REYAX
TECHNOLOGY CORPORATION, LTD

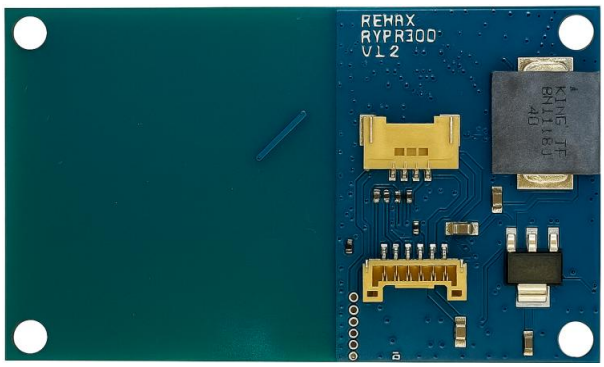
24-JAN-2024 56312E34

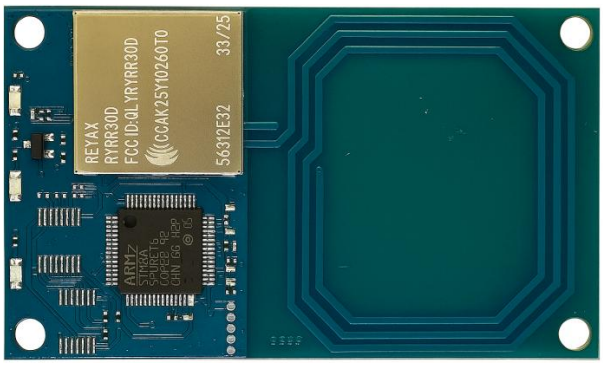
RYRR30D

Apple® Wallet VAS & Google® SmartTap pass

+3.3V UART/RS-232/USB Interface 13.56MHz NFC Antenna Module

Datasheet





PRODUCT DESCRIPTION

The RYRR30D can read and decrypt Near Field Communication (NFC) pass raw data from Android® or iPhone® devices. The RYRR30D can also read general RFID cards and TAGs and supports multiple protocols.

The RYRR30D supports +3.3V UART / RS-232 and USB2.0 interface. When using the +3.3V UART / RS232 interface, you can use AT command to configure the ID and Key. If decrypt NFC pass is successful, The NFC pass raw data will be output from the +3.3V UART / RS-232 interface.

When using the USB2.0 interface, you can edit the text file to configure the ID and Key. If decrypt NFC pass is successful, The NFC pass raw data will be output from the keyborad interface.

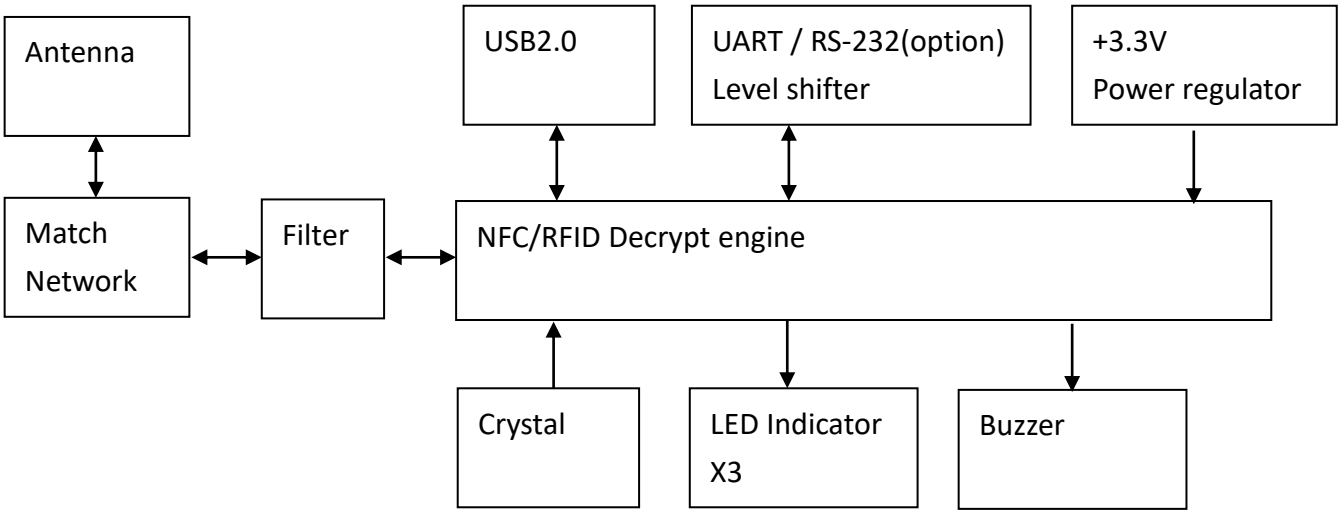
FEATURES

- Apple® Wallet VAS & Google® SmartTap pass Certification.
- Apple® ECP V1.0 compliance.
- Support 6 x Apple merchant IDs and 6 x Google collector IDs
- Support Near Field Communication (NFC) Standards NFCIP-1 (ISO/IEC 18092) Active P2P.
- Completely Integrated Protocol Handling for ISO15693, ISO14443A, ISO14443B and FeliCa
- Firmware upgrade via UART Interface.
- Operation Temperature range: -40 to +85°C.

CERTIFICATION

- CE and SRRC comply
- FCC
- NCC

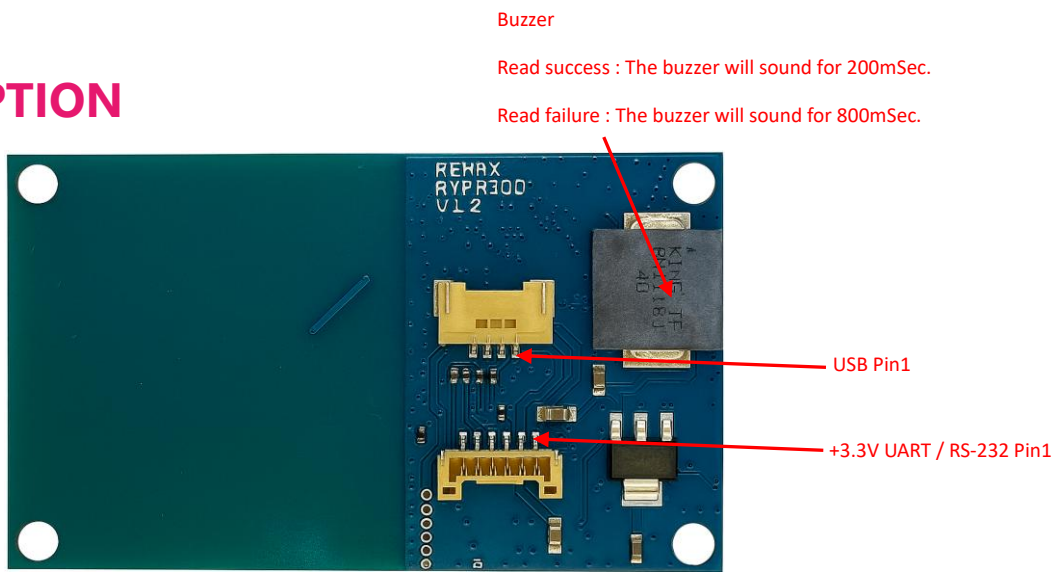
BLOCK DIAGRAM



SPECIFICATION

Item	Min.	Typical	Max.	Unit	Condition
Operation Voltage	4.74	5	5.25	V	+5V
RF Output Power			30	dBm	
RF Transmit Peak current		550		mA	
Average Current		150		mA	
Communication Range		3		cm	iPhone 14 Pro
Digital I/O Voltage		+3.3V			TXD/RXD/ INDICATOR_OUTPUT/NRST
RS-232 TXD/RXD	-7		7	V	
USB Version		2.0			
Reset Time		100		ms	
Baud Rate		115200		bps	8,N,1
RF Frequency Range	13.553	13.56	13.567	MHz	
Operating Temperature	-40	25	+85	˚C	
Antenna					Internal
Weight		11.7		g	

PIN DESCRIPTION

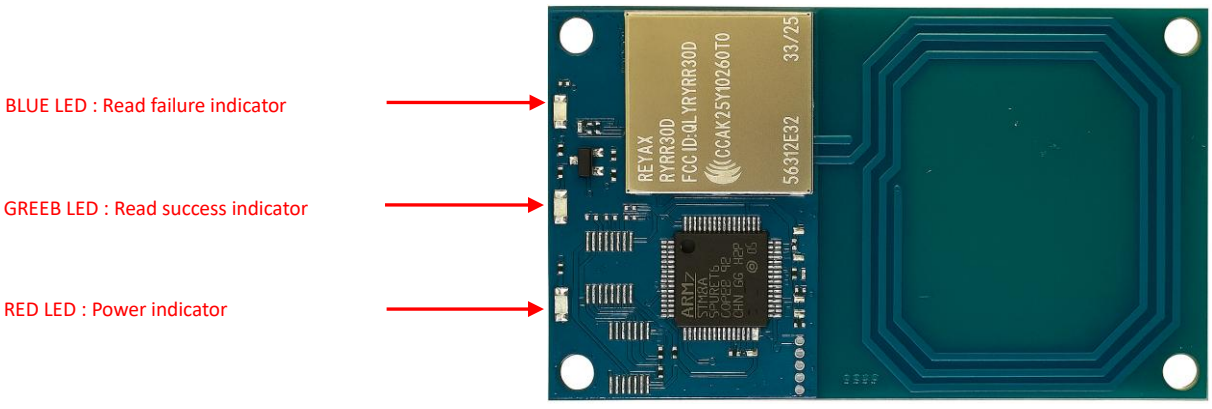


USB Interface Connector CVILUX CI4604M1HR0-NH

Pin	Name	I/O	Condition
1	GND	P	Power Ground
2	USB-	I/O	USB Data Negative
3	USB+	I/O	USB Data Positive
4	+5V	P	Power Input

+3.3V UART / RS-232 Interface Connector JWT A1257WV0-6PS

Pin	Name	I/O	Condition
1	+5V	P	Power Input
2	GND	P	Power Ground
3	INDICATOR_OUTPUT	O	When read RFID card the pin will output Hi.
4	+3.3V or RS-232 TXD	O	Serial data Output
5	+3.3V or RS-232 RXD	I	Serial data input
6	NRST	I	Keep Low over 100 ms to reset the module.



CERTIFICATIONS

• FCC compliance

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.

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:

The final end product must be labeled in a visible area with the following " Contains TX FCC ID : QLY-RYRR20D ". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of 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.

FC QLYRYRR30D

• NCC Taiwan compliance

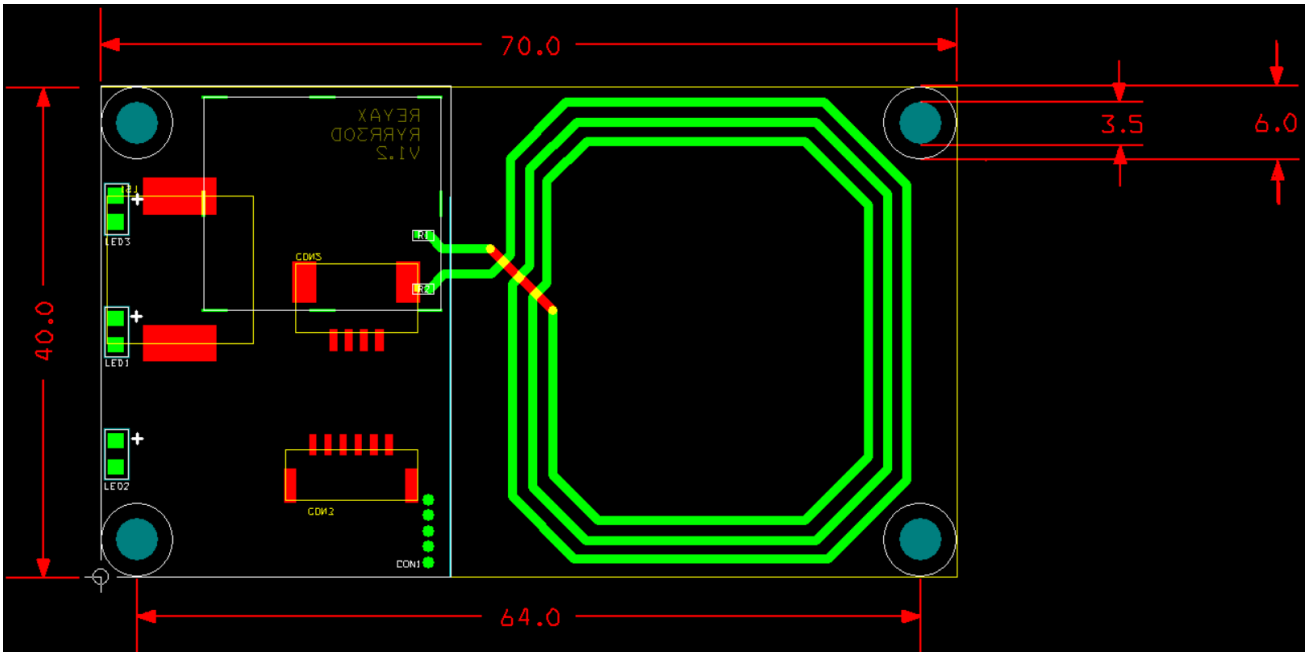
低功率電波輻射性電機管理辦法:

第十二條 經型式認證合格之低功率射頻電機，非經許可，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。

第十四條 低功率射頻電機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。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機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。

CCAK25Y10260T0

DIMENSIONS



unit : mm

***For more detail, please refer to the 3D model Information.**

ORDER INFORMATION

Ordering No.	USB2.0	+3.3V UART / RS-232 Interface
RYRR30D	V	+3.3V UART
RYRR30D_RS-232	V	RS-232

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