

RYB2340 AT COMMAND

Apply for

RYB2340

APP UUID

Unknown Service

UUID: f000c0c0-0451-4000-b000-000000000000

PRIMARY SERVICE

Unknown Characteristic

UUID: f000c0d -0451-4000-b000-000000000000

Properties : WRITE

Descriptors:

Characteristic User Description

UUID: 0x2901

Unknown Characteristic

UUID: f000c0c2-0451-4000-b000-000000000000

Properties: NOTIFY

Descriptors:

Client Characteristic Configuration

UUID: 0x2902

Characteristic User Description

UUID: 0x2901

AT Command Set

RYB2340 is an GATT profile module, designed for transparent mode, The maximum payload of each packet is 244bytes.

When you use AT Command to set RYB2340, It is required to key in “**enter**” or “0x0D 0x0A” in the end of all AT Command and wait until the module replies **+OK** to execute the next AT command.

1. AT+RESET Software RESET

Syntax	Response
AT+RESET	+RESET +READY

2. AT+IPR set the UART Baud rate

Syntax	Response
AT+IPR=<rate> <rate>is the UART Baud Rate: : 9600 19200 38400 57600 115200(default) Example: Set the Baud Rate as 9600 : AT+IPR=9600 *The setting will be memorized in Flash. * It will work after RESET.	+OK
Inquire current setting AT+IPR?	+IPR=9600

3. AT+NAME to set the broadcast name

Syntax	Response
AT+NAME=<Name> <name> at most 20 ASCII characters Example: Set the broadcast name as “REYAX_BLE_RYB2340” AT+NAME=REYAX_BLE_RYB2340 * It will work after RESET. * It will be memorized in Flash after setting.	+OK
AT+NAME?	+NAME= REYAX_BLE_RYB2340

4. **AT+ADDR** to inquire MAC address

Syntax	Response
AT+ADDR?	+ADDR=123456ABCDEF

5. **AT+SCAN** to scan the Peripherals near by the Central

Syntax	Response
AT+SCAN Example: Scan the Peripherals nearby which can be connected.	+..... +<NO.>,0x<MAC>, <rss> +<NO.>,0x<MAC>, <rss> +<NO.>,0x<MAC>, <rss> +<NO.>,0x<MAC>, <rss> +<NO.>,0x<MAC>, <rss> +Found <Quantity> <NO.> item number of Peripherals: 1~8 <MAC> MAC address of Peripherals <rss> output power of Peripherals: Unit: -dBm <Quantity> quantity of found Peripherals; the maximum is 8. +..... +1: 0x341513E481FA, -46 +2: 0x546C0E591BD2, -31 +Found 2

6. **AT+CONT** The Central connect to a Peripheral by the item number from AT+SCAN

Syntax	Response
AT+CONT=<NO.> <NO.> the item number of the Peripherals: 1~8 Example: The Central connect to the Peripheral whose item number is 2 from AT+SCAN. AT+CONT=2	+++++<Role> <Role> "H" represents "Host" ; "C" represents "Client" +++++H

* Suitable for Reyax BLE products

7. AT+DCON initiative disconnected

Syntax	Response
AT+DCON Example: BLE protocol port disconnected AT+DCON	+----<Role> <Role> "H" represents "Host" ; "C" represents "Client" +----H

8. AT+VER? Read FW version information

Syntax	Response
AT+VER?	+VER=RYB2340_V1.0.0

Quickly User Guide

UART Interface test tool

You can use our tools to test and understand REYAX products more quickly.

[1]UART Bridge tool : RYLS135 can connect the computer to the UART interface of REYAX products.

<https://reyax.com/products/RYLS135>



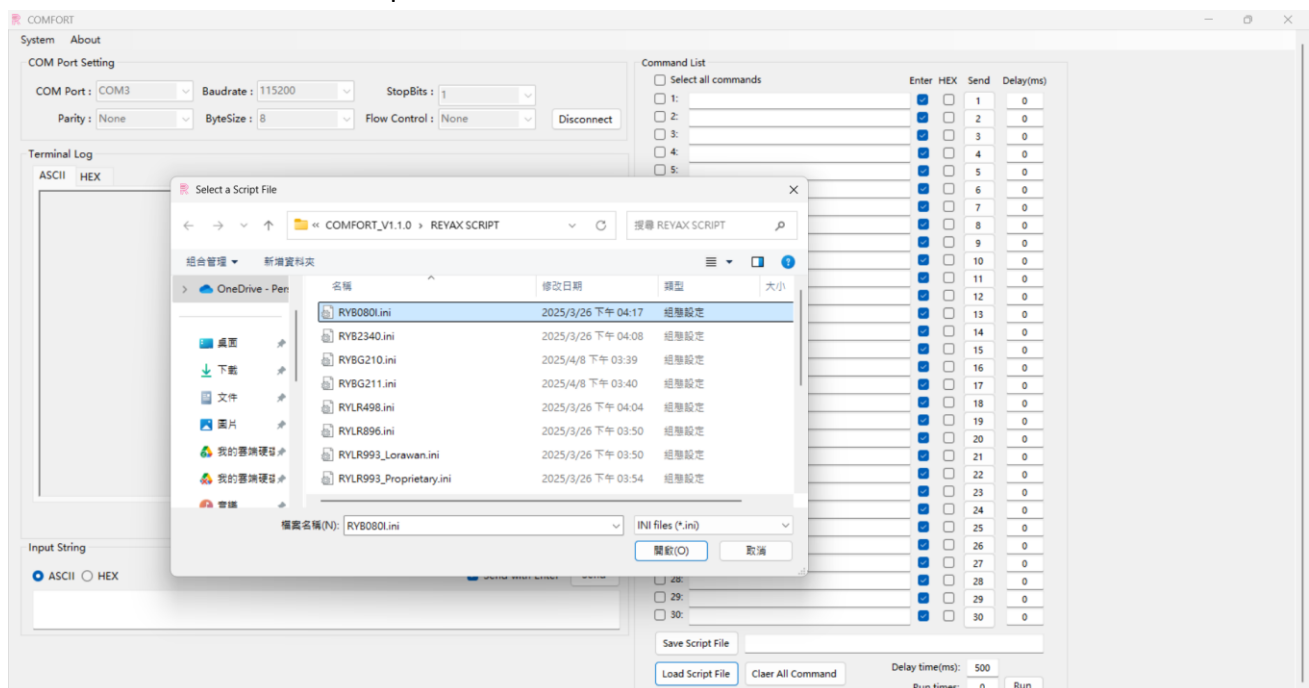
[2]Free software tool : COMFORT is a UART/Comport software that can execute AT commands on Windows® operating systems.

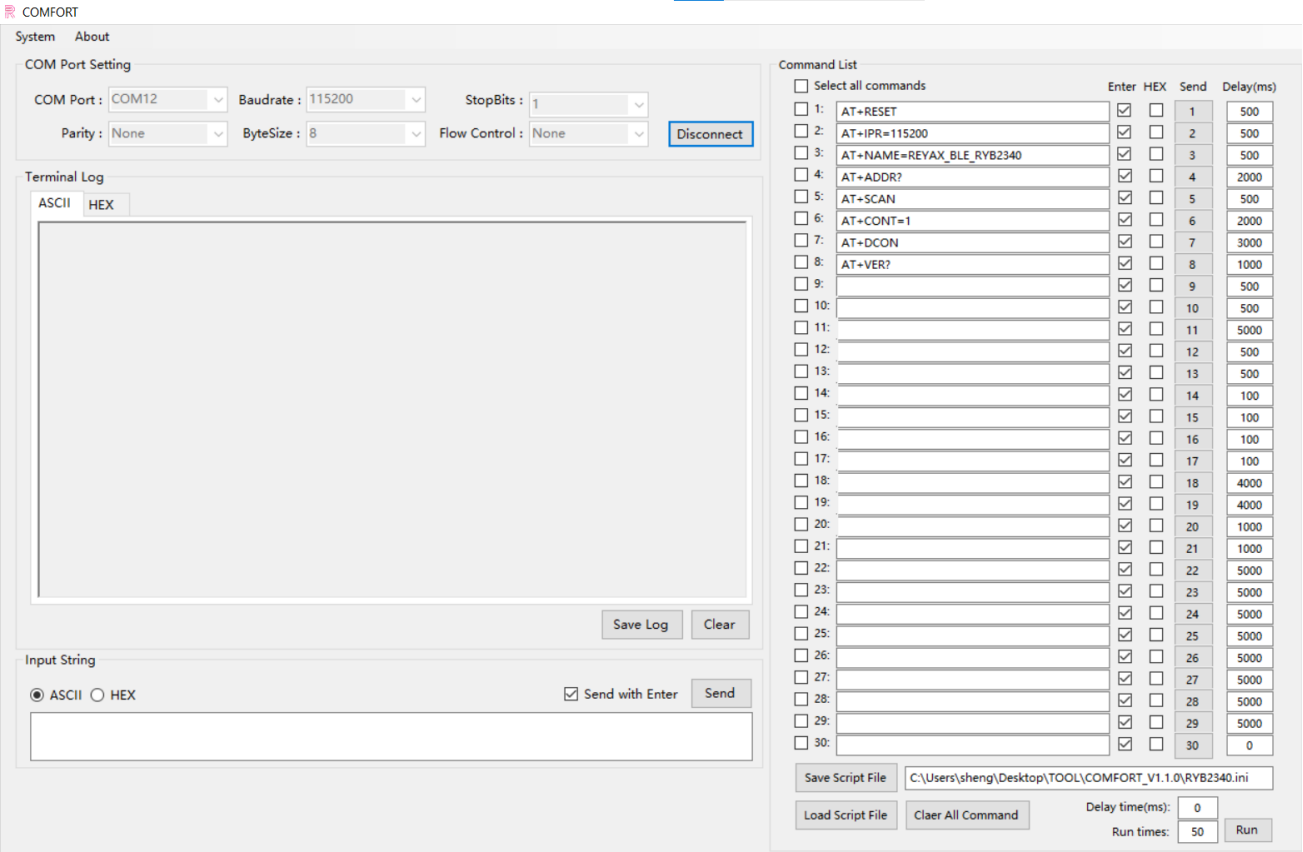
[https://reyax.com/products/COMFORT Software](https://reyax.com/products/COMFORT_Software)



How to test quickly

Load the RYB2340 command script in the COMFORT software.





Using App software test on Smartphone

Please download the Lightblue® App from the Apple® and Android® stores.



CERTIFICATIONS

• NCC 警語

「取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。」



• FCC compliance

The RYB2340 is a Bluetooth Low Energy (BLE) module that complies with FCC Part 15.247 requirements. It has been approved as a single modular transmitter with an integral PCB trace antenna that has a gain of 1.16 dBi and meets the RF exposure requirements for a minimum separation distance of 20 cm.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter. It complies with the FCC RF radiation exposure limits for an uncontrolled environment and should be installed and operated with a minimum distance of 20 centimeters between the radiator and the user's body.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Host product has RYB2340 embedded that the manufacturer shall have the host bear a label showing "Contains FCC ID: QLYRYB2340". The label shall also contain the statement in a conspicuous location and in the manual:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification, such as Part 15 Subpart B, Unintentional Radiators subject to SDoC or certification.

When the RYB2340 is installed in a host that not satisfy the conditions specified in the FCC grant, a permission change application is required according to KDB 178919. Additional tests might be required, and AT Command will be needed. Please contact us for consulting AT command and parameters if permission change or additional test is required.

The end-user manual for the host product shall include the required FCC statements specified in subpart 15.19, 15.105, 15.21, and operating conditions as specified for this module.

Statement:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. 2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate

the equipment.

LABEL OF THE END PRODUCT:

For a host using a certified modular with a standard fixed label, if (1) the module's FCC ID is not visible when installed in the host, or (2) if the host is marketed so that end users do not have straightforward commonly used methods for access to remove the module so that the FCC ID of the module is visible; then an additional permanent label referring to the enclosed module: "Contains Transmitter Module FCC ID: QLYRYB2340" or "Contains FCC ID: QLYRYB2340" must be used. The host OEM user manual must also contain clear instructions on how end users can find and/or access the module and the FCC ID.

**Antenna List**

Antenna Type	Brand	Connector	Model	Freq.	Peak Antenna Gain (dBi)
PCB antenna	REYAX	Permanently attached antenna	RYB2340	2400~2483.5MHz	1.16

REYAX
TECHNOLOGY CORPORATION, LTD

E-mail: sales@reyax.com
Website: <http://reyax.com>