

RYORR2L

User Guide



RYORR2L

Version	Modified content	Date
V0.9	[1] RYORR2L User Guide	20190218
V0.91	[1] Support sending more AT commands simultaneously. [1] Add Command "AT+RST", to reset software [2] Add Command "AT+LED:<data>", to turn on/off red/green LED. [3] Add Command "AT+BUZON:<data>", to set the turn-on timing of buzzer. [4] Add Command "AT+BUZ:<data>", to turn on/off buzzer. [5] Add Command "AT+SCAN:<data>", to turn on scanning function. [6] Use UART interface to update FW.	20190417

SOFTWARE INSTALLATION

[1] SecureCRTPortable download link [\[link1\]](#)

[2] QCOM download link [\[link2\]](#)

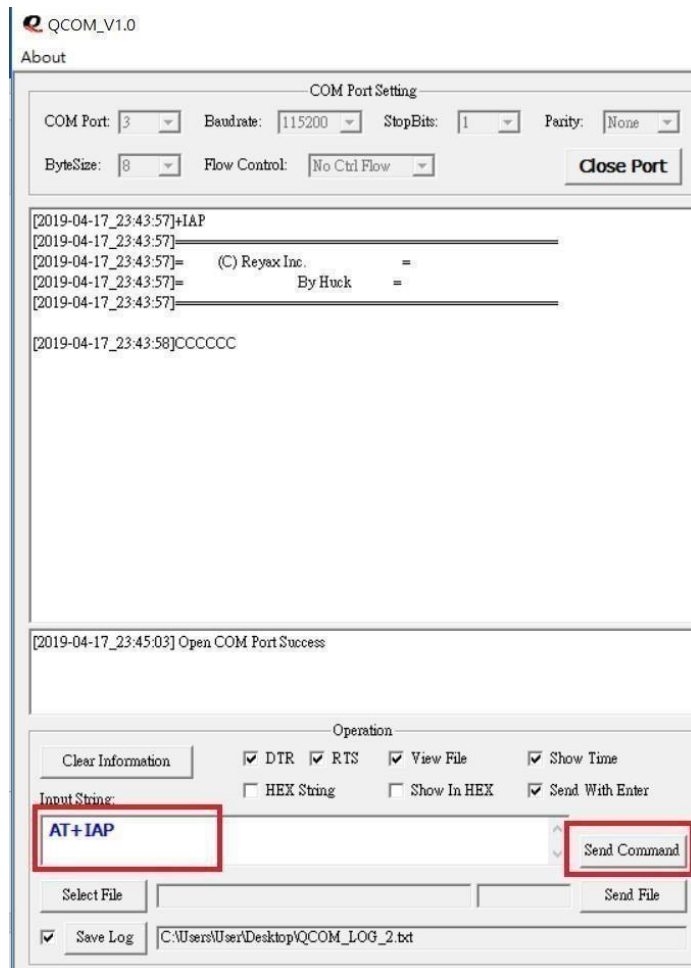
FW UPDATE

1. Open QCOM .

COM Port: COM3 (Device Manager→COM Port (COM and LPT) to check COM Port number. Here we take COM3 for example.)

baudrate:115200

2. Open COM Port · enter "AT+IAP" ; Press "Send Command" and will show below information.



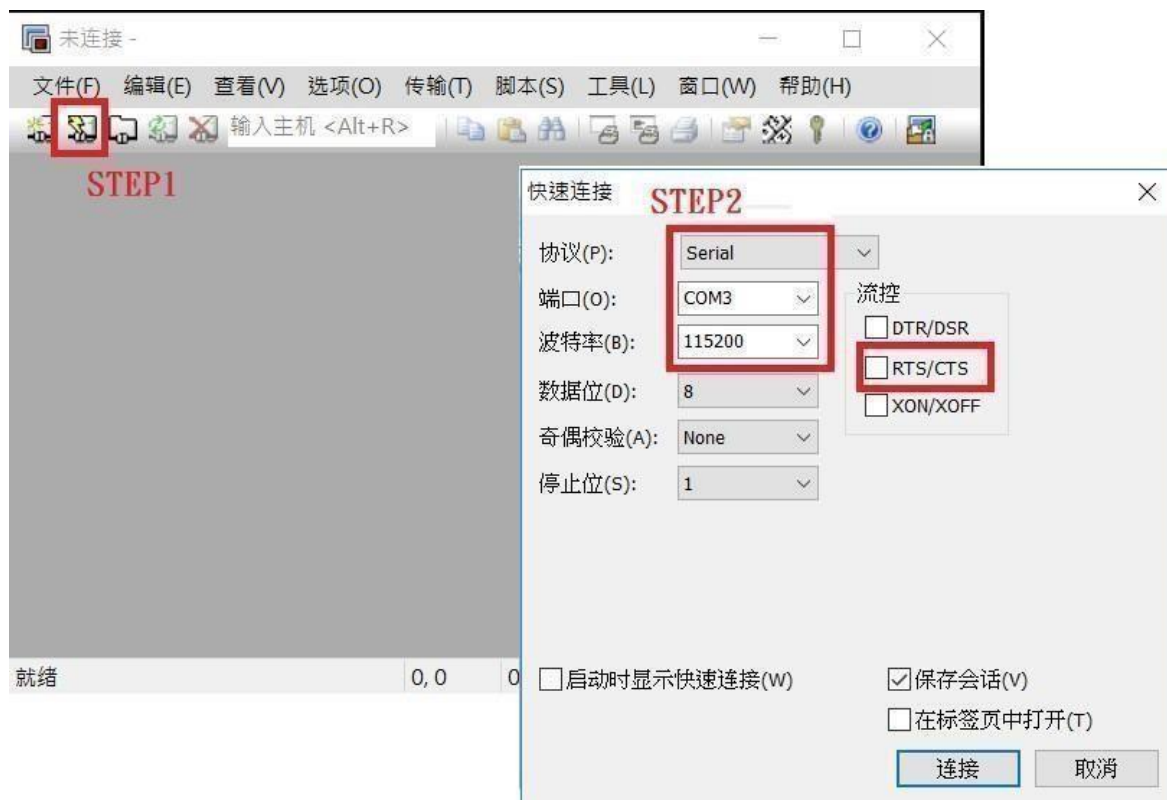
3. Close COM Port.
4. Unzipped SecureCRSecureFXPortable64.rar.
5. Execute SecureCRTPortable.exe.
6. Establish COM Port connection.

Protocol: Serial

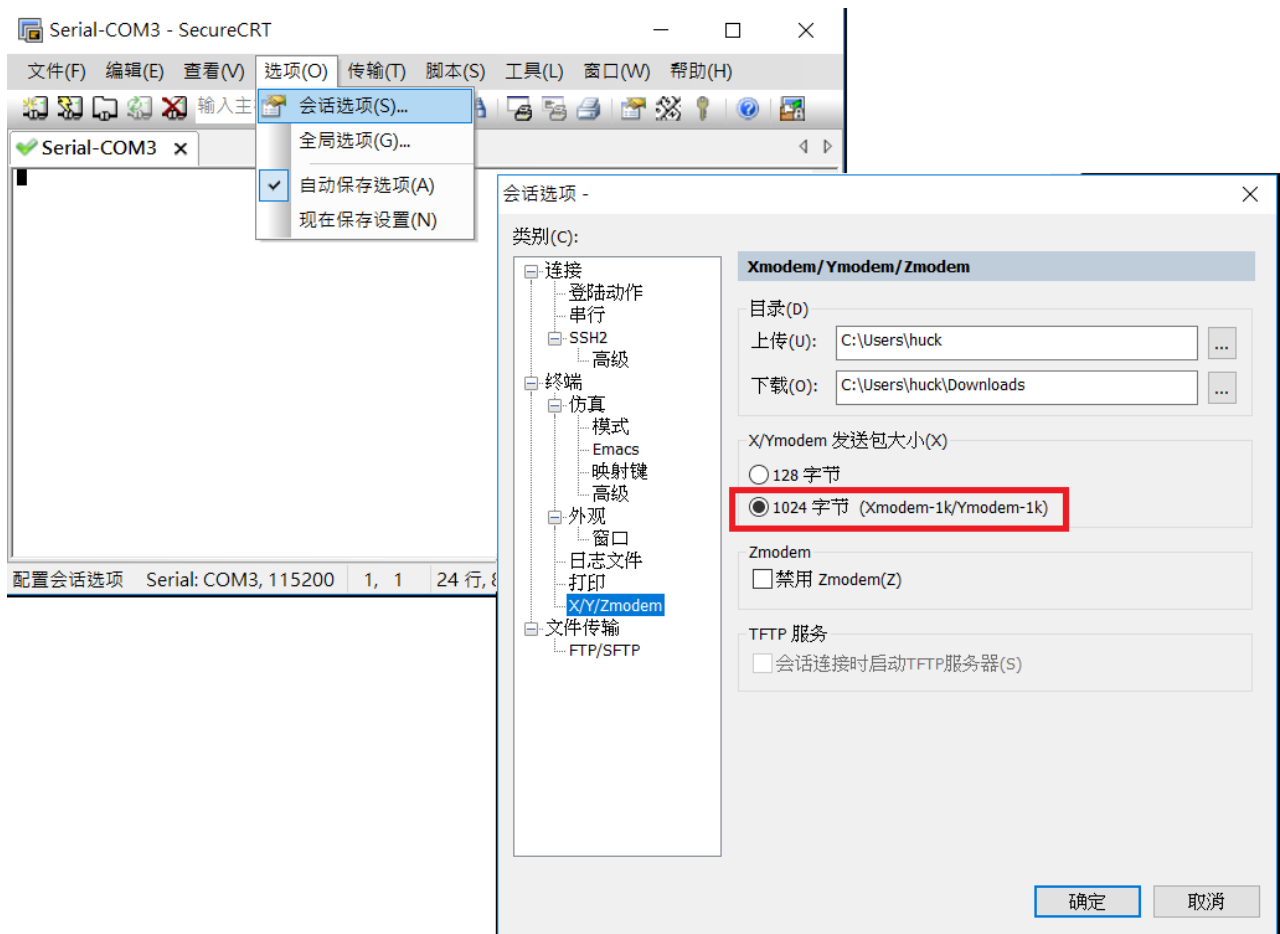
Port: COM3(Device Manager→Com Port (COM and LPT) to check COM PORT number. Here we take COM3 for example.)

Baud rate :115200

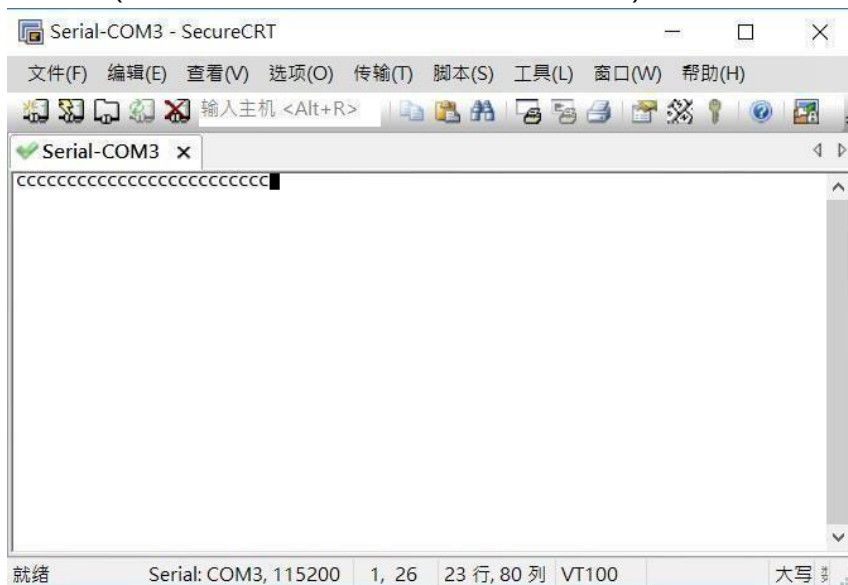
RTS/CTS: Do not tick.



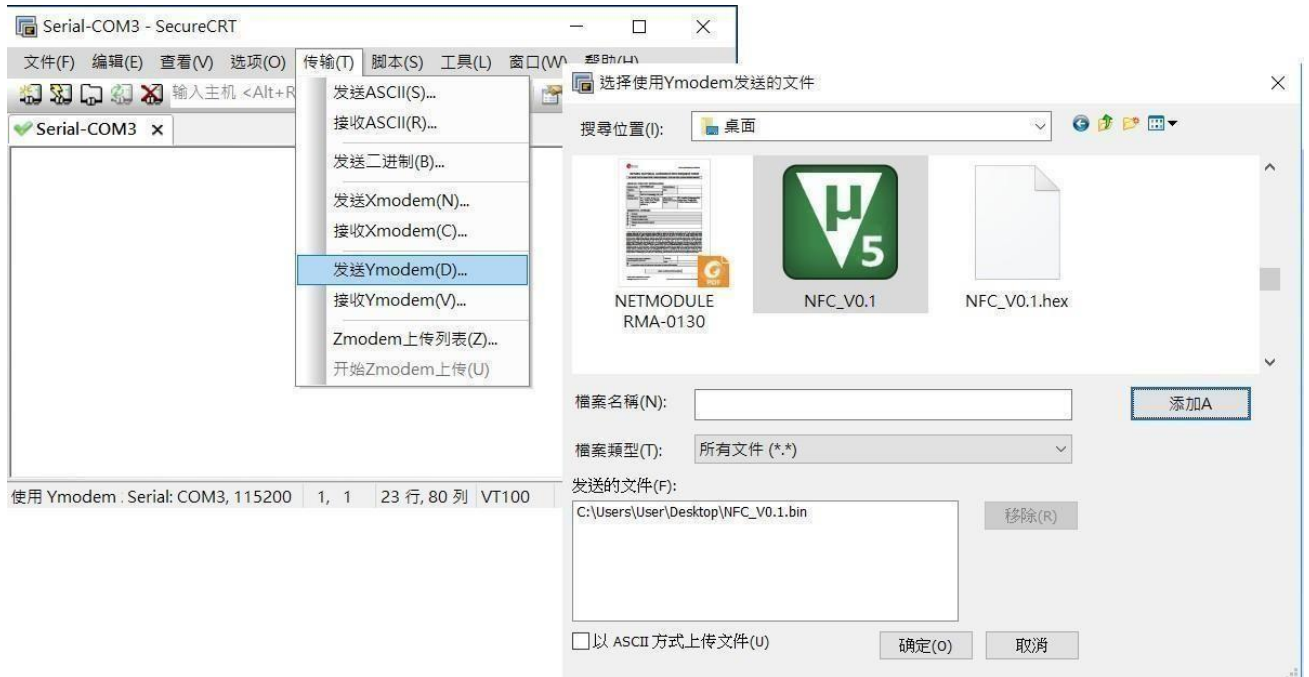
7. Set Ymodem Package size : Choose "1024 byte" .



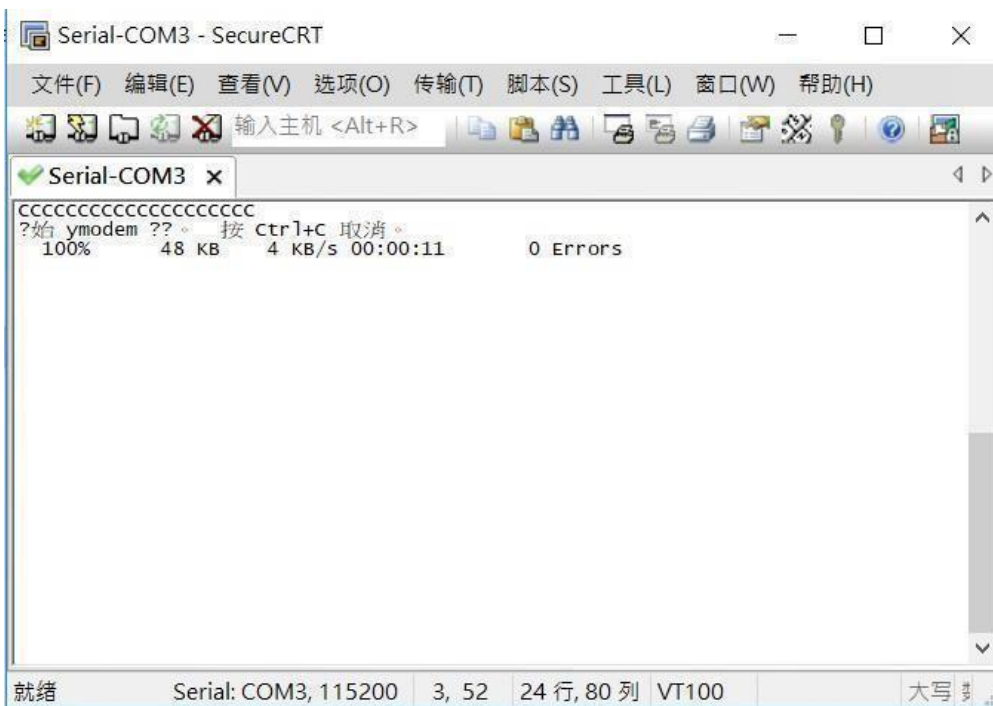
8. When the module sends "C" continuously, it means the module is in Ymodem mode. (As shown in the screenshot below)



9. Click Transmit→ Send Ymodem→ Choose updated FW file(.bin)→ Press "add" → Press "Confirm"

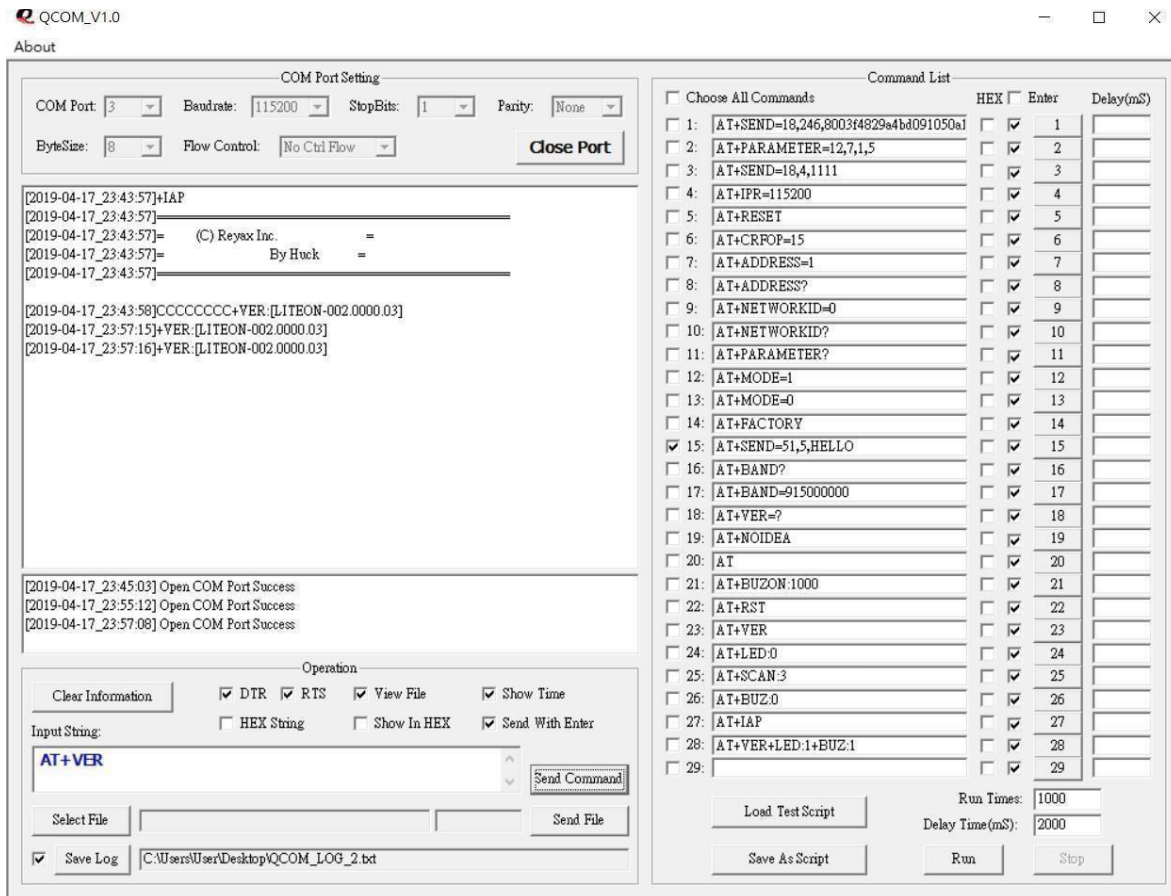


10. If show below information, it means "updated completed" .
Close the COM Port.



11. Open QCOM.

Enter "AT+VER" to check whether the version is correct or not.



AT COMMAND

[1] Default: Key in "enter" or "\r\n" (0x0D 0x0A) at the end of all AT Commands.
Add "?" at the end of the commands to ask the current setting value.

1. AT to test if the module responds

Syntax	Response
AT	+OK

2. Ask the version of the module

Syntax	Response
AT+VER?	+VER:[LITEON-002.xxxx.xx]

3. Send more commands simultaneously

Syntax	Response
AT+<command>:<data>+<command>:<data> >..... Example: Ask the version, turn on the LED1 and buzzer simultaneously. AT+VER+LED:1+BUZ:1	+VER:[LITEON-002.0000.0x] +LED:1 +BUZ:1

4. RESET Software

Syntax	Response
AT+RST	+RST

5. Turn on/off LED

Syntax	Response						
AT+LED:<data> <data> value: 0~3 BIT value "0" means green/red LED is turned off. BIT value "1" means green/ red LED is turned on. <table><tr><th>BIT7~BIT2</th><th>BIT1</th><th>BIT0</th></tr><tr><td>X</td><td>Red LED</td><td>Green LED</td></tr></table> Example: Turn on Green LED. AT+LED:1	BIT7~BIT2	BIT1	BIT0	X	Red LED	Green LED	+LED:<data> +LED:1
BIT7~BIT2	BIT1	BIT0					
X	Red LED	Green LED					

6. Set the time which buzzer remains turning on.

Syntax	Response
AT+BUZON:<data> <data> a 4 bytes seconds (ms). Example: Turn on Buzzer for 1.5seconds and then turn off. AT+BUZON:1500	+BUZ:<data> +BUZ:1500

7. Set buzzer on/off

Syntax	Response
AT+BUZ:<data> <data>value: 0~1 BIT value "0" means buzzer is turned off. BIT value "1" means buzzer is turned on. ° Example: Turn on the buzzer. AT+BUZ:1	+BUZ:<data> +BUZ:1

8. Set scanning tag

Syntax	Response										
AT+SCAN:<data> <data>value from 0 to 9 and A to F. BIT value 0: Turn off Scanningfunction. BIT value 1: Turn on Scanning function. <table><tr><td>BIT7~ BIT4</td><td>BIT3</td><td>BIT2</td><td>BIT1</td><td>BIT0</td></tr><tr><td>X</td><td>Felica</td><td>ISO14 443B</td><td>ISO14 443A</td><td>ISO15 693</td></tr></table> Example: data is set "3" . Ability to scan ISO14443A and ISO15693 tags. AT+SCAN:3	BIT7~ BIT4	BIT3	BIT2	BIT1	BIT0	X	Felica	ISO14 443B	ISO14 443A	ISO15 693	+SCAN:<data> +SCAN: ISO15693 :E007C4C444335583
BIT7~ BIT4	BIT3	BIT2	BIT1	BIT0							
X	Felica	ISO14 443B	ISO14 443A	ISO15 693							

9. Update FW through UART interface

Syntax	回覆
AT+IAP When the module sends "C" continuously, it means the module is in Ymodem mode. Execute "SecureCRTPortable.exe" to update Firmware. (For update method, please refer to Page 5.)	+IAP ===== ===== = (C) Reyax Inc. = = By Huck = ===== ===== CCCC

CERTIFICATION INFORMATION

Federal Communication Commission Interference 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.

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 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.

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:

The product comply with the FCC portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

This module is intended for OEM integrators only. Per FCC KDB 996369 D03 OEM Manual v01 guidance, the following conditions must be strictly followed when using this certified module:

KDB 996369 D03 OEM Manual v01 rule sections:

2.2 List of applicable FCC rules

This module has been tested for compliance to FCC Part 15.

2.3 Summarize the specific operational use conditions

The module is tested for standalone mobile RF exposure use condition. Any other usage conditions such as co-location with other transmitter(s) or being used in a portable condition will need a separate reassessment through a class II permissive change application or new certification.

2.4 Limited module procedures

Not applicable.

2.5 Trace antenna designs

Not applicable.

2.6 RF exposure considerations

This equipment complies with FCC mobile radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. If the module is installed in a portable host, a separate SAR evaluation is required to confirm compliance with relevant FCC portable RF exposure rules.

2.7 Antennas

The following antennas have been certified for use with this module; antennas of the same type with equal or lower gain may also be used with this module. The product comply with the FCC portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual.

Antenna Type	PCB loop antenna
Antenna connector	NA

2.8 Label and compliance information

The final end product must be labeled in a visible area with the following: “Contains FCC ID: PPQRYORR2L”. The grantee's FCC ID can be used only when all FCC compliance requirements are met.

2.9 Information on test modes and additional testing requirements

This transmitter is tested in a standalone mobile RF exposure condition and any co-located or simultaneous transmission with other transmitter(s) or portable use will require a separate class II permissive change re-evaluation or new certification.

2.10 Additional testing, Part 15 Subpart B disclaimer

This transmitter module is tested as a subsystem and its certification does not cover the FCC Part 15 Subpart B (unintentional radiator) rule requirement applicable to the final host. The final host will still need to be reassessed for compliance to this portion of rule requirements if applicable.

As long as all conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

IMPORTANT NOTE: In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

Manual Information To the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.

OEM/Host manufacturer responsibilities

OEM/Host manufacturers are ultimately responsible for the compliance of the Host and Module. The final product must be reassessed against all the essential requirements of the FCC rule such as FCC Part 15 Subpart B before it can be placed on the US market. This includes reassessing the transmitter module for compliance with the Radio and EMF essential requirements of the FCC rules. This module must not be incorporated into any other device or system without retesting for compliance as multi-radio and combined equipment.

Industry Canada statement:

This device complies with ISED's licence-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Radiation Exposure Statement:

The product comply with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

Déclaration d'exposition aux radiations:

Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé.

Le produit est sûr pour un fonctionnement tel que décrit dans ce manuel. La réduction aux expositions RF peut être augmentée si l'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible.

This device is intended only for OEM integrators under the following conditions: (For module device use)

1) The transmitter module may not be co-located with any other transmitter or antenna. As long as 1 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

Cet appareil est conçu uniquement pour les intégrateurs OEM dans les conditions suivantes: (Pour utilisation de dispositif module)

1) Le module émetteur peut ne pas être coïmplanté avec un autre émetteur ou antenne.

Tant que les 1 conditions ci-dessus sont remplies, des essais supplémentaires sur l'émetteur ne seront pas nécessaires. Toutefois, l'intégrateur OEM est toujours responsable des essais sur son produit final pour toutes exigences de conformité supplémentaires requis pour ce module installé.

IMPORTANT NOTE:

In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the Canada authorization is no longer considered valid and the IC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate Canada authorization.

NOTE IMPORTANTE:

Dans le cas où ces conditions ne peuvent être satisfaites (par exemple pour certaines configurations d'ordinateur portable ou de certaines co-localisation avec un autre émetteur), l'autorisation du Canada n'est plus considéré comme valide et l'ID IC ne peut pas être utilisé sur le produit final. Dans ces circonstances, l'intégrateur OEM sera chargé de réévaluer le produit final (y compris l'émetteur) et l'obtention d'une autorisation distincte au Canada.

End Product Labeling

The product can be kept as far as possible from the user body or set the device to lower output power if such function is available. The final end product must be labeled in a visible area with the following: "Contains IC:4491A-RYORR2L".

Plaque signalétique du produit final

L'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible. Le produit final doit être étiqueté dans un endroit visible avec l'inscription suivante: "Contient des IC: 4491A-RYORR2L".

Manual Information To the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.

Manuel d'information à l'utilisateur final

L'intégrateur OEM doit être conscient de ne pas fournir des informations à l'utilisateur final quant à la façon d'installer ou de supprimer ce module RF dans le manuel de l'utilisateur du produit final qui intègre ce module.

Le manuel de l'utilisateur final doit inclure toutes les informations réglementaires requises et avertissements comme indiqué dans ce manuel.



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