

RYUW131A1

**Industrial 2.4GHz Wi-Fi Full/ Half-size Mini PCIe Card
With Antenna**

Datasheet



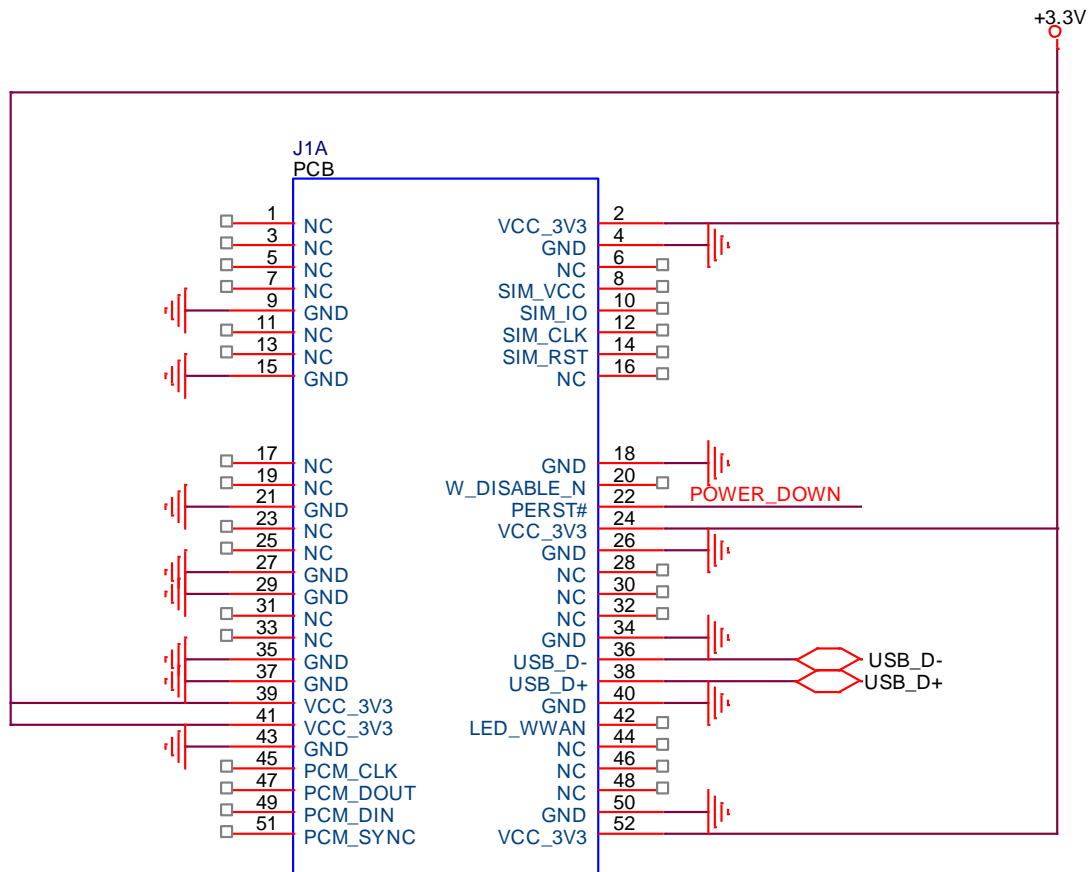
PRODUCT DESCRIPTION

The REYAX RYUW131A1 Full / Half-size Mini PCIe Card is based on u-blox Industrial grade LILY-W131 module. an integrated MAC/baseband processor and RF front end components. They provide simultaneous operation as a station and a micro access point for up to 8 clients.

FEATURES

- Wi-Fi Standards IEEE 802.11b/g/n
- 802.11 PHY data rates of up to 72 Mbps
- Station and micro access point operation with up to 8 clients
- AES-CCMP and WAPI hardware encryption
- Dual MAC addresses and RF parameters stored on the module
- Extended operating temperature range of -40 °C to +85 °C
- Mini PCIe Signal Type USB2.0
- Standard Full/Half-size Mini PCIe Card connect to computer easily

APPLICATION SCHEMATIC



PIN DESCRIPTION

Pin	Name	I/O	Condition
2,24,39,41,52	VCC_3V3	I	+3.3V Supply voltage
4,9,15,18,21,26,27,29,34,35,37,40,43,50	GND	-	Ground
22	POWER_DOWN	I	Power down, active low, Internal pull-up. Notice 3.3V pin.
36	USB_DM	I/O	USB Data
38	USB_DP	I/O	USB Data

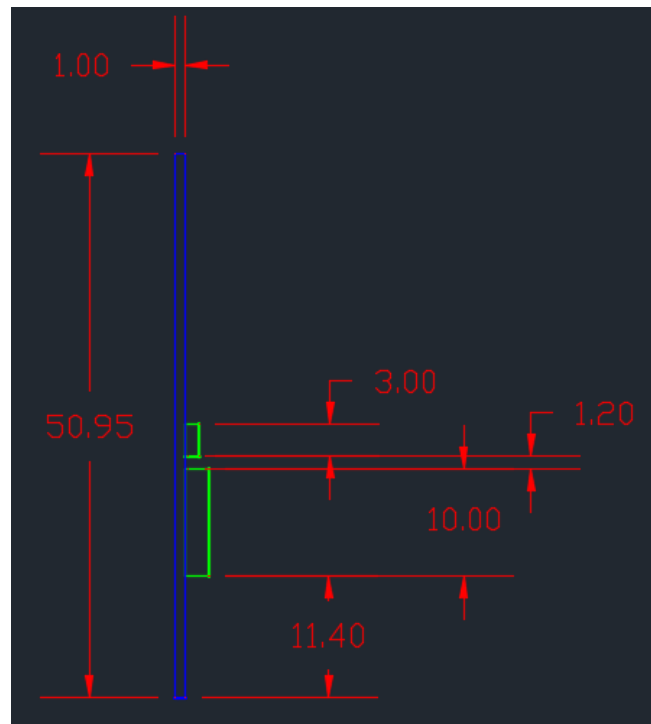
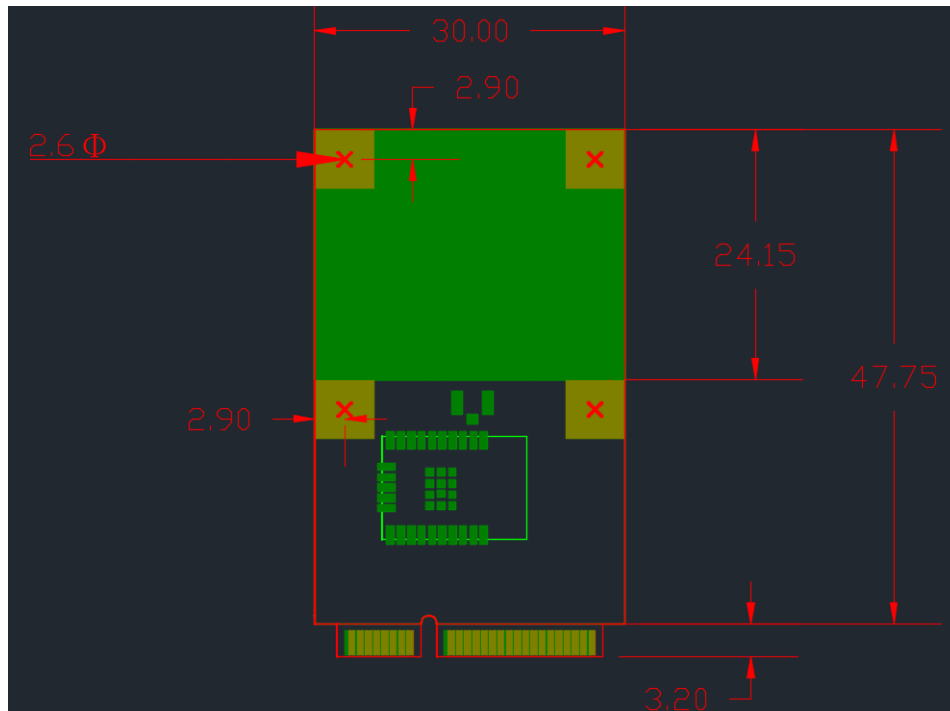
SPECIFICATION

Wi-Fi mode	
Network Standard Support	Wi-Fi IEEE 802.11 b/g /n (single-stream, 72 Mbps) Channels 2.4 GHz channels 1-13 Channel bandwidth 20 MHz Range (max) 200 m Output power (max) LILY-W131: 16 dBm

ELECTRONIC SPECIFICATION

Item	Min.	Typical	Max.	Unit	Condition
Operation Voltage	3.1	3.3	3.5	V	VCC_3V3
Current		340		mA	802.11n MCS7 16dBm
Wi-Fi Transmit Power		16		dBm	
Wi-Fi Receive Sensitivity		-94		dBm	802.11b, Rate = 1 Mbit, PER ≤ 8%
USB Interface					V2.0
Operating Temperature	-40	25	+85	°C	
Weight		4		g	

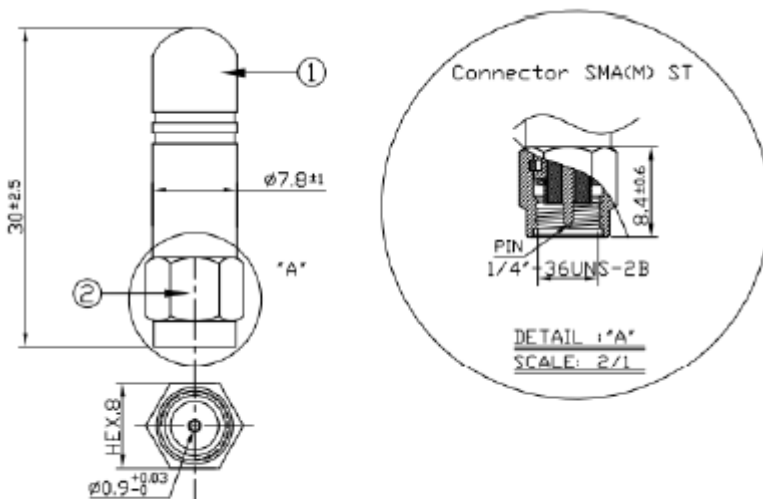
DIMENSIONS



unit: mm

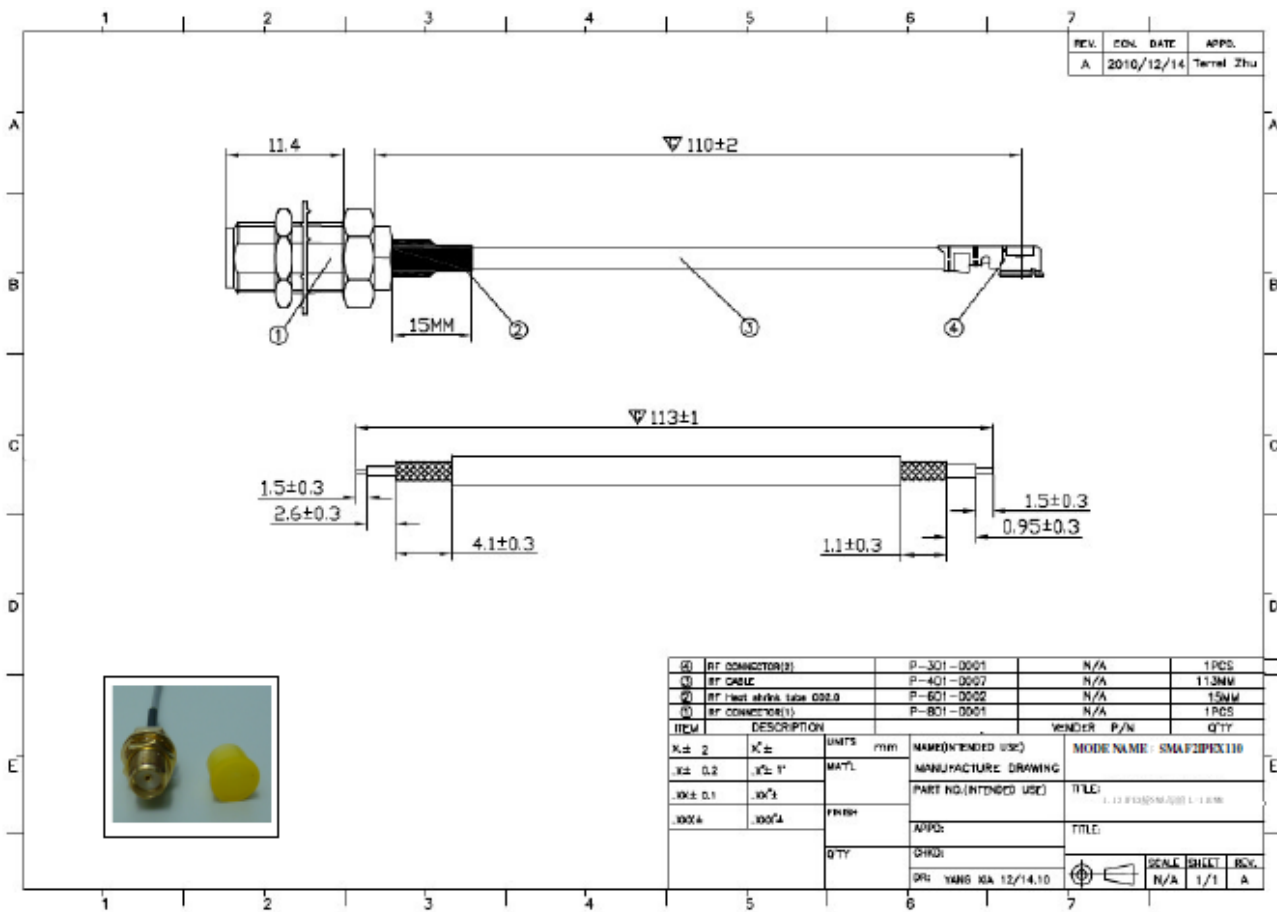
ANTENNA SPECIFICATION

Wi-Fi 2.4GHz	
Frequency	2400~2500MHz
Bandwidth	100MHz
Peak Gain	1.2dBi
Radiation Efficiency	> 40%
Radiation	Omni-directional
Polarization	Vertical
Power Handling 1W Max	Power Handling 1W Max
Electrical Wave	Monopole
Impedance	50Ω
Operating Temperature	-40°C ~ +150°C
Storage Temperature	-40°C ~ +85°C



unit: mm

ACCESSORIE SPECIFICATION



unit: mm

ORDER INFORMATION

Ordering No.	2.4GHz Wi-Fi Engine	Antenna	Accessories
RYUW131A1	u-blox LILY-W131	Taoglas GW.26.0111.HT	SMAF2IPEX110



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