

LSD3WF-2011X
Wi-Fi Module Product Specification

Name: Wi-Fi Module
Model: LSD3WF-2011X
Revision : v1.1

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FCC Caution:

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

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. To satisfy FCC RF Exposure requirements for this transmission devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during operation. If used in portable product to do SAR evaluation and testing.

This equipment 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.

OEM Labeling Requirements:

NOTICE: The OEM or final integrator must ensure that FCC labeling requirements are met. This includes an additional label on the outside of the final product housing with the following contents:

<p>Company Name</p> <p>MODEL:</p> <p>Contains Model: LSD3WF-2011X, FCC ID:N8NLSD3WF-2011X</p> <p>This device complies with Part 15 of the FCC Rules. Operation is subjected 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.</p>

1. Functional characteristics

LSD3WF-2011X is high performance and cost effective 802.11b/g/n WLAN USB module. LSD3WF-2011X is embedded with Ralink RT5370 a highly integrated MAC/BBP and 2.4GHz RF single chip with 150Mbps PHY rate supporting. It fully complies with IEEE 802.11n draft 3.0 and IEEE 802.11b/g feature rich wireless connectivity at high standards, cost-effective, throughput from extended distance. Optimized RF architecture and baseband algorithms provide superb performance and low power consumption.

LSD3WF-2011X is designed to support standard based features in the areas of security, quality of service and international regulation, giving end users the greatest performance anytime in any circumstance.

Feature:

- Host Interface USB2.0;
- 1T1R with up to 150Mbps PHY Data Rate for Both TX and RX
- 2.54mm pitch 4P pin package
- Dimension: 40±0.2 (L) ×20±0.2 (W) ×4 (H) mm
- 20MHz/40MHz Bandwidth Support
- Legacy and High Throughput Modes
- Variety of structures 2.4GHz 50 Ω antenna, antenna interface IPX2
- With Smaller Size Suitable for Compact System Integration
- Low Power Consumption, Extend the Battery Life
- WEP 64/128, WPA, WPA2, TKIP, AES
- QoS --- WMM, WMM-PS
- WPS-PIN, PBC
- Multiple BSSID Support
- Cisco CCX Support

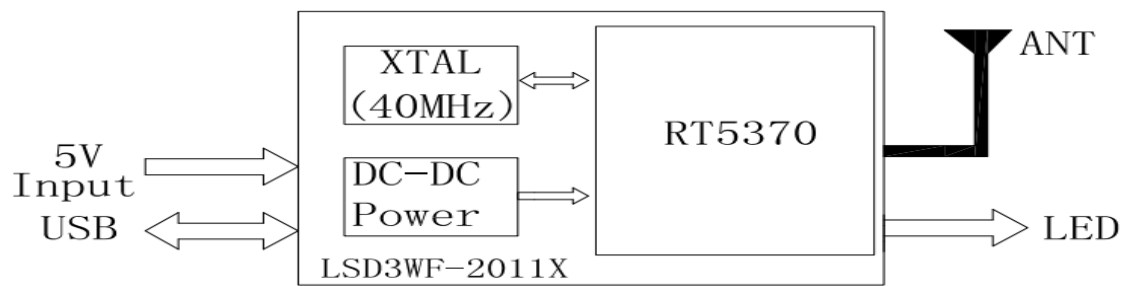
- Operating Systems Support: Windows XP 32/64, Linux and Macintosh
- RoHS Compliant

Applications:

- Netbook/ Notebook
- Printer
- Digital Photo Frame/ Camera
- Personal Navigation Device

2. Specifications

BLOCK DIAGRAM



RF Characteristics (Condition: VCC=3.3V @ +25°C)

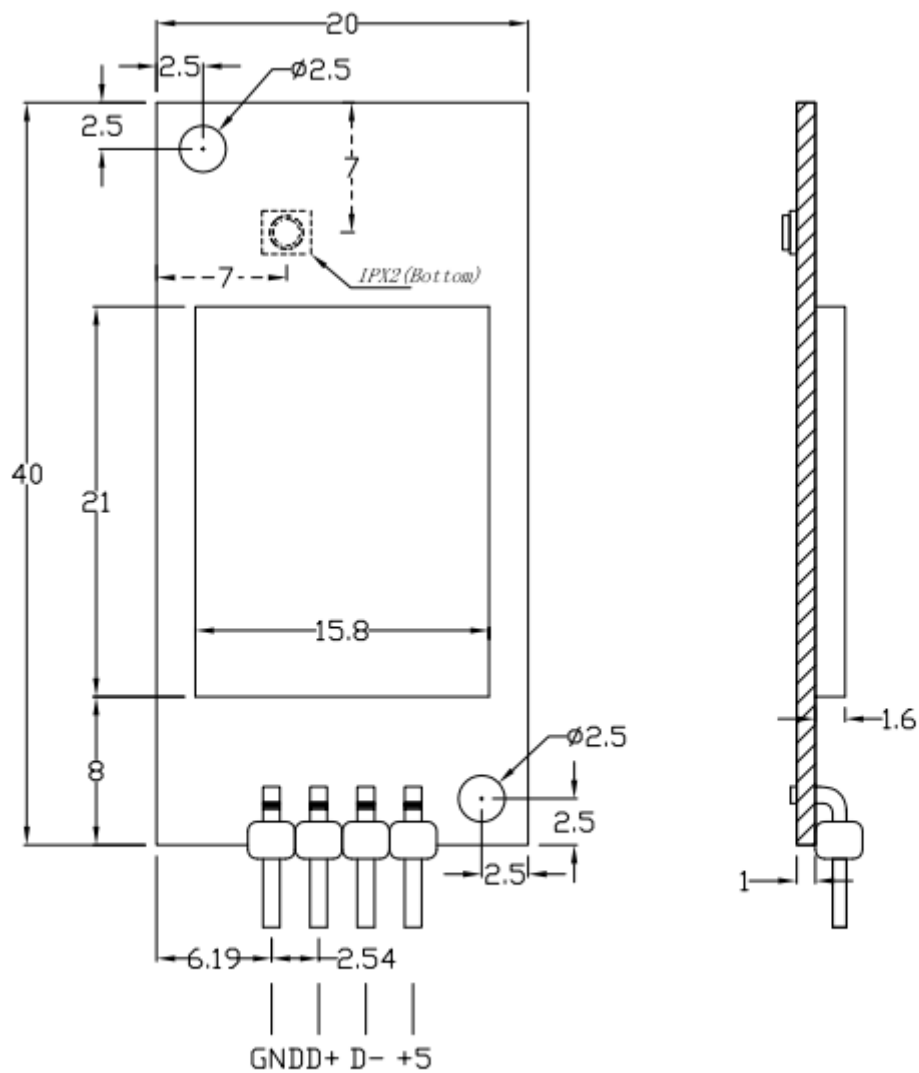
Feature	Description
Standards	Fully Compliant with IEEE 802.11 b/g/n Standard
Frequency Band	2.4~2.4835GHz
Channel	11
Frequency Stability	< ±5ppm @ Room Temperature +25°C
Modulation	OFDM/DBPSK/DQPSK/CCK
PHY Data Rate	Up to 150Mbps
Channel Bandwidth	20MHz and 40MHz
OFDM Output Power	15dBm (Typ.) @EVM<3%, all channel
CCK Spectral Mask @ Pout=18dBm	-37dBc(Typ)@11~22MHz -60dBc(Typ)@22~33MHz
2f Harmonics	-55dBm(Typ)
LO Leakage Peak Power	-64dBm(Typ)@ Transmit State
Receive Sensitivity	-71dBm(Typ)@54MHz OFDM -85dBm(Typ)@11MHz CCK -90dBm(Typ)@1MHz CCK
RF Port Impedance	50Ω±10%
USB Differential Port Impedance	90Ω±10%
Dimension	40±0.2 (L) ×20±0.2 (W) ×4 (H) mm

Absolute Maximum Ratings

Parameter Name	Min.	Typ.	Max.	Unit
Operating Temperature	-10		70	°C
Supply Voltage Range: USB VCC	4.5	5.0	5.5	V
Storage Temperature Range	-55		150	°C

3.Hardware layout and interface description

PACKAGE INFORMATION



Unit:mm
GB/T 1804-m

Pin Description:

NO.	Name	Description	Nnte
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1	5V	5V DC Power Supply Input for Module Circuits	
2	D-	D- Line of USB2.0	
3	D+	D+ Line of USB2.0	
4	GND	Ground	

Revision	Description	Date
1.00 (Draft)	Draft Revision	2012-03-13
v1.1	Add Mechanical Side View	2012-07-03