



GN-WLMS502

IEEE 802.11b PCMCIA Wireless LAN Card

User's Manual

<http://www.gigabyte.com.tw>

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Chapter 1. Product Overview

1-1. Introduction to The Wireless LAN Card

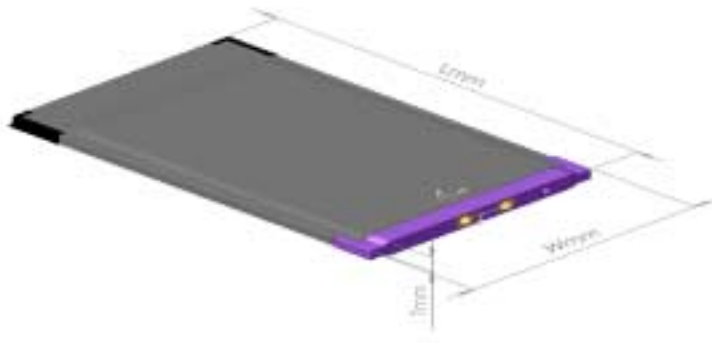
This wireless LAN (Local Area Network) card is composed of the IEEE 802.11b MAC, Baseband, and radio components, PCMCIA interface, and two built-in antennas. This product adopts the direct sequence spread spectrum (DSSS) technology and the DBPSK, DQPSK, and CCK modulation mode to provide a very stable wireless communication quality and an excellent signal receiver capability.

Our product features the compact size, low power consumption, and power management functions, and provides a high-speed wireless data communication. Therefore, our product is ideally suitable for being integrated into Access Point, Router or Gateway and the other network products.

1-2. Features

- Conforms to IEEE 802.11b specification.
- Transmits data rate up to the maximum speed of 11Mbps.
- Dynamically scales the data rate to 11, 5.5, 2, and 1Mbps.
- Automatic power management to reduce battery consumption.
- Supports 64-bit /128-bit WEP encryption.
- Provide Tertiary 1.2.1 (AP mode firmware) for customer to build their wireless communication function.

1-3. Physical Dimensions/Packaging



Dimensions: 88 mm x 54 mm x 6 mm

This wireless LAN card conforms to the PC card Type II Standard.

Chapter 2. Specification

4-1. System		
Standards	IEEE 802.11b compliant, Wi-Fi compatible	
Host Interface	PCMCIA PC Card Type II	
Modulation	1Mbps: DBPSK; 2Mbps: DQPSK; 5.5 and 11 Mbps: CCK	
Transmission Rate	1, 2, 5.5, 11 Mbps	
Operating Voltage	3.3V	
Operating Range	Open space: 100 - 300m; Indoor: 30 - 100m	
4-2. RF Performance		
Frequency Band	2.400 ~ 2.4835 GHz (subject to local regulation)	
Radio Technology	DSSS (Direct Sequence Spread Spectrum)	
Number of Channel	11 Channels (US, Canada)	4 channels (France)
	14 Channels (Japan)	13 Channels (Most European countries, ETSI)
Output Power	13.5dBm @ Nominal Temp Range	
Receive Sensitivity	Typical: - 81dBm @ 11 Mbps data rate, 8% PER	
Antenna	Two MMCX connectors for external antenna	
4-3. Safety Regulation and Operating Environment		
EMC certification	FCC Part 15 (USA)	
	CE (Europe)	
Temperature Range	Operating: 0 ~ 55 deg C, Storing: -20 ~ 65 deg C	
Humidity	Max. 95% Non-condensing	
4-4. Software Support		
AP mode firmware	Tertiary 1.2.1	
Roaming	Supports roaming.	
Security	64 bit WEP (128 bit WEP optional)	
4-5. Mechanical		
Dimensions	88 x 54 x 6 mm	
Weight	34 g	
Packaging	Packaging specially used by Gigabyte.	

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: To assure continued compliance, (example - use only shielded interface cables when connecting to computer or peripheral devices) 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.

Statement Needed to be Shown on End Product

Since this module is installed inside the end product, the end product should be affixed a label on visible area showing that this product contain a RF module, and also its FCC ID.

IMPORTANT NOTE:

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.

This device is intended only for OEM integrators under the following conditions:

- 1) The antenna must be installed such that 20 cm is maintained between the antenna and users, and
- 2) The transmitter module may not be co-located with any other transmitter or antenna.

As long as the 2 conditions above are met, further transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

IMPORTANT NOTE: In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and Obtaining a separate FCC authorization.

End Product Labelling

This transmitter module is authorized only for use in devices where the antenna may be installed such that 20 cm may be maintained between the antenna and users (for example access points, routers, wireless ASDL modems, and similar equipment). The final end product must be labeled in a visible area with the following: " Contains TX FCC ID: JCK-GN-WLMS502 ".

Manual Information That Must be Included

The users manual for end users must include the following information in a prominent location " **IMPORTANT NOTE:** To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter."