User's Manual

RTL8185 miniPCI Zebra100

Chapter 1 Functional Description

We are appreciated that your purchasing this IEEE802.11b/g Mini PCI WLAN Module. This product provides the easiest way to wireless networking.
This User Manual contains instructions in the operation of this product.
Please keep this manual for future reference.

1.1 Features
- Includes Encore signal processing for Industry-leading receive sensitivity and extended range:
  - -71 dBm at 54Mbps
- High level of integration with direct conversion radio architecture
- Flexible support for a variety of system bus interfaces including: PCI, Mini PCI, CardBus, PCMCIA.
- Programmable data rates of 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps.
- Hardware-based IEEE 802.11i encryption/decryption engine, including 64-bit/128-bit WEP, TKIP, and AES
- IEEE802.1x support.
- Dynamic Power Management under driver control.
- WHQL-certified drivers for Windows® XP/Me/2000/98SE/98 operating systems.
- Wi-Fi® compliant.

1.2 Integrated Radio Transceiver
This Mini PCI module includes an integrated RF transceiver that has been optimized for use in 2.4-GHz WLAN systems. It has been designed to provide low-power, low-cost, and robust communications for applications operating in the globally available 2.4-GHz unlicensed ISM band. With an external transmit power amplifier, it develops full output power per the IEEE802.11b/g Specification.

1.3 Receiver Path
This Mini PCI module has a wide dynamic range, direct conversion receiver. It employs high-order on-chip channel filtering to ensure reliable operation in the noisy 2.4-GHz ISM band. The excellent noise figure of the receiver makes an external LNA unnecessary.

1.4 Transmitter Path

This Mini PCI module includes a linear transmitter capable of delivering up to +15 dBm while meeting the IEEE802.11g specification. The output power is adjustable in 1-dB steps, down to 0 dBm. Base-band data is up-converted directly to the 2.4-GHz ISM band.

1.5 Calibration

This Mini PCI module enables the device to be used in high-volume applications because calibration routines are not required during manufacturing test. These calibration routines are performed periodically in the course of normal radio operation.

Chapter 2 Installation Driver

2.1 Driver Features

IEEE 802.11b/g
Ad-Hoc / Infrastructure
WEP 64 / 128-bit
WPA-PSK / WPA2-PSK (by WZC / Funk Client)
WPA / WPA2 (by WZC / Func Client)
802.1x – TLS / 802.1x – PEAP (by WZC / Funk Client)
LEAP (by Funk Client)
WPA-TTLS (by Funk Client)
TKIP
AES
IEEE Power Save

2.2 Installing the driver

Step1. Install Realtek utility.
Step2. Update driver 'rtl8185.sys'

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: 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.

This device and its antenna(s) 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:
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.
Without Co-located
The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. And the antenna has to be installed that 20cm can be maintained between the antenna and the user.

Labeling Requirement for OEM Integrator
 The final end product must be labeled in a visible area with the following: "Contains TX FCC ID: TX2-RTL8185".

For Canada
"The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website www.hc-sc.gc.ca/rpb"