REYAX
TECHNOLOGY CORPORATION, LTD

RYRR30D AT COMMAND Guide

AT Command Set

It is required to key in "enter" or "0x0D 0x0A" in the end of all AT Command.
It is required to wait until the module replies +OK to execute the next AT command.

1. **AT** Test if the module can respond to Commands.

Syntax	Response
AT	+OK

2. **Software RESET**

Syntax	Response
AT+RESET	+RESET +READY

3. **AT+MODE** Set the work mode.

Syntax	Response
AT+MODE=<Parameter> <Parameter>Range from 1 to 2 1：Command Mode(default) 2：Standalone Mode 1: In Command mode: you can execute AT Command to set various parameters. . 2: Standalone Mode: In this mode, only AT+MODE commands are accepted, will depend on the Command mode setting' s Apple® Wallet VAS & Google® SmartTap pass ID and Key, as well as AT+SCAN setting' s protocol Scan Pass and RFID TAG Example: Set to Standalone Mode: AT+MODE=2 *The settings will be memorized in Flash.	+OK
AT+MODE? 'When MODE=1	+MODE=1

4. **AT+IPR** Set the UART baud rate.

Syntax	Response
AT+IPR=<rate> <rate> is the UART baud rate： 4800 9600 19200 28800 38400 57600 115200(default) Example: Set the Baud Rate as 9600： AT+IPR=9600 *The settings will be memorized in Flash.*	+OK
AT+IPR?	+IPR=9600

5. **AT+APPLE** Set Apple® Wallet VAS parameters

Syntax	Response
AT+APPLE=<Number>,<ID>,<Key> 1.<Number>: Serial number, 1~6 represents the order. Each serial number has its own corresponding ID and Key of Apple® Wallet VAS. 2.<ID>: Merchant ID is generally 64 characters. 3.<key>: Key matching the Merchant ID, usually 64 characters. Example: <ID> and <Key> set as the 1st group of serial numbers AT+APPLE=1,0123456789012345678901234567890123456789012345678901234567890123,2345678901234567890123456789012345678901234567890123456789012345 *The settings will be memorized in Flash.*	+OK
Confidentiality issue, no inquiry instructions	

6. **AT+GOOGLE** Set Google® SmartTap pass parameters

Syntax	Response
AT+GOOGLE=<Number>,<ID>,<Key> 1.<Number>: Serial number, 1~6 represents the order. Each serial number has its own corresponding ID and Key of Google® SmartTap pass. 2.<ID>: Collector ID is generally 8 characters. 3.<key>: Key matching the Collector ID, usually 64 characters. Example: <ID> and <Key> set as the 2nd group of serial numbers AT+GOOGLE=2,01234567,2345678901234567890123456789012345678901234567890123456789012345 *The settings will be memorized in Flash.*	+OK
Confidentiality issue, no inquiry instructions	

7. **AT+CTYPE** Set the protocols that can be scanned

Syntax	Response
AT+CTYPE=<Protocols> <Protocols> The range is Binary's 0000000000000000~1111111111111111. When the Bit value of the protocol is 1, the scan is started, and when the Bit value of the protocol is 0, the scan is turned off. The list is as follows: Bit15 | Bit14 | Bit13 | Bit12 | Bit11 | Bit10 | Bit9 | Bit8 Apple ID 1 | Google ID 1 | Apple ID 2 | Google ID 2 | Apple ID 3 | Google ID 3 | Apple ID 4 | Google ID 4 Bit7 | Bit6 | Bit5 | Bit4 | Bit3 | Bit2 | Bit1 | Bit0 Apple ID 5 | Google ID 5 | Apple ID 6 | Google ID 6 | Felica | ISO14443B | ISO14443A | ISO15693 Example: Scan Apple ID 1 and Google ID1 and ISO14443A. So Bit15~Bit0 are 1100000000000010 in sequence, so the command is AT+CTYPE=1100000000000010 When returning to AT+MODE=2 Standalone mode, protocols will be scanned in this order. *The settings will be memorized in Flash.*	+OK
AT+CTYPE?	+CTYPE=1100000000000010

8. +APPLE Actively prompt Apple® Wallet VAS to receive information

Response
+APPLE=<Number>,<DATA> 1.<Number>: Serial number, 1~6 represents the order. Each serial number has its own corresponding ID of Apple® Wallet VAS and DATA decoded by Key. 2. <DATA> : Data from Apple® Wallet VAS. The maximum length of data is 63 bytes.
Example: +APPLE=1,ABCDEFG

9. +GOOGLE Proactively prompt Google® SmartTap pass to receive information

Response
+GOOGLE=<Number>,<DATA> 1.<Number>: Serial number, 1~6 represents the order. Each serial number has its own corresponding ID of Google® SmartTap pass and DATA decoded by Key. 2. <DATA> : Data from Google® SmartTap pass. The maximum length of data is 138 bytes.
Example: +GOOGLE=1,ABCDEFG

10. +FeliCa Actively prompt to analyze the UID of FeliCa

Response
+FELICA=<UID> +<Type>:<Payload> 1.<UID>: Unique serial number, unique UID serial number on FeliCa TAG. 2.<Type>: NFC Forum NDEF Record Types. 3.<Payload>: NFC Forum NDEF Record Payload. ** If the TAG does not contain NDEF data, the <Type> and <Payload> fields will not be displayed.*
Example: (TAG contain NDEF data) +FELICA=0011223344556677 +Text:Reyax Test Tag (TAG not contain NDEF data) +FELICA=0011223344556677

11. +ISO14443B Actively prompt to analyze the UID of ISO14443B

Response
+ ISO14443B=<UID> +<Type>:<Payload> 1.<UID>: Unique serial number, unique UID serial number on ISO14443B TAG. 2.<Type>: NFC Forum NDEF Record Types. 3.<Payload>: NFC Forum NDEF Record Payload. ** If the TAG does not contain NDEF data, the <Type> and <Payload> fields will not be displayed.*
Example: (TAG contain NDEF data) +ISO14443B=ABCDEFGH +URI: (http://www.)tiananxin.com (TAG not contain NDEF data) +ISO14443B=ABCDEFGH

12. +ISO14443A Actively prompt to analyze the UID of ISO14443A

Response
+ ISO14443A=<UID> +<Type>:<Payload> 1.<UID>: Unique serial number, unique UID serial number on ISO14443A TAG. 2.<Type>: NFC Forum NDEF Record Types. 3.<Payload>: NFC Forum NDEF Record Payload. ** If the TAG does not contain NDEF data, the <Type> and <Payload> fields will not be displayed.*
Example:(TAG contain NDEF data) +ISO14443A=AABBCCDDEEFFGG +Text:Reyax Test Tag (TAG not contain NDEF data) +ISO14443A=AABBCCDDEEFFGG

13. +ISO15693 Actively prompt to analyze the UID of ISO15693

Response
+ ISO15693=<UID> +<Type>:<Payload> 1.<UID>: Unique serial number, unique UID serial number on ISO15693 TAG. 2.<Type>: NFC Forum NDEF Record Types. 3.<Payload>: NFC Forum NDEF Record Payload. ** If the TAG does not contain NDEF data, the <Type> and <Payload> fields will not be displayed.*
Example: (TAG contain NDEF data) + ISO15693=0011223344556677 +Text:Reyax Test Tag (TAG not contain NDEF data) +ISO14443A=0011223344556677

14. + ST25TB Actively prompt to analyze the UID of ST25TB

Response
+ ST25TB=<UID> 1.<UID>: Unique serial number, unique UID serial number on ST25TB TAG.
Example: +ST25TB=0011223344556677

15. **AT+UID?** To inquire module' s unique serial number '

Syntax	Response
AT+UID? 12 Bytes Unique ID	+UID=16473832313538320010025

16. **AT+VER?** To inquire the firmware version.

Syntax	Response
AT+VER?	+VER=RYRR30D-Vx.x.x

17. **AT+ IAP** Update FW through UART interface.

Syntax	Response
AT+ IAP When the module sends “C” continuously, it means the module is in YMODEM mode. The module enters the status of F/W update. * Only valid in MODE=1	+IAP ========== ========== = (C) Reyax Inc. = = By Huck = ========== ========== CCCC

18. Error result codes

Narrative	Response
There is not “CR/LF” or 0x0D 0x0A in the end of the AT Command.	+ERR=1
The head of AT command is not “AT” string.	+ERR=2
Unknown command./Command given in incorrect state.	+ERR=4