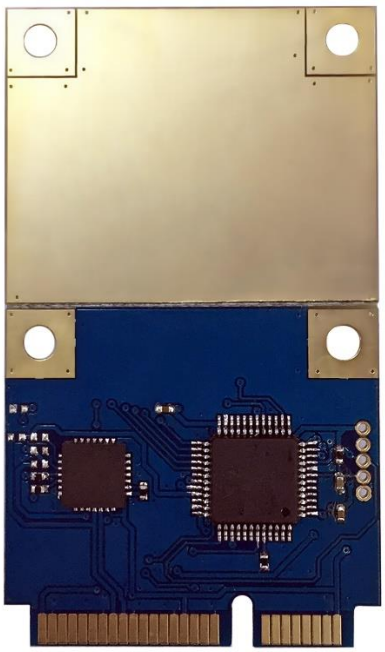
REYAX
TECHNOLOGY CORPORATION, LTD

RYLR89H1

Proprietary Lora Full / Half-size mini PCIe Card Antenna

Datasheet





Represented by:

first FC components

FIRST Components srl Via Cavour 69, 21020 Buguggiate (VA)

T. +39 0332 1888005 web: www.first-components.com

PRODUCT DESCRIPTION

RYLR89H1 is a REYAX proprietary Lora host mini PCIe card. According to the “AT command” that can serve the data exchange between surrounding Lora node products and controller, it is very suitable for regional applications and can easily control and monitor Lora node products.

FEATURES

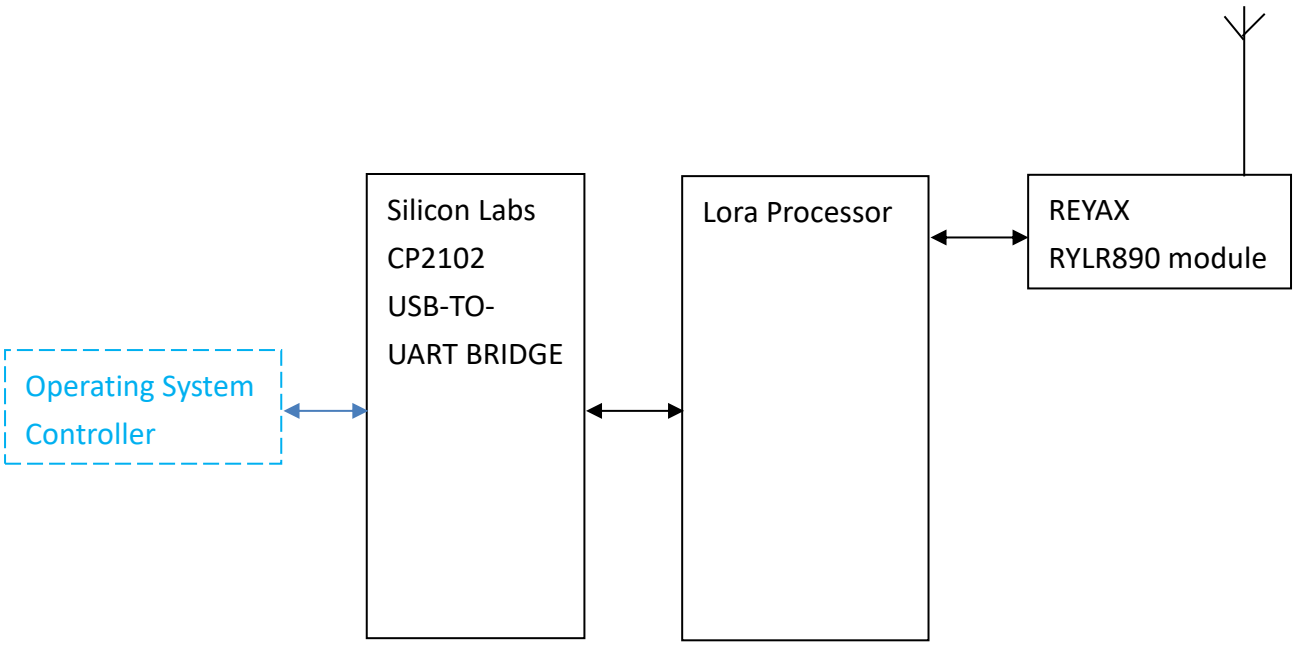
- Easy to integrate into the operating system.
- No extra telecommunication fees.
- Control easily by AT commands
- Up to 65535 nodes.
- AES128 Data encryption
- Standard mini PCIe full-size 30mm*50.95mm / half-size 30mm*26.8mm.
- Temperature range: -40 to +85°C.
- Mini PCIe Signal Type USB2.0.

APPLICATIONS

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

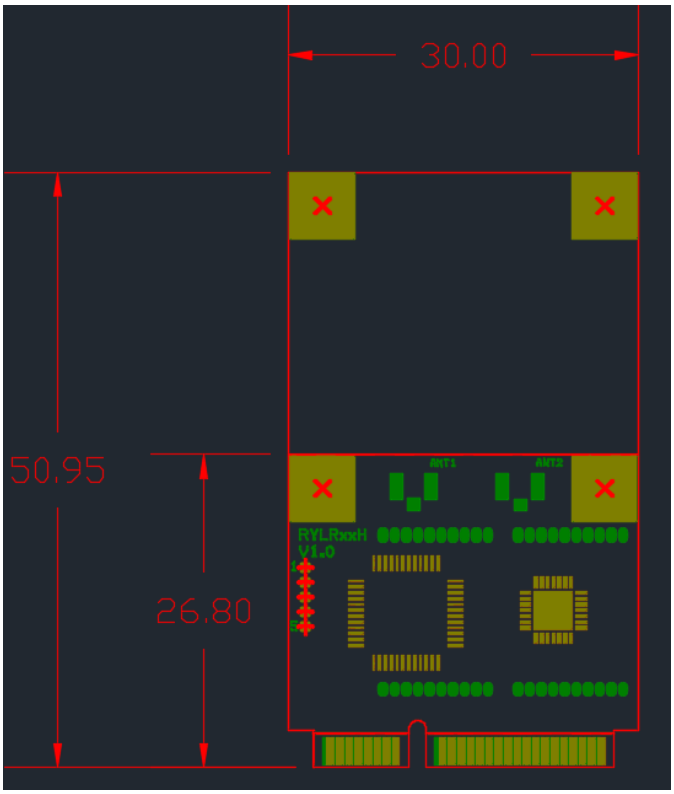
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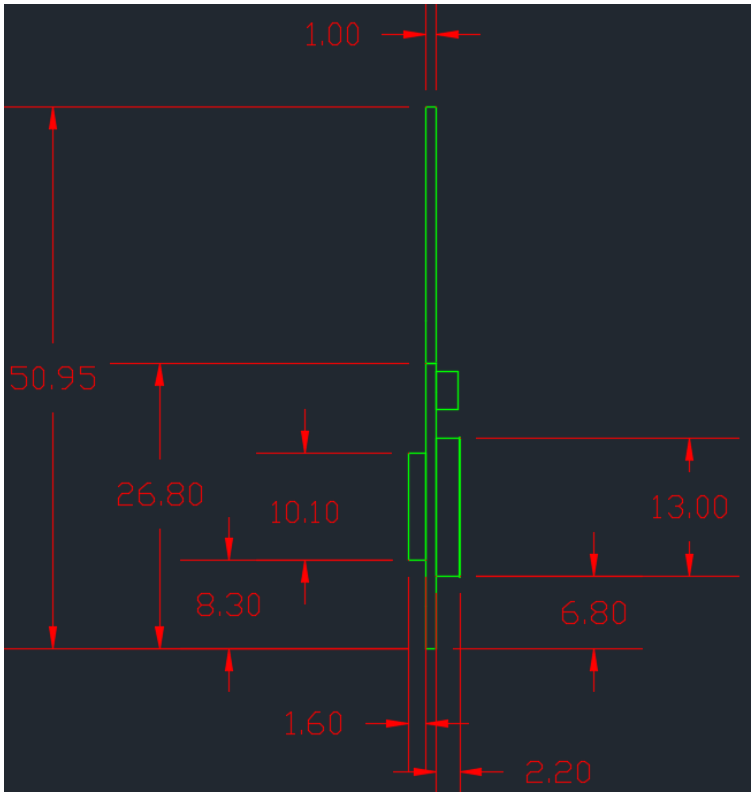
BLOCK DIAGRAM



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DIMENSIONS

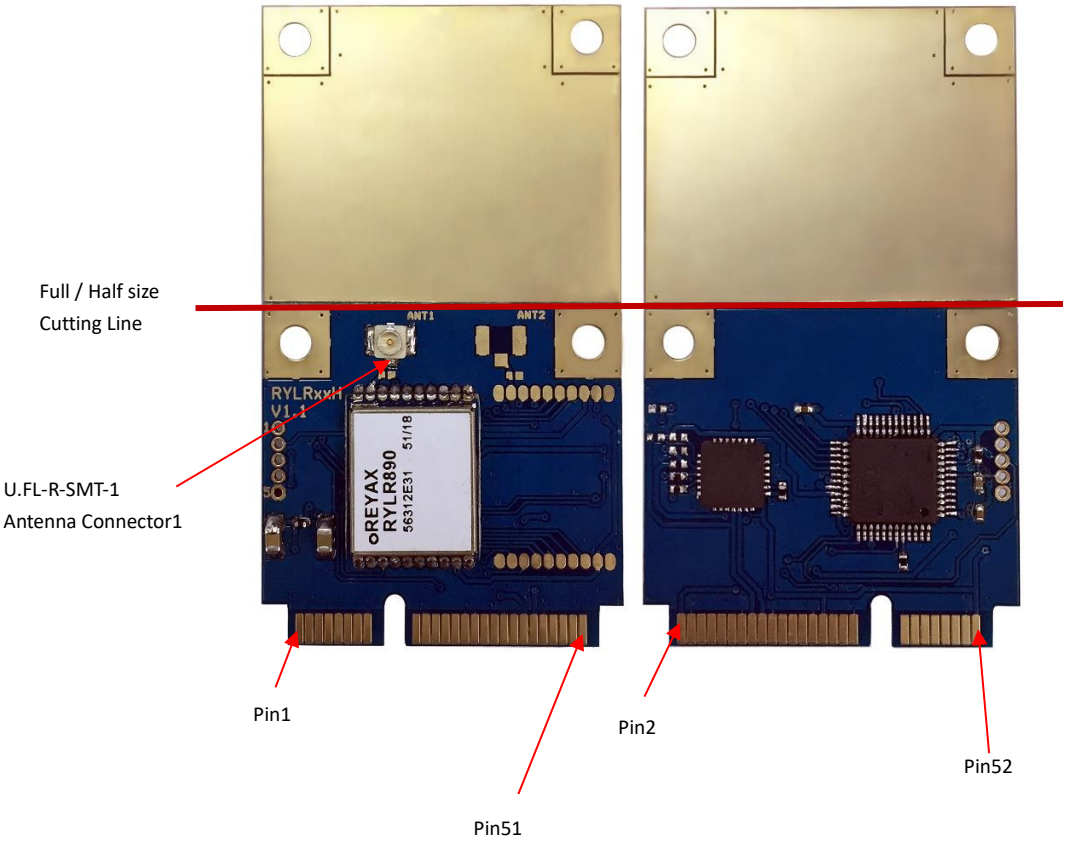




Unit : mm

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PIN CONNECTOR



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PIN DESCRIPTION

Pin	Name	Input/Output	Description
1	NC		Not connected
2	VCC_3V3	Power	Power Input
3	NC		Not connected
4	GND		Power Ground
5	NC		Not connected
6	NC		Not connected
7	NC		Not connected
8	NC		Not connected
9	GND		Power Ground
10	NC		Not connected
11	NC		Not connected
12	NC		Not connected
13	NC		Not connected
14	NC		Not connected
15	GND		Power Ground
16	NC		Not connected
17	NC		Not connected
18	GND		Power Ground
19	NC		Not connected
20	NC		Not connected
21	GND		Power Ground
22	NC		Not connected
23	NC		Not connected
24	VCC_3V3	Power	Power Input
25	NC		Not connected
26	GND		Power Ground
27	GND		Power Ground
28	NC		Not connected
29	GND		Power Ground
30	NC		Not connected
31	NC		Not connected
32	NC		Not connected
33	NC		Not connected
34	GND		Power Ground

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35	GND		Power Ground
36	USB_DN	Input/Output	USB Data Negative
37	GND		Power Ground
38	USB_DP	Input/Output	USB Data Positive
39	VCC_3V3	Power	Power Input
40	GND		Power Ground
41	VCC_3V3	Power	Power Input
42	NC		Not connected
43	GND		Power Ground
44	NC		Not connected
45	NC		Not connected
46	NC		Not connected
47	NC		Not connected
48	NC		Not connected
49	NC		Not connected
50	GND		Power Ground
51	NC		Not connected
52	VCC_3V3	Power	Power Input

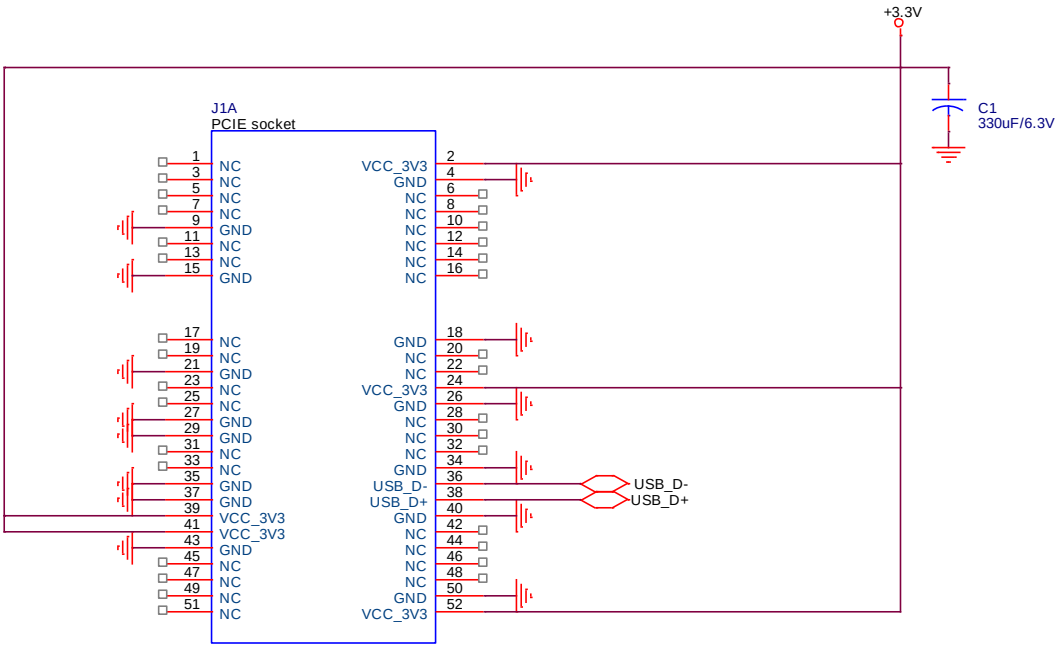
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SPECIFICATION

Item	Min.	Typical	Max.	Unit	Condition
VDD Power Supply	2	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	820	868/915	1020	MHz	RYLR89H1
Frequency Accuracy		±2		ppm	
Communication Range		4.5	15	KM	Depend on RF parameter
Transmit Current		86		mA	RFOP = +15 dBm
Receive Current		33		mA	
USB Specification		2.0			full-speed (12 Mbps)
Baud rate		115200		bps	
Cycling (erase / write) EEPROM data memory		300		K	Cycles
Weight		12		g	
Operating Temperature	-40	25	+85	˚C	

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APPLICATION CIRCUIT REFERENCE



ORDER INFORMATION

Ordering No.	Frequency Range	Corresponding model
RYLR89H1	862~1020MHz	RYLR895, RYLR896

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