

# WUBR-168GN (P) PRODUCT APPROVAL SHEET

Version: 1.4

		<b>SparkLAN Communication, Inc.</b>
Part Number		R9900019343
Product Number		WUBR-168GN (P)/E
Description		Ralink RT3070 11gn 1T1R USB PCBA

<b>SparkLAN</b>		<b>Customer</b>
<b>Sales</b>	<b>PM</b>	<b>Approved by</b>
Richard Pan	Angela	

## Revised History

<b>Version</b>	<b>Purpose</b>	<b>Date</b>	<b>Editor</b>
V1.0	Initial Doc	2009.11.27	Angela
V1.1	Revised Packing photo	2009.12.02	Angela
	Revised APPENDIX	2009.12.03	Angela
	Revised PCBA Mechanical Drawing	2009.12.03	Angela
	Revised requirement	2009.12.03	Angela
V1.2	Revised product photo	2009.12.28	Angela
V1.3	Revised Dimensions & Weight	2010.01.06	Angela
V1.4	Revised 2.4 PCBA Mechanical Drawing	2010.01.06	Angela

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# Contents

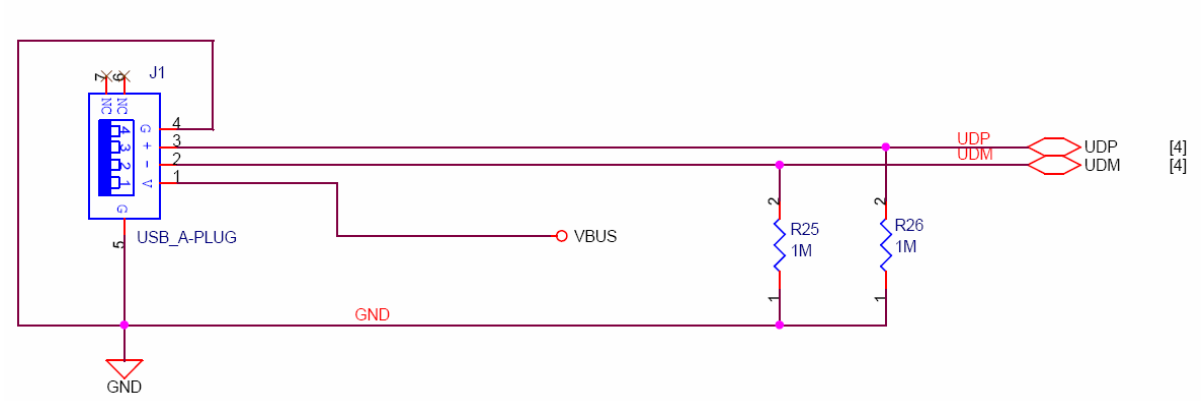
<b>1. PRODUCT SPECIFICATION .....</b>	<b>4</b>
1.1 PRODUCT SPECIFICATION .....	4
1.2 PIN DEFINITION .....	5
<b>2. HARDWARE SPECIFICATION.....</b>	<b>6</b>
2.1 PCBA PHOTO .....	6
2.2 BLOCK DIAGRAM .....	7
2.3 SCHEMATIC.....	7
2.4 PCBA MECHANICAL DRAWING.....	9
2.5 SHIELDING CASE.....	11
2.6 DOMAIN CODE .....	12
<b>3. SOFTWARE SPECIFICATION .....</b>	<b>13</b>
3.1 DRIVER SUPPORT.....	13
<b>4. STANDARD PACKING .....</b>	<b>14</b>
4.1 PRODUCT LABEL .....	14
4.2 PACKING & CARTON LABEL .....	14
<b>5. CUSTOMIZE REQUIREMENT.....</b>	<b>16</b>
<b>6. APPENDIX .....</b>	<b>17</b>

# 1. PRODUCT SPECIFICATION

## 1.1 Product Specification

<b>Host Interface</b>		
USB 2.0 Type A		
<b>LEDs</b>		
Link/Activity		
<b>Radio</b>		
Antenna	Internal Printed Antenna (1Tx1R Structure)	
Antenna Gain	2.0 dBi	
Operating Frequency	2.412~ 2.4835GHz ISM Band	
Transmit Power	802.11b: 17± 1.5dBm 802.11g: 14± 1.5dBm 802.11n: HT20:13± 1.5dBm HT40:10± 1.5dBm	
Receive Sensitivity	802.11b : -85dBm @11Mbps	
	802.11g : -68dBm @54Mbps	
	802.11n: HT20: -66dBm @MCS7 HT40: -61dBm @MCS7	
<b>Environmental</b>		
	Temperature	Humidity
Operating	0 ~ 40°C	10% to 90% Non-Condensing
Storage	-20 ~ 75°C	5% to 95% Non-Condensing
Operating Voltage	DC 5V ± 5%	
<b>Physical Specification</b>		
Dimensions	37.9*16*1.0mm (PCBA without sheilding case)	
Weight	4.5 g	
<b>Software</b>		
Driver	Windows 2000/XP/Vista Linux	
Security	64/128-bit WEP 802.1x WPA-PSK, WPA2-PSK Security Wi-Fi Protected Setup ( WPS )	

## 1.2 Pin Definition



Pin 1 is V :5V

Pin 2 is - : D-

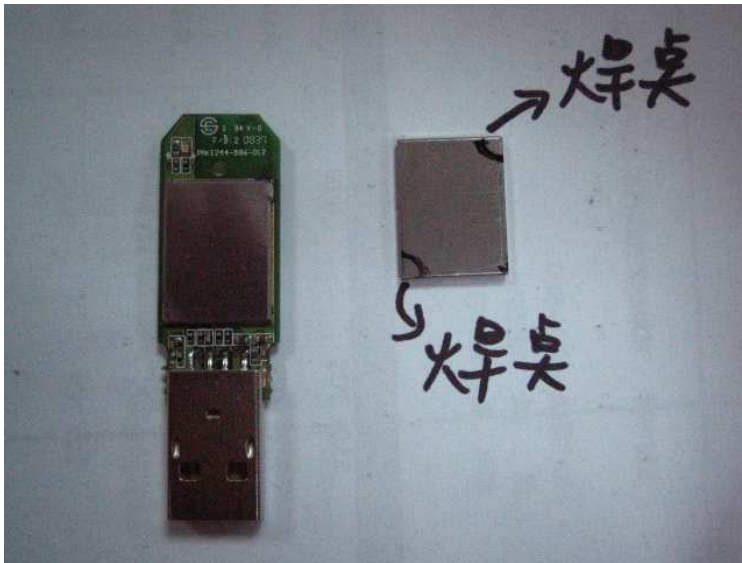
Pin 3 is + :D+

Pin 4 is G :GND

## 2. HARDWARE SPECIFICATION

### 2.1 PCBA Photo

- PCBA with shielding cover



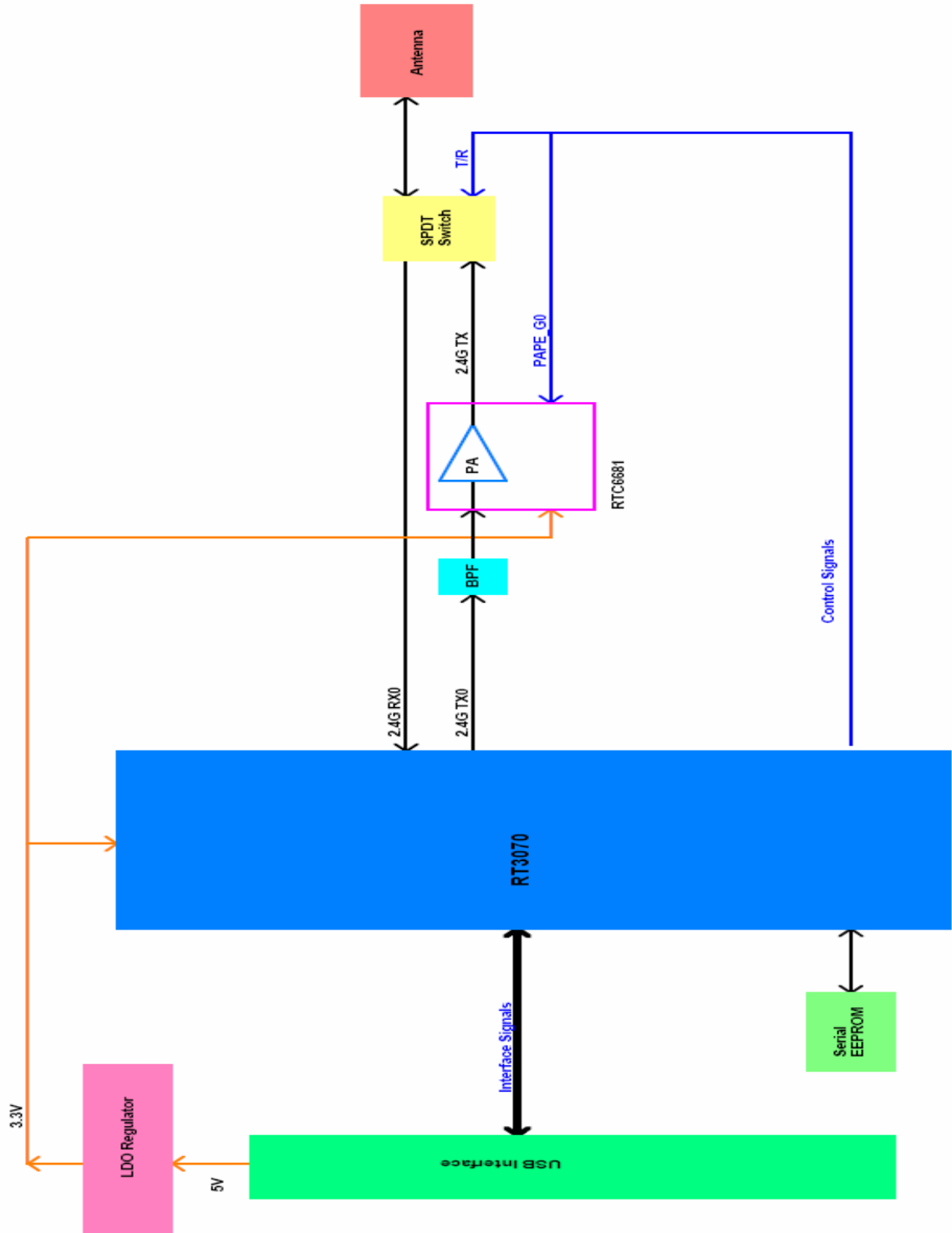
- Back

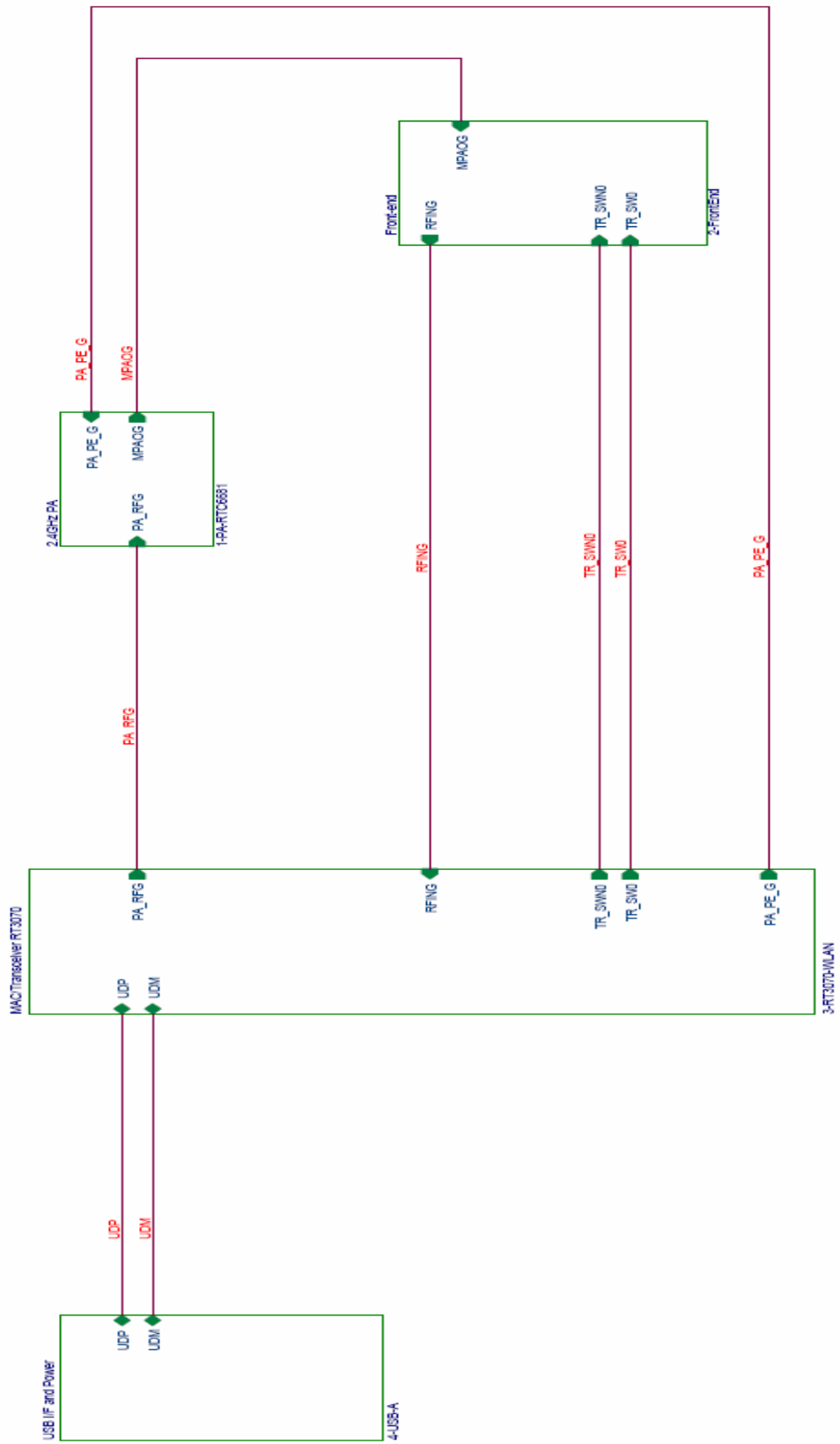


Dimension:

- PCBA + USB connector 52.7mm (L) \* 16mm(W) \* 4.5mm(H)
- PCBA without shielding 37.9mm(L) \* 16mm(W) \* 1.0mm(H)
- PCBA with shielding 2mm(H)

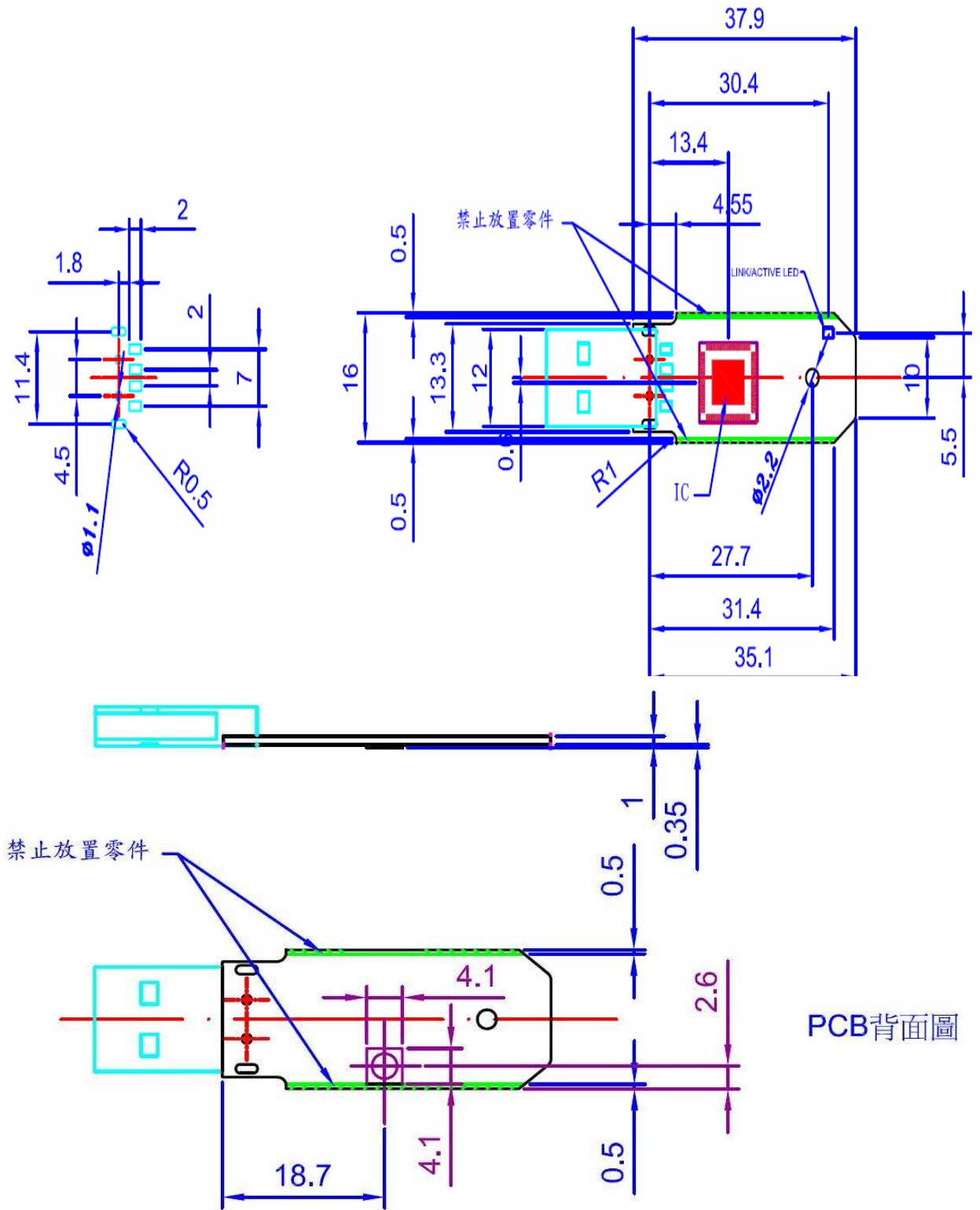
## 2.2 Block Diagram



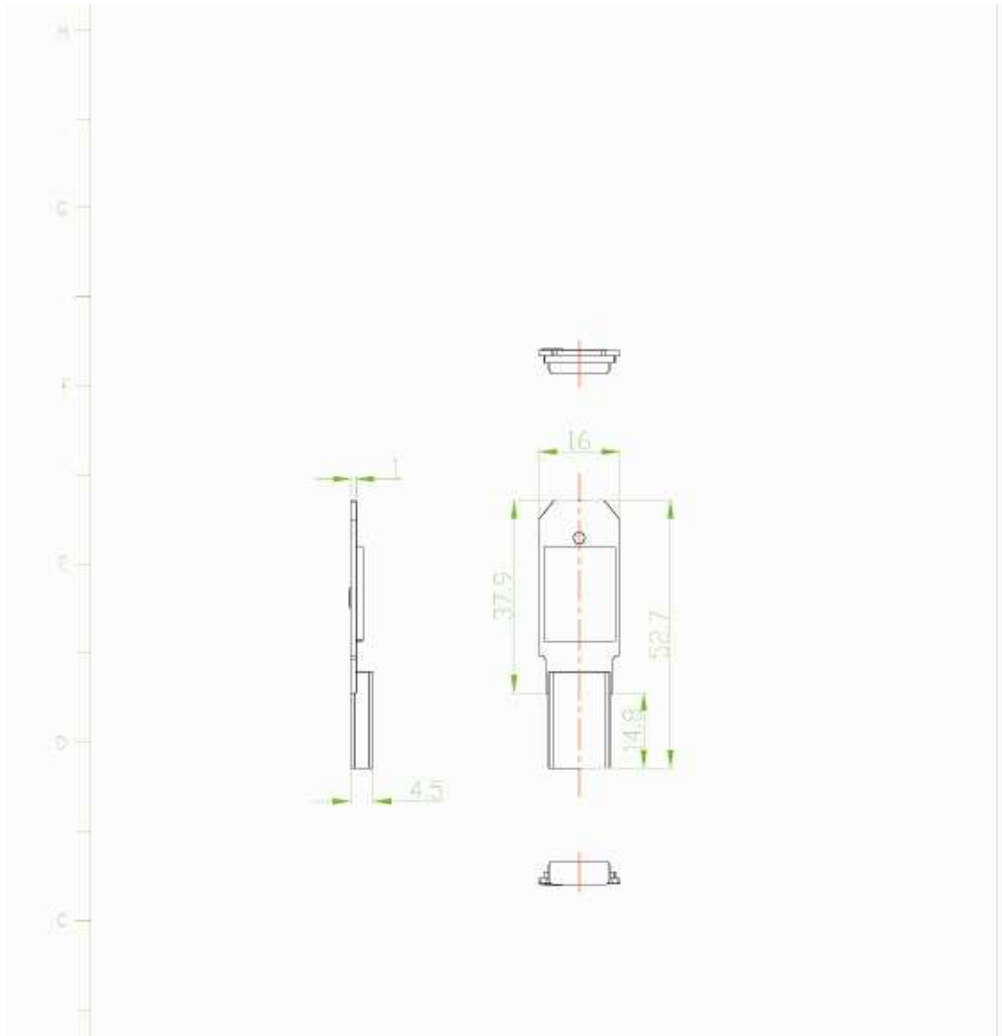




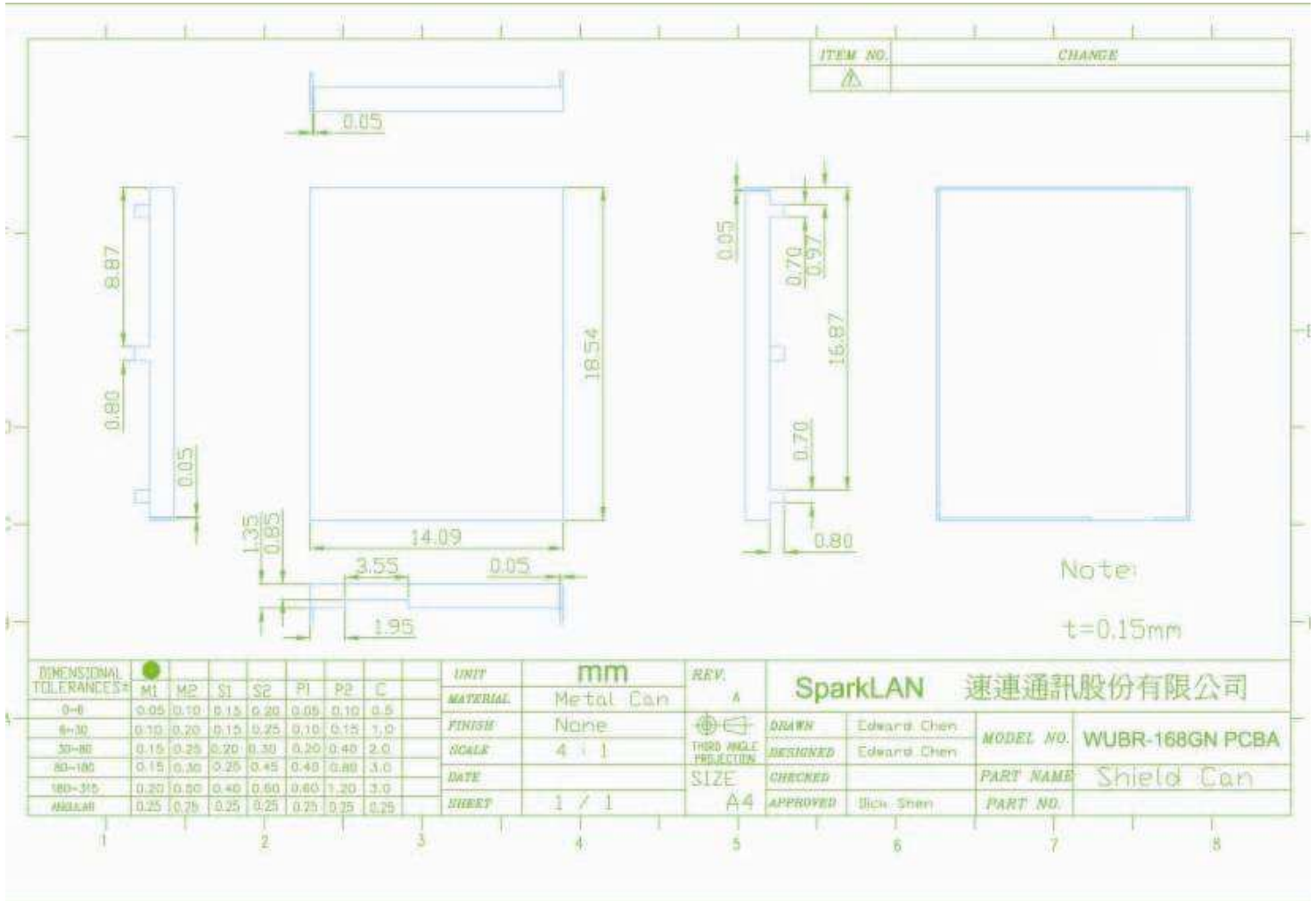
## 2.4 PCBA Mechanical Drawing



PCB背面圖



## 2.5 Shielding case



## 2.6 Domain Code

Domain Code	<b>01 (EU Type)</b>
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0: FCC (US, Canada, and other countries uses FCC radio communication standards)

**1: ETSI (Europe)**

2: SPAIN

3: FRANCE

4: MKK

5: MKKI (TELEC)

6: ISERAL (Channel 3 to 9)

7: ISERAL (Channel 5 to 13)

Note:

1. Support channels can refer the Appendix.

## **3. Software Specification**

### **3.1 Driver Support**

Support MAC/Linux/Window

## 4. Standard Packing

### 4.1 Product Label

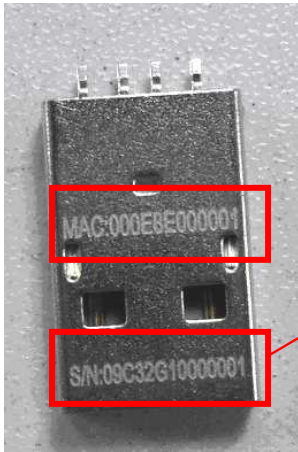
N/A

### 4.2 Packing & Carton Label

- Bulk package

<p>device packing</p>	<p>5pcs/package</p>	<p>4 packages/box</p>
<p>40 boxes/carton</p>	<p>carton label packing</p>	

■ SN Number on USB connector




use SPK MAC & S/N )

■ Carton Label


**802.11gn USB PCBA**


Part Number: **R9900019343**

Model No.: **WUBR-168GN (P)/E**

Q'TY: **XXX PCS** 

S/N:



From:   
XXXXXXXXXXXXXXXX

To:   
XXXXXXXXXXXXXXXX

NW: \_\_\_\_ Kgs

GW: \_\_\_\_ Kgs

Carton of No.: /

Made In XXX

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## 5. CUSTOMIZE REQUIREMENT

- Added Shielding case
- Disable the LED function.



## 6. APPENDIX

### ■ Country Region Code for 2.4G Band

#### 2.7 Country Region Code for 2.4G band (0x39)

Default value = FFh, which means read from INF and registry, more flexible than reading from EEPROM, this is our current InstallShield CCS implementation. We do not recommend customers to read SKU from EEPROM. Value FFh is the default value.

CountryCode— Specify the domain code, can be FFh or one of the followings,

Index	Support Channels
0	CH 1-11
1	CH 1-13
2	CH 10 -11
3	CH 10 -13
4	CH 14
5	CH 1 -14
6	CH 3 - 9
7	CH 5 - 13
31	CH1 – 14 (CH1 - 11 active scan, CH12 - 14 passive scan)

Notes: If set to read SKU from EEPROM, only available if 2.4G Country Region code registers are programmed.