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# **User' s Manual**

**Ver 0.1**

**11Mbps Wireless High Rate PC Card**

**T60L198.00**

**Ambit Microsystems Corporation**

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## 1. Introduction

**AMBIT 11Mbps Wireless High Rate PC Card** (Model Name: T60L198.00) complied with IEEE 802.11b Standard, it can be used to provide a variety of low-cost wireless network interface card to connect your wireless LAN via fitting into the type II PC Card slot. The **11Mbps Wireless High Rate PC Card** that complies with this specification and combines networking with high-speed Internet access will let people connect to the Internet anywhere, anytime.

With seamless roaming, fully interoperability and advanced security with WEP standard, **11Mbps Wireless High Rate PC Card** can allow user to switch to different vendors' Access Points through the wireless networks and to prevent from eavesdropping.

### 1.1 Package Contents

- AMBIT 11Mbps Wireless High Rate PC Card
- T60L198.00 drivers and utilities contained on CD-ROM or floppy diskettes
- User's Manual
- Warranty Card

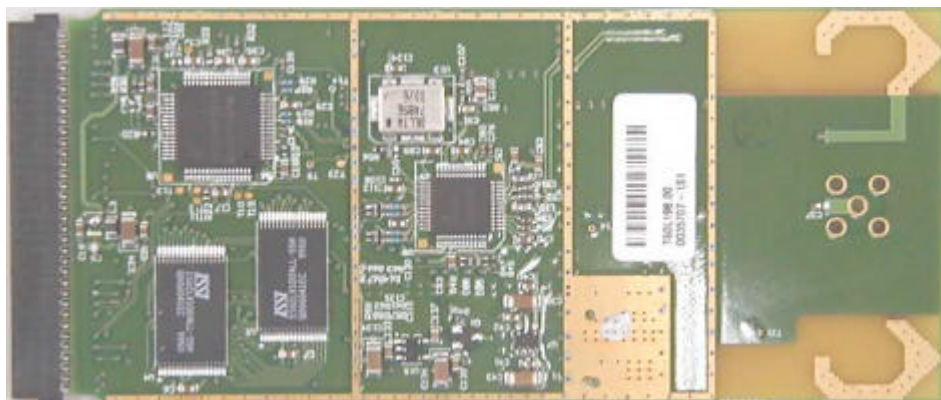
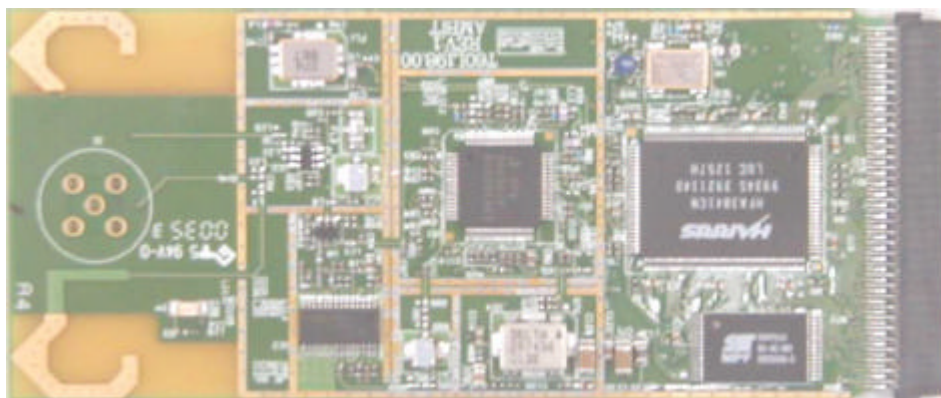


Figure 1. AMBIT 11Mbps Wireless High Rate PC Card

## 2.2 Features

- Compatible with IEEE 802.11b high rate standard to provide wireless Ethernet speeds of 11Mbps data rate
- Dynamic data rate switching with 11, 5.5, 2 and 1Mbps
- Allows auto fallback data rate for optimized reliability, throughput and transmission range
- Supports wireless data encryption with 40-bit WEP standard for security
- Integrated Microstrip dual diversity antennas for the multi-path environment
- One-piece PC Card design to fully support PCMCIA type II defined mechanical and environmental stress conditions

## 2.3 Requirements

- AMBIT 11Mbps Wireless High Rate PC Card
- Windows drivers and utilities
- A notebook computer with the following requirements
  - Pentium or above processor
  - Running Microsoft Windows 95, 98, Millennium, NT or 2000.
  - PCMCIA type II slot.
  - CD-ROM drive.

## 3.4 Usage Model

- **Ad-hoc Networking**

Ad-hoc network also is called Peer-to-Peer network. Without Access Point, notebook users with each 11Mbps Wireless High Rate PC card can build a Ad-hoc Peer-to-Peer wireless networks to share files with each other, share a public office printer and other peripheral resources, and even access the Internet via a modem.
- **Infrastructure Networking**

802.11b-compatible Access Point is a bridge or router for connect to the wired Ethernet network and wireless network. Through the deployment of Access Point, wireless LAN can be extended to the reach of a wired network. Therefore, A notebook

user with **11Mbps Wireless High Rate PC Card** can access to fixed local network resources.

## **2. Installation for Windows 95 and 98**

### **2.1 Software Installation**

- Windows find a new hardware described as **INTERSIL-HFA384x/IEEE** and then show a dialog to ask for the driver of this new hardware.
- Please insert the CD-ROM labeled **11Mbps Wireless High Rate PC Card**.
- If your CD-ROM Drive is located in the D drive. Please execute the setup program on CD-ROM. For examples,  
**D:\Setup <Enter>**
- The first dialog display **PRISM 802.11 – Wireless LAN – Installation**.
- Display the dialog of **Welcome** and press **Next** icon.
- Display the dialog of **Software License Agreement**. If you agree this agreement, please press **Yes** icon.
- Then, the dialog shows **Enter the System ID of your Wireless LAN**. The default string of SSID is **IEEE 802.11 LAN**. You can change this name at any time via the task bar.
- The next dialog shows **Enter the Network Mode**. Please choose Infrastructure if the wireless communication is done via an 802.11 Access Point. Otherwise, choose Ad Hoc network.
- Continue to follow all directions to install drivers and utilities.
- Finally, the dialog requests to restart the computer. Click **Finish**.

### **2.2 Hardware Installation**

- Make sure the LED indicator of 11Mbps Wireless High Rate PC Card is on the top side.
- Turn off your laptop and insert this PC Card into an available PCMCIA slot of your PC.
- Make sure the LED light on when the PC Card installed properly.
- The operating system will automatically detect the Wireless High Rate PC card and show a small icon at the right-bottom corner of the screen when using Microsoft Windows.
- The icon look like a small monitor with an antenna on the top.



Figure2. Insert the Wireless High Rate PC Card into a PCMCIA slot.

### 3. Technical Specifications

Radio Technology	IEEE 802.11b Direct Sequence Spread Spectrum
Operating Frequency	2400 ~ 2497MHz ISM band
Modulation Schemes	DQPSK, DBPSK and CCK
Channel Numbers	IEEE 802.11b compliant 11 channels for United States 13 channels for Europe Countries 14 channels for Japan
Data Rate	11Mbps with fall back rates of 5.5, 2, and 1Mbps
Spreading	11-chip Barker Sequence
Media Access Protocol	CSMA/CA with ACK
Transmitter Output Power	12.5dBm typically
Receiver Sensitivity	Min. -76dBm for 11Mbps @ 8% PER Min. -80dBm for 2Mbps @ 8% PER
Antenna Type	Integrated Microstrip dual diversity antennas



Operating Voltage

3.3VDC

## 4. Declaration of Compliance

This device complies with part 15 of 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

## 5. Trouble Shooting

Observation/Fact	Possible Solution
LED is not on	<ul style="list-style-type: none"><li>• Check the card if inserting properly.</li><li>• Check the PCMCIA socket if it works properly..</li></ul>
LED is on but card is not active	<ul style="list-style-type: none"><li>• Go to the <b>Setting</b> → <b>Control Panel</b> → <b>System</b> → <b>Advanced Setting</b> → <b>Network Adapter Card</b> to see if it is conflicted to the other devices. If it is conflicted with other devices, reinstall the card or select the other IRQ, which is free in the host.</li><li>• If card is not conflicted to the other devices, check the icon at the right bottom corner.</li><li>• If the icon is red, please call the technical support.</li></ul>
Very slow data rate	<ul style="list-style-type: none"><li>• In Ad-hoc Networking: It can be possible for bad location. Please move around.</li><li>• In Infrastructure Networking: It can be possible of slow gateway.</li><li>• If none of above, please call technical support.</li></ul>

Technical Support : +886-3-578-4975 Ext. 690 Mr. Shang-Chieh Liu



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**INSTRUCTIONS MANUAL  
FEDERAL COMMUNICATIONS 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 or more 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.

**CAUTION:**

To assure continued FCC compliance:

- (1) The user must use shielded interface cable and shielded power cord.
- (2) Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.