

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 Co., LTD.

Bluetooth 4.0 BLE

USB Dongle

HM-15

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

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The most complete, most convenient, the most stable of Bluetooth data transmission, remote control, PIO acquisition module

---- Master and slave role in one

---- Remote control without other MCU

---- The PIO data acquisition without other MCU

1. Product parameters

- Ø BT Version: Bluetooth Specification V4.0 BLE
- 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: 0xFFE0 (Modifiable use AT+UUID command)
- Ø Characteristic: 0xFFE1 (Modifiable use AT+UUID command)
- Ø Characteristic: Notify and Write (Modifiable use AT+UUID command)
- Ø Power: +2.5V~3.3VDC 50mA
- Ø Power: Active state 8.5mA; Sleep state 50~200uA
- Ø Working temperature: -20 ~ +95 Centigrade
- Ø Size: HM-10 27mm x 13mm x 2.2 mm
- Ø Size: HM-11 18mm x 13mm x 2.2mm
- Ø Size: HM-15 65mm x 32mm x 16mm

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 parameters, 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. Products 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

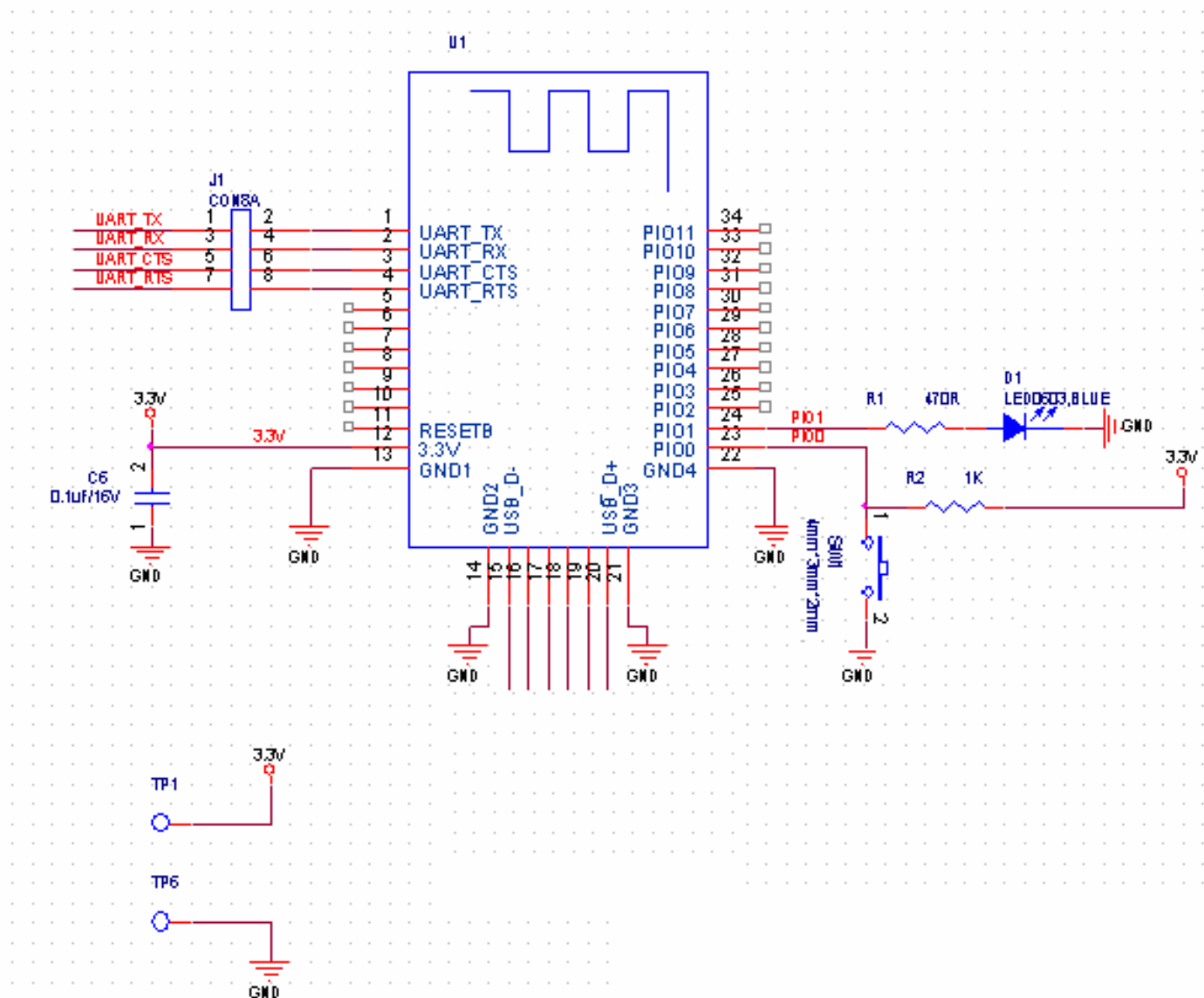
4. Product pictures

			Not for sale	
HM-01 BT 2.1	HM-02 BT 2.1	HM-03 BT 2.1	HM-04 BT 2.1	HM-05 BT 2.1
		Class1		
HM-06 BT 2.1	HM-07 BT 2.1	HM-08 BT 2.1	HM-09 BT 2.1	HM-10 BLE 4.0
				
HM-11 BLE 4.0	HM-12 Dual mode	HM-13 Dual mode	HMSensor	

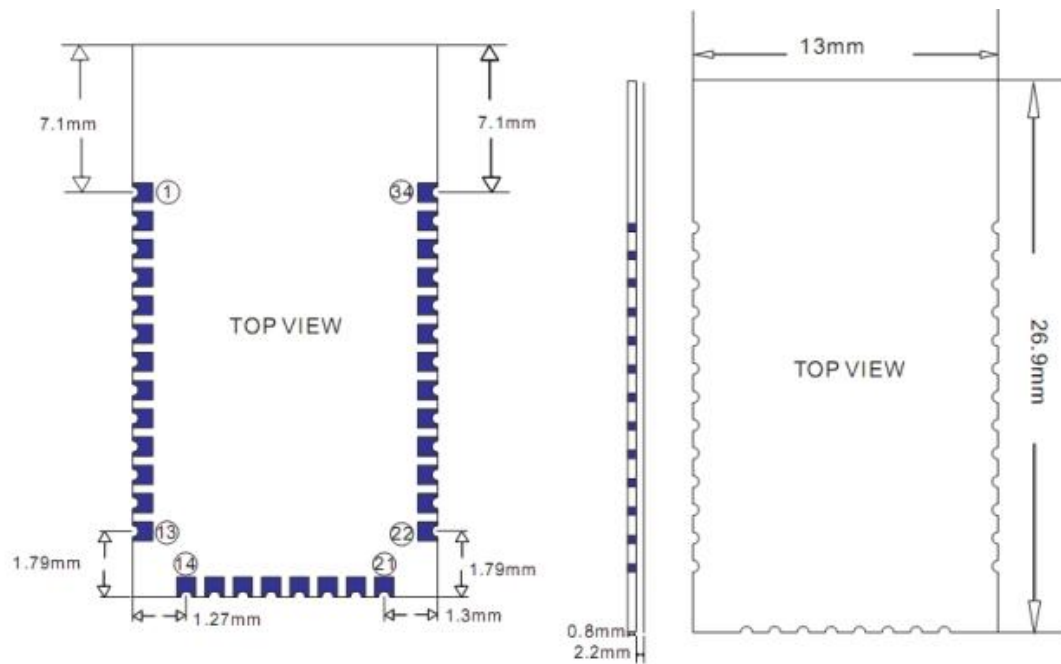
5. Product technical specifications

This document only include Bluetooth BLE 4.0 document, You can goto http://www.jnhuamao.cn/bluetooth_en.rar get Bluetooth V2.1 version datasheet. That document include: HM-01, HM-02, HM-03, HM-04, HM-05, HM-06, HM-07, HM-08, HM-09.

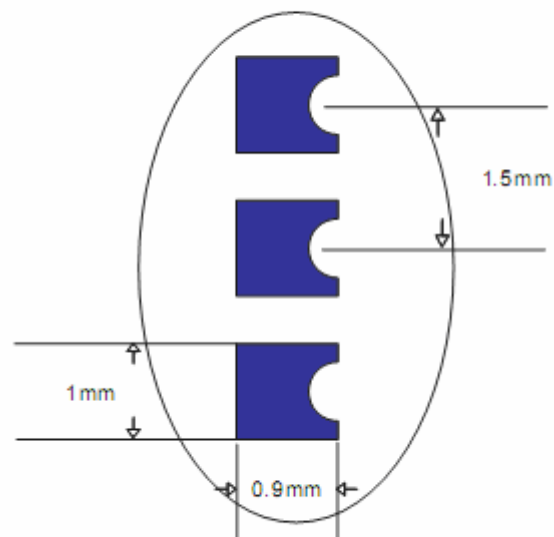
5.1 HM-10 Schematic



5.2 HM-10 Size



5.3 HM-10 package information



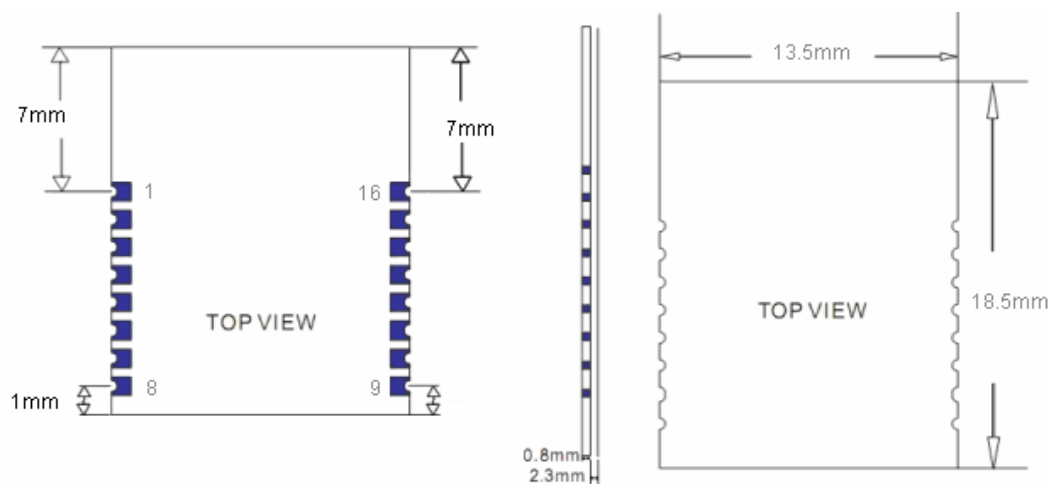
5.4 HM-10 Device Terminal Functions

No	Name	Description
1	UART_TX	UART interface
2	UART_RX	UART interface

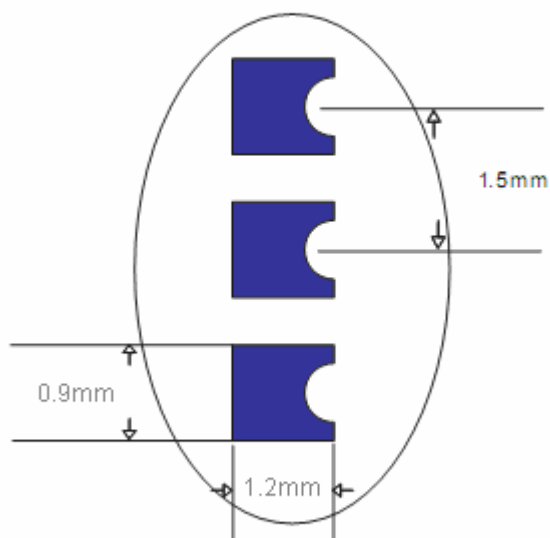
3	UART_CTS	UART interface
4	UART_RTS	UART interface
5	NC	NC
6	NC	NC
7	NC	NC
8	NC	NC
9	NC	NC
10	NC	NC
11	RESETB	Reset if low >100ms.
12	VCC	3.3V
13	GND	Ground
14	GND	Ground
15	USB_D-	USB interface
16	NC	NC
17	NC	NC
18	NC	NC
19	NC	NC
20	UB_D+	USB interface
21	GND	Ground
22	GND	Ground
23	PIO0	System Key
24	PIO1	System LED
25	PIO2	Programmable input/output line
26	PIO3	Programmable input/output line
27	PIO4	Programmable input/output line
28	PIO5	Programmable input/output line
29	PIO6	Programmable input/output line
30	PIO7	Programmable input/output line
31	PIO8	Programmable input/output line

32	PIO9	Programmable input/output line
33	PIO10	Programmable input/output line
34	PIO11	Programmable input/output line

5.5 HM-11 Sizes



5.6 HM-11 Package information



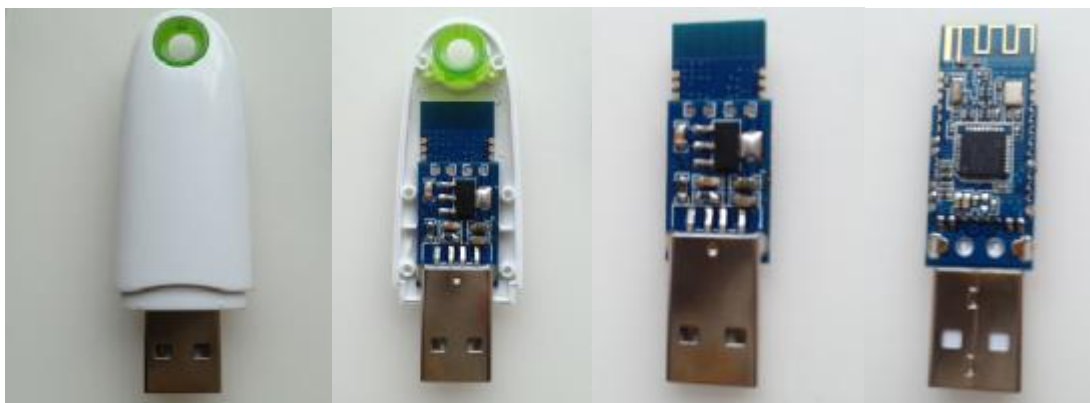
5.7 HM-11 Device Terminal Functions

No	Name	Description
1	UART_RTS	UART interface

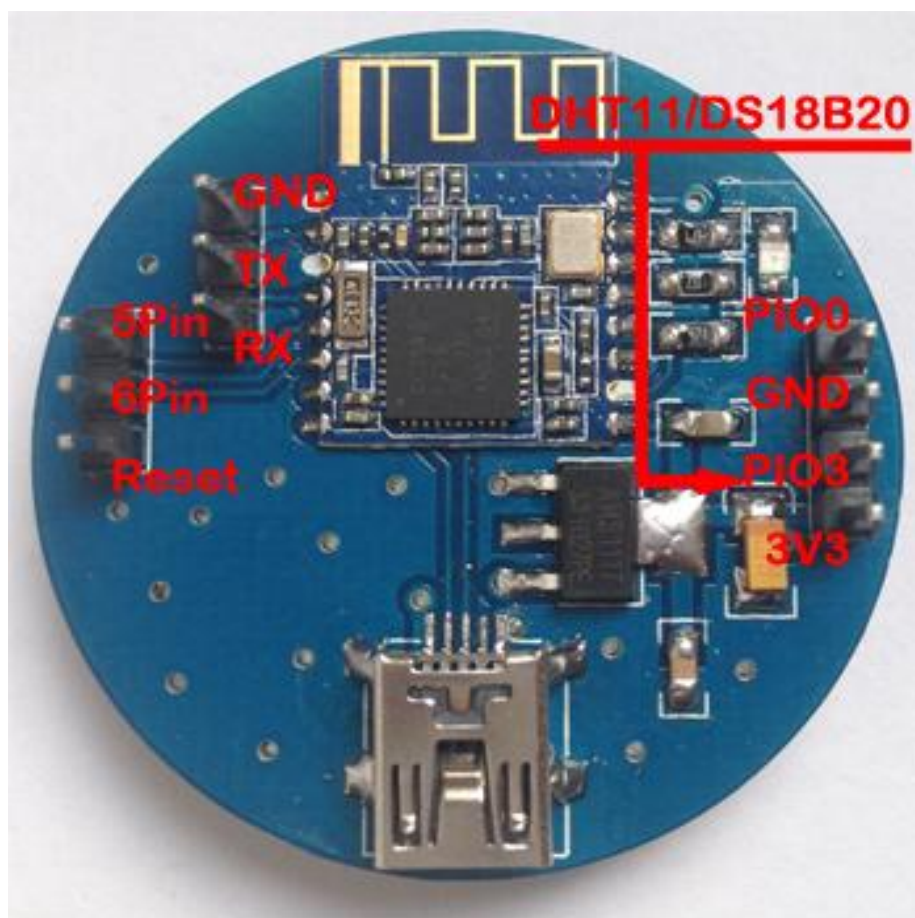
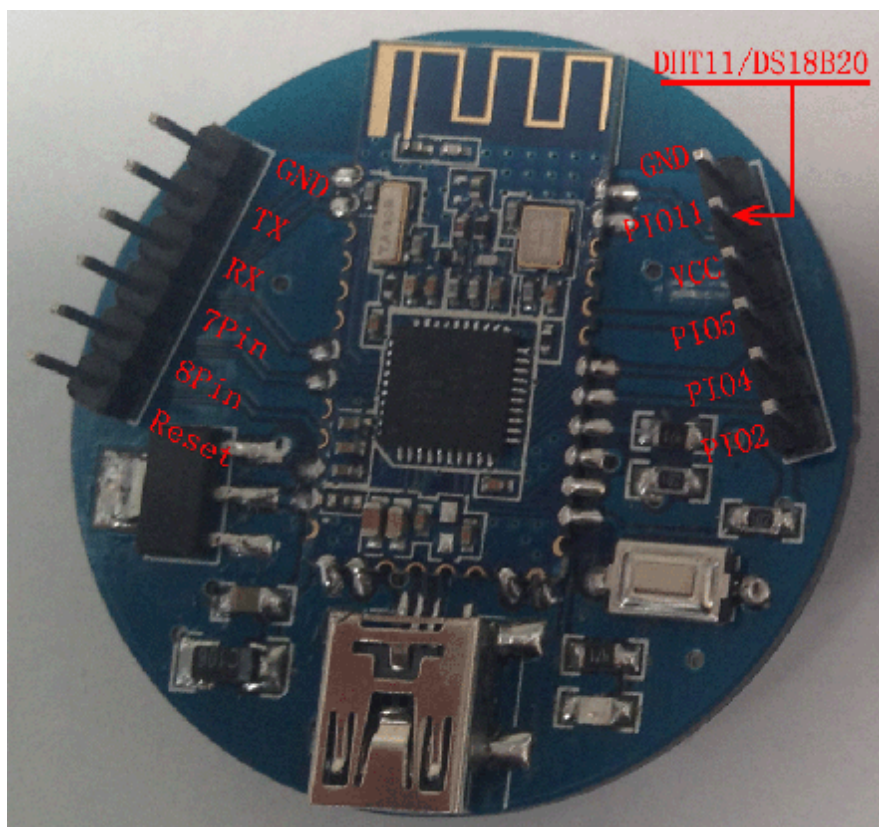
2	UART_TX	UART interface
3	UART_CTS	UART interface
4	UART_RX	UART interface
5	NC	NC
6	NC	NC
7	NC	NC
8	NC	NC
9	VCC	V3.3
10	NC	NC or VCC
11	RESETB	Reset if low <100ms
12	GND	Ground
13	PIO3	Programmable input/output line
14	PIO2	Programmable input/output line
15	PIO1	System LED
16	PIO0	System KEY

5.8 HM-15

HM-15 is USB Dongle base on HM-10, Use USB interface.



5.9 HM-Sensor



6. System LED and System KEY

6.1 System KEY function (PIO0)

Press if Low > 100ms:

6.1.1 If Module role is Master

Unconnected status: Clear last connected remote device address information.

Connected status: Disconnect.

6.1.2 If Module role is Slave

Unconnected status: None.

Connected status: Disconnect.

6.2 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.

7. AT Commands

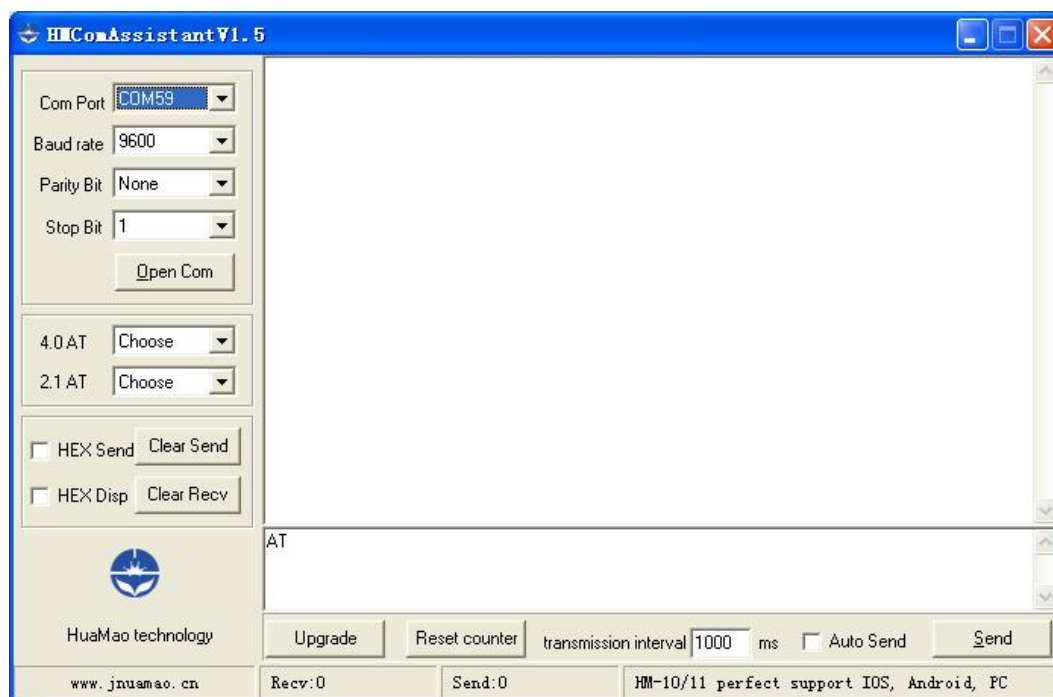
Factory default setting:

Name: HMSoft; Pin code: 000000; Transmit Mode.

HM-15 Dongle is USB virtual serial port, so it can automatically adapt to any baud rate. You can choose any baud rate what you want to use.

AT Command format:

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



On Transmit version: Only accept AT Command from UART interface when Bluetooth device is not connected with remote device.

Bluetooth V2.1 version Command is not here, please download datasheet from http://www.jnhuamao.cn/Bluetooth_en.rar

7.1. Test Command

Send	Receive	Parameter
AT	OK OK+LOST	None

When HM Dongle is not connected, will receive OK, If HM Dongle is connected to remote device, This command will caused link terminated and receive OK+LOST string.

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

Send	Receive	Parameter
AT+PIO1?	OK+Get:[P1]	P1: 0, 1, ? 0: Unconnected Output 500ms High 500ms Low, Connected output High.
AT+ PIO1[P1]	OK+Set:[P1]	

		1: Unconnected output Low, Connected output High. Default: 0
--	--	---

7.3. Query module address

Send	Receive	Parameter
AT+ADDR?	OK+ADDR:MAC Address	None

7.4. Query/Set Advertising Type

Send	Receive	Parameter
AT+ADTY?	OK+ Get:[P1]	P1: 0 ~ 3
AT+ADTY[P1]	OK+ Set:[P1]	0: Advertising and ScanResponse and Connectable 1: Only allow last device connect in 1.28 seconds 2: Only allow Advertising and ScanResponse. 3: Only allow Advertising Default: 0

Added since V519

7.5. Query/Set Characteristic

Send	Receive	Parameter
AT+CHAR?	OK+Get:[P1]	P1: 0x0001~0xFFFE
AT+CHAR[P1]	OK+Set:[P1]	Default: 0xFFE1

For example AT+CHAR0x1234 is used to set Characteristic value to 0x1234

7.6. Query/Set study function

Send	Receive	Parameter
AT+COMP?	OK+Get:[P1]	P1: 0,1
AT+COMP[P1]	OK+Set:[P1]	0: Close study function

		1: Open study function Default: 0
--	--	--------------------------------------

This function is used to compatible with different UUID devices

Note: Please reference <How_To_Use_HM-15_Study_Function.pdf>

7.7. Clear Last Connected device address

Send	Receive	Parameter
AT+CLEAR	OK+CLEAR	None

Note: This command will stop discovery process(if have).

7.8. Query/Set Minimum Link Layer connection interval

Send	Receive	Parameter
AT+COMI?	OK+Get:[P1]	P1: 0 ~ 9 Default: 3(20ms)
AT+COMI[P1]	OK+Set:[P1]	

P1 Value: 0: 7.5ms; 1: 10ms; 2: 15ms; 3: 20ms; 4: 25ms; 5: 30ms; 6: 35ms; 7: 40ms; 8: 45ms; 9: 4000ms

Note: This command is added since V526

7.9. Query/Set Maximum Link Layer connection interval

Send	Receive	Parameter
AT+COMA?	OK+Get:[P1]	P1: 0 ~ 9 Default: 7(40ms)
AT+COMA[P1]	OK+Set:[P1]	

P1 Value: 0: 7.5ms; 1: 10ms; 2: 15ms; 3: 20ms; 4: 25ms; 5: 30ms; 6: 35ms; 7: 40ms; 8: 45ms; 9: 4000ms

Note: This command is added since V526

7.10. Query/Set Link Layer connection slave latency

Send	Receive	Parameter
AT+COLA?	OK+Get:[P1]	P1: 0 ~ 4 Default: 0
AT+COLA[P1]	OK+Set:[P1]	

Note: This command is added since V526

7.11. Query/Set connection supervision timeout

Send	Receive	Parameter
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AT+COSU?	OK+Get:[P1]	P1: 0 ~ 6 Default: 6(6000ms)
AT+COSU[P1]	OK+Set:[P1]	

P1 Value: 0: 100ms; 1: 1000ms; 2: 2000ms; 3: 3000ms; 4: 4000ms; 5: 5000ms; 6: 6000ms;

Note: This command is added since V526

7.12. Query/Set the Switch of update connection parameter

Send	Receive	Parameter
AT+COUP?	OK+Get:[P1]	P1: 0 ~ 1 0: Don't update 1: Update Default: 1(update)
AT+COUP[P1]	OK+Set:[P1]	

This command is only use when module is in slave role.

Note: This command is added since V526

7.13. Query/Set Module name

Send	Receive	Parameter
AT+NAME?	OK+Get[P1]	P1: module name, Max length is 18. Default: HMSoft
AT+NAME[P1]	OK+Set[P1]	

For example

change module name to bill_gates

Send: AT+NAMEbill_gates

Receive: OK+Set:bill_gates

7.14. Restore all setup value to factory setup

Send	Receive	Parameter
AT+RENEW	OK+RENEW	None

This command will caused module restart after delay 500ms. See Note 1.

7.15. Reset module

Send	Receive	Parameter
AT+RESET	OK+RESET	None

This command will caused module restart after delay 500ms. See Note 1.

7.16. Query/Set Master and Slaver Role

Send	Receive	Parameter
AT+ROLE?	OK+ROLE:[P1]	P1: M, S M: Master S: Slaver Default: S
AT+ROLE[P1]	OK+Set:[P1]	

This command will caused module restart after delay 500ms. See Note 1.

7.17. Query/Set Pin Code

Send	Receive	Parameter
AT+PASS?	OK+Get:[P1]	P1 is Pin Code, 000000~999999 Default: 000000
AT+PASS[P1]	OK+Set:[P1]	

For example

Query Pin Code

Send: AT+PASS?

Receive: OK+Set:000000

Setup Pin Code value to 008888

Send: AT+PASS008888

Receive: OK+Set:008888

7.18. Query Software Version

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

7.19. System Help Information

Send	Receive	Parameter
AT+HELP?	Help Information	None

7.20. Query Last Connected Device Address

Send	Receive	Parameter
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AT+RADD?	OK+RADD:MAC Address	None
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7.21. Query/Set Module work type

Send	Receive	Parameter
AT+IMME?	OK+Get:[P1]	P1: 0, 1
AT+IMME[P1]	OK+Set:[P1]	<p>1: When module is powered on, only respond the AT Command, don't do anything. until AT + START, AT+DISC, AT+CONN commands is received</p> <p>0: When power on, work immediately</p> <p>Default: 0</p>

7.22. Query/Set module connect remote device timeout value

Send	Receive	Parameter
AT+TCON?	OK+Get:[P1]	None
AT+TCON[P1]	OK+Set:[P1]	<p>P1 is timeout value. When time is up module will not connect this address anymore, then enter search mode.</p> <p>P1 value: 0000~9999</p> <p>Unit is second.</p> <p>Default: 0000 Connect forever</p>

This value is only used for Master Role, when module has Last Connected address.

7.23. 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]	

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

This command is added since V513 version.

7.24. Query/Set iBeacon UUID

Send	Receive	Parameter
AT+IBE0?	OK+Get:[P1]	P1: 0x00000001~ 0xFFFFFFFFFE 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 V520 version.

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

7.25. Query/Set iBeacon UUID

Send	Receive	Parameter
AT+IBE1?	OK+Get:[P1]	P1: 0x00000001~ 0xFFFFFFFFFE 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 V520 version.

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

7.26. Query/Set iBeacon UUID

Send	Receive	Parameter
AT+IBE2?	OK+Get:[P1]	P1: 0x00000001~

AT+IBE2[P1]	OK+Set:[P1]	0xFFFFFFFFFE Default: 8F0C720E
-------------	-------------	-----------------------------------

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

This command can change red color string in iBeacon UUID.

This command is added since V520 version.

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

7.27. Query/Set iBeacon UUID

Send	Receive	Parameter
AT+IBE3?	OK+Get:[P1]	P1: 0x00000001~ 0xFFFFFFFFFE 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 V520 version.

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

7.28. Query/Set Module iBeacon Major version

Send	Receive	Parameter
AT+MARJ?	OK+Get:[P1]	P1: 0x0001, 0xFFFE Default: 0xFFE0
AT+MARJ[P1]	OK+Set:[P1]	

E.g. Change major version to 0x0102

Send: AT+MARJ0x0102, if all is okay, module will send back OK+Set: 0x0102

This command is added since V513 version.

7.29. Query/Set Module iBeacon minor

Send	Receive	Parameter
AT+MINO?	OK+Get:[P1]	P1: 0x0001, 0xFFFE Default: 0xFFE1
AT+MINO[P1]	OK+Set:[P1]	

This command is added since V517 version.

7.30. Query/Set Module Work Mode

Send	Receive	Parameter
AT+MODE?	OK+Get:[P1]	P1: 0, 1, 2
AT+MODE[P1]	OK+Set:[P1]	0: Transmission Mode 1: Mode 0 + Remote Control Mode Default: 0

Mode 0:

Before establishing a connection, you can use the AT command configuration module through UART.

After established a connection, you can send data to remote side from each other.

Mode 1:

Before establishing a connection, you can use the AT command configuration module through UART.

After established a connection, you can send data to remote side. Remote side can do fellows:

Send AT command configuration module.

Send data to module UART port (not include any AT command and per package size is less than 20 bytes).

This command is added since V513 version.

7.31. Query RSSI Value

Send	Receive	Parameter
AT+RSSI?	OK+RSSI:[P1]	None

This command is sub-command of AT+MODE1 or AT+MODE2

This command only used by Remote device query when connected.

7.32. Let module work immediately (Only this time)

Send	Receive	Parameter
------	---------	-----------

AT+START	OK+START	None
----------	----------	------

This command is only used when AT+IMME1 setup, Received that command, Dongle will into automatic work mode, like a common module.

7.33. Query/Set Module Power

Send	Receive	Parameter
AT+POWE?	OK+Get:[P1]	None
AT+POWE [P1]	OK+Set:[P1]	Para: 0 ~ 3 0: -23dbm 1: -6dbm 2: 0dbm 3: 6dbm Default: 2

7.34. Query/Set Module save connected address parameter

Send	Receive	Parameter
AT+SAVE?	OK+Get:[P1]	None
AT+SAVE[P1]	OK+Set:[P1]	P1: 0~1 0:Save when connected 1:Don't Save Default: 0

If you want to use value 1, please execute AT+CLEAR first.

If value is setup to 1, In Master role module will always into discover mode when power on or after reset.

7.35. Query/Set discovery parameter

Send	Receive	Parameter
AT+SHOW?	OK+Get:[P1]	None
AT+SHOW[P1]	OK+Set:[P1]	P1: 0~1 0:Don't show name 1:Show name

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

If AT+SHOW1 is setup, AT+DISC? Command will show you name information included into scan result package.

7.36. Start a device discovery scan

Send	Receive	Parameter
AT+DISC?	OK+DISCS OK+DIS[P1]:[P2] OK+DISCE	P1: Device type P2: Address string OK+DISCS: Start discovery OK+DISCE: End discovery

Please set AT+ROLE1 and AT+IMME1 first.

For example

Send: AT+DISC?

Recv: OK+DISCS

Recv: OK+DIS0:123456789012 (discovered device address information)

If AT+SHOW1 is setup, you will receive the Name information as follow

Recv: OK+NAME: xxx

After send Name value, will send two extra “\r\n” value ASCII byte

Recv: OK+DIS1:234567890123

Recv: OK+NAME: xxx

After send Name value, will send two extra “\r\n” value ASCII byte

.....

Recv: OK+DISCE

Module could store 6 devices information, You can use array index 0~5.

Connect to a discovered device: AT+CONN0, AT+CONN1.....AT+CONN5

You also could use AT+CO[P1][P2] command to make connection when you know remote device type and MAC address.

PS: Since V512 can receive OK+NAME string

7.37. Start a iBeacon device discovery scan

Send	Receive	Parameter
AT+DISI?	OK+DISC[P0:P1:P2:P3:P4]	P0: Factory ID P1: iBeacon UUID P2: Major Value Minor Value Measured Power P3: MAC P4: RSSI

Please set AT+ROLE1 and AT+IMME1 first.

For example

Send: AT+DISI?

Recv: OK+DISIS (Scan start)

Recv: OK+DIS[P0:P1:P2:P3:P4] (if have one device)

Recv: OK+DIS[P0:P1:P2:P3:P4] (if have two devices)

.....

Recv: OK+DISIE (Scan end)

P0 length is 8; P1 length is 32; P2 length is 10; P3 length is 12, P4 length is 4

P2 include Major Value (length 4);

Minor Value (length 4);

Measured Power (length 2)

If the device not enable iBeacon function, P0, P1, P2 will use '0' fill.

Note: Added since V526

7.38. Connect to a Discovered device use array index

Send	Receive	Parameter
AT+CONN[P1]	OK+CONN[P2]	P1: 0~5 Para2: E, F, 0~5 E: Link error F: Link failed

		0~5: Try to connect
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This command is use after execute AT+DISC?

If connect success, will clear all discovery data.

7.39. Connect to a Discovered device use MAC address

Send	Receive	Parameter
AT+CO[P1][P2]	OK+CO[P1][P1][P3]	P1: Device Type P2: Device MAC P32: E, F, N E: Link error F: Link failed N: Null MAC

This command is used to connect a device use device type and MAC address

For example

Connect to HM-10 or HM-11 or HM-15 (HM-10 or HM-11 or HM-15 type is 1)
and MAC address is 0x223344556677

Send: AT+CO1223344556677

Connect to HM-12 or HM-13 (HM-12 or HM-13 is dual mode type is 2) and
MAC address is 0x445566778899

Send: AT+CO2445566778899

How to get device type? Could use AT+DISC? Command to get it .

7.40. Connect to last connected address (if have)

Send	Receive	Parameter
AT+CONNL	OK+CONN[P1]	P1: L, E, F L: Try to connect E: Link error F: Link failed

Work with AT+ROLE1, AT+IMME1 value setup.

If connect success, module will clear all discovery data.

7.41. Query/Set service UUID

Send	Receive	Parameter
AT+UUID?	OK+Get:[P1]	P1: 0x0001~0xFFFE Default: 0xFFE0
AT+UUID[P1]	OK+Set:[P1]	

For example

Send AT+UUID0x1234 to change service UUID value to 0x1234

7.42. Query/Set Service write property

Send	Receive	Parameter
AT+RESP?	OK+Get:[P1]	P1: 0, 1 0: Only Write 1: Write and WriteWithoutResponse Default: 0
AT+RESP[P1]	OK+Set:[P1]	

7.43. Query/Set module RX gain

Send	Receive	Parameter
AT+GAIN?	OK+ Get:[P1]	P1: 0, 1 0: No RX gain 1: Open RX gain Default: 0
AT+GAIN[P1]	OK+ Set:[P1]	

Note: This command is added since V526

7.44. Query/Set Notify information

Send	Receive	Parameter
AT+NOTI?	OK+Get:[P1]	P1: 0, 1 0: Don't Notify 1: Notify Default: 0
AT+NOTI[P1]	OK+Set:[P1]	

If this value is set to 1, when link ESTABLISHED or LOSTED module will send OK+CONN or OK+LOST string through UART.

7.45. Query/Set notify mode

Send	Receive	Parameter
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AT+NOTP?	OK+ Get[P1]	P1: 0, 1 0: without MAC address 1: with MAC address Default: 0
AT+NOTP[P1]	OK+ Set[P1]	

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

For example

OK+CONN:001122334455 “001122334455” is the MAC address string

Added since V525.

Resource:

Bluetooth Module EDR 2.1 datasheet:

http://www.jnhuamao.cn/Bluetooth_en.zip

Bluetooth Module BLE 4.0 datasheet:

http://www.jnhuamao.cn/Bluetooth40_en.zip

Bluetooth Module BLE 4.0 USB Dongle

http://www.jnhuamao.cn/HMDongle40_en.zip

Bluetooth module EDR + BLE dual mode:

http://www.jnhuamao.cn/bluetoothdual_en.zip

Bluetooth Module BLE 4.1 datasheet:

http://www.jnhuamao.cn/Bluetooth41_en.zip

Classics Com Assistant for android:

<http://www.jnhuamao.cn/HMComAssistant.rar>

BLE Com Assistant base android 4.3:

<http://www.jnhuamao.cn/HMBLEComAssistant.rar>

Bluetooth BLE 4.0 IOS Code:

http://www.jnhuamao.cn/HMSoft_ios6.zip

http://www.jnhuamao.cn/HMSoft_ios7.zip

Note 1:

Insert and pull HM Dongle please use follow step

1. Close serial port in your software.
2. Pull out HM Dongle.
3. Wait 5 seconds
4. Insert HM Dongle.
5. wait 5 secondes.
6. Open serial port in your software.

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