



BTM-5 Bluetooth

Wireless TTL Master/Slave Transceiver Module

AT Command User Guide

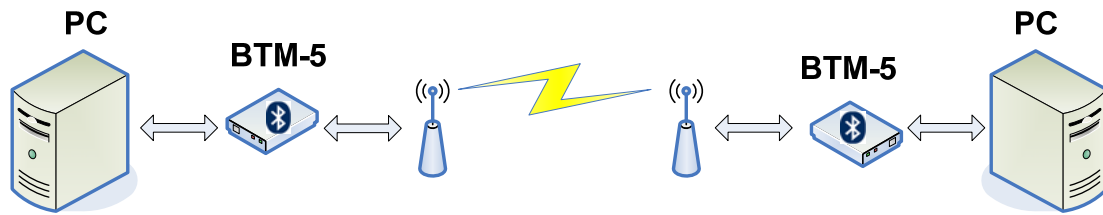
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1 Introduction

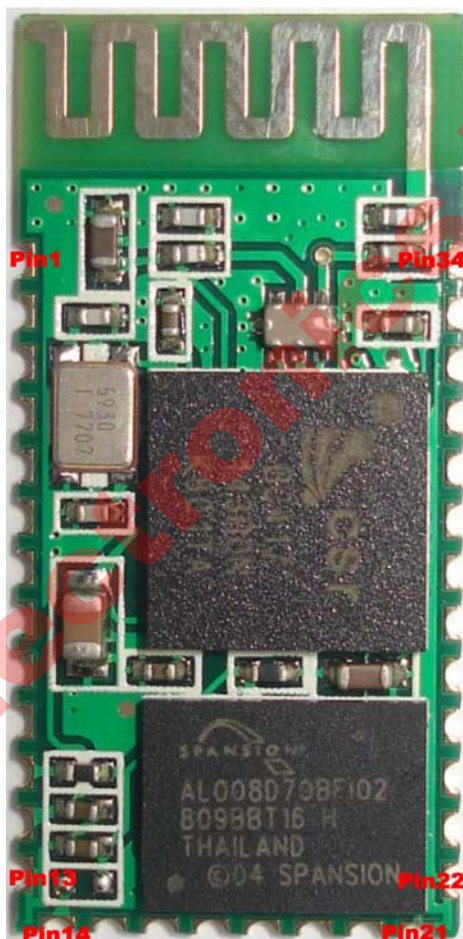


The BTM-5 Module has two operation modes, one is normal auto link mode, and the other is AT command mode. User can switch between two modes via pull the mode select pin PIO11 low and high respectively.

The normal auto link mode is the basic operation mode, each Master/Slave BTM-5 pair auto link with the default device address after power up. After link is established, user can transmit and receive data via the UART interface with each other. The transmission is almost transparent to user, it acts as tow UART connect with each other wirelessly.

The AT command mode is the advanced operation mode. User can use supported AT command to change the default configurations, such as device name, link password, UART baud rate and etc.

2 Hardware Connection



| Pin | Description |
|-------|----------------------------|
| 1 | UART_TXD |
| 2 | UART_RXD |
| 3 | UART_CTS |
| 4 | UART_RTS |
| 9~11 | NA |
| 12 | 3.3V Supply input |
| 13 | GND |
| 14~20 | NA |
| 21,22 | GND |
| 23 | PIO0 Programmable IO port |
| 24 | PIO1 Programmable IO port |
| 25 | PIO2 Programmable IO port |
| 26 | PIO3 Programmable IO port |
| 27 | PIO4 Programmable IO port |
| 28 | PIO5 Programmable IO port |
| 29 | PIO6 Programmable IO port |
| 30 | PIO7 Programmable IO port |
| 31 | PIO8 Programmable IO port |
| 32 | PIO9 Programmable IO port |
| 33 | PIO10 Programmable IO port |
| 34 | PIO11 Programmable IO port |

The pin PIO8 is the indicator for the operation mode, user can use a LED to connect to this pin. The LED starts to blink after power up, and the blink frequency subject to change between different operation modes.

The pin PIO9 is the indicator for the link status. It is high when the link established, user can use this pin to determine the link status of the BTM-5 module.

The pin PIO11 is the switch input to select two operation modes. When high it enter the AT command mode, when low it enter auto link mode. User can use this pin to change between tow modes in real time.

3 AT Command Set

3.1 TEST Command

| Command | Response | Parameter |
|---------|----------|-----------|
| AT | OK | NULL |

3.2 RESET Command

| Command | Response | Parameter |
|----------|----------|-----------|
| AT+RESET | OK | NULL |

3.3 Get Firmware Version Command

| Command | Response | Parameter |
|-------------|--------------------------|-------------------------|
| AT+VERSION? | +VERSION:< Param > OK | Param: firmware version |

3.4 Get Address

| Command | Response | Parameter |
|----------|-----------------------|------------------------------|
| AT+ADDR? | +ADDR:< Param > OK | Param: the Bluetooth address |

3.5 Set the Device Name

| Command | Response | Parameter |
|-----------------|---------------------|------------------------------|
| AT+NAME=<Param> | +NAME:<Param> OK | Param: bluetooth device name |

3.6 Set / Get Role

| Command | Response | Parameter |
|-----------------|------------------------|---|
| AT+ROLE=<Param> | OK | Param |
| AT+ROLE? | + ROLE:< Param > OK | 0: Slave 1: Master 2: Slave-loopback Default:0 |

3.7 Set / Get Password

| Command | Response | Parameter |
|-----------------|------------------------|---|
| AT+PSWD=<Param> | OK | Param : link password Default : 1234 |
| AT+ PSWD? | + PSWD:< Param > OK | |

3.8 Set / Get Baudrate

| Command | Response | Parameter |
|--|--|---|
| AT+UART= <Param1>,<Param2>,<Param3> | OK | Param 1:baudrate (bps) 4800 |
| AT+ UART? | +UART: <Param1>,<Param2>,<Param3> OK | 9600 19200 38400 57600 115200 230400 460800 921600 1382400 Param2: Stop bit 0: 1bit 1: 2bit Param3: Parity 0: None 1: Odd 2: Even Default:38400,0,0 |

3.9 Set / Get Link Mode

| Command | Response | Parameter |
|------------------|-------------------------|---|
| AT+CMODE=<Param> | OK | Param 0: Specify bluetooth link address 1: Any bluetooth link address 2: Slave-Loopback Default : 0 |
| AT+ CMODE? | + CMODE:< Param > OK | |

3.10 Set / Get Bind Bluetooth Address

| Command | Response | Parameter |
|-----------------|------------------------|---|
| AT+BIND=<Param> | OK | Param : Bluetooth address to be bind Default : 00:00:00:00:00:00 |
| AT+ BIND? | + BIND:< Param > OK | |