

HK NATER TECH LIMITED

RL-UM02B-8192EU模块承认书

客户名称

Customer: _____

样品名称

Description: RL-UM02B-8192EU 模块

客户料号

Customer P/N: _____

日期

Date: _____

客户栏 Customer		
核准Approve	审核Auditing	承认Admit

供应商栏 Provider		
核准Approve	审核Auditing	承认Admit

客户名称:

公司地址:

电话:

传真:

联系人:

E-mail:

供方名称: HK NATER TECH LIMITED

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尊敬的客户: 请收到我公司样品承认书三日内传首页, 谢谢!

SPECIFICATIONS

IEEE 802.11 b/g/n 2.4GHz

Wi-Fi 2T2R Module

RL-UM02B-8192EU

Version: V1.0

Overview

General

- CMOS MAC, Baseband MIMO PHY, and RF in a single chip for 802.11b/g/n compatible WLAN
- Complete 802.11n MIMO solution for 2.4GHz band
- 2x2 MIMO technology for extended reception robustness and exceptional throughput
- Maximum PHY data rate up to 144.4Mbps using 20MHz bandwidth, 300Mbps using 40MHz bandwidth
- Compatible with 802.11n specification
- Backward compatible with 802.11b/g devices while operating at 802.11n data rates

Host Interface

- Complies with USB Specification Revision 2.0
- USB bridge for RTL8761 Bluetooth connection

Standards Supported

- 802.11e QoS Enhancement (WMM, WMM-SA Client mode)
- 802.11h TPC, Spectrum Measurement
- 802.11k Radio Resource Measurement
- 802.11i (WPA, WPA2). Open, shared key, and pair-wise key authentication services

MAC Features

- Frame aggregation for increased MAC efficiency (A-MSDU, A-MPDU)
- Low latency immediate High-Throughput Block Acknowledgement (HT-BA)
- Long NAV for media reservation with CF-End for NAV release
- PHY-level spoofing to enhance legacy compatibility
- MIMO power saving mechanism
- Channel management and co-existence
- Multiple BSSID feature allows the RTL8192EU to assume multiple MAC identities when used as a wireless bridge
- Transmit Opportunity (TXOP) Short Inter-Frame Space (SIFS) bursting for higher multimedia bandwidth

Peripheral Interfaces

- Configurable Bluetooth Coexistence Interface

PHY Features

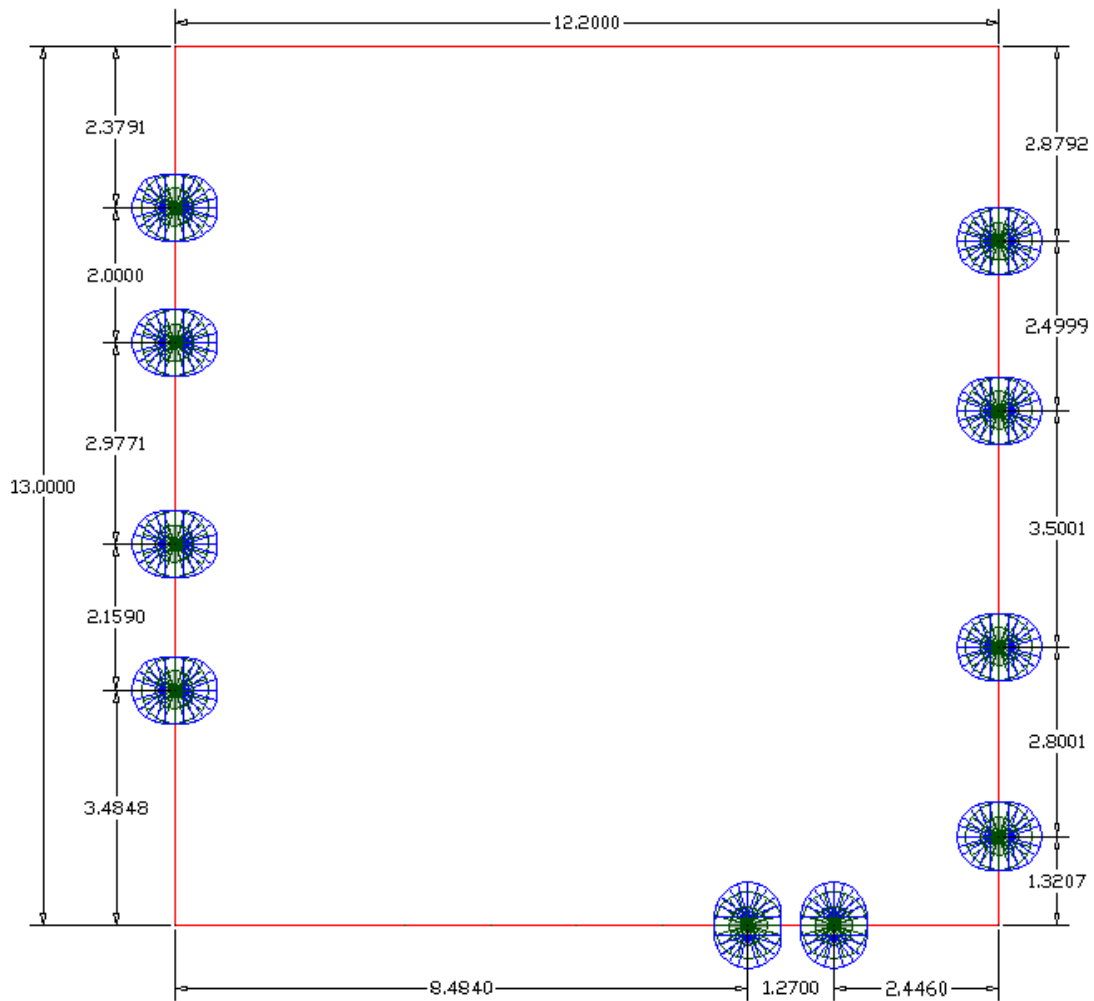
- 802.11n MIMO OFDM
- Two Transmit and Two Receive path (2T2R)
- 20MHz and 40MHz bandwidth transmission
- Short Guard Interval (400ns)
- Sounding packet
- Low Density Parity Check (LDPC) to enhance link robustness over range
- Transmit Beamforming
- DSSS with DBPSK and DQPSK, CCK modulation with long and short preamble
- OFDM with BPSK, QPSK, 16QAM, and 64QAM modulation.
Convolutional Coding Rate: 1/2, 2/3, 3/4, and 5/6
- Maximum data rate 54Mbps in 802.11g and 300Mbps in 802.11n
- OFDM receive diversity with MRC using up to 2 receive paths. Switch diversity used for DSSS/CCK
- Selectable digital transmit and receive FIR filters
- Programmable scaling in transmitter and receiver to trade quantization noise against increased probability of clipping
- Fast receiver Automatic Gain Control (AGC)
- On-chip ADC and DAC

General Specification

Model	RL-UM02B-8192EU-V1.0
Product Name	WLAN 11b/g/n USB module
Major Chipset	Realtek RTL8192EU
Standard	IEEE802.11n 、 IEEE 802.11g、 IEEE 802.11b
Data Transfer Rate	1,2,5.5,6,11,12,18,22,24,30,36,48,54,60,90,120 and maximum of 300Mbps
Modulation Method	DSSS,DBPSK, DQPSK, CCK and OFDM (BPSK/QPSK/16-QAM/ 64-QAM)
Frequency Band	2.485GHz
Spread Spectrum	IEEE 802.11b: DSSS (Direct Sequence Spread Spectrum) ,CCK(Com plem e ntary Code Keying) IEEE 802.11g/n:OFDM (Orthogonal Frequency Division Multiplexing)
RF Output Power	< 18dBm@11b,< 14dBm@11g ,< 13dBm@11n
Receiver Sensitivity	11Mbps -86dBm@8%,135Mbps -73dBm@10%,300Mbps -66dBm@10%
Operation Range	Up to 180 meters in open space
OS Support	Windows 2000,XP32-64,Vista 32/64,Win7 32/64,Linux,Mac, Android, WIN CE
Security	WEP, TKIP, AES, WPA, WPA2
Interface	USB 2.0
Power Consumption	3.3V
Operating Temperature	-10 ~ 70°C ambient temperature
Storage Temperature	-10 ~ 70°C ambient temperature
Humidity	5 to 90 % maximum (non-condensing)
Dimension	12.2 x 13 x 1.9mm (LxWxH) +-0.2MM

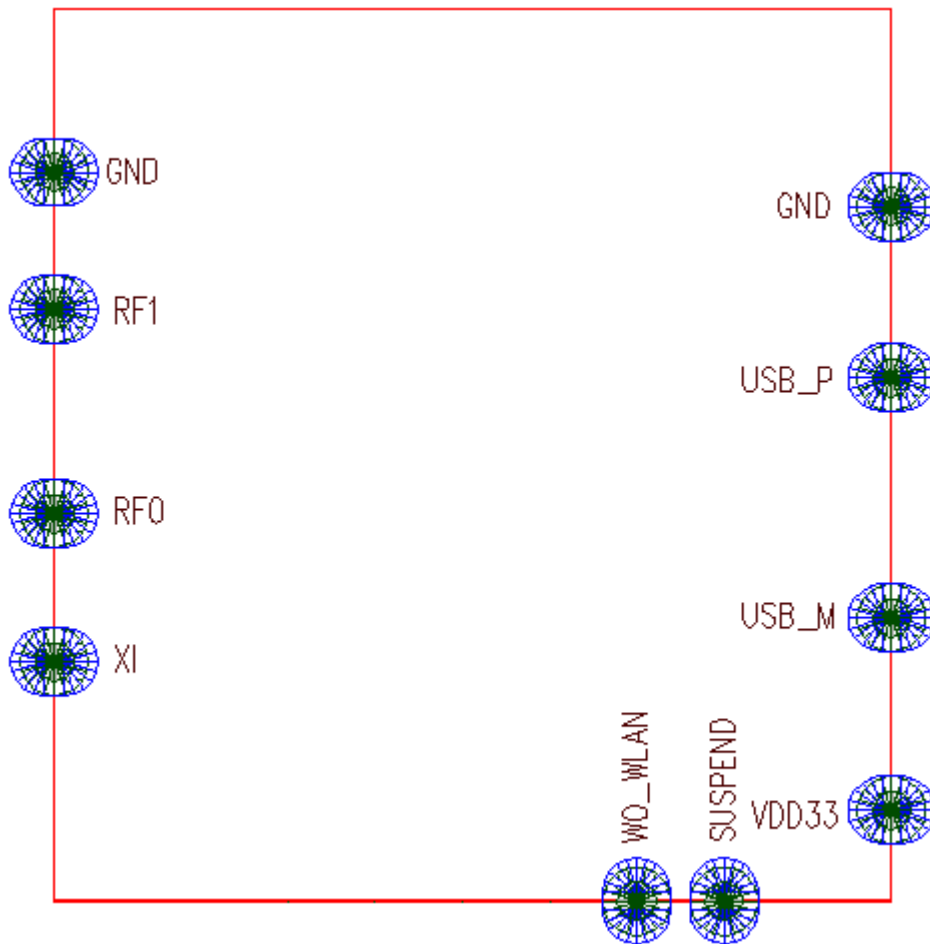
Mechanical

Dimensions (mm)	Length	Width	Height
	12.2 (Tolerance:±0.2mm)	13 (Tolerance:±0.2mm)	1.9 (Tolerance:±0.2mm)

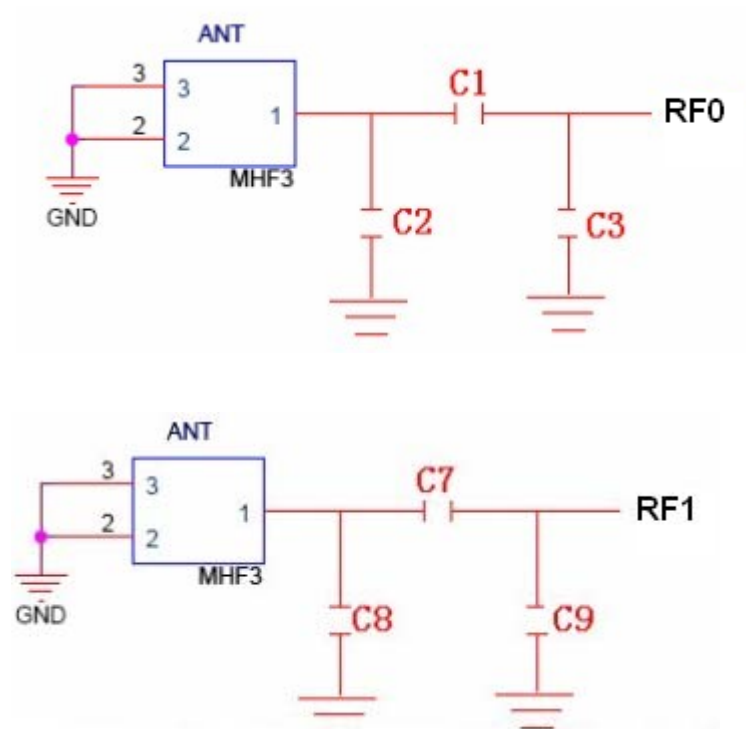


MODULE PIN ASSIGNMENT

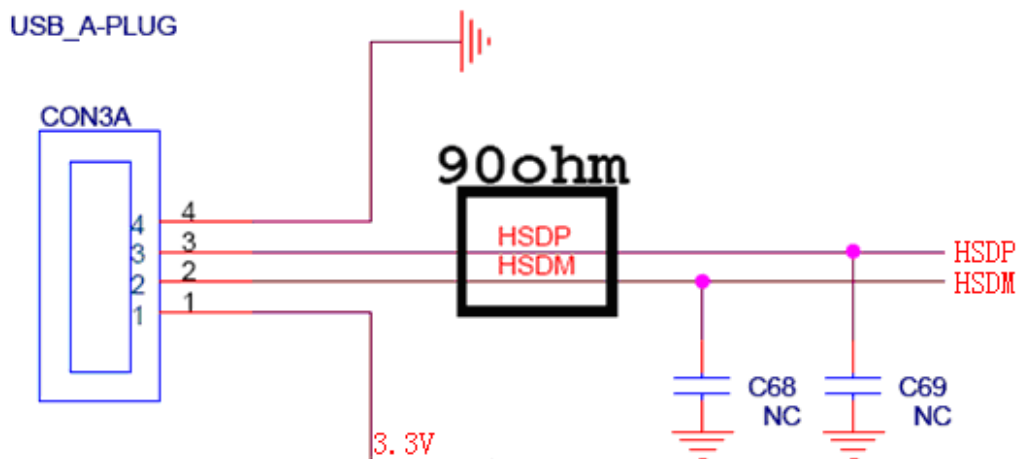
Pin	Function	Pin	Function
H1	GND	H6	USB_P
H2	RF1	H7	USB_M
H3	RF0	H8	VDD33
H4	XI	H9	SUSPEND
H5	GND	H10	WO_WLAN



WIFI RF Circuit reference pictures



USB interface electrical characteristics



Two root go line do difference, but also required to make 90 0 the impedance test

建议在电源输入端留一个电源开关，每次开关卡时可以做一个上电断电的作用。可以使WIFI复位。就不会有打开WIFI出错的现象了。