# SPP AT Command sets

| +++ (Escape Sequence) | When the device is in Data mode, it can be forced back into Command mode while maintaining the connection to the remote device. The sequence characters should be with 1000ms guard time | |
|---|---|---|
| **A** (Establish a connection) | This command is used to establish a connection in manual master role. | |
| | *Modifiers* | *Description* |
| | A | Connect to a device which has been assigned by "ATD= xxxxxxxxxxxx" |
| | A1~A8 | Connect to a device1~8 in neighborhood found through "ATF?". |
| **B** (Display local BD address) | This command display the local device BD address | |
| | *Modifiers* | *Description* |
| | B? | Inquire the Local BD address |
| **C** (Flow Control) | This command enable or disable flow control signals (CTS/RTS) of the COM port. Note, the setting is not affected by ATZ0 but will cause a reboot | |
| | *Modifiers* | *Description* |
| | C0 | Disable flow control. |
| | C1 (Default) | Enable flow control. |
| | C? | Inquire the current setting |
| **D** (Set Remote BD address) | For security purpose, We can specifies the unique remote device can be connected. In master role, it automatically inquire and search the slave even the slave is undiscoverable. In slave role, the command should be as a filter condition to accept the master's inquiry. | |
| | *Modifiers* | *Description* |
| | D=xxxxxxxx | "xxxxxxxx" is a string of 12 hexadecimal digits. |
| | D0 (Default) | Clear Remote BD address setting, inquire any slave in master mode or accept any master in slave mode. |
| | D? | Inquire the Remote BD address setting |
| **E** (Local Echo) | This command specifies whether the device should echo characters received from the UART back to the Host | |
| | *Modifiers* | *Description* |
| | E0 | Characters received from the UART are not echoed back to the Host |
| | E1 (Default) | Characters received from the UART are echoed back to the Host. |
| | E? | Inquire the current setting |
| **F** (Find Bluetooth device) | This command is used to find any bluetooth device in neighborhood within 60 seconds timeout. If any device is found, its name and address will be listed. The search ends with a message "Inquiry ends, xx device(s) found." This command is available only when the adaptor is in the master role. | |
| | *Modifiers* | *Description* |
| | F? | Inquire scan Bluetooth neighborhood devices. |
| **H** (Discoverable Control) | This command is used to drop connection either master or slave role. And it is used to specifiy whether the device could be discovered by remote master device. note : it will cause a reboot when ATH0 or ATH1 take the effect | |
| | *Modifiers* | *Description* |

| | H | Drop current connection in Online command mode |
|---|---|---|
| | H0 | The device enters undiscoverable mode. If a pair have been made, the original connection could be connected again. Other remote master device can not discovery this device. |
| | **H1 (Default)** | The device enters discoverable mode. |
| | H? | Inquire the current setting |
| **I** (Information) | This command is used to Inquiry the information | |
| | *Modifiers* | *Description* |
| | I0 | Inquire the version Codes |
| | I1 | Listing all setting value |
| | I2 | Inquire RSSI in Online command mode |
| **K** (Stop bits setting) | This command is used to specify one or two stop bits of COM port | |
| | *Modifiers* | *Description* |
| | **K0 (Default)** | One Stop bit |
| | K1 | Two stop bits |
| | K? | Inquire the current setting |
| **L** (Baud Rate Control) | This command is used to specify the baud rate of COM port | |
| | *Modifiers* | *Description* |
| | L# | 1200bps |
| | L* | 2400bps |
| | L0 | 4800bps |
| | **L1** | 9600bps |
| | **L2 (Default)** | 19200bps |
| | L3 | 38400bps |
| | L4 | 57600bps |
| | L5 | 115200bps |
| | L6 | 230.4Kbps |
| | L7 | 460.8Kbps |
| | L8 | 921.6Kbps |
| | L? | Inquire the current setting |
| **M** (Parity bits setting) | This command is used to specify the parity bit setting of COM port | |
| | *Modifiers* | *Description* |
| | **M0 (Default)** | None Parity bit. |
| | M1 | Odd parity setting. |
| | M2 | Even parity setting |
| | M? | Inquire the current setting |
| **N** (Set device name) | We can specifies the device a friendly name using 0 to 9, A to Z, a to z, space and –, which are all valid characters. Note that "firs space or -, last space or – isn't permitted". The default name is "Serial Adaptor" | |
| | *Modifiers* | *Description* |

| | N=xxxxx | "xxxxx" is a character string, maxima length is 16 |
|---|---|---|
| | N? | Inquire the device name |
| **O**<br>(Auto connect setting) | This command is used to enable/disable auto-connection feature in master role. By the way, it is used to online switch from command mode to data mode. Note, it will cause a reboot when ATO0 or ATO1 take effect. | |
| | *Modifiers* | *Description* |
| | O | Online switch from command mode to <mark>data mode</mark> |
| | **O0**<br>**(Default)** | Automatically connectting to a device which is assigned in "ATD" or any available device if "ATD" was not assigned. |
| | O1 | Disable auto-connection feature, user should manually use "ATA" command to connect a remote device. |
| | O? | Inquire the current setting |
| **P**<br>(Set PIN code) | This command specifies the PIN number. It control to off the PIN code authorization that allow to establish a connection without PIN code.<br>Default PIN number is "1234" | |
| | *Modifiers* | *Description* |
| | **P=xxxx**<br>**(Default)** | "xxxx" is 4~8 digit string |
| | P0 | Turn off the PIN code authorization |
| | P? | Inquire the current PIN number |
| **Q**<br>(Result Code Supression) | The command is used to determine if result Codes should be sent to the Host. When result Codes are supressed, the device does not generate any characters in response to the completion of a command or when an event occurs.<br>Four Result Codes : OK,CONNECT,DISCONNECT,ERROR | |
| | *Modifiers* | *Description* |
| | **Q0**<br>**(Default)** | The device will prompt Result Codes |
| | Q1 | The device will not prompt Result Codes |
| | Q? | Inquire the current setting |
| **R**<br>(Set Role) | This command specifies whether the device could be master or slave device. If change the role, the adaptor will reboot and clear all paired addresses. | |
| | *Modifiers* | *Description* |
| | **R0** | The device as master role. |
| | **R1**<br>**(Default)** | The device as slave role. |
| | R? | Inquire the current setting |
| **Z**<br>(Restore) | This command is used to restore default setting and reboot | |
| | *Modifiers* | *Description* |
| | **Z0** | Restore the default setting |

## The factory settings of UART are as follows:

- Baud rate: 19200 bps
- Data bit: 8
- Parity: none
- Stop bit: 1