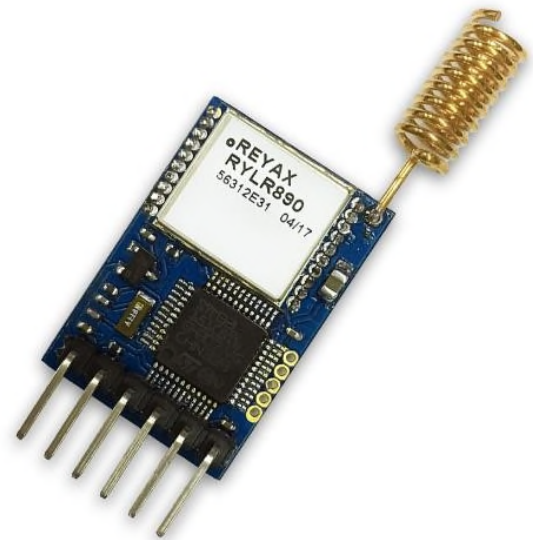


RYLR896

UART Interface
868/915MHz Lora
Antenna Transceiver Module

Datasheet



PRODUCT DESCRIPTION

The RYLR896 transceiver module feature the Lora long range modem that provides ultra-long range spread spectrum communication and high interference immunity whilst minimising current consumption.

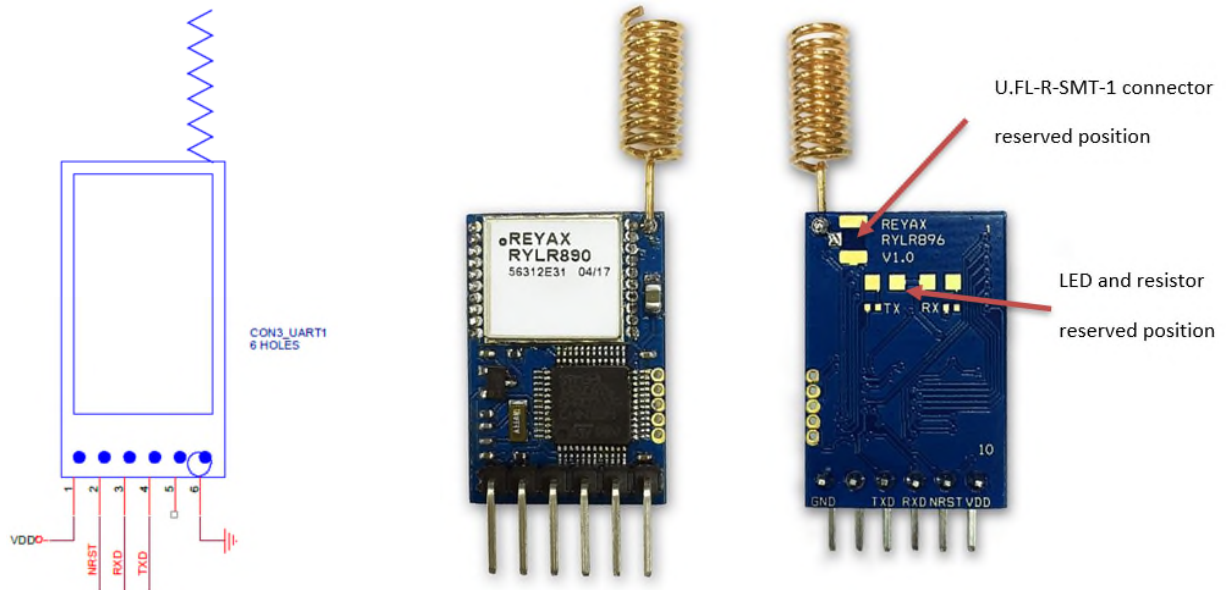
FEATURES

- Semtech SX1276 Engine
- Excellent blocking immunity
- Low receive current
- High sensitivity
- Control easily by AT commands
- 127 dB Dynamic Range RSSI
- Designed with PCB integrated antenna
- AES128 Data encryption

APPLICATIONS

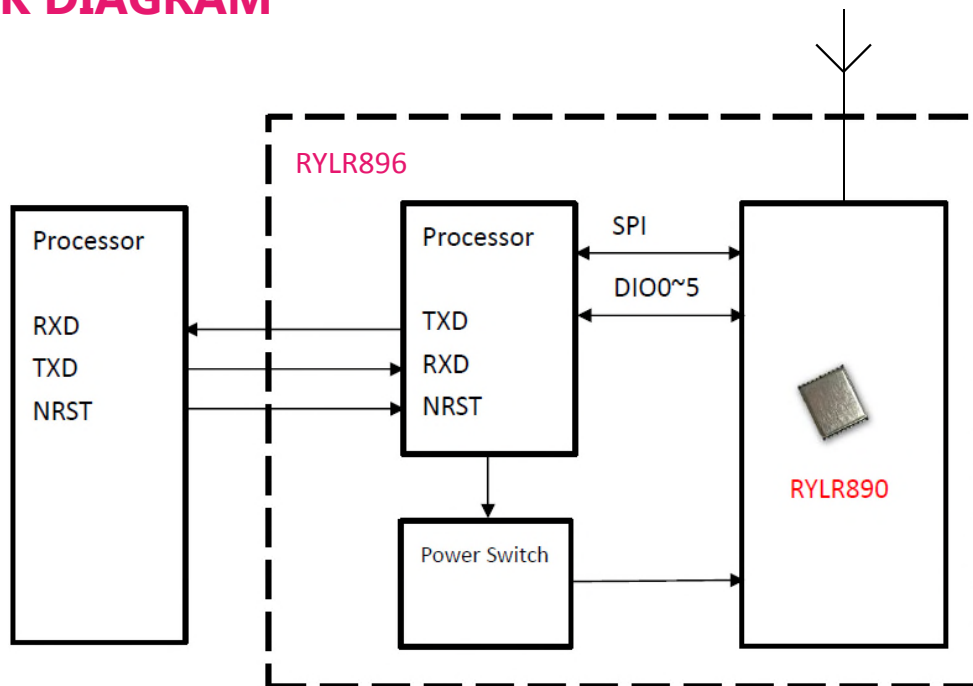
- IoT Applications
- Mobile Equipment
- Home Security
- Industrial Monitoring and Control Equipment
- Car Alarm

PIN DESCRIPTION



Pin	Name	I/O	Condition
1	VDD	I	Power Supply
2	NRST	I	RESET(Active Low)
3	RXD	I	UART Data Input
4	TXD	O	UART Data Output
5	NC	-	
6	GND	-	Ground

BLOCK DIAGRAM

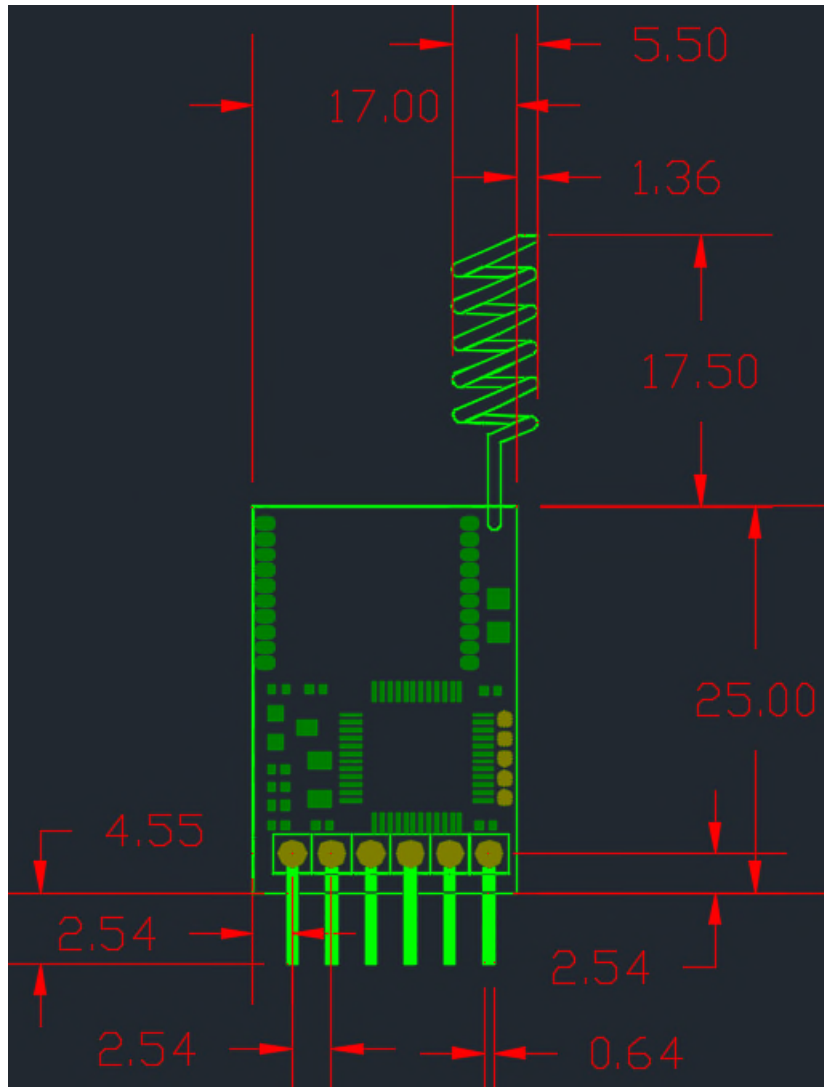


SPECIFICATION

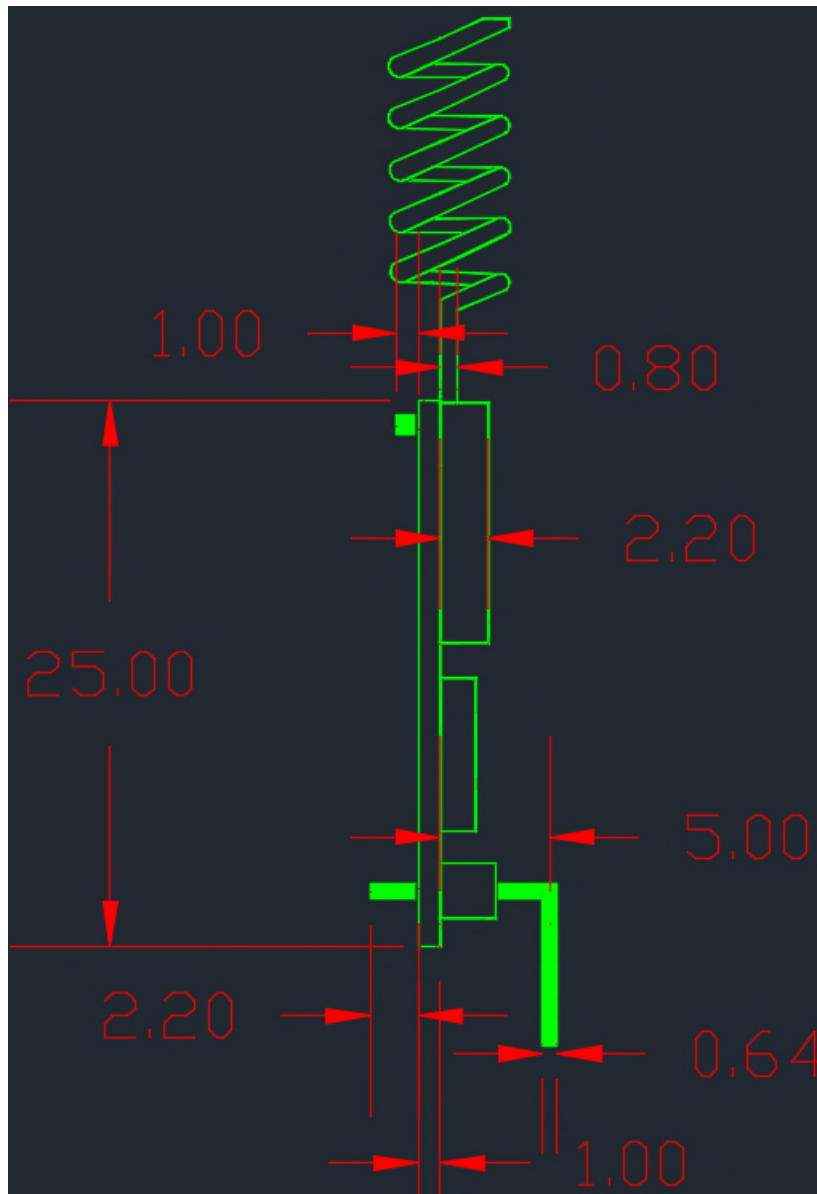
Item	Min.	Typical	Max.	Unit	Condition
VDD Power Supply	2.8	3.3	3.6	V	VDD
RF Output Power Range	-4		15	dBm	
Filter insertion loss	1	2	3	dB	
RF Sensitivity	-148			dBm	
RF Input Level			10	dBm	
Frequency Range	903		927.5	MHz	
Frequency Accuracy		±2		ppm	
Communication Range		4.5	15	KM	Depend on RF parameter
Transmit Current		43		mA	RFOP = +15 dBm
Receive Current		16.5		mA	AT+MODE=0
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) EEPROM data memory		300		K	Cycles
Weight		7		g	

Operating Temperature	-40	25	+85	°C	
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DIMENSIONS



Unit : mm



Unit : mm

USER MANUAL

The following statements should be inside the user manual of the final products that contains this module:

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

FCC 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.

FCC Label Instructions

The outside of final products that contains this module device must display a label referring to the enclosed module. This exterior label can use wording such as the following: “**Contains Transmitter Module FCC ID: QLYRYLR896**” or “**Contains FCC ID: QLYRYLR896**.” Any similar wording that expresses the same meaning may be used.

Additionally, there must be the following sentence on the device, unless it is too small to carry it:

“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.”



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