

Introduction

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WN4402A is an industrial MiniPCI Card which enables wireless networking systems to attain data transmission speeds at least up to 54 megabits-per-second (Mbps), while remaining backward compatible to the existing installed base of over 15 million Wi-Fi systems worldwide. It supports operation to both the IEEE 802.11b and IEEE 802.11g standards.

WN4402A will enable a next generation of high-data-rate platforms for operation in the 2.4 GHz band that deliver a five-fold speed increase. The cost and performance advantages will make it an ideal solution for high bandwidth enterprise applications, such as wireless video conferencing and large file transfers, as well as advanced home networking applications such as multi-channel CD-quality audio and DVD-quality video streaming. WN4402A incorporates the 802.11g Standard's mandatory modulation schemes—Complementary Code Keying (CCK), which is used in 802.11b, and Orthogonal Frequency Division Multiplexing (OFDM), used in 802.11g. Using CCK ensures backward-compatibility with the installed Wi-Fi 802.11b base, while OFDM provides the speed required for today's high-bandwidth applications.

The additional hard key function provides a truly flexible usage to directly disable and re-enable the RF power without going into the utility program.

1.1 Product Features

- ◆ High speed for wireless LAN connection, up to 54 Mbps data rate.
- ◆ A new WLAN software solution that improves 802.11g throughput by over 3x.
- ◆ Backward compatible to the existing IEEE 802.11b WLAN infrastructure.
- ◆ An user-friendly utility to configure SSID, security setup and site survey.
- ◆ Wireless data encryption using WEP 64, 128 bit encryption for security.
- ◆ Hardware AES Accelerator.
- ◆ Built-in Hirose antenna connectors.
- ◆ Hard key function to directly disable/re-enable the RF power, which complies to US flight safety.
- ◆ Firmware upgrade-able by only changing driver.

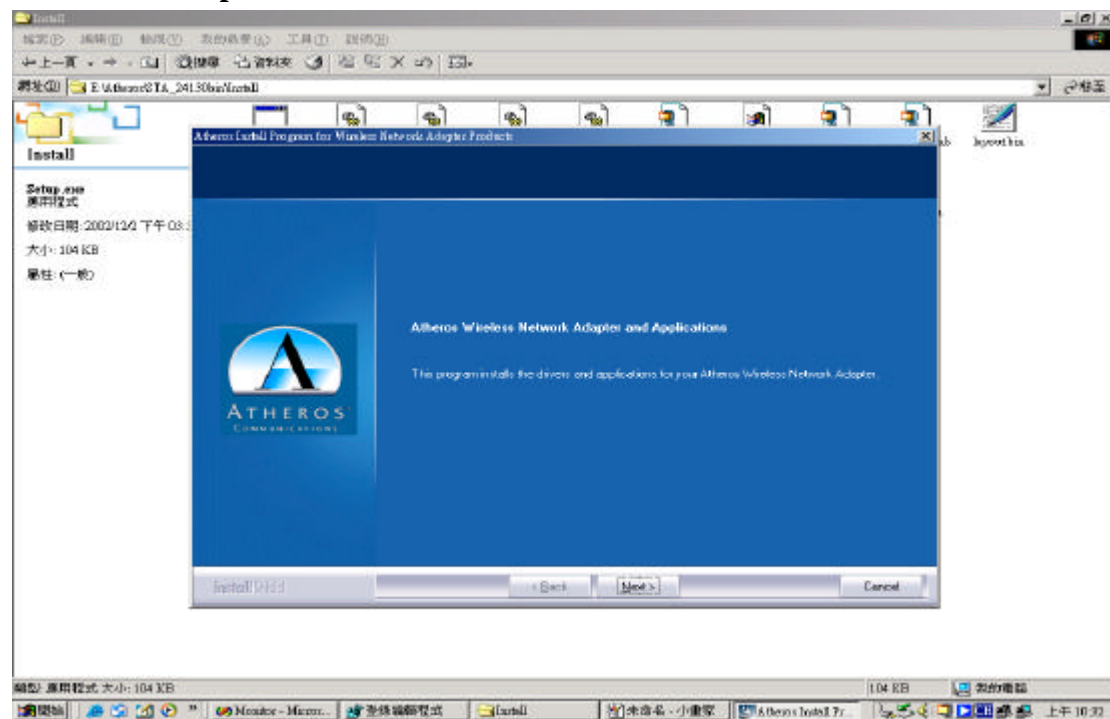
1.2 Applications

- ◆ Home networking for device sharing.
- ◆ Wireless multimedia.
- ◆ Wireless office for extension Ethernet range.

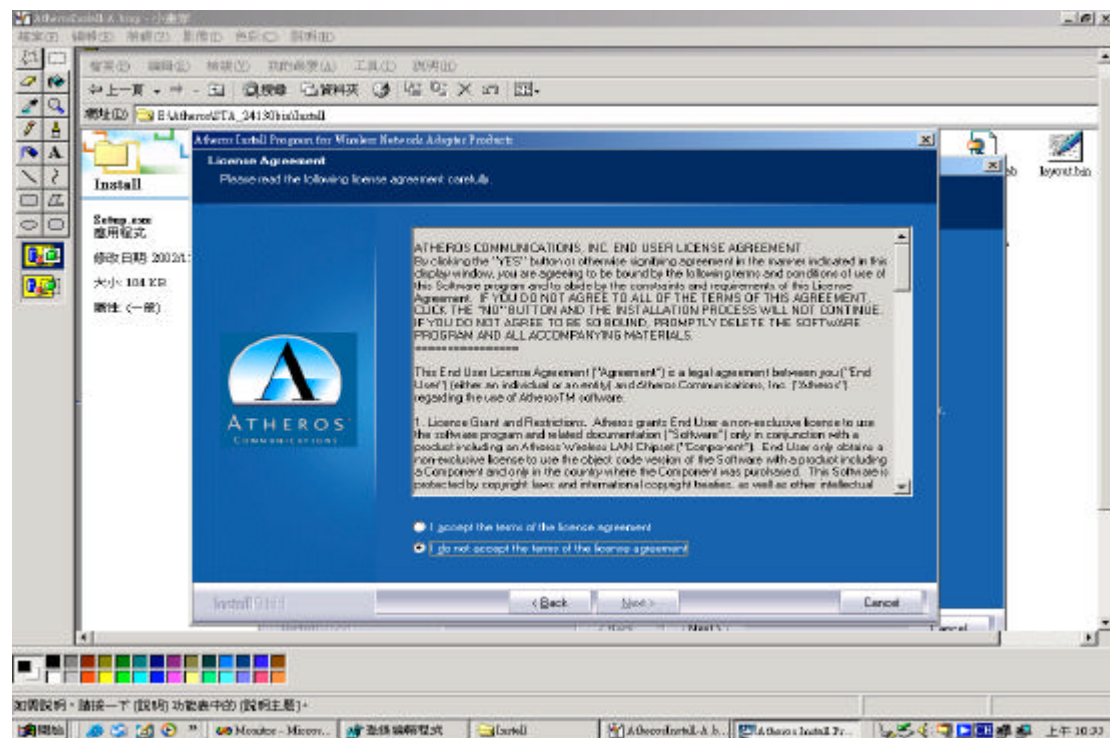
- ◆ Mobile networking for notebook PC, PDA, Web Pad or Wireless Gateway Built-in Application.

2. WN4402A Installation Guide

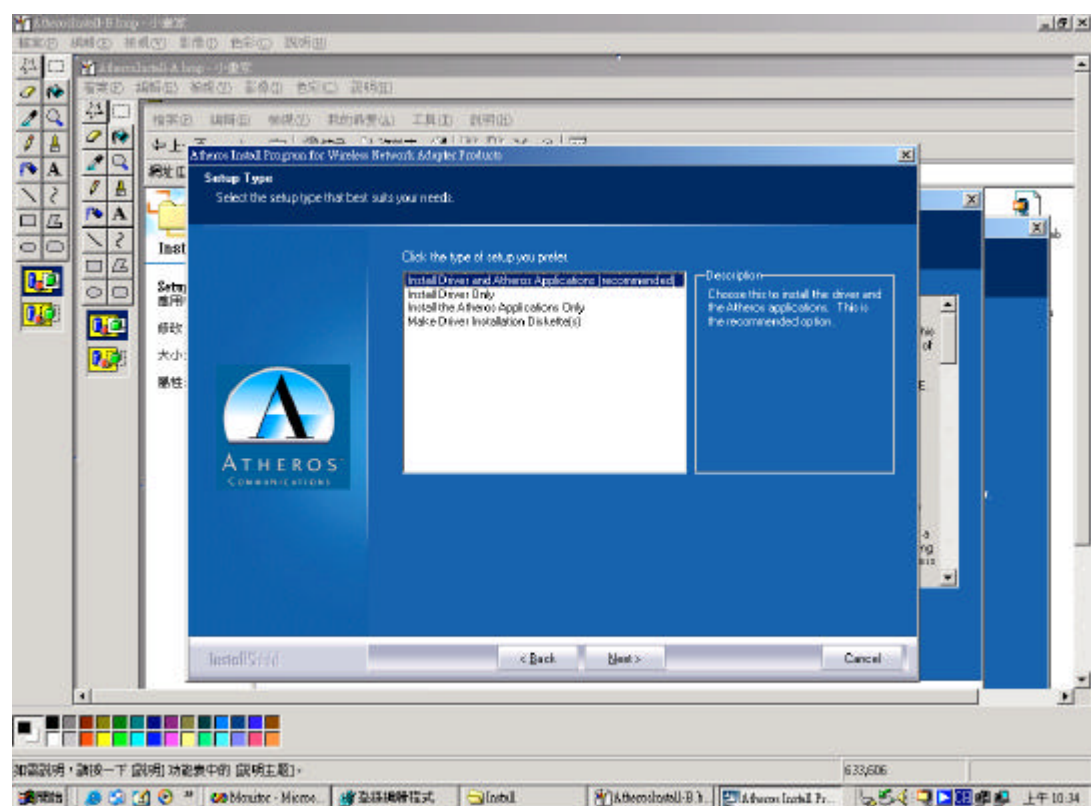
1. Execute Setup.exe. Click “Next” button.



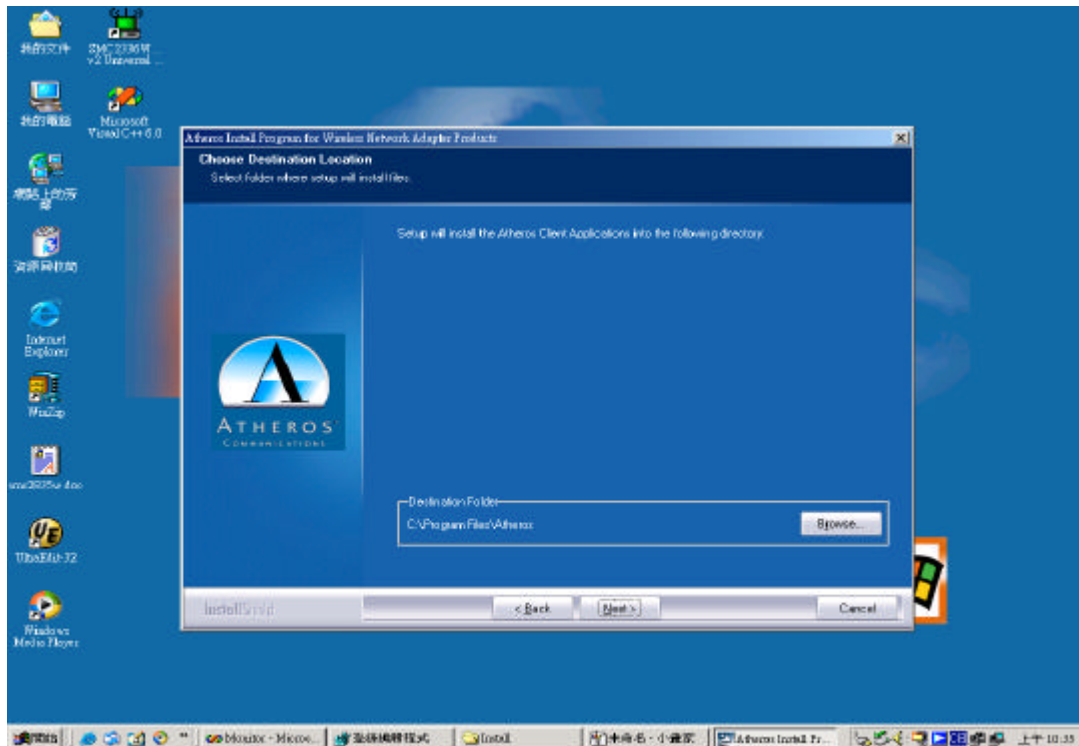
2. Select “I accept the terms of license agreement”. Click “Next” button.



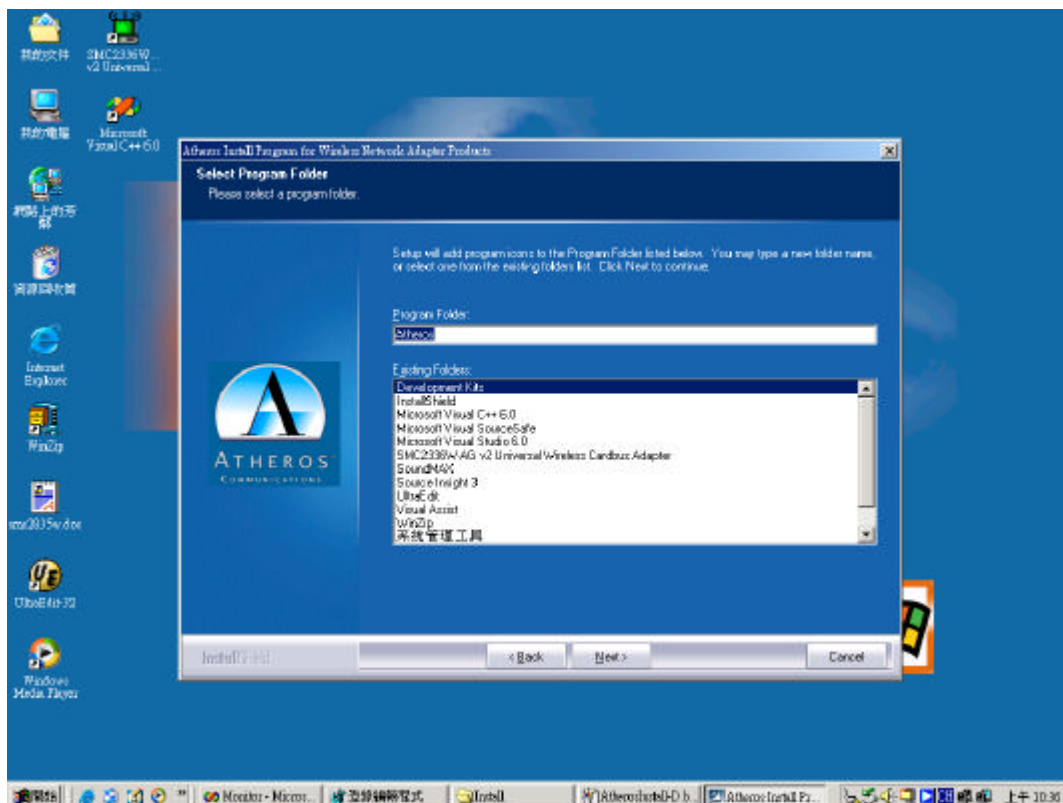
3. Select “Install Driver and Atheros Applications (recommended).” Click “next” button.



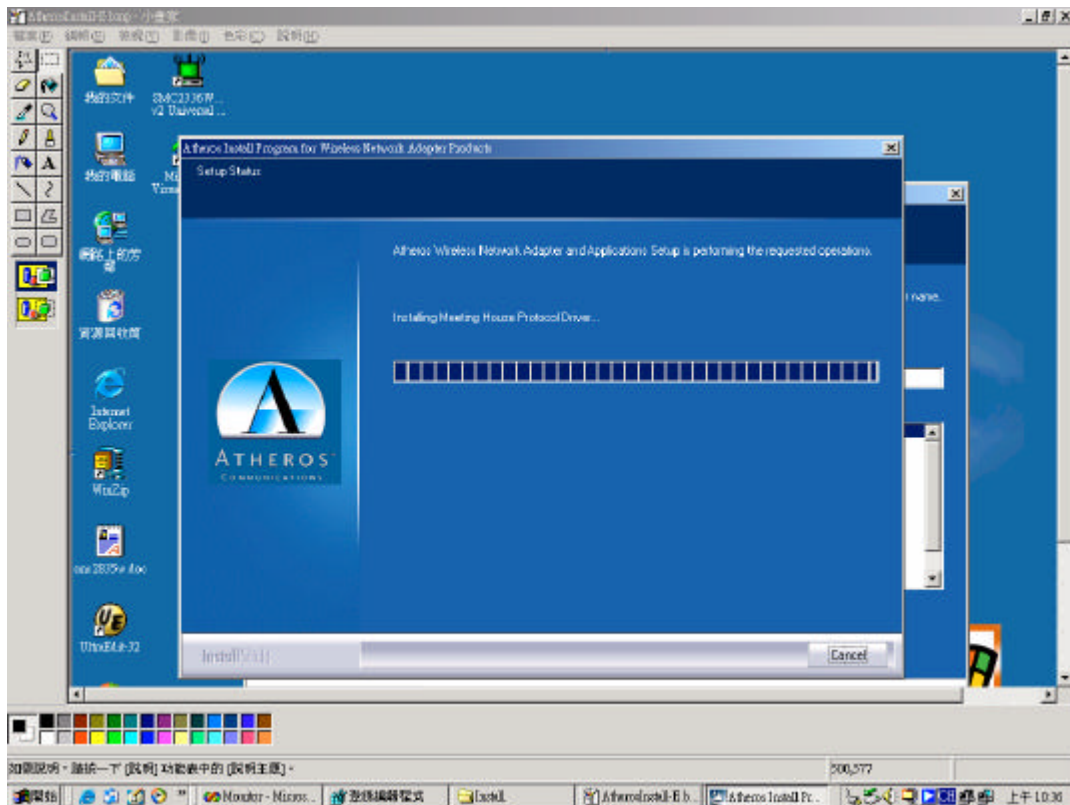
4. Use the default install directory. Click “Next” button.



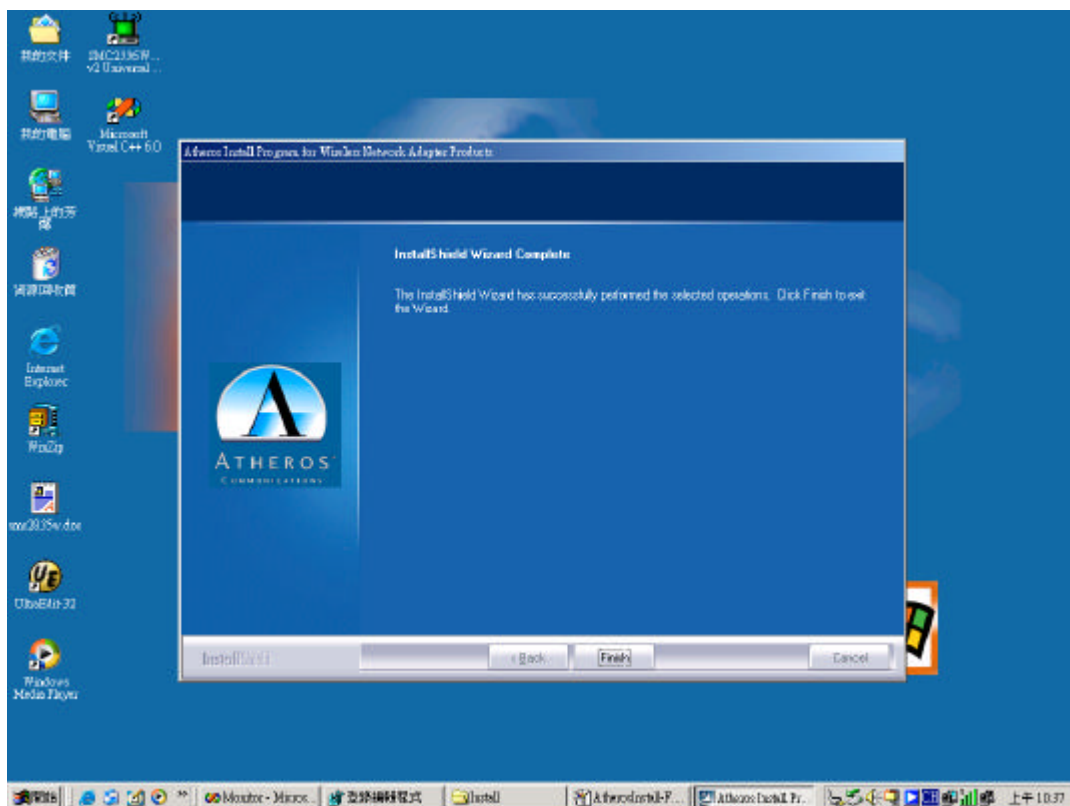
5. Use the default program folder. Click “Next” button.



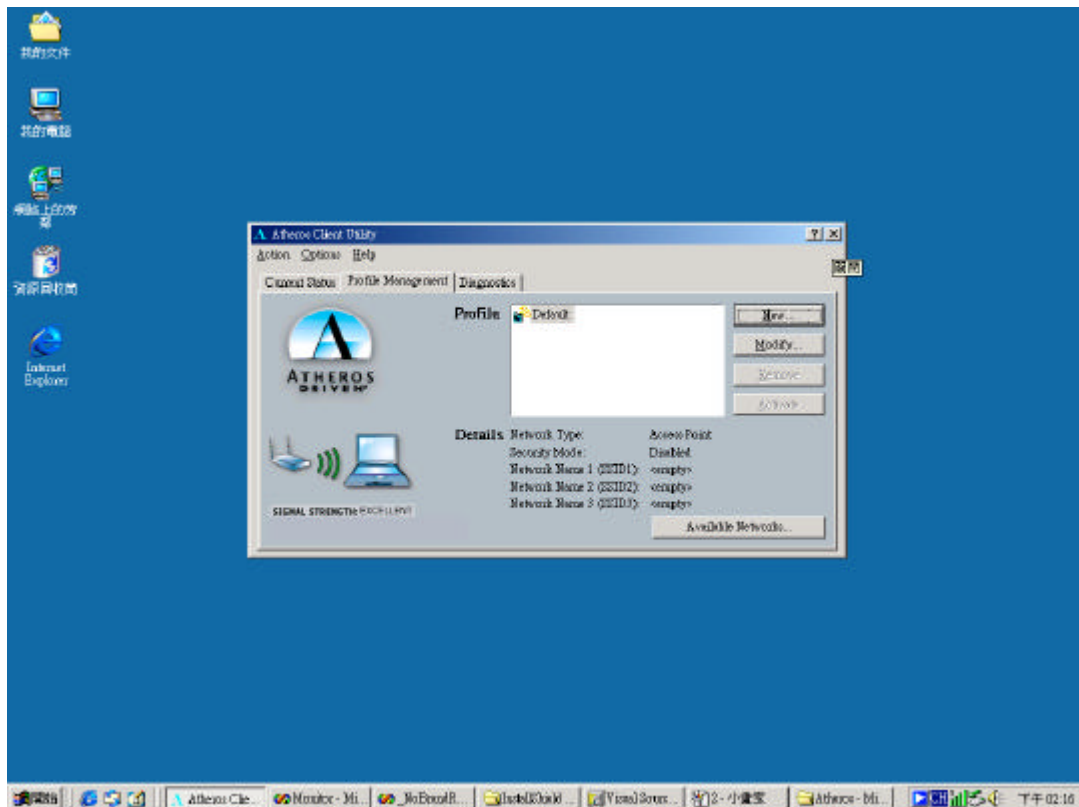
6. Installation begins.



7. Then click “Finish” to end.



8. Then You may use the utility.



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.

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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 2 conditions above are met, further transmitter test 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 Labeling

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains TX FCC ID: RAXWN4402AARC".

Manual Information That Must be Included

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the users manual of the end product which integrate this module.

The users manual for OEM integrators 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.

Certification

CE Mark

Emissions

FCC Class B, ETSI 300.328, C-Tick, ICES-003

EN55022 (CISPR 22) Class B

EN55024, IEC 61000-4-2/-3

Safety: EN60950