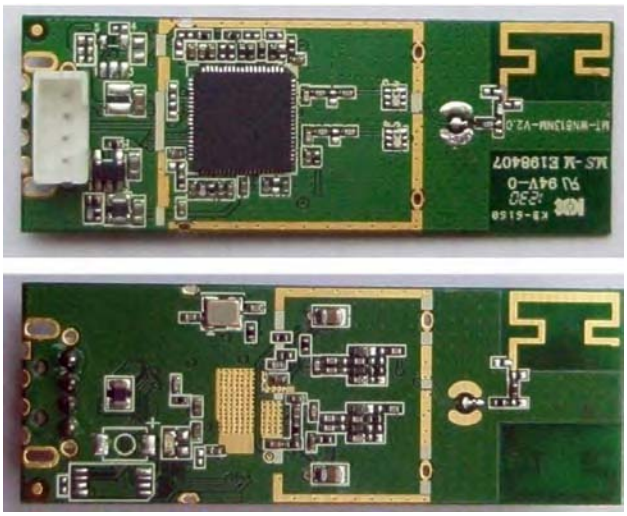
MT-WN813NM SPECIFICATIONS

802.11 a/b/g/n Wireless USB Module

(USB Host Power Is 3.3V)



Ver. 2.1

Date: 2012/12/25

Contents

Device Overall Description

The WN813NM is designed to provide wireless LAN function on a small form factor with USB interface. The wireless LAN function is based on Ralink RT5572 MAC/BBP/RF controller and high gain power amplifier, fully comply with current draft IEEE 802.11n and IEEE 802.11 b/g standards, also support IEEE802.11a standards. It uses the latest wireless transmission technology, the user can freely choose according to the surrounding environment as well as terminal equipment including a working band to avoid radio interference and network congestion, the wireless signal is more stable, smoother speed.

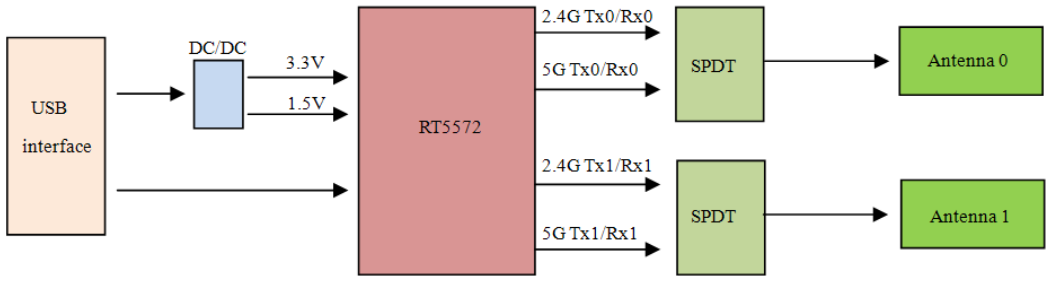
Features

- Ralink RT5572N MAC/BBP/RF Controller
- 2T2R Modes
- 11b: 1,2,5.5,11Mbps
- 11g / 11a: 6,9,12,18,24,36,48,54Mbps
- 11n: Legacy and High Throughput Modes
- Support 20/40MHz Bandwidth
- Support Dual-band
- Reverse Direction Data Flow and Frame Aggregation
- WEP 64/128, WPA, WPA2, TKIP, AES
- QoS-WMM, WMM-PS
- WPS, PIN, PBC
- Multiple BSSID Support
- Low Power with Advanced Power Management

Specification Compliance

- 802.11n Draft3.0
- 802.11b/g
- 802.11a
- 802.11e
- 802.11i
- USB2.0

Block Diagram



Channel Assignment

2.4GHz Channel Support

Channel	Frequency	FCC (US)	IC(CA)	ETSI (EU)	Japan (JP)
1	2412MHz	X	X	X	X
2	2417MHz	X	X	X	X
3	2422MHz	X	X	X	X
4	2427MHz	X	X	X	X
5	2432MHz	X	X	X	X
6	2437MHz	X	X	X	X
7	2442MHz	X	X	X	X
8	2447MHz	X	X	X	X
9	2452MHz	X	X	X	X
10	2457MHz	X	X	X	X
11	2462MHz	X	X	X	X
12	2467MHz			X	X
13	2472MHz			X	X
14	2484MHz				X

KEY:
US = United States, CA = Canada, EU = European Countries (except France and Spain) ,JP = Japan
Many countries and region are currently revising the channel assignment.
X = Supported

5GHz Frequency Support

- 5.150~5.250GHz
- 5.745~5.825GHz

Security

- Complete Security Features - WEP 64/128, WPA, WPA2, 802.1x, and 802.11i
- Cisco CCS Compliant

Certification

Cisco CCX

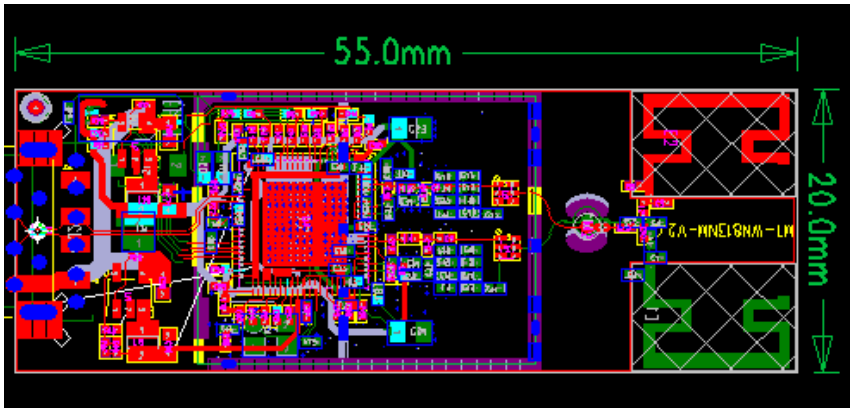
Software & OS support

Operating System	Driver
Windows 2000	Available
Windows XP 32/64	Available
Windows Vista 32/64	Available
Windows 7 32/64	Available
Linux	Available
MAC OS	Available

Operating Conditions

Voltage Range	3.3 ±0.1V
Operating Temperature Range	-10℃ - 45℃
Storage Temperature Range	-20℃ - 75℃
Relative Humidity during Operating	Max. 90% (Non-Condensing)
Relative Humidity during Storage	Max. 95% (Non-Condensing)

Mechanical Drawing

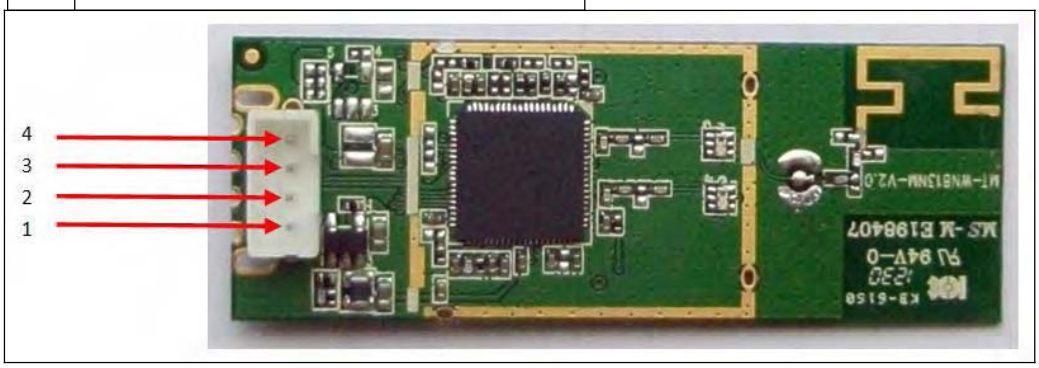


Antenna Connector

Connector	Vendor	Part#
Antenna*2		On Board PCB Antenna

Host Interface Pin Definition

1	Vcc
2	USB Data-
3	USB Data +
4	GND



LED Indication(Red)

LED status	WLAN card activity
LED on	Associated, and authenticated but not transmitting or receiving
LED Slow Blink	Scanning for AP
LED Intermittent Blink	Activity proportional to transmitting/receiving speed
LED off	Radio off

Federal Communication Commission Interference Statement

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. 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.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

End Product Labelling

The end host device use this module should marked "Contain FCC ID: ZVA02" in the label of the host device.

Manual Information to the End User

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’s manual of the end product which integrates this module.

Canada Statement

This device complies with Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions: (1) this device may not cause interference,and (2) this device must accept any interference, including interference that may causeundesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radioexempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) I'appareilne doit pas produire de brouillage, et (2) l'utilisateur de I'appareil doit accepter tout brouillageradioélectrique subi, même si le brouillage est susceptible d'en compromettre lefonctionnement.

Caution Exposure:

This device meets the exemption from the routine evaluation limits in section 2.5 of RSS102 and users can obtain Canadian information on RF exposure and compliance.
Le dispositif répond à l'exemption des limites d'évaluation de routine dans la section 2.5 de RSS102
et les utilisateurs peuvent obtenir des renseignements canadiens sur l'exposition aux RF et le respect.
This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.
Cet équipement doit être installé et utilisé avec une distance minimale de 20 centimètres entre le radiateur et votre corps.

The final end product must be labeled in a visible area with the following:
The Industry Canada certification label of a module shall be clearly visible at all times when installed in the host device, otherwise the host device must be labelled to display the Industry Canada certification number of the module, preceded by the words " Contains transmitter module", or the word "Contains", or similar wording expressing the same meaning, as follows:

Contains transmitter module IC: 9976A-02
Where 9976A-02 is the module's certification number
The end user manual shall include all required regulatory information/warning as show in this manual.

The device should be indoor used..

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