P1: module BLE Code 000000~999999 Default: 000000
S: AT+PINB<P1>	OK+ Set:<P1>	

39. Query/Set UART parity bit

Send	Receive	Parameter
Q: AT+PARI?	OK+ Get:<P1>	P1: 0, 1, 2, (Default: 0) 0: Parity None 1: Parity even 2: Parity odd
S: AT+PARI<P1>	OK+ Set:<P1>	

Added in V211.

40. Restore all setup value to factory setup

Send	Receive	Parameter
AT+RENEW	OK+RENEW	None

41. Restart module

Send	Receive	Parameter
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AT+RESET	OK+RESET	None
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42. Query/Set BLE work method

Send	Receive	Parameter
AT+RESP?	OK+ Get:<P1>	P1: 0, 1 (default: 0) 0: WriteWithoutResponse 1: WriteWithResponse & WriteWithoutResponse
AT+RESP<P1>	OK+ Set:<P1>	

This command will take effect after module next power on or reset.

Added in V313

43. Query BLE RSSI value

Send	Receive	Parameter
AT+RSSB?	OK+RSSB: <P1>	P1: RSSI value 9999: No connection 9998: Try later 9997: Read error Xxxx: RSSI value

This command must use after “AT+MODE1” is setup.

This command is only used by remote Bluetooth device.

Added in V215

44. Query EDR RSSI value

Send	Receive	Parameter
AT+RSSE?	OK+RSSE: <P1>	P1: RSSI value 9999: No connection 9998: Try later 9997: Read error Xxxx: RSSI value

This command must use after “AT+MODE1” is setup.

This command is only used by remote Bluetooth device.

Added in V215

45. Query Last Connected EDR Device Address

Send	Receive	Parameter
AT+RADE?	OK+Get:MAC Address	None

Added in V211

46. Query Last Connected BLE Device Address

Send	Receive	Parameter
AT+RADB?	OK+ Get:MAC Address	None

Added in V211

47. Query/Set EDR Master and Slaver Role

Send	Receive	Parameter
AT+ROLE?	OK+ Get:<P1>	P1: 0, 1 (default: 0) 0: Slave 1: Master
AT+ROLE<P1>	OK+ Set:<P1>	

This command will take effect after module next power on or reset.

This command doesn't work with AT+ROLB1.

Added in V312

48. Query/Set BLE Master and Slaver Role

Send	Receive	Parameter
AT+ROLB?	OK+ Get:<P1>	P1: 0, 1 (default: 0) 0: Peripheral 1: Central
AT+ROLB<P1>	OK+ Set:<P1>	

This command will take effect after module next power on or reset.

This command doesn't work with AT+ROLE1.

Added in V214

49. EDR start work command

Send	Receive	Parameter
Q: AT+STARE	OK+ STARE	NONE

This command is sub command of AT+IMME1.

This command will let module start work.

Added in V301

50. BLE start work command

Send	Receive	Parameter
Q: AT+STARB	OK+ STARB	NONE

This command is sub command of AT+IMMB1.

This command will let module start work.

Added in V301

51. EDR stop work command

Send	Receive	Parameter
Q: AT+STOPE	OK+ STOPE	NONE

This command is sub command of AT+IMME1.

This command will let module pause work.

Added in V304

52. BLE start work command

Send	Receive	Parameter
Q: AT+STOPB	OK+ STOPB	NONE

This command is sub command of AT+IMMB1.

This command will let module pause work.

Added in V304

53. Query/Set EDR Advert type

Send	Receive	Parameter
Q: AT+SCAN?	OK+ Get:<P1>	P1: 0, 1, (Default: 0) 0: Discovery and connectable 1: Only connectable
S: AT+SCAN<P1>	OK+ Set:<P1>	

54. Query/Set module safe mode

Send	Receive	Parameter
Q: AT+SAFE?	OK+ Get:<P1>	P1: 0, 1, (Default: 0) 0: Don't use safe mode
S: AT+SAFE<P1>	OK+ Set:<P1>	

		1: Use safe mode
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Added since V311

This command will let module reset when link is disconnected.

55. Query/Set UART stop bit

Send	Receive	Parameter
Q: AT+STOP?	OK+ Get:<P1>	P1: 0, 1, (Default: 0) 0: 1 stop bit 1: 2 stop bits
S: AT+STOP<P1>	OK+ Set:<P1>	

Added in V211

56. Query Software Version

Send	Receive	Parameter
AT+VERR? AT+VERS?	Version Information	None