

GN-WMAG

IEEE 802.11b/g Dual-Mode Wireless LAN Card

Specification

http://www.gigabyte.com.tw

Rev. 1.0 First Edition

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Chapter 1. Product Overview

1-1. Introduction

This 802.11b/g Wireless Local Area Network (WLAN) card is composed of the MAC, Baseband, and radio components, CARDBUS interface, and two built-in antennas. It operates in 2.4GHz frequency band, providing fast (up to 108Mbps) and secure (support AES, 802.1x & WEP, and WPA) connections to 802.11b and 802.11g networks from a single card.

This product features the compact size, low power consumption, and power management functions, and provides a high-speed wireless data communication. Therefore, this product is ideally suitable for being integrated into the personal mobile and handheld platform.

1-2. Features

- Conforms to IEEE 802.11b and 802.11g specifications.
- Transmits data rate up to the maximum speed of 108Mbps.
- Dynamically scales the data rate.
- Automatic power management to reduce battery consumption.
- Built-in diversity antenna.
- Seamless roaming between 802.11b and 802.11g networks.
- Supports AES (Advance Encryption System), enterprise-class 802.1x security and multiple levels of WEP encryption (64-bit /128-bit/152-bit), and WPA (Wi-Fi Protected Access).
- Driver supports Windows 98SE/Me/2000/XP.

1-3. Physical Dimensions



Dimensions: 120 mm * 54mm * 7mm

This WLAN card conforms to the PC card Type II standard. There are six LED indicators, front two indicate currently Tx/Rx status, the other four show the receive signal strength from the linking Access Point.

1-4. LED Indicating Light

The LED display window shows the current condition of the receiver signals. It specifies the four conditions of "*POOR*", "*FAIR*", "*GOOD*", and "*EXCELLENT*" receiver signals. It also provides additional information if the station is "*SCANING*", "*Rx*" or in "*Tx*" mode.

| LED Continuously | • 0 0 | | | |
|------------------------------|-------|------|------|-----------|
| Condition of the Receiver | POOR | FAIR | GOOD | EXCELLENT |



1-5. System Requirements

1-5-1. Supported Platform

IBM PC/AT compatible computer

1-5-2. Supported Operation System

Windows 98SE/Me/2000/XP

Chapter 2. Specification

| 2-1. System | | | |
|----------------------------------|--|--------------|--|
| Host Interface | CARDBUS (32-bit) card Type II v7.1 | | |
| Operating Voltage | 3.3VDC ± 5% | | |
| 2-2. RF Performance | | | |
| 802.11b | | | |
| Frequency Band | 2412 ~ 24835 MHz (subject to local regulation) | | |
| Modulation Technology | DSSS (Direct Sequence Spread Spectrum) | | |
| Modulation Techniques | DBPSK, DQPSK, CCK | | |
| Date Rates | 11, 5.5, 2, 1 Mbps, auto fallback | | |
| Typical Power Consumption | Doze: 25mA Receive: 350mA Transmit: 470mA | | |
| Peak Output Power | 20dBm @ Nominal Temp Range | | |
| Minimum Receive Sensitivity | - 88dBm @ 11 Mbps @ Nominal Temp Range | | |
| Antenna | Internal antennas supporting diversity | | |
| 802.11g(backward compatible to 8 | 02.11 b) | | |
| Frequency Bands | 2412-24835 MHz (subject to local regulations) | | |
| Modulation Technology | OFDM and DSSS | | |
| Modulation Techniques | 64QAM, 16QAM, QPSK, BPSK, CCK, DQPSK, DBPSK | | |
| Date Rates | Base mode: 54, 48, 36, 18,12, 9, 11, 6, 5.5, 2, and 1 Mbps, auto fallback Turbo mode: 108, 96, 72, 48, 36, 24, 18 and 12 Mbps auto fallback | | |
| Typical Power Consumption | Doze: 25mA Receive: 350 mA Transmit: 520 mA (Base mode) | | |
| Peak Output Power | 20 dBm @ Nominal Temp Range | | |
| Receive sensitivity | Minimum -73dBm;typical -76dBm @54Mbps @ Nominal Temp Range | | |
| Antenna | Internal antennae supporting div | ersity | |
| 4-3.Safety Regulation and Opera | ting Environment | | |
| EMC certification | FCC Part 15 (USA) | DGT (Taiwan) | |
| | CE (Europe) | | |
| Temperature Range | Operating: 0 ~ 55 deg C, Storing: -20 ~ 65 deg C | | |
| Humidity | Max. 90% Non-condensing | | |
| 4-4. Software Support | · · · · · | | |
| Driver | Windows 98SE/Me/2000/XP | | |
| Security | WPA; AES; 802.1X client for Windows XP; 64/128/152 bit WEP | | |
| Roaming | Seamless roaming among 802.11b/g access points. | | |
| Management Utility | Monitors the network situation. | | |
| 4-5. Mechanical | | | |
| Dimensions | 120 x 54 x 7 mm | | |
| Weight | 40± 1 g | | |
| Packaging | Packaging specially used by Gigabyte. | | |
| LED indicators | Power, Link, and the receive signal strength | | |