REYAX
TECHNOLOGY CORPORATION, LTD

22-OCT-2019 56312E31

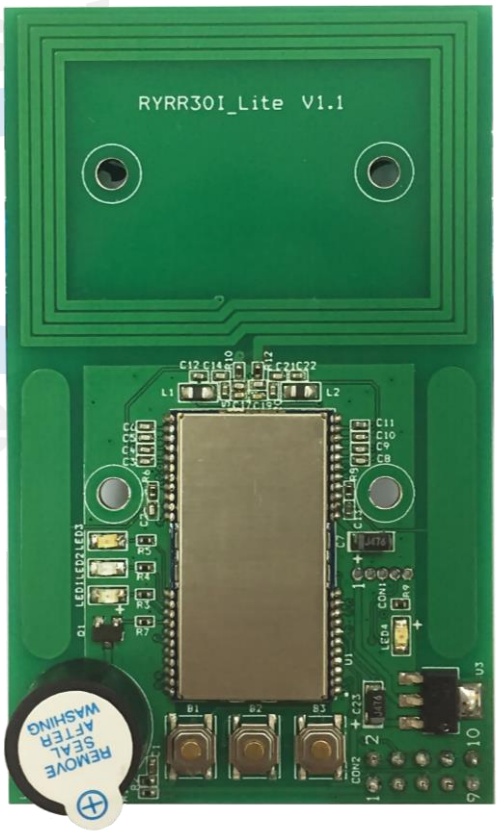
# RYRR30I_Lite

## Multiprotocol Fully

## Integrated 13.56MHz

## RFID & NFC Antenna Module

Datasheet




Represented by:

first FC components

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# PRODUCT DESCRIPTION

The RYRR30I_Lite Antenna module is a 13.56-MHz RFID and Near Field Communication (NFC) system. Built-in programming options make the device suitable for a wide range of applications for proximity and vicinity identification systems.

# FEATURES

- Supports Near Field Communication (NFC) Standards NFCIP-1 (ISO/IEC 18092) Active P2P.
- Completely Integrated Protocol Handling for ISO15693, ISO14443A, ISO14443B and FeliCa.
- Capacitive sensing - Wake-up
- ST ST25R3911B NFC/RFID Engine.
- Firmware upgrade via UART Interface.
- Operation Temperature range: -40 to +85°C.

# APPLICATIONS

- RFID cards Reader
- Mobile Devices Near Field Communication

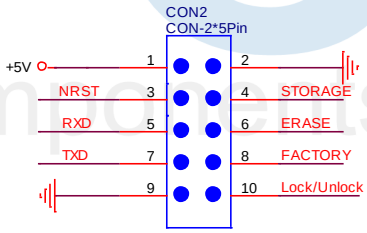
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# SPECIFICATION

| Item | Min. | Typical | Max. | Unit | Condition |
|---|---|---|---|---|---|
| Operation Voltage | 4.8 | 5 | 5.2 | V | +5V |
| $V_{OH}$ | 0.9*VDD | VDD | VDD | V | TXD High-level output voltage |
| $V_{OL}$ | 0 | 0 | 0.1*VDD | V | TXD Low-level output voltage |
| $V_{IH}$ | 0.7*VDD | 3.3 | VDD | V | RXD High-level input voltage |
| $V_{IL}$ | 0 | 0 | 0.3*VDD | V | RXD Low-level input voltage |
| RF Output Power | | | 30 | dBm | |
| RF transmit current | | 550 | | mA | |
| Communication Range | | 5 | | cm | Standard card |
| 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 PCB Antenna |
| Weight | | 10 | | g | |

# CON2 PIN DESCRIPTION

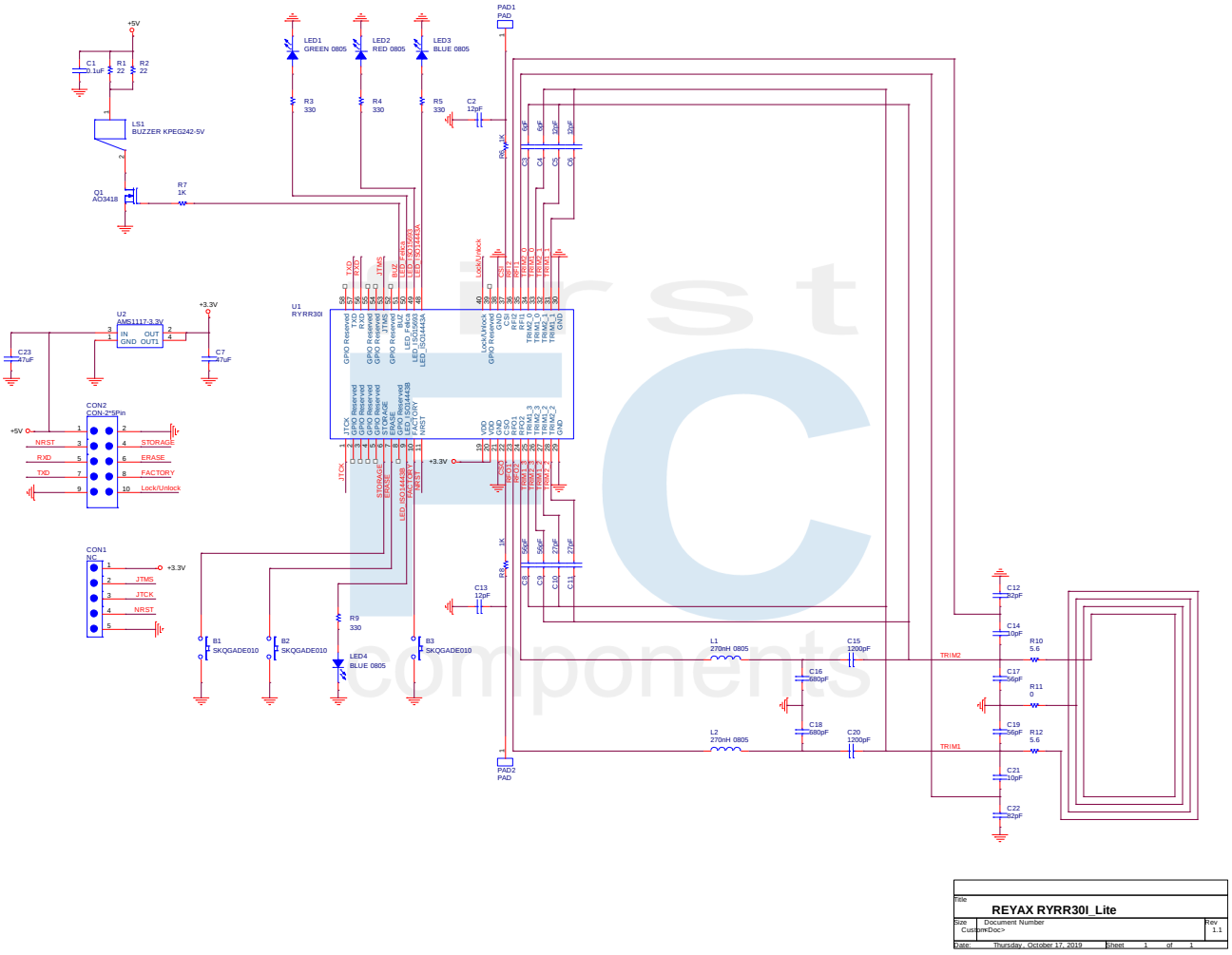



| Pin | Name | I/O | Condition |
|---|---|---|---|
| 1 | +5V | I | Power Supply |
| 2 | GND | - | GROUND |
| 3 | NRST | I | Low reset<br>If this pin is unused, keep open. |
| 4 | STORAGE | I | STORAGE UUID. |
| 5 | RXD | I | UART Data Input |
| 6 | ERASE | I | ERASE UUID. |
| 7 | TXD | O | UART Data Output |

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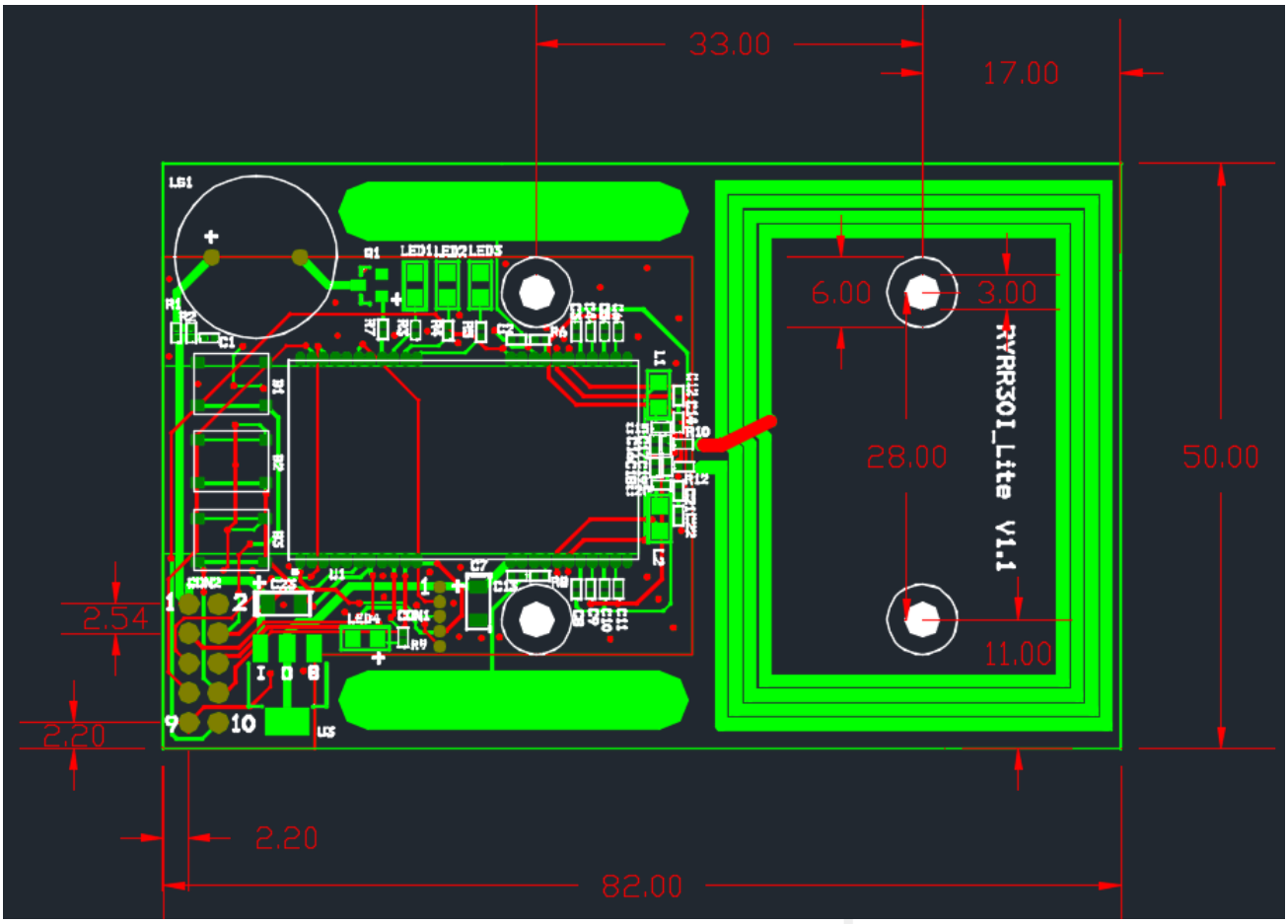
| | | | |
|---|---|---|---|
| 8 | FACTORY | I | FACTORY RESET. |
| 9 | GND | - | GROUND |
| 10 | Lock/Unlock | O | Lock/Unlock Signals Output |

# SCHEMATIC




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# DIMENSIONS




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unit : mm PCB Thickness 1.6mm

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