

MEC-WIFI-M101-H

Mini PCIe Wireless 802.11 b/g/n 1T1R

Product Datasheet



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Revision History

Date	Revision	Description
2015.12.07	1.0	First Released
2016.01.15	1.1	Add Software and OS support (Win10)



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Device Overall Description

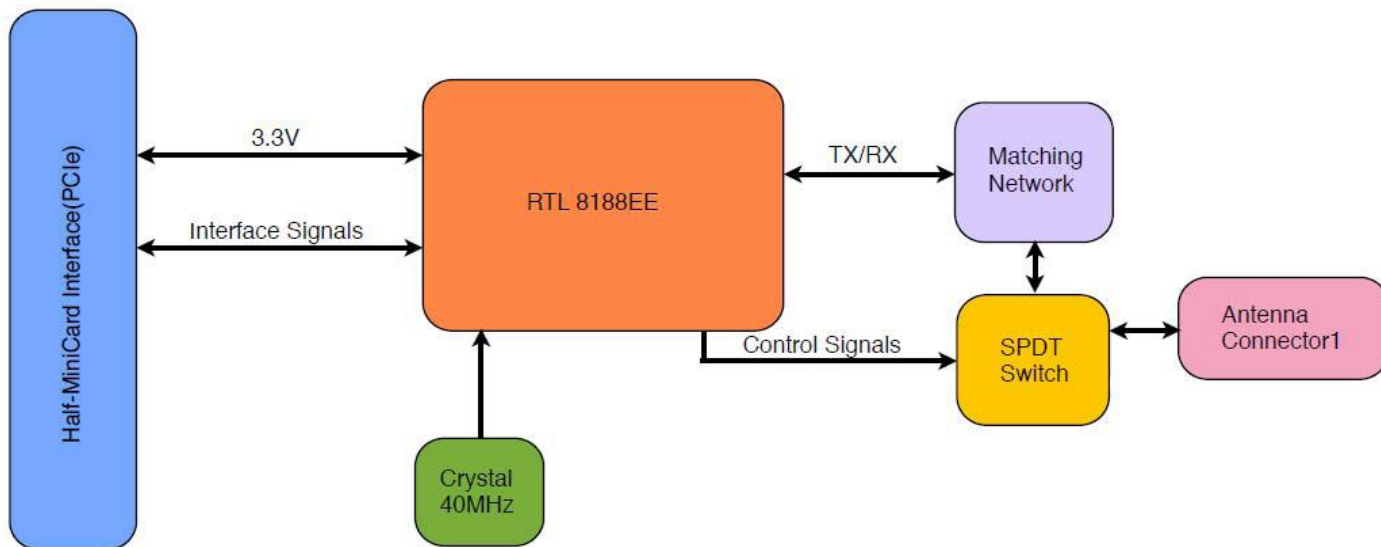
The module is designed to provide wireless LAN function on a small form factor with PCI Express interface. The wireless LAN function is based on Realtek RTL8188EE , fully complies with current IEEE 802.11n and IEEE 802.11 b/g standards.

Features

- Realtek RTL8188EE MAC/BBP/RF
- 1T1R Mode with a 150Mbps Tx/Rx PHY Rate
- 20MHz/40MHz Bandwidth
- Greenfield, mixed mode, and legacy mode support
- Support for short guard interval
- Power saving mechanism
- IEEE 802.11b/g/n compatible WLAN
- IEEE 802.11e QoS Enhancement(WMM)
- 802.11i(WPA,WPA2). Open, Shared key, and pair-wise key authentication services
- Complies with PCIe 1.1



Block Diagram



Channel Assignment

Channel	Frequency	FCC (US)	IC (CA)	ETSI (EU)	Japan (JP)
1	2412MHz	V	V	V	V
2	2417MHz	V	V	V	V
3	2422MHz	V	V	V	V
4	2427MHz	V	V	V	V
5	2432MHz	V	V	V	V
6	2437MHz	V	V	V	V
7	2442MHz	V	V	V	V
8	2447MHz	V	V	V	V
9	2452MHz	V	V	V	V
10	2457MHz	V	V	V	V
11	2462MHz	V	V	V	V
12	2467MHz			V	V
13	2472MHz			V	V
14	2482MHz				V

US = United States, CA = Canada, EU = European Countries (except France and Spain) JP = Japan

Many countries and region are currently revising the channel assignment

V = Supported



Security

- Complete Security Features- WEP64/128, WPA, WPA2, 802.1x and 802.11i
- Cisco CCx Compliant

Certification

- WHQL
- Wi-Fi Certification 802.11b/g/n, WPA, WPA2, WMM, WMM-PS

Software and OS Support

Operating System	Driver
Windows 8, Windows7, Window10 Vista and Windows XP	Available

Operating Conditions

Voltage Range	3.135 V ~ 3.465 V
Operating Temperature Range	0°C - 70°C
Storage Temperature Range	-20~ 85°C
Relative Humidity during Operating	Max. 95% (Non-Condensing)
Relative Humidity during Storage	Max. 95% (Non-Condensing)

RF Characteristics

WLAN RF Characteristics	Min.	Typical	Max.	Units
PC Interface		Mini PCIe		
Internal Antenna Impedance		50		ohms
Operating Temperature Range	0		70	°C
Storage Temperature Range	-20		85	°C
Supply Voltage	3.135	3.3	3.465	V
TX Output Power(11b,11Mbps)		17		dBm
TX Output Power(11g,54Mbps)		14		dBm
TX Output Power(11n,MCS7 HT20)		13		dBm
TX Output Power(11n,MCS7 HT40)		13		dBm
RX Sensitivity(11b,11Mbps)		-82		dBm
RX Sensitivity(11g,54Mbps)		-70		dBm
RX Sensitivity(11n,,MCS7 HT20)		-64		dBm
RX Sensitivity(11n,,MCS7 HT40)		-61		dBm
TX Spectral Mask (CCK)		PASS		
TX Spectral Mask (OFDM)		PASS		
TX Spectral Mask (11n,20M)		PASS		
Preamble Length		Long/Short		



Mechanical Drawing

Unit: mm

(normal size : ± 0.076 mm ; aperture size : ± 0.076 mm)

