

**HandyPort/HandyCore**  
**Extended Command Set**  
**Wireless Solutions in your Hand**  
***User's Manual***

Version 1.0



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## Table of Contents

|   |           |
|---|-----------|
| <b>1. INTRODUCTION</b>                                  | <b>4</b>  |
| 1.1. ABOUT THIS DOCUMENT                                | 4         |
| 1.2. CONFIGURATION CHANGING FOR HANDYPORT AND HANDYCORE | 4         |
| 1.3. COMMUNICATION MODE                                 | 4         |
| 1.4. MODE SWITCHING AFTER BEING CONNECTED               | 4         |
| 1.4.1. A 16-bit flag for mode setting                   | 4         |
| 1.4.2. Command “[AT+Z]<L><W>”                           | 5         |
| 1.4.3. Stream Connection Policy                         | 5         |
| 1.5. SWITCHING BETWEEN COMMUNICATION MODES              | 5         |
| 1.5.1. Initial Setting (Not connected)                  | 5         |
| 1.5.2. Mode Switching after being connected             | 5         |
| 1.6. COMMAND FORMAT                                     | 6         |
| 1.6.1. Having a command mode button                     | 6         |
| 1.6.2. No button for the modes                          | 6         |
| 1.6.3. Data type  | 6         |
| 1.6.4. Notation   | 6         |
| <b>2. COMMAND SET</b>                                   | <b>7</b>  |
| <b>3. COMMAND SYNTAX</b>                                | <b>10</b> |
| 3.1. SET A REMOTE DEVICE ADDRESS FOR A CONNECTION       | 10        |
| 3.2. SET THE BAUD RATE                                  | 10        |
| 3.3. SET A SERIAL PORT                                  | 11        |
| 3.4. DISCONNECT THE CURRENT CONNECTION                  | 11        |
| 3.5. SET THE AUTHENTICATION                             | 11        |
| 3.6. SET THE FLOW CONTROL                               | 12        |
| 3.7. SET THE DEFAULT SEARCH TIMEOUT                     | 12        |
| 3.8. SET THE NUMBER OF INQUIRY RESPONSES                | 12        |
| 3.9. EXECUTE AN INQUIRY                                 | 13        |
| 3.10. SET INQUIRY SCAN MODE                             | 13        |
| 3.11. SET LOW POWER MODE                                | 13        |
| 3.12. SET CONNECTION MODE                               | 14        |
| 3.13. SET A FRIENDLY NAME                               | 14        |
| 3.14. ENTER REMOTE CONFIGURATION VIA OTA                | 15        |
| 3.15. EXIT REMOTE CONFIGURATION                         | 15        |
| 3.16. RESET THE REMOTE ADAPTER                          | 16        |

## Extended Command Set

|       |  |    |
|-------|--|----|
| 3.17. | USAGE OF REMOTE CONFIGURATION .....              | 16 |
| 3.18. | SET THE PARITY BIT .....                         | 16 |
| 3.19. | SET THE CONNECTION TIMEOUT .....                 | 17 |
| 3.20. | RETURN TO THE DATA MODE .....                    | 17 |
| 3.21. | SET THE STOP BIT .....                           | 17 |
| 3.22. | MAKE A CONNECTION .....                          | 18 |
| 3.23. | CANCEL A COMMAND .....                           | 18 |
| 3.24. | VIEW THE CURRENT SETTINGS .....                  | 18 |
| 3.25. | SET THE CLASS OF DEVICE .....                    | 18 |
| 3.26. | EXIT THE COMMAND MODE .....                      | 19 |
| 3.27. | SET AN ESCAPE MODE CHARACTER .....               | 19 |
| 3.28. | DISPLAY THE CURRENT STATE .....                  | 19 |
| 3.29. | CHANGE MODE FROM DATA MODE TO COMMAND MODE ..... | 20 |
| 3.30. | DISPLAY THE COMMAND LIST AND USAGE .....         | 20 |

# 1. Introduction

## 1.1. About this document

This document contains a description of extended command set that is supported in HandyPort and HandyCore. It also contains information on how to use the extended command set<sup>1</sup>.

## 1.2. Configuration changing for HandyPort and HandyCore

To change the configuration of HandyPort and HandyCore, you can use the extended command set at the target devices or terminal emulator.

## 1.3. Communication Mode

There are two different communication modes for HandyPort and HandyCore (hereafter “adapter”). One is a data mode. The other is a command mode. If two adapters are in the data mode, two devices can send and receive data each other via adapters. If an adapter is in the command mode, you can send commands to the adapter.

## 1.4. Mode Switching after being connected

In order to support switching between the modes after adapters are being connected, you must change a stream connection policy (SCP) bit and button (BUT) bit to clear (0), and a simple (SIM) bit to set (1) first.

### 1.4.1. A 16-bit flag for mode setting

| Bit Positions |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 15            | 14  | 13  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 3   | 2   | 1   | 0   |
| TBD           | NPS | TBD | FLC | BUT | SIM | QoS | AuC | MOD | MOD | MOD | MOD | MOD | MOD | HEL | SCP |

Bit 15: TBD - N/A, should be set to 0.

Bit 14: NPS (No Page Scan) – 1 (Disable Page Scan) / 0 (Enable Page Scan: Default)

Bit 13: TBD – N/A, should be set to 0.

Bit 12: FLC (Flow Control) – 1 (Enable Function) / 0 (No Flow Control) => depends on model

Bit 11: BUT (Button) - 1 (Use a command mode button) / 0 (No button) => depends on model

Bit 10: SIM (Simple) – 1 (Short form response) / 0 (Long form response) => depends on model

Bit 9: QoS (Quality of Service) – 1 (Enable QoS: Default) / 0 (Disable QoS)

Bit 8: AuC (Authentication) – 1 (Enable Function: Default) / 0 (Disable Function)

Bit 7 - 2: MOD (Model Identity) – **Don't modify. It is for factory setting only.**

<sup>1</sup> **The extended command set is required software version 2.0 and above.**

Bit 1: HEL (HELP) – 1 (Use help: Default) / 0 (No help)

Bit 0: SCP (Stream Connection Policy) – 1 (Auto Connection: Default) / 0 (Flexible connection)

#### 1.4.2. Command “[AT+Z]<L><W>”

You can change a stream connection policy (SCP) bit, button (BUT) bit and simple (SIM) bit with a command, “[AT+Z]<L><W>”, as follows<sup>1</sup>:

Step 1: Verify that your adapter is not connected.

Step 2: Set the communication mode to command mode (refer to 1.5).

Step 3: Read the current mode setting with a “[AT+Z]<L><R>” command.

Step 4: Set the mode setting flag (4 hexadecimal-digit) with a “[AT+Z]<L><W>” command.

#### 1.4.3. Stream Connection Policy

We provide two stream connection policies. One is an auto connection that isn't supporting the escape mode sequence. But you can maximize the RF link performance in term of throughput and delay. The other is a flexible-connection that is supporting the escape mode sequence. You may lose some of the RF link performance in the flexible connection.

### 1.5. Switching between communication modes

#### 1.5.1. Initial Setting (Not connected)

- Having a command mode button: The initial setting for this model is the data mode. If you want to change the mode from data mode to command mode, you have to push the button first.
- No button for the modes: The initial setting for this model is the command mode. If an adapter is connected to the other end, it will be in the data mode.

#### 1.5.2. Mode Switching after being connected

If you want to switch between the modes after being connected each other, you can use an escape mode sequence and a command “AT+ZR”.

- Switch to the command mode: You can use an escape mode sequence. The default escape mode sequence is “+++” (‘+’ is 0x2B in HEX). You can use the escape mode sequence in the data mode.
- Return to the data mode: You can use an “AT+ZR” command. You can use this command in the command mode.

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<sup>1</sup> **Don't play with the mode setting flag. If you set it improperly, your adapter will not be working.**

Ex. HPS-120 (default: “1B43”): LW1742 (Change to “1742”)

HPS-110 (default: “0B23”): LW0722 (change to “0722”)

HCS-100 (default: “0707”): AT+ZLW0706 (change to “0707”)

## 1.6. Command Format

### 1.6.1. Having a command mode button

The command format for this model is as follows:

```
<Command1><Data Type><CR>
<Command><Data Type>[Data Type]<CR>
<Command><Data Type><','><Data Type>[Data Type]<CR>
<Command><Data Type><','>Data Type]<CR>
<Command><'?'>[Command]<CR>
<Command><Data Type>
<Command>
```

### 1.6.2. No button for the modes

The command format for this model is as follows:

```
<Command Sequence2><Command><Data Type><CR>
<Command Sequence><Command><Data Type>[Data Type]<CR>
<Command Sequence><Command><Data Type><','><Data Type>[Data Type]<CR>
<Command Sequence><Command><Data Type><','>Data Type]<CR>
<Command Sequence><Command><'?'>[Command]<CR>
<Command Sequence><Command><Data Type>
<Command Sequence><Command>
```

### 1.6.3. Data type

- HEX (Hexadecimal): '0', '1', '2', '3', '4', '5', '6', '7', '8', '9', 'A', 'B', 'C', 'D', 'E', 'F' in ASCII
- Addr (BD\_ADDR): Bluetooth Device Address. It consists of 12 HEX.
- DEC (Decimal): '0', '1', '2', '3', '4', '5', '6', '7', '8', '9' in ASCII.
- CH (Character): A displayable character in ASCII.
- STR (String): A sequence of displayable characters.

### 1.6.4. Notation

- <>: Mandatory Parameter
- []: Optional Parameter
- <CR>: Carriage Return, 0x0D
- <','>: 0x2C

<sup>1</sup> Command: 'A' to 'Z' in ASCII

<sup>2</sup> Command Sequence: "AT+Z" in ASCII

## 2. Command Set

The command set is as follows:

| Item                | Syntax                         | Description  | Remarks   |
|---------------------|--------------------------------|--|---|
| 1. Remote Address   | AT+Z <del>A</del> Addr<CR>     | Set a remote device address for a connection.  | Connection Mode '0' & '2' only.   |
| 2. Baud rate        | AT+Z <del>B</del> BR[D]<CR>    | Set the baud rate<br>'D': Change default baud rate (Optional). Button mode only.                         | '0': 1200, '1': 2400, '2': 4800, '3': 9600, '4': 19200, '5': 38400, '6': 57600, '7': 115200 |
| 3. COM port         | AT+Z <del>C</del> COMPort<CR>  | Set a serial port.<br>COMPort: '1' ~ '7'   | Connection mode '2' only.   |
| 4. Disconnect       | AT+Z <del>D</del> <CR>         | Disconnect the current connection.   | It must execute in the command mode.  |
| 5. PIN code         | AT+Z <del>E</del> PIN<CR>      | Set the authentication.<br>On: Type up to 11 characters<br>Off: Type <CR> only.                          | Paired adapters must have a same PIN code.  |
| 6. Flow Control     | AT+Z <del>F</del> FC[D]<CR>    | Set the Flow control.<br>FC: '0' ~ '2'<br>'D': Change default flow control (Optional). Button mode only. | Flow control settable model only.<br>'0': None, '1': CTS/RTS, '2': DTR/DSR                  |
| 7. Timer for Search | AT+Z <del>G</del> TO<CR>       | Set the default search timeout<br>TO (timeout): ASCII '0' ~ "999"  | Connection mode '3' only.<br>Default: 10 sec.   |
| 8. Number of Search | AT+Z <del>H</del> NO<CR>       | Set the default number of search<br>NO (#): ASCII '0' ~ "999"  | Connection mode '3' only.<br>Default: 10  |
| 9. Inquiry          | AT+Z <del>I</del> TO,NO[L]<CR> | Execute an inquiry.<br>TO: ASCII '0' ~ "999"<br>NO: ASCII '0' ~ "999"<br>L: Display CoD & Name/Optional  | Connection mode '3' only  |
| 10. Inquiry Scan    | AT+Z <del>J</del> E/D<CR>      | Set Inquiry Scan Mode<br>'E': Enable<br>'D': Disable   | Connection mode '1' only  |
| 11. LPM             | AT+Z <del>K</del> E/D<CR>      | Set Low Power Mode<br>'E': Enable<br>'D': Disable  | Low Power Mode  |

| Item                   | Syntax                      | Description   | Remarks  |
|------------------------|-----------------------------|---|--|
| 12. Mode               | AT+ZM <u>Mode</u> <CR>      | Set Connection Mode.<br>Mode: '0' ~ '3'<br>'0'/'2': Required a remote addr.<br>'2': Required a request COM port | '0': 1:1 Connection Mode<br>'1': Wait Mode<br>'2': Register & Connect Mode<br>'3': Wait Command Mode |
| 13. Friendly Name      | AT+ZN <u>Name</u> <CR>      | Set a friendly name.<br>Name: up to 11 ASCII  |  |
| 14. OTA ON             | AT+ZO <u>O</u> <CR>         | Enter remote configuration via OTA.   | Connected state only.<br>Printed with "RmON".  |
| 15. OTA OFF            | AT+ZO <u>F</u> <CR>         | Exit remote configuration.  | Connected state only.  |
| 16. OTA Reset          | AT+ZO <u>R</u> <CR>         | Reset the remote adapter.   | Connected state only.  |
| 17. OTA Usage          | AT+ZO <u>?</u>              | Usage for remote configuration.   | Connected state only.  |
| 18. Parity Bit         | AT+ZPPA <u>[D]</u> <CR>     | Set the parity bit.<br>'D': Change the default parity bit (Optional). Button mode only.                         | 0: None, 1: Odd 2: Even  |
| 19. Connection Timeout | AT+ZQ <u>IO</u> <CR>        | Set the connection timeout.<br>TO (timeout): ASCII '0' ~ "999"  | Connection mode '3' only.  |
| 20. Return             | AT+ZR                       | Return to the data mode.  | Connected state only   |
| 21. Stop Bit           | AT+ZSST <u>[D]</u> <CR>     | Set the stop bit.<br>'D': Change the default stop bit (Optional). Button mode only.                             | 0: 1 Stop, 1: 2 Stop   |
| 22. Connecting         | AT+ZT <u>Addr[,TO]</u> <CR> | Make a connection.<br>Addr: BD_ADDR for target.<br>[,TO] (timeout): ASCII '0' ~ "999"<br>/ Optional             | Connection mode '3' only.<br>';': ASCII 0x2C   |
| 23. Undo               | AT+ZU                       | Cancel a search command.  | Connection mode '3' only.  |
| 24. View               | AT+ZV                       | View the current settings.  |  |
| 25. CoD                | AT+ZW <u>CoD</u> <CR>       | Set the class of device.<br>CoD: 6 Hex-digit  | Default: "001F00"  |
| 26. Exit               | AT+ZX                       | Exit the command mode.  | Reboot.  |
| 27. Esc character      | AT+ZY <u>ESC</u> <CR>       | Set an escape mode character.<br>ESC: 1 ASCII character   | Default: '+'   |

## Extended Command Set

| Item             | Syntax       | Description  | Remarks  |
|------------------|--------------|--|--|
| 28. State        | AT+ZZ        | Display the current state.<br>State: 'S'/'P'/'C'/'A'/'I' | 'S': Idle / 'P': Pairing /<br>'C': Connecting /<br>'A': RF on / 'I': Inquiring |
| 29. Esc Sequence | +++          | Change mode from the data mode to command mode.          | Escape Mode Sequence<br>Default: "+++"   |
| 30. Help         | AT+Z?[C]<CR> | Display the command list and usage.                      | AT+Z?<CR>: command list<br>AT+Z?A<CR>: usage of 'A'                            |

**Note 1)** If you change the default setting (factory setting), you must remember it.

**Note 2)** If you mistype 5 consecutive commands, you must power cycle for using the command set.

### 3. Command Syntax

#### 3.1. Set a remote device address for a connection

| Syntax              | Description  |
|---------------------|--|
| AT+ZA<Addr><CR>     | <p>Set a remote device address for a wireless connection<sup>1</sup>.</p> <ul style="list-style-type: none"> <li>- Addr: an address of remote adapter, 12 HEX</li> <li>- Validation: Execute "AT+ZV" and verify the "Remote BD_ADDR: " field.</li> </ul> <p><b>It is valid in connection mode '0' &amp; '2' only.</b></p> <p>- Ex: AT+ZA000278017F0A&lt;CR&gt;</p> |
| Response            | Description  |
| <CR><LF>OK<CR><LF>  | Success  |
| <CR><LF>ERR<CR><LF> | Error in address for remote or connection mode   |

#### 3.2. Set the baud rate

| Syntax              | Description   |
|---------------------|---|
| AT+ZB<DEC>[CH]<CR>  | <p>Set the baud rate.</p> <ul style="list-style-type: none"> <li>- &lt;DEC&gt;: '0': 1,200, '1': 2,400, '2': 4,800, '3': 9,600, '4': 19,200, '5': 38,400, '6': 57,600, '7': 115,200bps</li> <li>- [CH]: An optional parameter, 'D'. If you use this option, the default baud rate (factory setting) will be changed.</li> </ul> <p>- Ex: AT+ZB3&lt;CR&gt;</p> |
| Response            | Description   |
| <CR><LF>OK<CR><LF>  | Success   |
| <CR><LF>ERR<CR><LF> | Input range error   |

<sup>1</sup> A local address and remote address must be different.

### 3.3. Set a Serial Port

| Syntax                  | Description  |
|-------------------------|--|
| AT+Z <b>C</b> <DEC><CR> | Set a request serial port.<br>- <DEC>: '1' – '7'<br><b>It is valid in connection mode '2' only.</b><br>- Ex: AT+Z <b>C</b> 1<CR> |
| Response                | Description  |
| <CR><LF>OK<CR><LF>      | Success  |
| <CR><LF>ERR<CR><LF>     | Input range error  |

### 3.4. Disconnect the current connection.

| Syntax             | Description   |
|--------------------|---|
| AT+Z <b>D</b> <CR> | Disconnect from the current connection.<br>It must execute in the command mode.<br>- Ex: +++AT+Z <b>D</b> <CR>      |
| Response           | Description   |
| DSC                | Success   |
| NOK<ST>            | Error (No connected state)<br>- <ST (state)>: 'S': Idle, 'P': Pairing, 'C': Connecting, 'A': Active, 'I': Inquiring |

### 3.5. Set the authentication

| Syntax                    | Description  |
|---------------------------|--|
| AT+Z <b>E</b> <STR><CR>   | Set the authentication and encryption <sup>1</sup> .<br>- <STR>: Up to 11 characters<br>- Ex (Activation): AT+Z <b>E</b> 1234<CR><br>- Ex (Deactivation): AT+Z <b>E</b> <CR> |
| Response                  | Description  |
| <CR><LF>OFF<CR><LF>       | Successful Inactivation.   |
| <CR><LF>ON: <PIN><CR><LF> | Successful Activation.   |
| <CR><LF>OK<CR><LF>        | Success  |

<sup>1</sup> To make a connection between two adapters, they have to have the same PIN code.

### 3.6. Set the Flow control

| Syntax              | Description   |
|---------------------|---|
| AT+ZF<DEC>[CH]<CR>  | Set the Flow control.<br>- <DEC>: '0': None, '1': CTS/RTS, '2': DTR/DSR<br>- [CH]: An optional parameter, 'D'. If you use this option, the default flow control (factory setting) will be changed.<br>- Flow control settable model only.<br>- Ex: AT+ZF0<CR> |
| Response            | Description   |
| <CR><LF>OK<CR><LF>  | Success   |
| <CR><LF>ERR<CR><LF> | Input range error or no flow control function.  |

### 3.7. Set the default search timeout

| Syntax              | Description   |
|---------------------|---|
| AT+ZG<DEC><CR>      | Set the default inquiry timeout.<br>- <DEC>: '0' ~ "999"<br>- Default: 10 sec<br>- Connection mode '3' only.<br>- Ex: AT+ZG10<CR> |
| Response            | Description   |
| <CR><LF>OK<CR><LF>  | Success   |
| <CR><LF>ERR<CR><LF> | Input range error   |

### 3.8. Set the number of inquiry responses

| Syntax              | Description   |
|---------------------|---|
| AT+ZH<DEC><CR>      | Set the number of inquiry responses.<br>- <DEC>: '0' ~ "999"<br>- Default: 10 responses<br>- Connection mode '3' only.<br>- Ex: AT+ZH10<CR> |
| Response            | Description   |
| <CR><LF>OK<CR><LF>  | Success   |
| <CR><LF>ERR<CR><LF> | Input range error   |

### 3.9. Execute an inquiry

| Syntax                               | Description   |
|--------------------------------------|---|
| AT+Z <b>I</b> <DEC1><,><DEC2>[L]<CR> | Execute the search devices.<br>- <DEC1, 2>: '0' ~ "999", DEC1: Timeout, DEC2: A number of responses<br>- [L] (optional): Display CoD and Friendly Name.<br>- <b>Connection mode '3' only.</b><br>- Ex: AT+Z <b>I</b> 10,1<CR> |
| Response                             | Description   |
| <CR><LF>BD_ADDR[,CoD,Name]           | Success   |
| <CR><LF>EOI<CR><LF>                  | End of Inquiry  |
| <CR><LF>ERR<CR><LF>                  | Input range error   |

### 3.10. Set Inquiry Scan Mode

| Syntax                 | Description   |
|------------------------|---|
| AT+Z <b>J</b> <CH><CR> | Set the inquiry scan mode <sup>1</sup> .<br>- <CH>: 'E': enable, 'D': disable<br>- Default: Enable<br>- Ex: AT+Z <b>J</b> E<CR> |
| Response               | Description   |
| ON/OFF                 | The Result of Setting   |
| <CR><LF>OK<CR><LF>     | Success   |
| <CR><LF>ERR<CR><LF>    | Input range error   |

### 3.11. Set Low Power Mode

| Syntax                 | Description   |
|------------------------|---|
| AT+Z <b>K</b> <CH><CR> | Set the low power mode.<br>- <CH>: 'E': enable, 'D': Disable (Default)<br>- Ex: AT+Z <b>K</b> D<CR> |
| Response               | Description   |
| ON/OFF                 | The Result of Setting   |
| <CR><LF>OK<CR><LF>     | Success   |
| <CR><LF>ERR<CR><LF>    | Input range error   |

<sup>1</sup>If you disable the inquiry scan, other devices will not see it.

### 3.12. Set Connection Mode

| Syntax              | Description   |
|---------------------|---|
| AT+ZM<DEC><CR>      | Set the connection mode <sup>1</sup> .<br>- <DEC>: '0': 1:1 Connection Mode<br>'1': Wait Mode<br>'2': Register & Connect Mode<br>'3': Wait Command Mode (You can use the extended command set related to connection in this mode.)<br>- Default: 1:1 Mode<br>- Ex: AT+ZM3<CR> |
| Response            | Description   |
| <CR><LF>OK<CR><LF>  | Success   |
| <CR><LF>ERR<CR><LF> | Input range error   |

### 3.13. Set a friendly name

| Syntax             | Description  |
|--------------------|--|
| AT+ZN<STR><CR>     | Set a friendly name.<br>- <STR>: Up to 11 characters<br>- Ex: AT+ZNHandyWave<CR> |
| Response           | Description  |
| 2LN                | Apply 11 characters only   |
| <CR><LF>OK<CR><LF> | Success  |

<sup>1</sup> Mode '0' and '2': Required a remote address.  
 Mode '2': Required a request serial port

### 3.14. Enter remote configuration via OTA

| Syntax               | Description   |
|----------------------|---|
| AT+ZO<O><CR>         | Enter the remote configuration mode via OTA. You can change the configuration of remote adapter at the local adapter with this command. <ul style="list-style-type: none"> <li>- Connected state only.</li> <li>- Command mode only. Must execute “+++” (escape mode sequence) first.</li> <li>- Display with “RmON”.</li> <li>- Ex: AT+ZO&lt;CR&gt;</li> </ul> |
| Response             | Description   |
| <CR><LF>RmON<CR><LF> | State of remote control   |
| <CR><LF>OK<CR><LF>   | Success   |
| <CR><LF>ERR<CR><LF>  | Input range error   |

### 3.15. Exit remote configuration

| Syntax                | Description   |
|-----------------------|---|
| AT+ZO<F><CR>          | Exit the remote configuration mode via OTA. <ul style="list-style-type: none"> <li>- Connected state only.</li> <li>- Command mode only. Must execute “+++” (escape mode sequence) first.</li> <li>- Ex: AT+ZO&lt;CR&gt;</li> </ul> |
| Response              | Description   |
| <CR><LF>RmOFF<CR><LF> | State of remote control   |
| <CR><LF>OK<CR><LF>    | Success   |
| <CR><LF>ERR<CR><LF>   | Input range error   |

### 3.16. Reset the remote adapter

| Syntax                | Description  |
|-----------------------|--|
| AT+Z <b>O</b> <R><CR> | Reset the remote adapter via OTA.<br><ul style="list-style-type: none"> <li>- <b>Connected state only.</b></li> <li>- <b>Command mode only. Must execute “+++” (escape mode sequence) first.</b></li> <li>- Ex: AT+Z<b>O</b>R&lt;CR&gt;</li> </ul> |
| Response              | Description  |
| <CR><LF>RmRST<CR><LF> | State of remote device   |
| <CR><LF>DSC<CR><LF>   | Disconnect the current connection.   |
| <CR><LF>OK<CR><LF>    | Success  |
| <CR><LF>ERR<CR><LF>   | Input range error  |

### 3.17. Usage of remote configuration

| Syntax                     | Description   |
|----------------------------|---|
| AT+Z <b>O</b> <?>          | Display the usage of remote configuration via OTA.<br><ul style="list-style-type: none"> <li>- <b>Connected state only.</b></li> <li>- Ex: AT+Z<b>O</b>?</li> </ul> |
| Response                   | Description   |
| <CR><LF>AT+ZO: ...<CR><LF> | Display usage   |
| <CR><LF>ERR<CR><LF>        | Not a connected state.  |

### 3.18. Set the parity bit

| Syntax                      | Description   |
|-----------------------------|---|
| AT+Z <b>P</b> <DEC>[CH]<CR> | Set the parity bit.<br><ul style="list-style-type: none"> <li>- &lt;DEC&gt;: '0': None, '1': Odd, '2': Even</li> <li>- Default: None</li> <li>- [CH]: An optional parameter, 'D'. If you use this option, the default parity bit (factory setting) will be changed.</li> <li>- Ex: AT+Z<b>P</b>0&lt;CR&gt;</li> </ul> |
| Response                    | Description   |
| <CR><LF>OK<CR><LF>          | Success   |
| <CR><LF>ERR<CR><LF>         | Input range error   |

### 3.19. Set the connection timeout

| Syntax                  | Description  |
|-------------------------|--|
| AT+Z <b>Q</b> <DEC><CR> | Set the connection timeout.<br>- <DEC>: '0' – "999"<br>- Default: 10 sec<br>- <b>Connection mode '3' only.</b><br>- Ex: AT+Z <b>Q</b> 10<CR> |
| Response                | Description  |
| <CR><LF>OK<CR><LF>      | Success  |
| <CR><LF>ERR<CR><LF>     | Input range error  |

### 3.20. Return to the data mode

| Syntax             | Description  |
|--------------------|--|
| AT+Z <b>R</b>      | Return to the data mode from command mode.<br>- <b>Connected state and command mode only.</b><br>- Ex: AT+Z <b>R</b> |
| Response           | Description  |
| <CR><LF>OK<CR><LF> | Success  |

### 3.21. Set the stop bit

| Syntax                      | Description  |
|-----------------------------|--|
| AT+Z <b>S</b> <DEC>[CH]<CR> | Set the stop bit.<br>- <DEC>: '0': One, '1': Two<br>- Default: One<br>- [CH]: An optional parameter, 'D'. If you use this option, the default stop bit (factory setting) will be changed.<br>- Ex: AT+Z <b>S</b> 0<CR> |
| Response                    | Description  |
| <CR><LF>OK<CR><LF>          | Success  |
| <CR><LF>ERR<CR><LF>         | Input range error  |

### 3.22. Make a connection

| Syntax                           | Description  |
|----------------------------------|--|
| AT+Z <b>T</b> <Addr>[,<DEC>]<CR> | Make a connection to a specific remote adapter.<br>- <Addr>: an address of remote adapter, 12 HEX<br>- [,<DEC>]: Optional parameter. Timeout. '1' – "999". Default: 10 sec<br>- Ex: AT+Z <b>T</b> 000278013F2E<CR> |
| Response                         | Description  |
| <CR><LF>CON<CR><LF>              | Successfully Connected   |
| <CR><LF>CTO<CR><LF>              | Connection Timeout   |

### 3.23. Cancel a command

| Syntax             | Description   |
|--------------------|---|
| AT+Z <b>U</b>      | Cancel the executing commands.<br>- <b>Connection mode '3' only.</b><br>- Ex: AT+Z <b>U</b> |
| Response           | Description   |
| <CR><LF>OK<CR><LF> | Success   |

### 3.24. View the current settings

| Syntax               | Description  |
|----------------------|--|
| AT+Z <b>V</b>        | Display the current settings.<br>- Ex: AT+Z <b>V</b> |
| Response             | Description  |
| SOFTWARE VERSION ... | Success  |

### 3.25. Set the class of device

| Syntax                  | Description   |
|-------------------------|---|
| AT+Z <b>W</b> <HEX><CR> | Set the Class of Device.<br>- <HEX>: 6 HEX-digit<br>- Default: "001F00"<br>- Ex: AT+Z <b>W</b> 001F00<CR> |
| Response                | Description   |
| <CR><LF>OK<CR><LF>      | Success   |
| <CR><LF>ERR<CR><LF>     | Input range error   |

### 3.26. Exit the command mode

| Syntax              | Description                                      |
|---------------------|--|
| AT+ZX               | Exit the command mode and reboot.<br>- Ex: AT+ZX |
| Response            | Description                                      |
| <CR><LF>RST<CR><LF> | Success  |

### 3.27. Set an escape mode character

| Syntax              | Description   |
|---------------------|---|
| AT+ZY<CH><CR>       | Set an escape mode character.<br>- <CH>: an ASCII character<br>- Default: '+'<br>- Ex: AT+ZY+<CR> |
| Response            | Description   |
| <CR><LF>OK<CR><LF>  | Success   |
| <CR><LF>ERR<CR><LF> | Input range error   |

### 3.28. Display the current state

| Syntax                  | Description   |
|-------------------------|---|
| AT+ZZ                   | Display the current state.<br>- Command mode only.<br>- Ex: AT+ZZ                           |
| Response                | Description   |
| <CR><LF><State><CR><LF> | Success<br>- <State>: 'S': Idle, 'P': Pairing, 'C': Connecting, 'A': Active, 'I': Inquiring |

## 3.29. Change mode from data mode to command mode

| Syntax   | Description  |
|----------|--|
| +++      | Switch from the data mode to the command mode.<br>- <b>Escape mode sequence has to support.</b><br>- Ex1: +++AT+ZD<CR><br>- Ex2: +++ |
| Response | Description  |
| N/A      |  |

## 3.30. Display the command list and usage

| Syntax                      | Description   |
|-----------------------------|---|
| AT+Z?[command]<CR>          | Display the command list and usage of a command.<br>- Ex1: AT+Z?<CR><br>- Ex2: AT+Z?A<CR> |
| Response                    | Description   |
| Command List                | Display command list  |
| AT+ZA<BD_ADDR><CR>: Set ... | Display the usage of command  |