

User manual

802.11n, 2T2R Single Band Wireless LAN USB Module

WN4611L

Version 1.0

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Change History:

Revision	Date	Author	Change List
Version 1.0	2013/12/03	Kaysa Lee	Preliminary

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PRODUCT SPECIFICATION

802.11n, 2T2R Single Band Wireless LAN USB Module

WN4611L

Version 1.0

Networking B.U.
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Customer Approval: _____ (Signature)
_____ (Title)
_____ (Company)
_____ (Date)

(Please Sign Back by FAX. For Confirming the Spec Only, not an Official Agreement for OEM/ODM Business)

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PRODUCT DESCRIPTION

The WN4611L Wireless LAN USB Module is a sleek miniature Wireless LAN device working under 2.4GHz frequency band. The WN4611L is compatible with IEEE standards, 802.11b, 802.11g and support 802.11n. It provides full functional wireless access within wireless environments anytime, anywhere at a data rate of up to 300Mbps. The WN4611L comes with an USB 2.0 interface providing the maximum transfer rate of 480Mbps, the form factor is an embedded module.

WN4611L embody 2 transmitter 2 receiver (2T2R) architecture to ensure reliable and cost-effective wireless connectivity at high throughput over an extended range. Optimized RF architecture and base band algorithms provide super performance with low-power consumption.

PRODUCT FEATURES

- Operate at 2.4GHz band
- 300Mbps PHY Rate Support
- 2T2R Modes
- 20MHz/40MHz Bandwidth Support
- USB 2.0 support for data rates up to 12Mbps full speed and 480Mbps high speed
- IEEE standards support: IEEE 802.11b/g and 802.11n
- 802.11i- WEP 64/128, AES, TKIP
- Low power with advanced Power Management
- Embedded CPU with host off-load capability
- Support WoW function
- RoHS compliance
- HF compliance

Product specifications

Main chipset

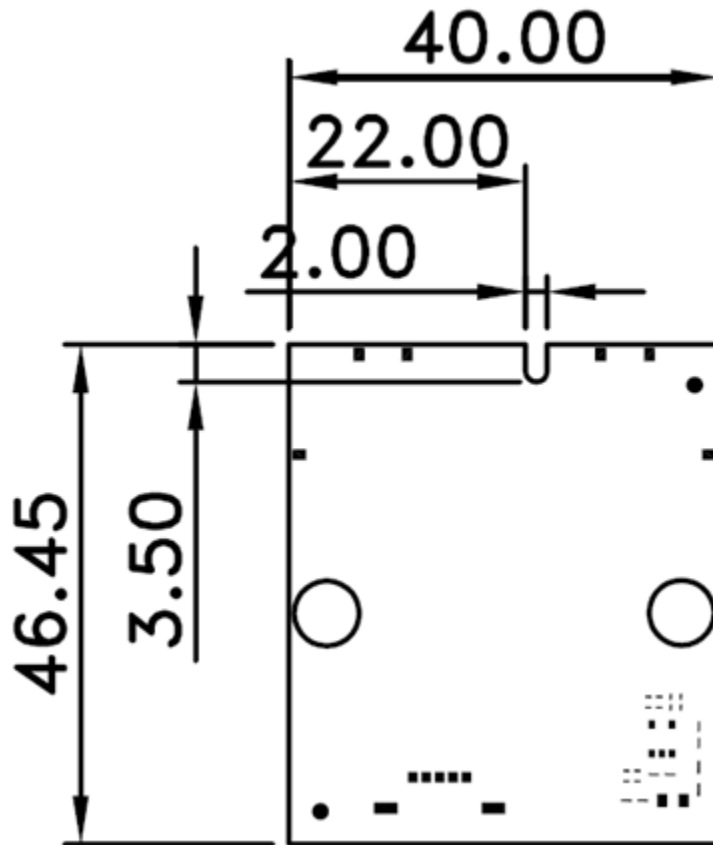
MAC/Baseband/RF: Realtek 8192EU

Functional Specifications

Standard	IEEE802.11b; IEEE 802.11g; IEEE802.11n		
Bus Interface	Universal Serial Bus (USB2.0)		
Data Rate	802.11b: 11, 5.5, 2, 1 Mbps 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps 802.11n: MCS 0 to 15 for HT20MHz MCS 0 to 15 for HT40MHz		
Media Access Control	CSMA/CA with ACK		
Radio Technology	802.11b: CCK, DQPSK, DBPSK 802.11g: 64QAM, 16 QAM, QPSK, BPSK 802.11n: BPSK, QPSK, 16QAM, 64QAM		
Network architecture	Ad-hoc mode (Peer-to-Peer) Infrastructure mode		
Operating Channel	2.4GHz 11: (Ch. 1-11) – United States 13: (Ch. 1-13) – Europe 14: (Ch. 1-14) – Japan		
Frequency Range	802.11 b & g 2.412 ~ 2.462 GHz – N. America 2.412 ~ 2.484 GHz – Japan 2.412 ~ 2.472 GHz – Europe ETSI		
Transmit Output Power (Tolerance: +1.5dBm/-1.5dBm)	802.11b 16dBm	802.11g 14dBm@54Mbps	802.11n 13dBm@HT20 MCS0 13dBm@HT20 MCS7 12dBm@HT40 MCS0 12dBm@HT40 MCS7
Receiver Sensitivity	802.11b: Less than -76dBm 802.11g: Less than -82dBm @ 6Mbps Less than -65dBm @54Mbps 802.11n: Less than -82dBm @ MCS0 Less than -64dBm @ MCS7		
Security	64-bit, 128-bit WEP, TKIP, AES, WPA, WPA2, WPS IEEE 802.11i		
Operating Voltage	5V ±5% I/O supply voltage		
OS supported	Windows, Linux(embedded system)		
Power Consumption	Standby: 196mA TX: 369mA RX: 238mA		
Antenna Type	Dual Metal Antenna		

*Environmental factors dependent

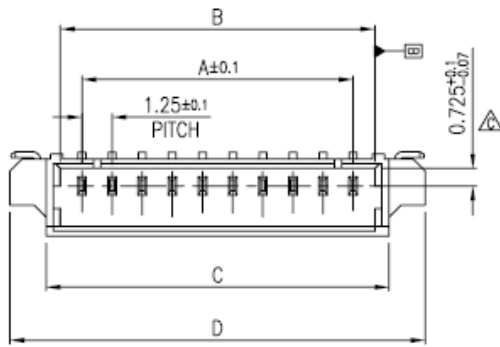
Mechanical



Product Picture



Connector SPEC (CONNECTOR 1.25mm 1*6P 50271-0060N-001 SMD(宏致))

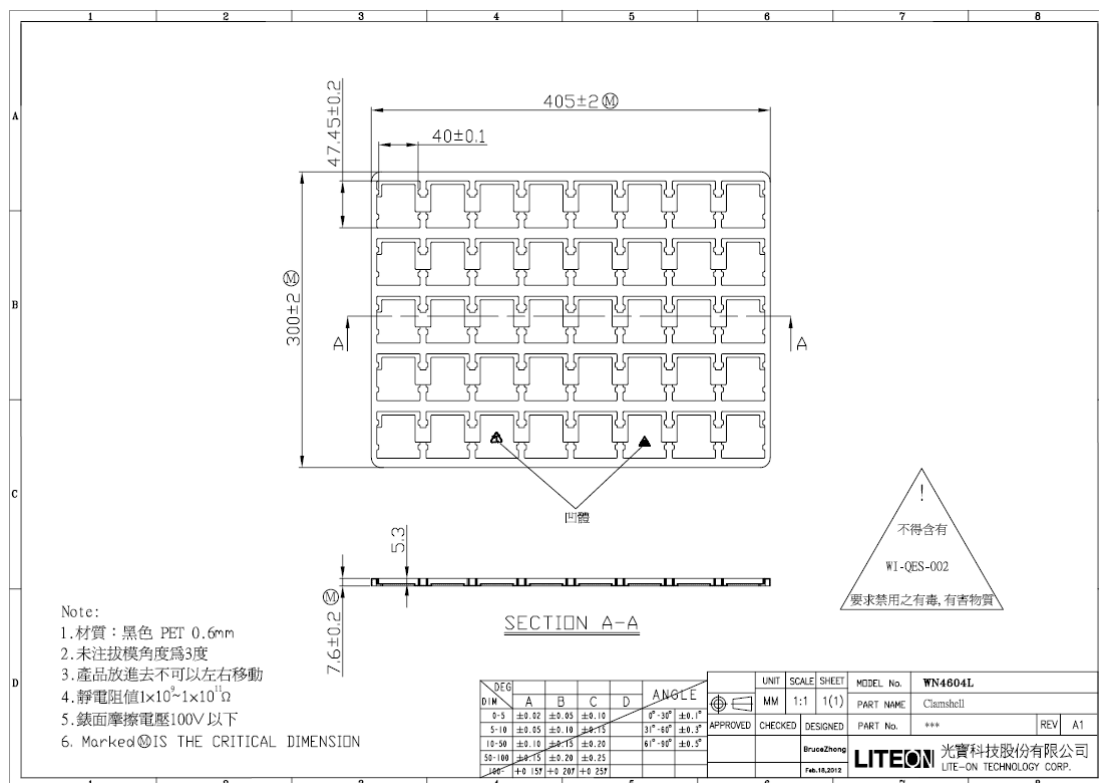


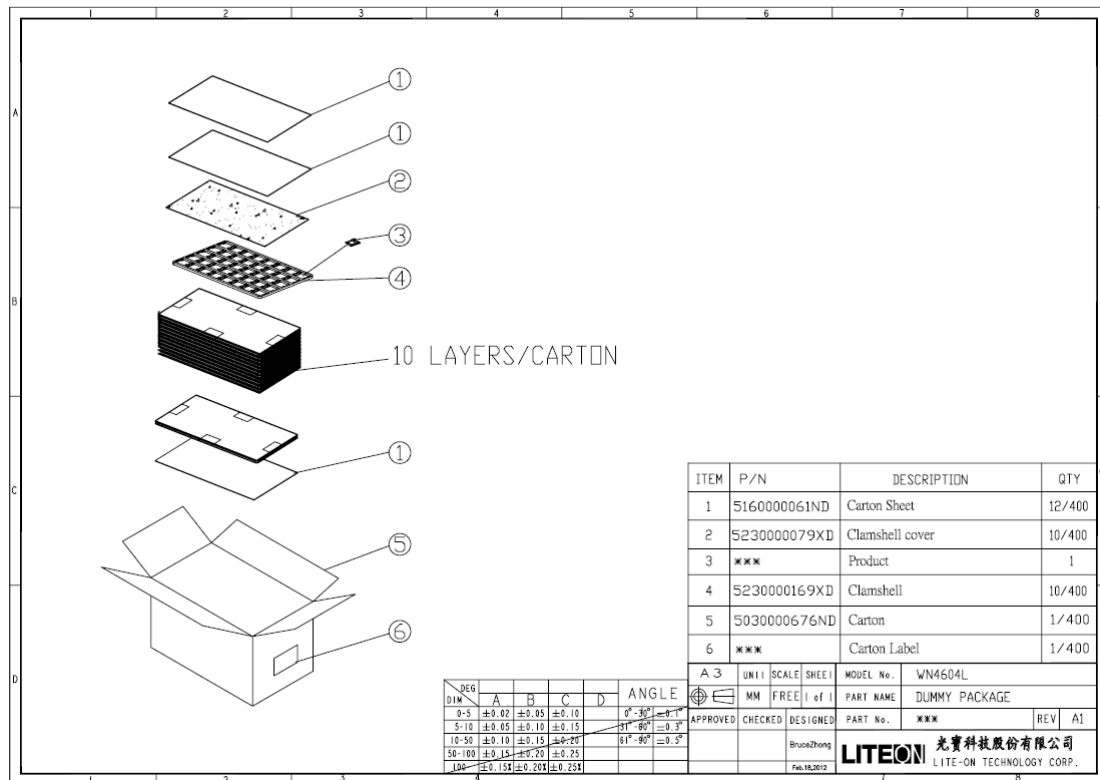
CKT	Dim A	Dim B	Dim C	Dim D	Dim E
2	1.25	3.05	4.25	7.25	7.15
3	2.50	4.30	5.50	8.50	8.40
4	3.75	5.55	6.75	9.75	9.65
5	5.00	6.80	8.00	11.00	10.90
6	6.25	8.05	9.25	12.25	12.15

Pin Definition

Pin Number	Pin Name
1	+5V
2	D-
3	D+
4	GND
5	WOW - Device wake Host function
6	Host inform Device function

Packing



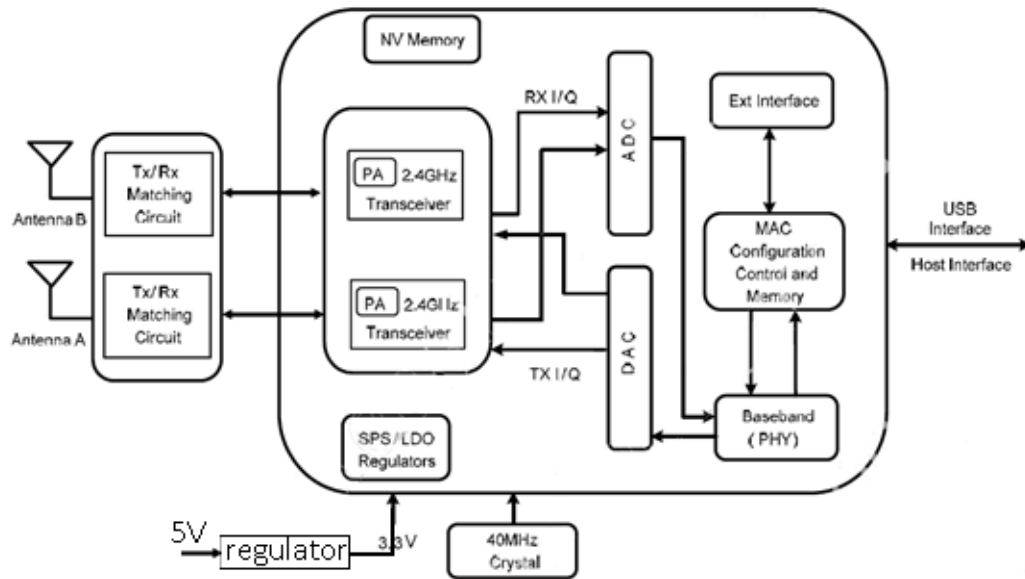


ITEM	P/N	DESCRIPTION	QTY
1	516000061ND	Carton Sheet	12/400
2	523000079XD	Clamshell cover	10/400
3	***	Product	1
4	5230000169XD	Clamshell	10/400
5	5030000676ND	Carton	1/400
6	***	Carton Label	1/400

DEG	A	B	C	D	ANGLE
0-5	±0.02	±0.05	±0.10		0°-30° = ±1°
5-10	±0.05	±0.10	±0.15		31°-60° = ±0.3°
10-50	±0.10	±0.15	±0.20		61°-90° = ±0.5°
50-100	±0.15	±0.20	±0.25		
100	±0.15	±0.20	±0.25		

A 3	UNIT	SCALE	SHEET	MODEL No.	WN4604L
	MM	FREE	1 of 1	PART NAME	DUMMY PACKAGE
APPROVED	CHECKED	DESIGNED	PART No.	***	REV A1
	BruceZhong				
				LITE ON	光寶科技股份有限公司 LITE-ON TECHNOLOGY CORP.

Block Diagram



EEPROM INFORMATION

Reg Domain	World Wide13 0x20
Vendor ID	0x0BDA
Product ID	0x818B

ENVIRONMENTAL

Operating

Operating Temperature: -10 to 75 C (14 to 167 F)

Relative Humidity: 5-90% (non-condensing)

Storage

Temperature: -40 to 85 C (-40 to 185 F)

Relevant Humidity: 5-95% (non-condensing)

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.

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.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FCC RF Radiation Exposure Statement: 1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. 2.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Information to OEM integrator

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user manual of the end product. The user manual which is provided by OEM integrators for end users must include the following information in a prominent location.

1. To comply with IC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter, except in accordance with IC multi-transmitter product

transmitter product procedures.

2. Only those antennas with same type and lesser gain filed under this IC ID number can be used with this device.

3. The regulatory label on the final system must include the statement: "Contains IC ID: xxxx".

4. The final system integrator must ensure there is no instruction provided in the user manual or customer documentation indicating how to install or remove the transmitter module except such device has implemented two-way authentication between module and the host system.