

OEM Installation Guide

**AG-622**

# 1. Introduction

**54Mbps IEEE802.11a/b/g Wireless Network Mini PCI Adapter** is the perfect solution for your wireless network applications based on the IEEE 802.11a/b/g standard offering a data rate of 54Mbps in a wireless LAN environment.

**AG-622** is designed for PC, Access Point, Router, ATUR, Printer Server series, IP Camera series and Internet Video Server gives you wireless access the web and network resource without the wire.

**AG-622** provides high-speed access to network resources and has built-in 40/64-bit, 128 bit of WEP (Wired Equivalent Privacy) data encryption. With Direct Spread Spectrum Signaling (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM), domain access control, WEP encryption and group security, the modules will safeguard all your wireless data transmissions from your nosy neighbors.

**AG-622** allows you to take full advantage of your devices mobility with access to real-time information and online services anytime and anywhere.

# 2. Feature

- . Complies with IEEE 802.11a/b/g Standard for 5GHz and 2.4GHz Wireless LAN.
- . Works with All Existing Network Infrastructures.
- . Compatible with Wi-Fi Wireless Products and Services
- . Capable of up to 128-Bit WEP Encryption.
- . Freedom to Roam While staying Connected
- . 54 Mbps High-Speed Transfer Rate
- . Two UF-L Connectors for External Antenna
- . Support Antenna diversity for Better Sensitivity
- . Lower Power Consumption.

# 3. Specification

HOST INTERFACE	
Mini PCI Type III B	
RADIO	
Frequency	USA (FCC) 13Channels: 5.150 GHz~5.350GHz ; 5.725 GHz~5.850GHz
	USA (FCC) 11 Channels: 2.412GHz~2.462GHz
	Europe (ETSI) 19 Channels : 5.150 GHz~5.350GHz ; 5.470GHz~5.725GHz
	Europe (ETSI) 13 Channels : 2.412GHz~2.472GHz
	Japan (TELEC) 4 Channels : 5.150GHz~5.250GHz,(NEW 3channel: 5.030GHz~5.090GHz)
	Japan (TELEC) 13 Channels : 2.412GHz~2.472GHz
Modulation	11a Orthogonal Frequency Division Multiplexing (64QAM, 16QAM, QPSK, BPSK)
	11g Orthogonal Frequency Division Multiplexing (64QAM, 16QAM, QPSK, BPSK)
	11b Direct Sequence Spread Spectrum (CCK, DQPSK, DBPSK)
Maximum Output Power	11a: 17dBm @ Low rate ,13dBm typical @high data rate
	11g :20dBm @ low data rate ,15dBm typical @high data rate
	11b: 20dBm typical
Data Rate	11a/11b mode: 54, 48, 36, 24, 18, 12, 9, 6 Mbps

	11b mode: 11, 5.5, 2, 1 Mbps	
	Turbo mode: 108, 96, 72, 48, 36, 24, 18, 12 Mbps	
Power Consumption	11a/11g: Tx: 850mA; Rx: 450mA (max)	
	11b: Tx: 700mA; Rx: 400mA (max)	
<b>PHYSICAL SPECIFICATIONS</b>		
Dimensions	59.60mm(L)*44.45mm(W)*3.30mm(H)	
Weight	<20g	
<b>ENVIRONMENTAL SPECIFICATIONS</b>		
	Temperature (Ambient)	Humidity (non-condensing)
Operating	0~55°C	90%
Storage	-20~65°C	5~95%

## 4. Hardware Installation

The following sections in this chapter describe how to install AG-622 Module

### 4.1. Installation Overview

**AG-622** wireless module is design for PC, Access Point, Router, ATU-R, Printer Server series, IP Camera series and Internet Video Server.

### 4.2. Safety Recommendations

**The safety guidelines are as follows:**

- λ Keep the board area clear and dust-free before, during, and after installation.
- λ Keep tools away from walk areas where you and others could fall over them.
- λ Do not wear loose clothing or jewelry, such as earrings, bracelets, or chains, that could get caught in the board.
- λ Wear safety glasses if you are working under any conditions that might be hazardous to your eyes.
- λ Do not perform any action that creates a potential hazard to people or makes the equipment unsafe.
- λ Never attempt to lift an object that is too heavy for one person to handle.

### 4.3. Maintaining Safety with Electricity

**Warning: Before working on a board or working near power supplies, unplug the power cord on AC units; on DC units, disconnect the power at the circuit breaker.**

Follow these guidelines when working on equipment powered by electricity:

- λ Do not work alone if potentially hazardous conditions exist anywhere in your work space.
  - λ Never assume that power is disconnected from a circuit; always check the circuit.
- extension cables, frayed power cords, and missing safety grounds.
- λ If an electrical accident occurs, proceed as follows:
    - Use caution; do not become a victim yourself.
    - Disconnect power from the system.
    - If possible, send another person to get medical aid. Otherwise, assess the condition of the victim and then call for help.
    - Determine if the person needs rescue breathing or external cardiac compressions; then take appropriate action.

- 7 -

### 4.4. Installing a **AG-622**

λ Remove the **AG-622** module from its protective packaging.

λ Avoiding Electrostatic Discharge

Before you install the **AG-622** module, ground yourself by touching a piece of metal to avoid electrostatic discharge (ESD). You should also take the following precautions to prevent damage to the AG-622 module:

λ Keep the **AG-622** module in its antistatic-shielded bag until you are ready to install it.

λ Handle the **AG-622** module by its edges.

λ Ensure the connector is connected to above Model's board tightly.

## FCC Statements:

1. 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.
2. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.
3. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.
4. This device is for OEM installation only, the End User manual shall not contain information about how to install the module.
- 5 This compliance to FCC radiation exposure limits for an uncontrolled environment, and minimum of 20 cm separation between antenna and body.
6. Only the type of antenna tested may be used.
7. The end product must carry a label stating "Contains TX FCC ID:M4Y-0AG622".
8. Operation on channels in the frequency band 5150-5250 MHz is only allowed indoors.