INFORMATION

Congratulations on your CREWAVE Wireless LAN PC Card purchase!
If you want to install a networking system that is not only fast and powerful, but also easy to set up and simple to maintain, it is natural that you should choose a CREWAVE 11Mbps Wireless LAN PC Card.
In a short time you and those in your network will be able to share a local printer and files, access the Internet, and roam about the office-wire-free.
Installing this card allows the computer to join a wireless network based on the IEEE 802.11b Wireless LAN standard.

What is a Wireless LAN?

A Wireless LAN provides the same functionality of a Wired LAN, but it eliminates the need to install networking cables and other networking equipment. Not only is a Wireless LAN easier to deploy, but it also allows for "roaming." For example, an employee using a portable computer with a Wireless LAN PC Card, can roam from a conference room to an office without being disconnected from the network.

What is IEEE 802.11?

The IEEE 802.11 specification is a Wireless LAN standard developed by the IEEE(Institute of Electrical and Electronic Engineering) committee in order to specify an over an air interface between a wireless client and a base station or Access Point(AP), as well as among wireless clients. Like other IEEE 802 families, IEEE 802.11 specification addresses both Physical(PHY) layer and Media Access Control(MAC) layer.

- IEEE 802.11 Physical(PHY) Layer

At the PHY Layer, IEEE 802.11 defines three physical characteristics for WLAN : diffused infrared, direct sequence spread spectrum(DSSS), and frequency hopping spread spectrum(FHSS). While the infrared PHY operates at the baseband, the other two PHYs operate at the 2.4GHz ISM(Industrial, Scientific, and Medical)band, which can be used for operating Wireless LAN devices without the need of end-user licenses. In order for wireless devices to be interoperable, they have to be conforming to the

same PHY standard.

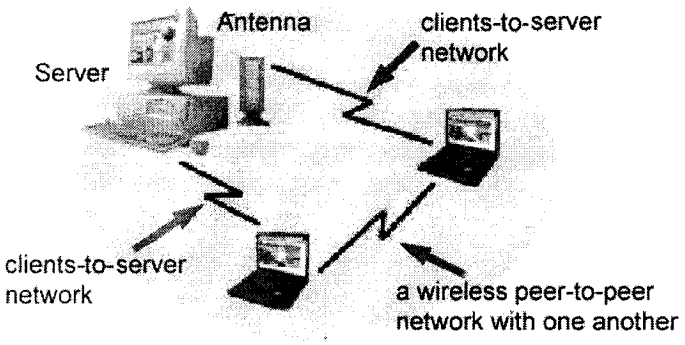
- Media Access Control(MAC) Layer

The IEEE 802.11 MAC Layer is mainly concerned with the rules for accessing the wireless medium. There are two network architectures defined : Ad-hoc Network and Infrastructure Network.

Which one should I use?

- Ad-hoc Networking

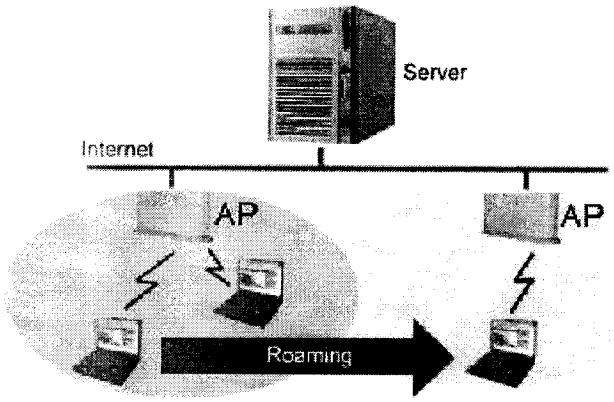
Also called "Peer-to-Peer" networking, this model is the easiest to deploy and is ideal for small offices. As a user on this type of network, you are able to share files with other employees, print to a shared office printer, and access the Internet via a shared modem. However, with Ad-hoc networking your computer is only able to communicate with other wireless computers that are within range and in your wireless workgroup.



- Infrastructure Networking

The key difference between a structured wireless network and an Ad-hoc wireless network is the addition of one extra element – an Access Point. Unlike "Peer-to-Peer" networking, where networked computers send data directly to each other, structured networked computers communicate with each other through a dedicated Access Point. All data transmitted between two computers, (clients) on the wireless network passes through the Access Point. Additionally, the Access Point on the wireless infrastructure network can provide access to an existing wired network. This link allows computers on the wireless network to access the wired network's resources and tools, including

Internet access, email delivery, file transfer, and printer sharing.



*** Roaming**

In an infrastructure network, this is when a wireless PC moves out of range of the previously connected Access Point and connects to a different Access Point. By physically spreading Access Points throughout the network environment, clients can always be connected regardless of where they are located or roam.

INTRODUCTION

CREWAVE Wireless LAN

1. Development & Manufacturer : **CREWAVE Co., Ltd.**

2. Product: 11Mbps Wireless LAN Products(PCMCIA Card): **CW-1100**

Access Point : **CW-1100AP**

2.1 PCMCIA Features:

- IEEE 802.11b Fully compliant
- High-Speed Data Rate up to 11Mbps
- Low Power Consumption
- Seamless & real time connection

2.2 Access Point(AP) Features

- Wired Network : Ethernet 10BaseT and 100BaseT
- Configuration : SNMP / USB
- Filtering : Ethernet Frame type filtering
- Antenna Type : Reverse F-Type Antenna
- Radio(Wireless) : Onboard IEEE802.11b Compliant Wireless LAN
- LED Indicator : . **Power (Red Color)**

. **Wired Link Tx, Rx (Green Color)**

. **Wireless Tx, Rx (Green Color)**

<General Description>	Specification
Model Name	CREWAVE 11Mbps Wireless LAN PC CARD(CW-1100)
Standards Type	IEEE802.11b
Frequency Band	2.400~2.4835GHz(USA,Canada)
Wireless Network Architecture	Direct Sequence Spread Spectrum (DSSS)
Interface Type	16bit PC CARD Type II
<Radio Characteristics>	
Data Rates	11, 5.5, 2 and 1 Mbps
Antenna	50 ohm for internal antenna
Output Power	Typical 15dBm(Max. 20dBm)
Modulation Method	DBPSK, DQPSK, CCK(11Mbps)
Operation Voltage	3.3VDC +/-0.3V
Current Consumption	Transmit : 350mA(Max) Receive : 200mA(Max) Sleep : 1mA(Max)
Receiver Sensitivity	Min.-85dBm at 11Mbps Min.-92dBm at 2Mbps
Media Access Protocol	CSMA/CA with ACK
<Environment>	
Temperature Range	0 ~ 40°C (Operating), -20 ~ 70°C(Storing)
Humidity	95%(Max:Non-condensing)
Coverage Area	Open Space:300m(100ft)/Office:40m(13ft) *** The operating Environment may affect coverage**
Security	40bit WEP Encryption
Supplied Driver	Windows ME/2000/98/95/NT4.0 Windows CE, Linux (Web support)
<Physical Features>	
Dimension	110 x 53 x 5 mm
Weight	37g
LED Indicator	Green Color for Status
<Quality Approved>	
EMC Regulation	FCC Part 15