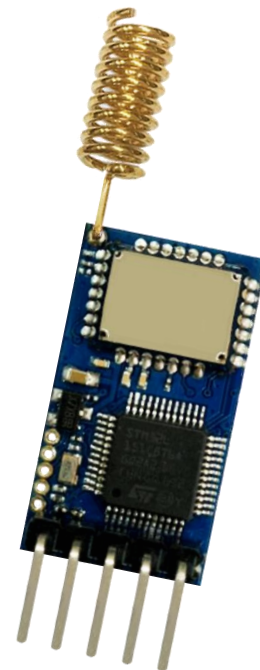


# RYLR907

UART Interface  
868/915 MHz Lora  
Antenna Transceiver Module

Datasheet



## PRODUCT DESCRIPTION

The RYLR907 transceiver module feature the Lora long range modem that provides ultra-long range spread spectrum communication and high interference immunity whilst minimising current consumption.

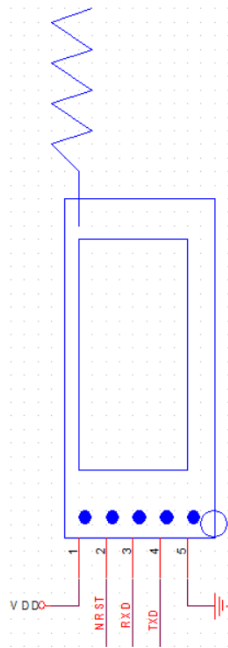
## FEATURES

- Semtech SX1262 Engine
- Excellent blocking immunity
- Low receive current
- Detect channel motion to set power-saving CAD reception mode on.
- High sensitivity
- Control easily by AT commands
- Built-in antenna
- AES128 Data encryption

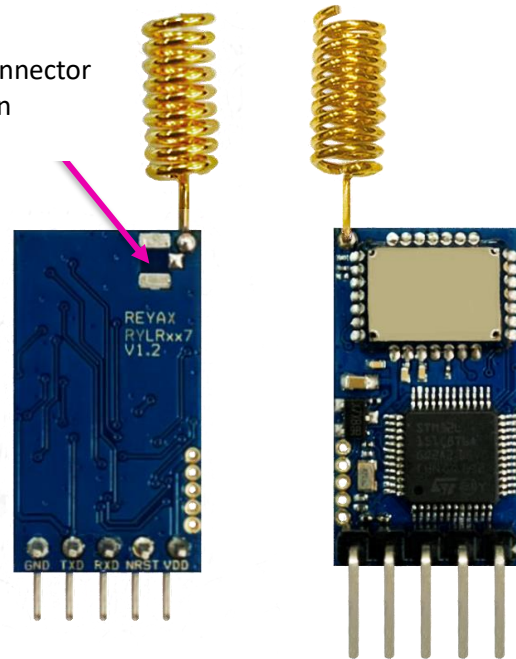
## APPLICATIONS

- IoT Applications
- Mobile Equipment
- Home Security
- Industrial Monitoring and Control Equipment
- Car Alarm

## PIN DESCRIPTION

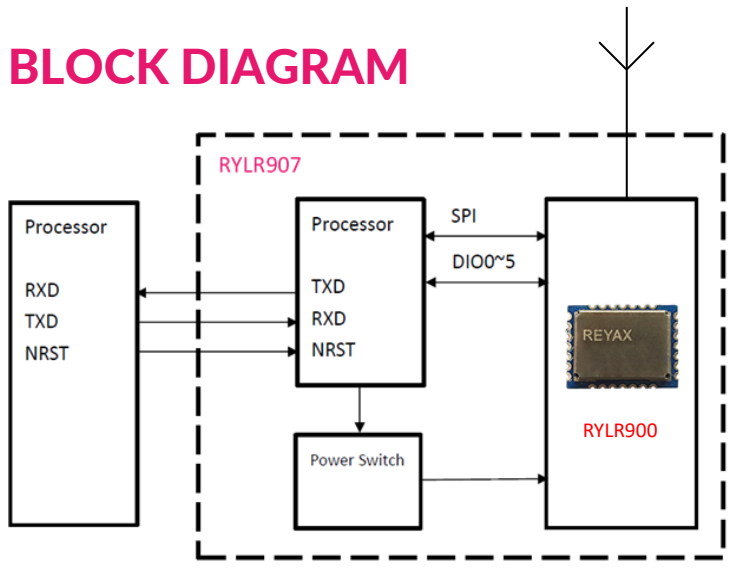


U.FL-R-SMT-1 connector  
reserved position



| Pin | Name | I/O | Condition   |
|-----|------|-----|---|
| 1   | VDD  | I   | Power Supply  |
| 2   | NRST | I   | RESET(Active Low) 100K $\Omega$ Internal pull up,<br>Pull down at least 100ms |
| 3   | RXD  | I   | UART Data Input   |
| 4   | TXD  | O   | UART Data Output  |
| 5   | GND  | -   | Ground  |

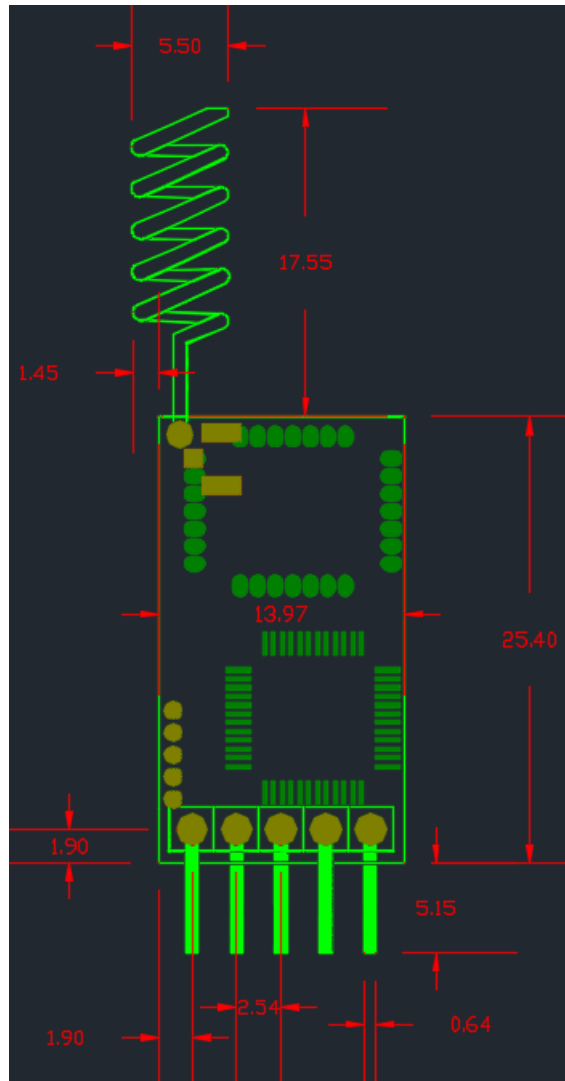
## BLOCK DIAGRAM



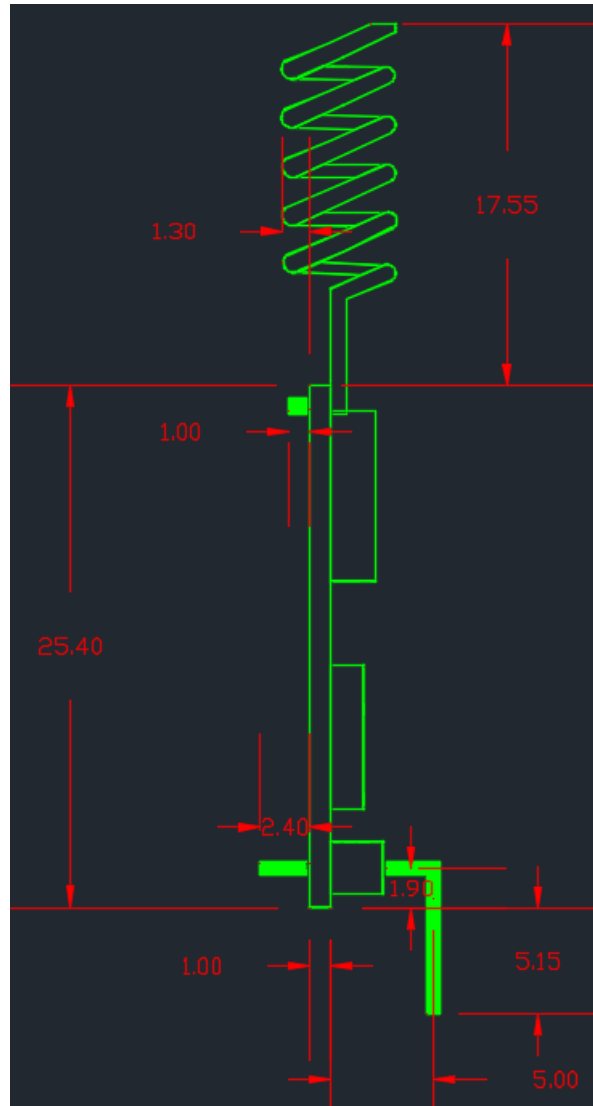
## SPECIFICATION

| Item  | Min.    | Typical | Max.    | Unit | Condition                  |
|---|---------|---------|---------|------|----------------------------|
| VDD Power Supply                              | 2       | 3.3     | 3.6     | V    | VDD                        |
| RF Output Power Range                         | -4      |         | 22      | dBm  |                            |
| Filter insertion loss                         | 1       | 2       | 3       | dB   |                            |
| RF Sensitivity                                | -148    |         |         | dBm  |                            |
| RF Input Level                                |         |         | 10      | dBm  |                            |
| Frequency Range                               | 820     | 868/915 | 960     | MHz  |                            |
| Frequency Accuracy                            |         | ±2      |         | ppm  |                            |
| Communication Range                           |         |         |         | KM   | Depend on RF parameter     |
| Transmit Mode Current                         |         | 140     |         | mA   | RFOP = +22dBm              |
| Receive Mode Current                          |         | 10.4    |         | mA   | AT+MODE=0,<br>AT+RXBOOST=1 |
|   |         | 9.9     |         | mA   | AT+MODE=0,<br>AT+RXBOOST=0 |
| CAD Mode<br>Receive Current                   |         | 2.3     |         | mA   | AT+MODE=2                  |
| Sleep Current                                 |         | 0.5     |         | uA   | AT+MODE=1                  |
| Digital Input Level High                      | 0.7*VDD |         | VDD     | V    | VIH                        |
| Digital Input Level Low                       | 0       |         | 0.3*VDD | V    | VIL                        |
| Digital Output Level High                     | 0.9     |         | VDD     | V    | VOH                        |
| Digital Output Level Low                      |         |         | 0.1     | V    | VOL                        |
| Cycling (erase / write)<br>EEPROM data memory |         | 300     |         | K    | Cycles                     |
| Weight  |         | 7       |         | g    |                            |
| Operating Temperature                         | -40     | 25      | +85     | °C   |                            |

## DIMENSIONS



Unit : mm



Unit : mm

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