

Fitivision Technology Corporation

Wireless LAN module
WN8020

USER MANUAL

1. Overview

WN8020 is high performance and cost effective 802.11b/g/n WLAN USB module. WG8020 is embedded with Ralink RT3070 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.

WN8020 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.

2. Product Spec.

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|------------------------------------|---|
| Chip Set | Ralink RT3070 |
| Operation Voltage | 3.3V |
| Network Standards | IEEE802.11b, IEEE802.11g and IEEE802.11n |
| Modulation Technology | OFDM, and CCK |
| Data Rate | Up to 150Mbps |
| Operating Frequencies | 2.412~2.462 GHz |
| Antenna Type | SWIVEL TYPE , 1/4λ DIPOLE ANTENNA With RP-SMA |
| Antenna Gain | 2.0dBi |
| Channel Bandwidth | 20MHz and 40MHz |
| Frequency Stability | <±5ppm @ Room Temperature +25℃ |
| 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 |
| Receiver sensitivity (PER<10%) | -65dBm [Typ.] @ HT40M, MCS7 -71dBm [Typ.] @ 54M, OFDM -85dBm [Typ.] @ 11M, CCK -90dBm [Typ.] @ 1M, CCK |
| RF Port Impedance | 50Ω±10% |
| USB Differential Port Impedance | 90Ω±10% |
| Temperatures(AMBIENT) | Operation: 0~60℃, Storage:-20~70℃ |

USA - Federal Communications Commission (FCC)

FCC Radiation Exposure Statement



CAUTION:

• The radiated output power of WiFi Module 802.11bgn devices is far below the FCC radio frequency exposure limits. Nevertheless, WiFi Module 802.11bgn devices should be used in such a manner that the potential for human contact during normal operation is minimized. To avoid the possibility of exceeding the FCC radio frequency exposure limits, you should keep a distance of at least 20 cm between you (or any other person in the vicinity) and the antenna that is built into the notebook.

Interference Statement

These devices comply with Part 15 of the FCC Rules. Operation of the devices is subject to the following two conditions: (1) The devices may not cause harmful interference, and (2) The devices must accept any interference that might 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. If the equipment is not installed and used in accordance with the instructions, the equipment might cause harmful interference to radio communications. There is no guarantee, however, that such 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 taking one or more of the following measures:

- Relocate this device.
- Increase the separation between the device and the receiver.
- Connect the device into an outlet on a circuit different from that of other electronics.
- Consult the dealer or an experienced radio technician for help.