

## Wireless LAN Card (AirGate2000C)

1.

1.1

1.2

1.3

1.4

1.5

1.6

2.

2.1 98/ME/2000/XP

2.2

2.3 Wireless LAN

2.4

3.

3.1 Microsoft / 가

3.2 NetBEUI / 가

3.3 TCP/IP / 가

3.4 Microsoft / 가

3.5 ,

4. PDA

4.1 Active Sync

4.2 -PC Setup

4.3 -PDA Setup

4.4

4.5

4.6 Network Card Connection

5.

A

B

1

CF

가

가 DC 3.3V/5V

CF

CF

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.



Wireless LAN

. Wireless LAN

1. 가

가 가

2.

3.

가

4.

5. SOHO

SOHO

6. Ethernet

Ethernet

7.

8.

1.6

CF Card

가

1. SOHO

Ad-Hoc ( )

2. LAN Infrastructure

3. 56K/ISDN TA/Cable/DSL Modem

IP

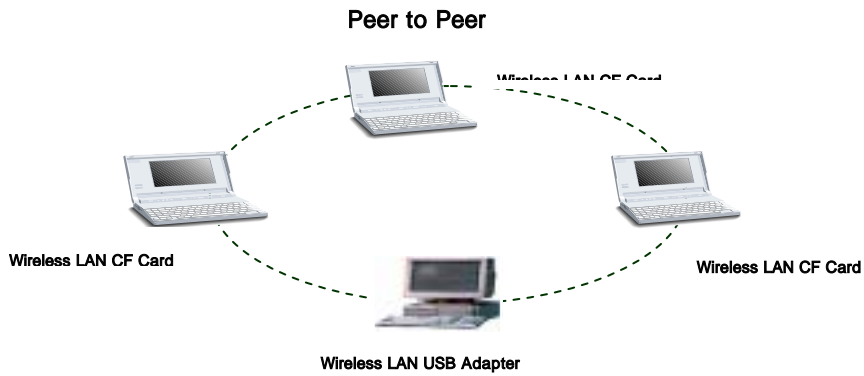
Ad-Hoc ( )

CF Card 가

. ( 1-6-1) Ad-Hoc

가 , Access Point가

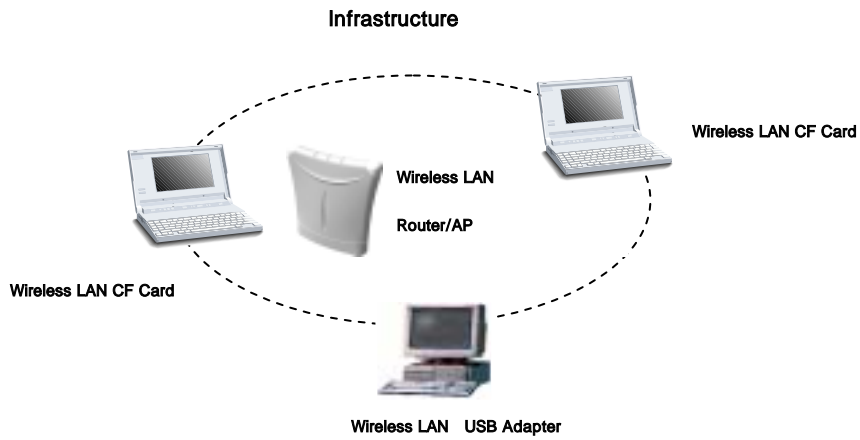
가



1-6-1 A Wireless Ad-hoc network

**Infrastructure**

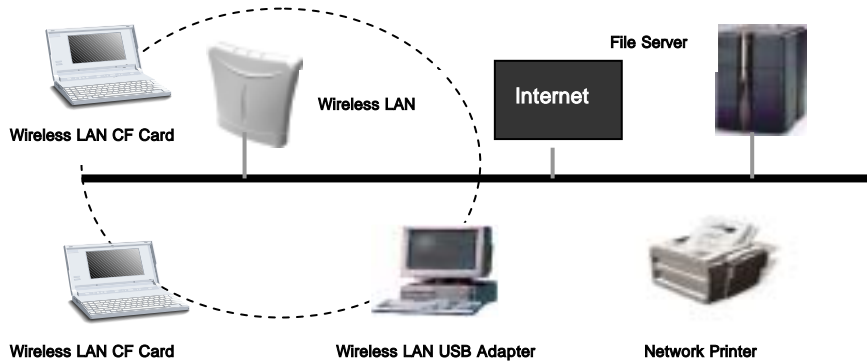
AP                      Ethernet                      Access Point  
stand-alone                      AP                      , stand-alone



1-6-2 AP가                      가

1-6-3                      AP가 Ethernet  
, AP                      , AP  
. AP가

가

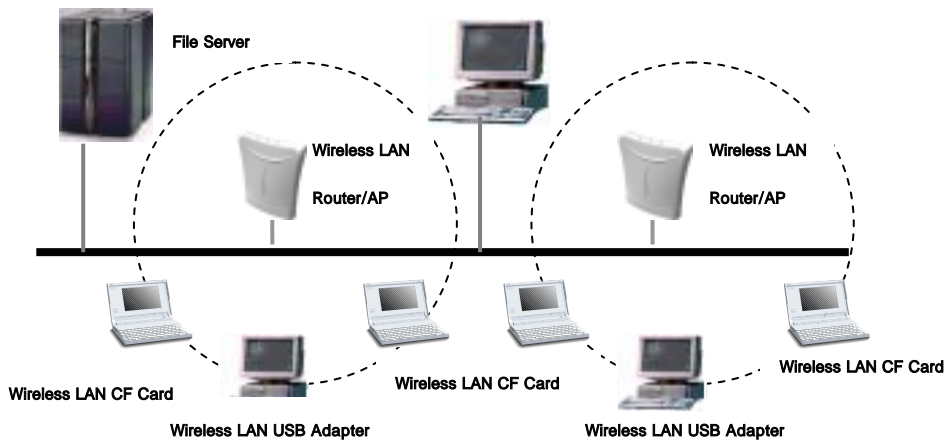


1-6-3 Single AP Bridge

AP 50m, 100m , 1-6

AP , 가

AP 가

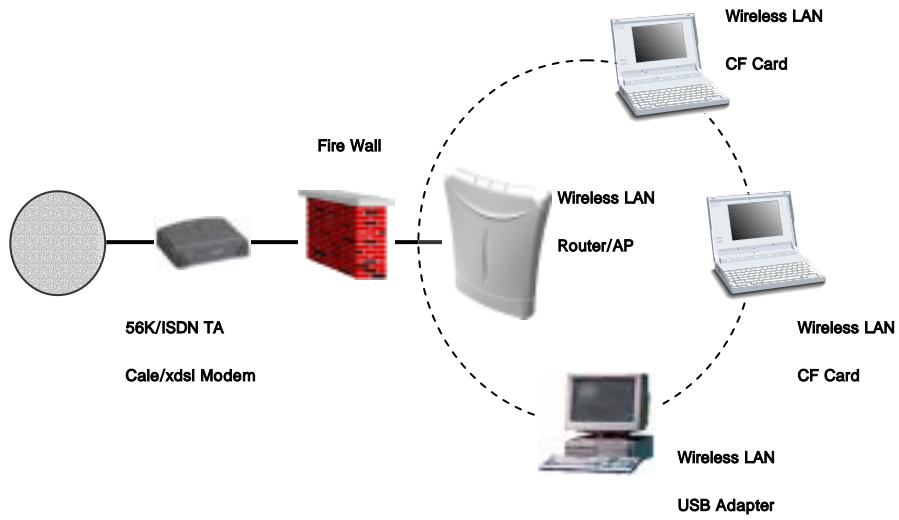


1-6-4 Multiple-AP and roaming

Wireless IP  
Infrastructure AP가 IP

AP

가



1-6-5 Wireless router and IP Sharing



2

CF Card

98/ME/2000/XP

CF type , CF Adapter

### 2-1 98/ME/2000/XP

98/ME/2000/XP CD

가

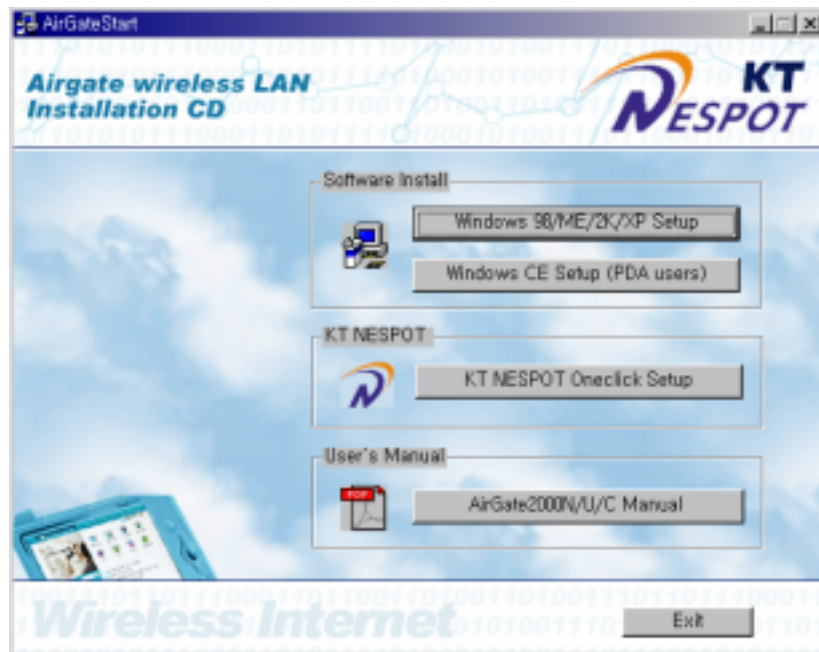
98/ME/2000/XP CD

C:/WINDOWS/OPTIONS/CABS

Wireless LAN CF Card

### Wireless CF Card

- 1.
2. Wireless LAN CF Card가
3. **Wireless LAN Installation CD** CD-ROM

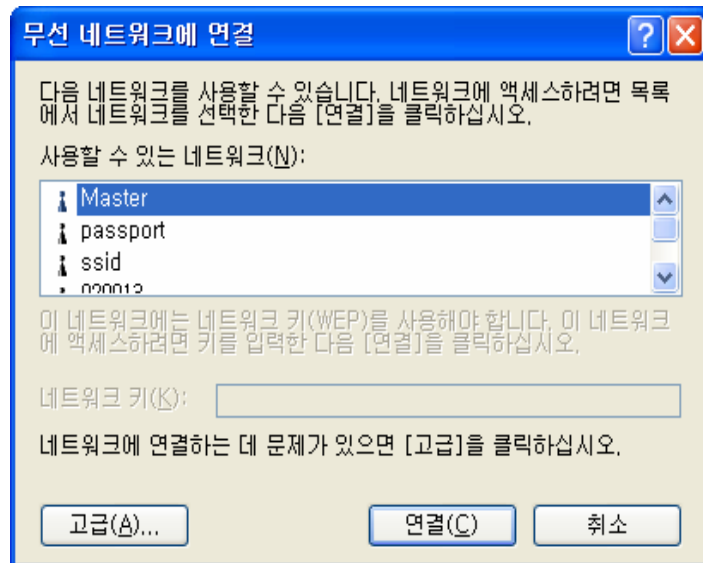


2-1-1

4. 2-1-1 , , RUN , CD-ROM  
**AirGateStart.exe**
5. software Install Windows 98/ME/2K/XP Setup  
 . Wireless LAN CF Card Windows 가
6. 가 Windows 98
7. CF Card CF
8. 가 CF Card
9. Windows XP Windows XP가  
 Windows XP off . - Windows XP
10. IP , , Gateway, DNS 가  
 , 3

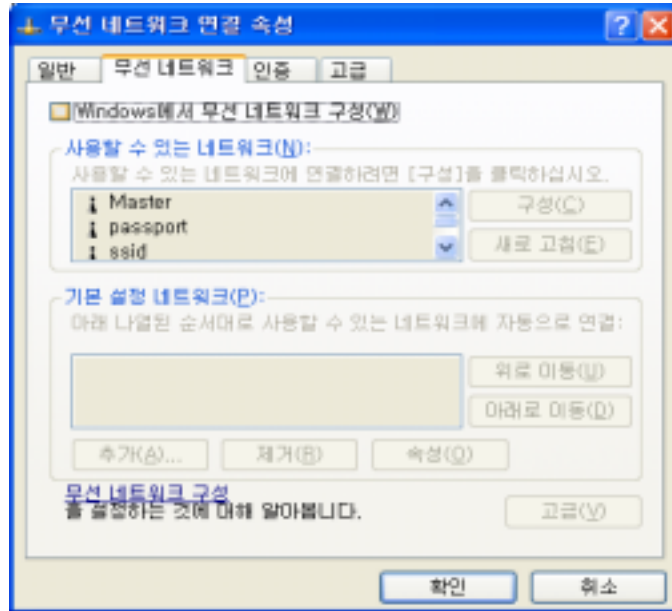
**Windows XP**

- Windows XP OS , Windows  
 XP Off .  
 1. → → →



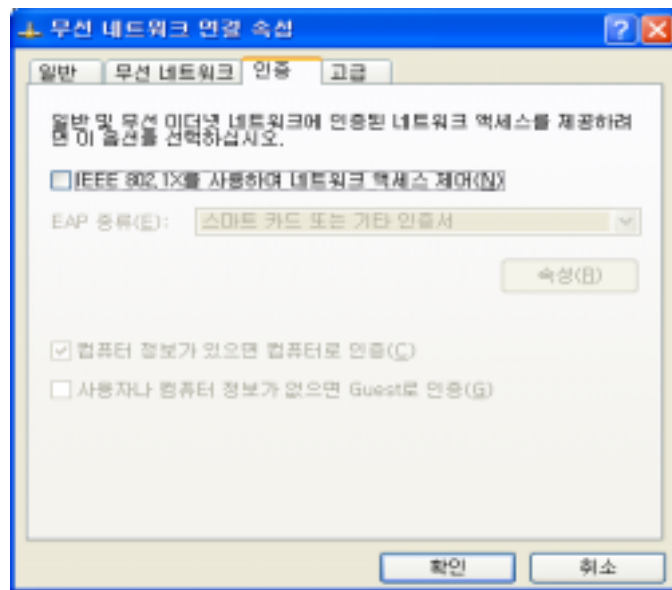
2-1-2

2.  
Windows



2-1-3

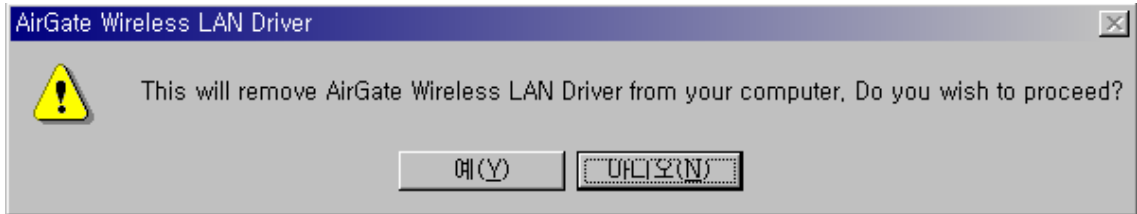
3. "IEEE 802.1X



2-1-4

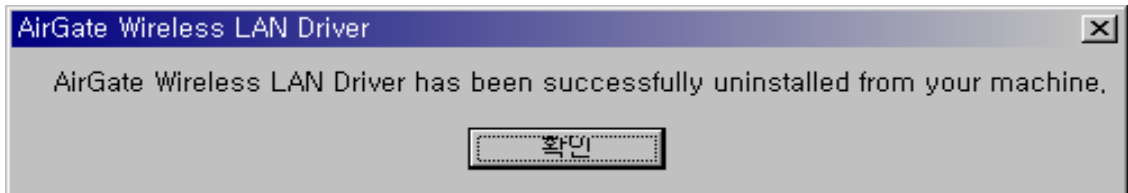
## Wireless CF Card

- 1.
2. Wireless LAN CF Card
3. → →KT→AirGate Wireless LAN→Uninstall
- 4.



2-1-5

- 5.



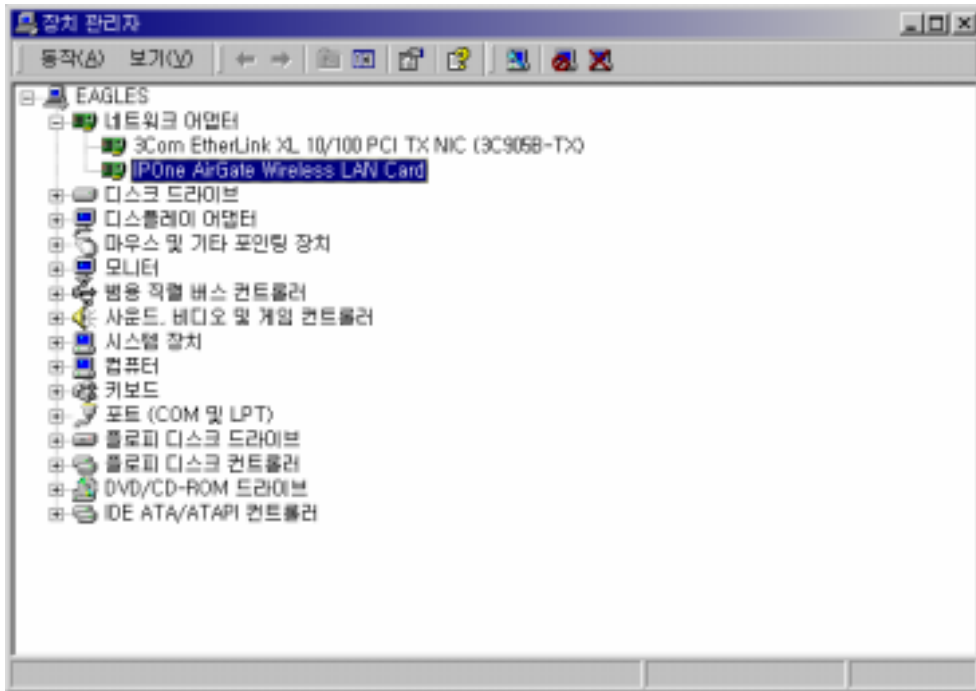
2-1-6

6. 가
- 7.
8. Wireless CF Card

## 2-2

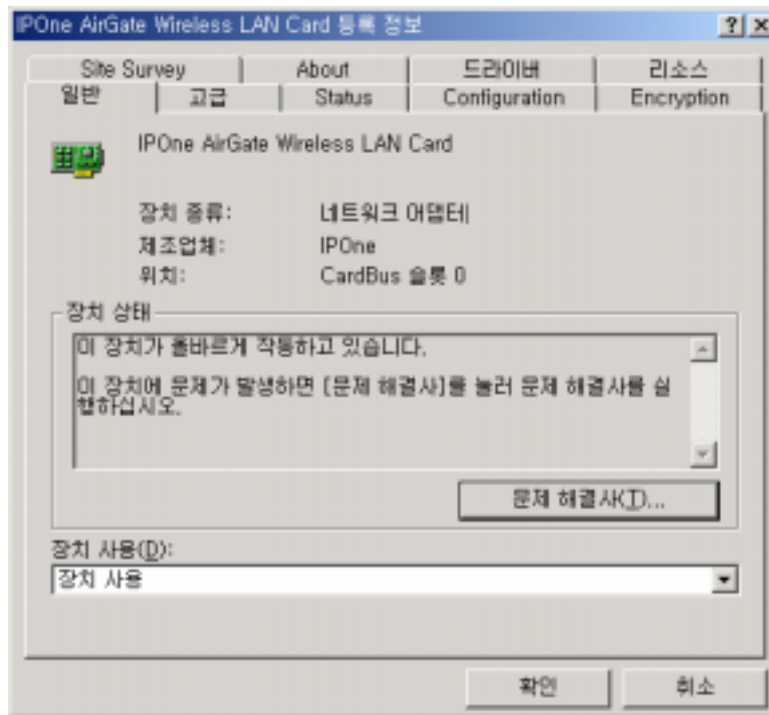
CF Card가 , 가

1. -> ->
- 2.
3. IPOne AirGate Wireless LAN Card



2-2-1

4. 가 . ( 2-2-2)



2-2-2

5. 가 가 , 가  
 Wireless LAN CF Card가 2-1

**2-3 Wireless LAN**

Wireless LAN Wireless CF Card , ,  
 / / 2-3-1 2-3-1  
 CF Card



2-3-1



Yellow indicates fair link status



Green indicates good or excellent link status



Red indicates no or poor link status

2-3-1

가 가 CF Card가

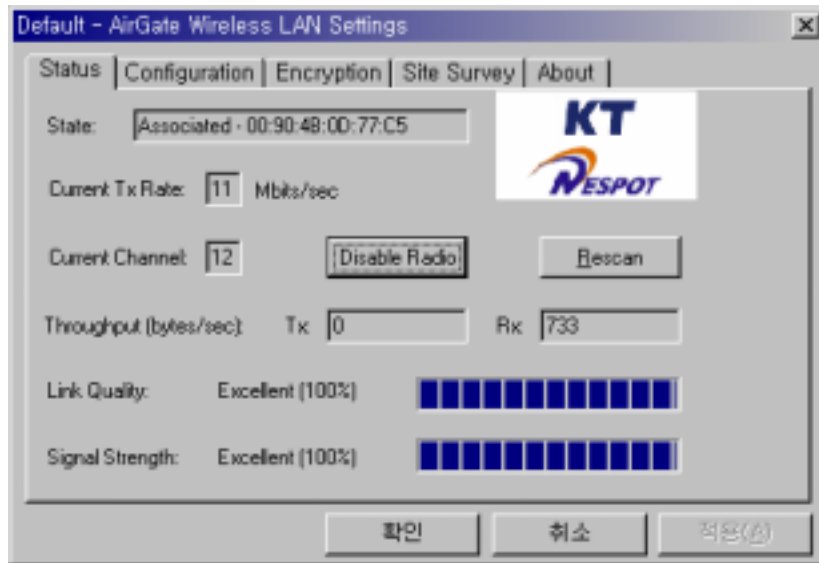
radio

radio

2-3-2

Wireless LAN Client

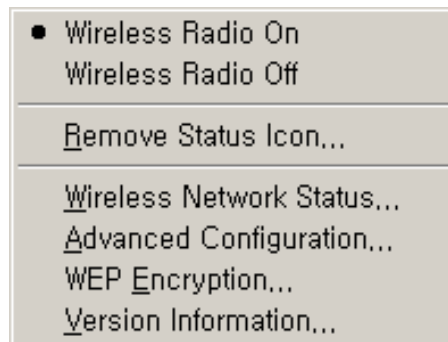
Utility



2-3-2

1. System Icon

2-3-3



2-3-3

- Wireless Radio On / Wireless Radio Off

Wireless Radio

. wireless radio

2-3-4

가

. wireless

radio

2-3-1

가



2-3-4

- Remove Status Icon

2-3-5

**Remove Status Icon Permanently**

Remove Status Icon Permanently



2-3-5

- Wireless Network Status

CF Card

- Advanced Configuration

CF CARD

Configuration

CF Card

- WEP

Key

WEP

CF CARD

- Version Information

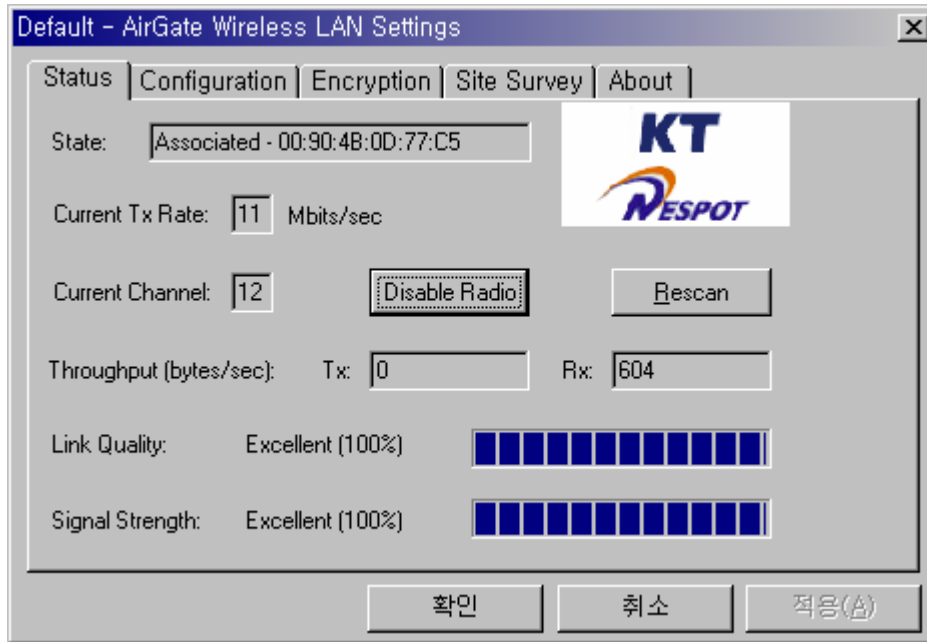
About

CF CARD

2. Status



state 2-3-6



2-3-6

- Associated BSSID – 가 Access point . BSSID  
Access point MAC address
- Scanning – 가 infrastructure 가 access point
- Disconnected- access point ( AD-hoc  
) CF CARD가

**Current Tx Rate (Mbits/sec)**

가

**Current Channel**

Infrastructure 가

Infrastructure access point

**(bytes/sec)**

- Tx:

- Rx:

**Link quality**

가 Infrastructure Peer-to Peer (Ad-Hoc) Access Point PC PC

**Signal Strength**

가 PC

**Disable/Enable Radio**

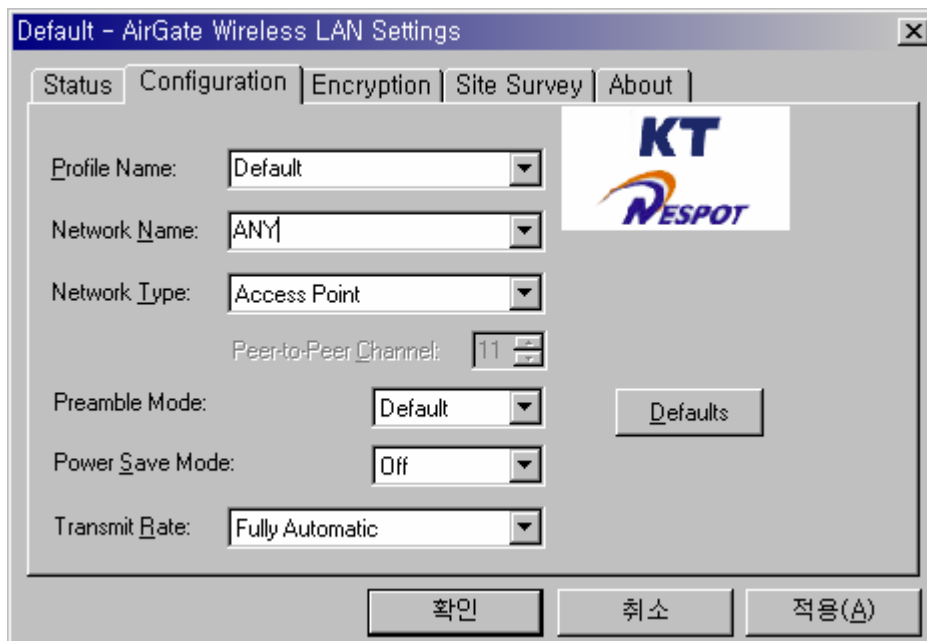
**Rescan**

가

가

**3.**

2-3-7



2-3-7

**Profile**

(WEP Security)

profile 가 profile

**Network Name**

Infrastructure 가 access point SSID Ad-  
 hoc(peer to peer) 가 Ad-hoc virtual SSID

**Network Type**

2-3-8

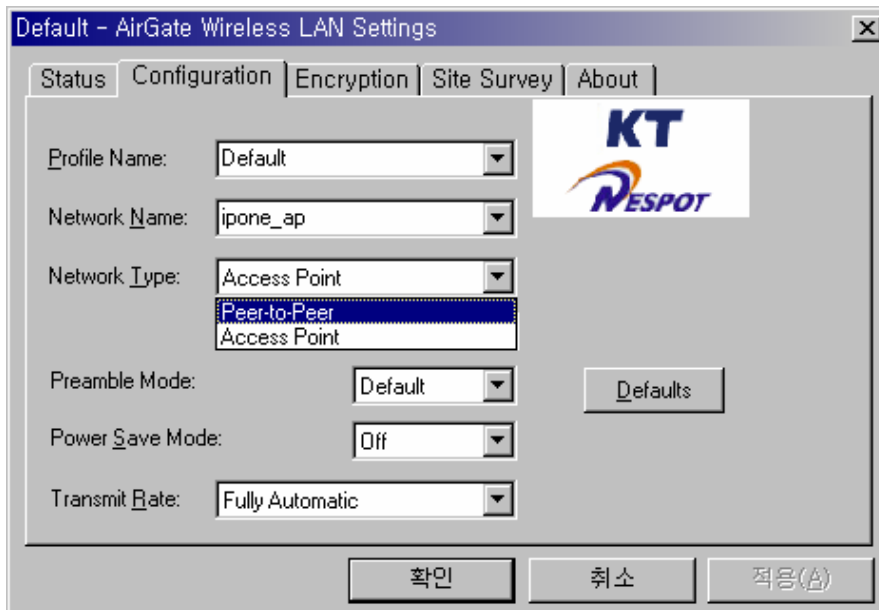
- peer to peer: access point  
 peer-to-peer Peer-to-Peer

(SSID) peer-to-peer

- Access point: Access point가

Infrastructure access point  
 (SSID) Peer-to-peer access point

1-6

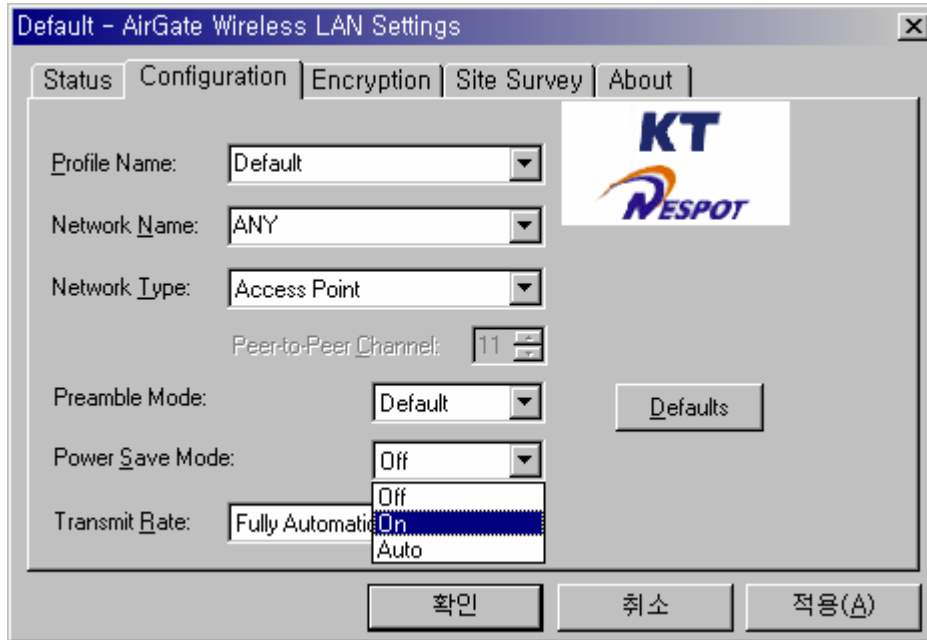


2-3-8

**Peer-to-Peer**

peer-to-peer(ad-hoc)

. Peer-to-peer



2-3-9

**Power Save Mode**

2-3-9

가

1. On:

2. Off:

3. Auto: 가

가

ON

가 AC

Off

Client

data packets

2-3-10 drop-down

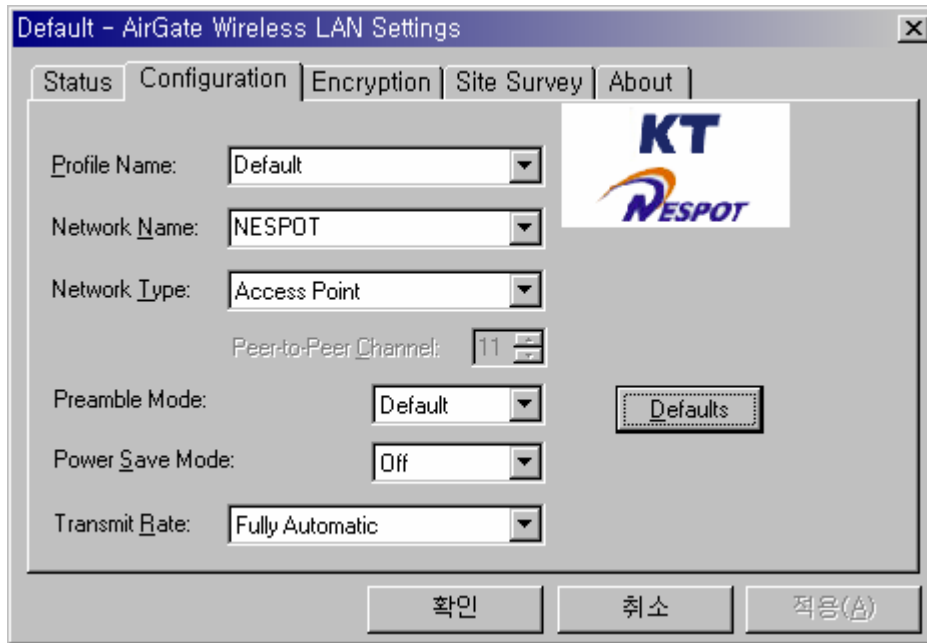
가

가

11Mbps                    11Mbps  
 5.5Mbps                   5.5Mbps  
 Auto 1 or 2 Mbps        1 or 2 Mbps

**Defaults**

Default



2-3-10

4.

2-3-11

(Default 가 ) 64-bit 128-bit WEP(Wired Equivalent Privacy) . WEP

WP pass phrase 가 drop-down (64bit or 128bit) . Create Keys Manually ( )

Create Keys with Pass phrase

2-3-2 Alphanumeric( ) Hexadecimal(16 ), 가

- Alphanumeric( , )

5/13 alphanumeric

- Hexadecimal(16 )

10/26 Hexadecimal(1-9, A-F)

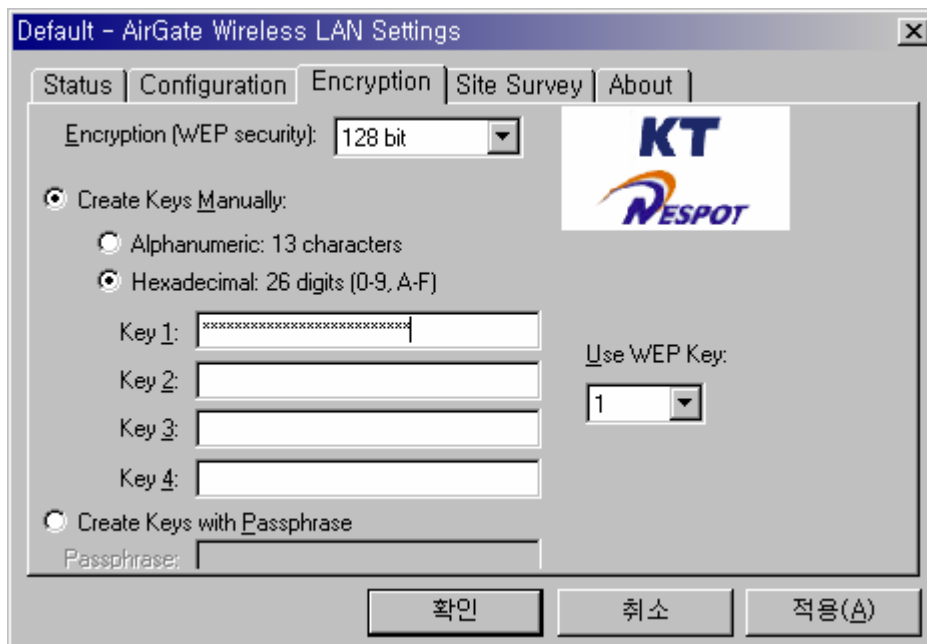
- WEP  
drop-down

- pass phrase  
pass phrase

- Disabled

Mode Data	drop-down	Disabled
	Alphanumeric ( , )	Hexadecimal (16 )
64 bit	5	10
128 bit	13	26

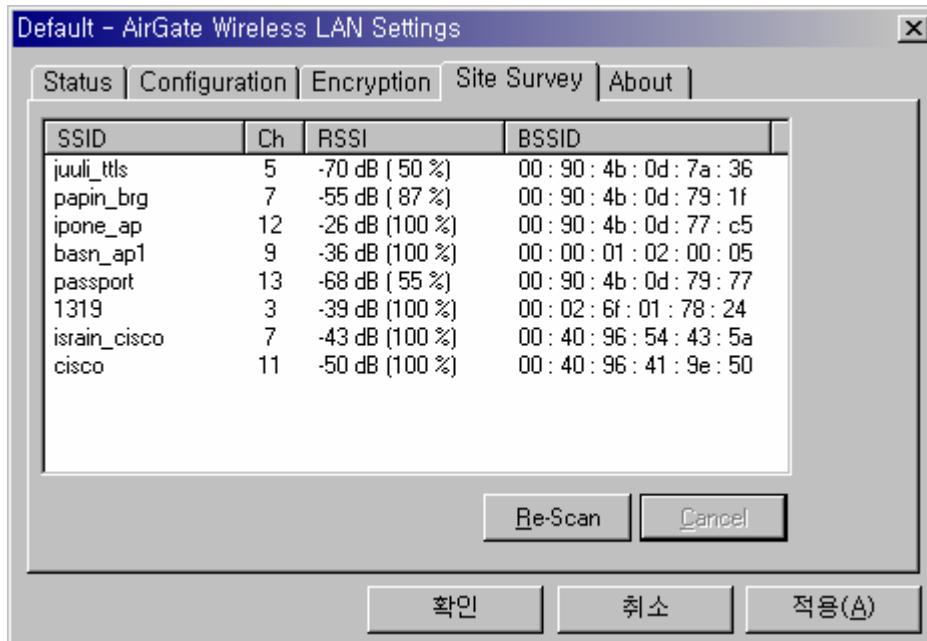
2-3-2



2-3-11

5.

가 Access Point , Access Point SSID  
Access Point

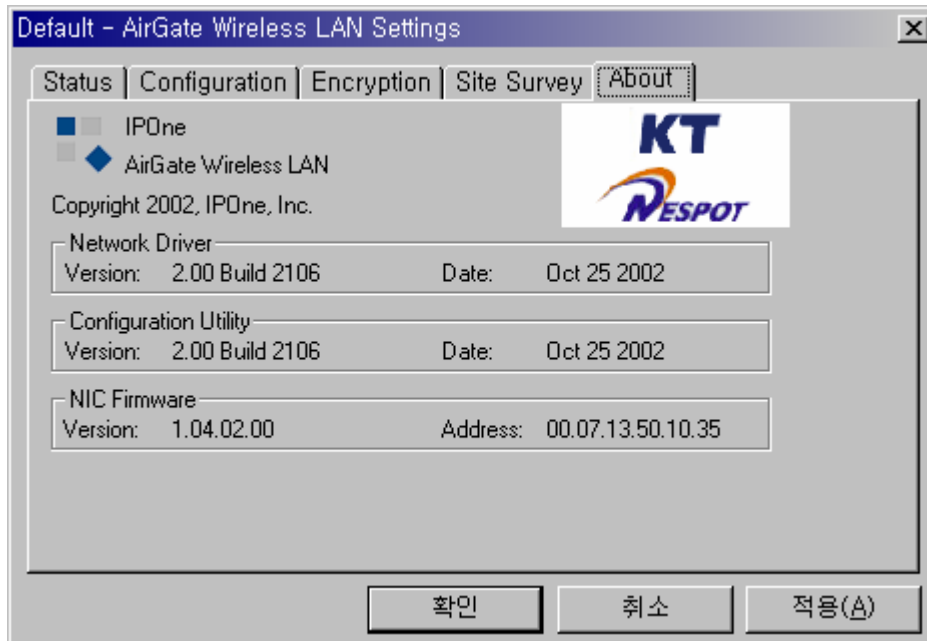


2-3-12

SSID	Access Point
Ch	
RSSI	
BSSID	Access Point    MAC

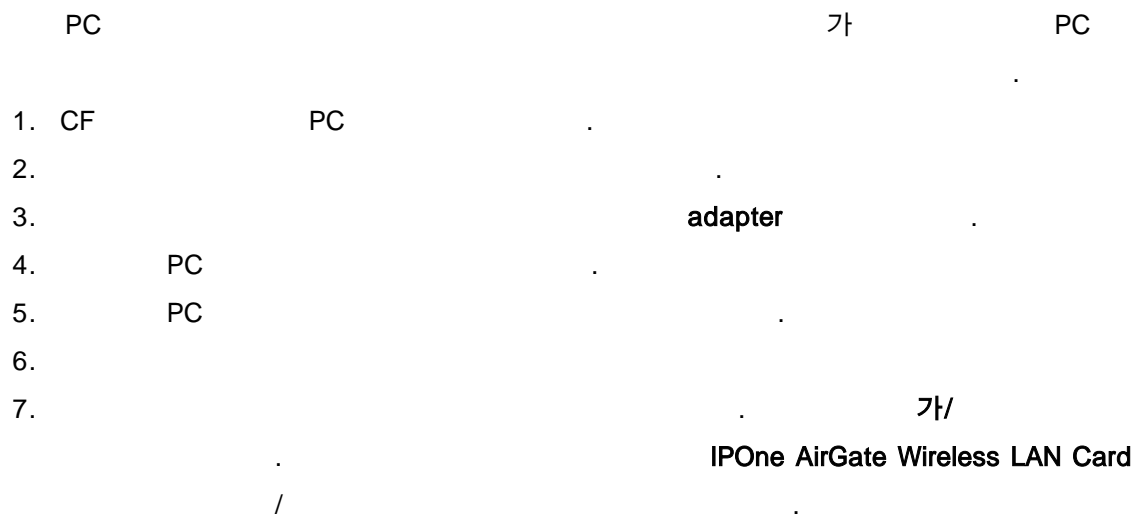
6. About

About	2-3-13	/	/	/PC	firmware
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2-3-13

2-4





### 3 Network

PC

1. Client for Microsoft Networks 가
2. NetBEUI -> PC
3. TCP/IP -> PC
- 4.
- 5.

#### 3-1 Microsoft Network / 가

Client for Microsoft Networks

가

client for Microsoft networks setup 가

1. 2 가
- Enter Network Password 가
- Cancel
- 2.
- 3.
4. 3-1 Client for Microsoft Networks가
- Configuration 가
- Client 가
5. Microsoft Client for Microsoft Networks
- OK

#### 3-2 NetBEUI / 가

NetBEUI Windows NT, Windows for , LAN Manager

NetBEUI

가

1. 3-1 (Client for Microsoft networks 가) 2 3
2. Configuration NetBEUI->Wireless LAN Card
- 가 가
3. Microsoft Client for Microsoft Networks

OK

### 3-3 TCP/IP / 가

TCP/IP

TCP/IP

1. 3-1 (Client for Microsoft networks 가) 2 3

2. Configuration TCP/IP->Wireless LAN CF Card

가

가

3. Microsoft

TCP/IP

OK

4. 3-2

TCP/IP

TCP/IP-

>Wireless LAN CF Card

setting

IP

IP Address

IP address

IP address, Subnet Mask, Gateway

IP address,

DNS Server IP address

### 3-4

/ 가

Windows NT Windows for

1. 3-1 (Client for Microsoft networks 가) 2 3

2. Configuration File and Printer sharing for Microsoft Networks

File and Printer sharing

3. OK

File and Printer Sharing for Microsoft Networks OK

### 3-5

가

1. 3-1 (Client for Microsoft networks 가) 2 3

2. 가

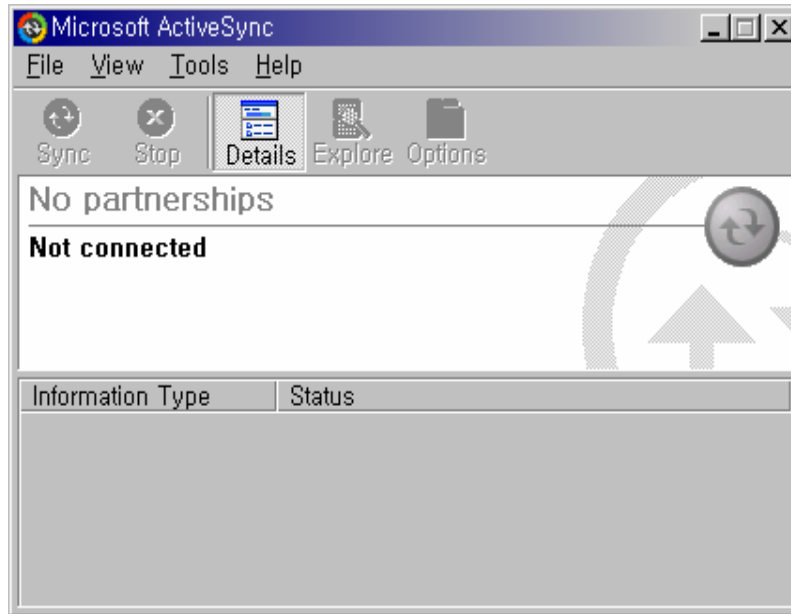
Identification ( 98)

OK

## 4 PDA

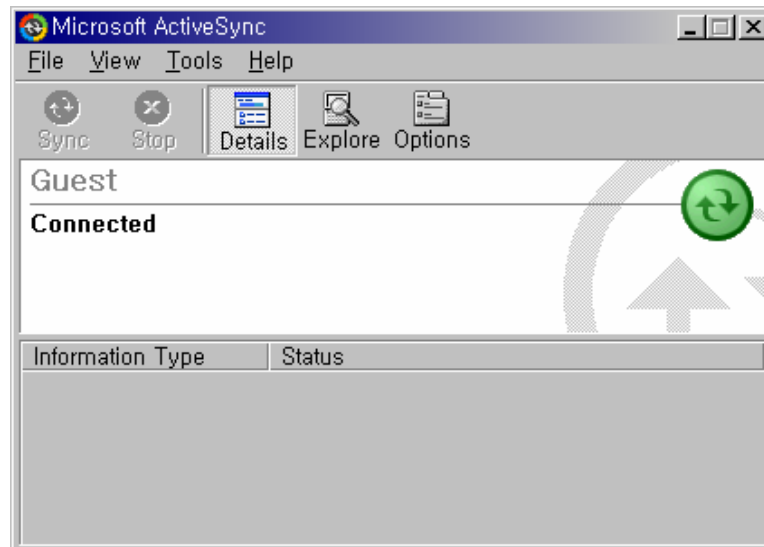
### 4.1 Active Sync

1. www.microsoft.com Active sync
2. PDA , PDA USB port  
PC
- 3.



4-1-1

3. connecting . File → Get connected



4-1-2

## 4.2

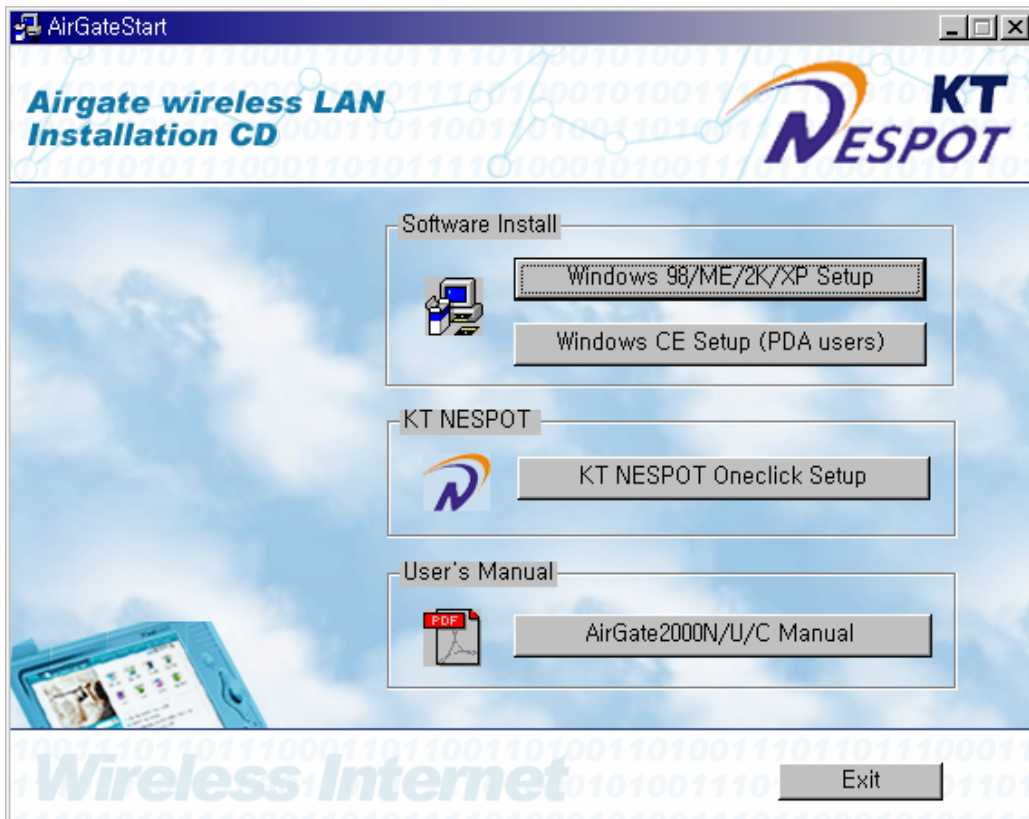
## - PC Setup

가

Wireless LAN CF Card가 PDA

1. Active Sync

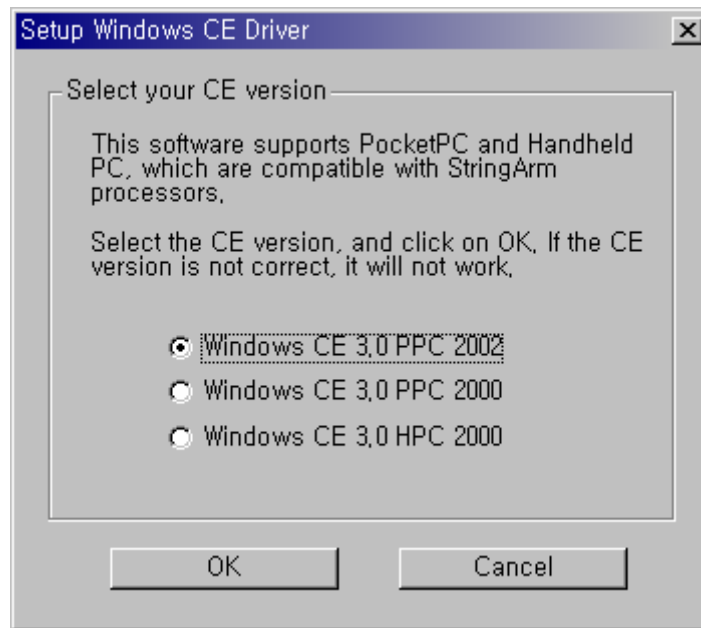
, Wireless LAN Installation CD CD-ROM



4-2-1

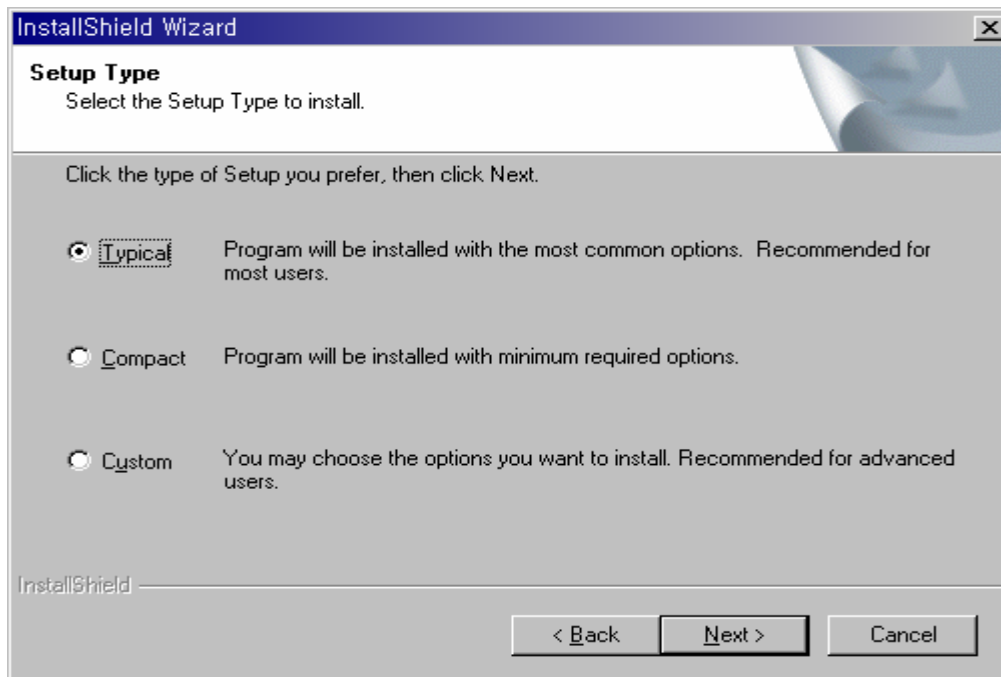
2. Software Install Windows CE Setup (PDA users)

3. PPC 2002, PPC 2000, HPC 2000 OS , OK



4-2-2

4. "Typical"



4-2-3

5. " "



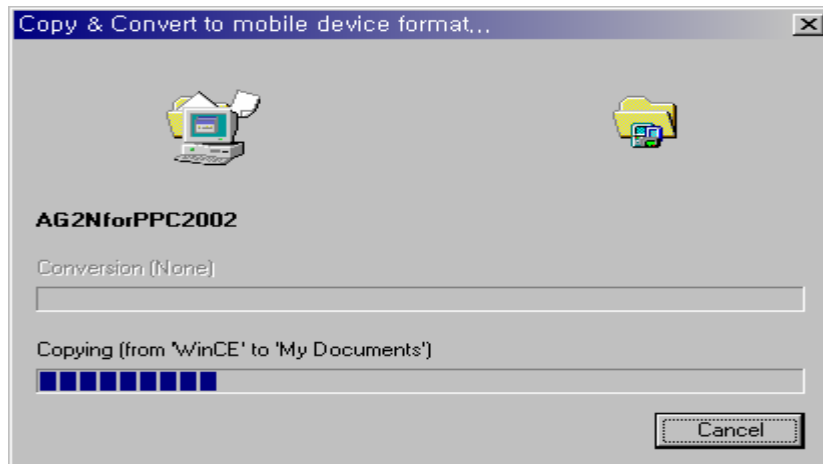
4-2-4

5. 가 .

### 4.3

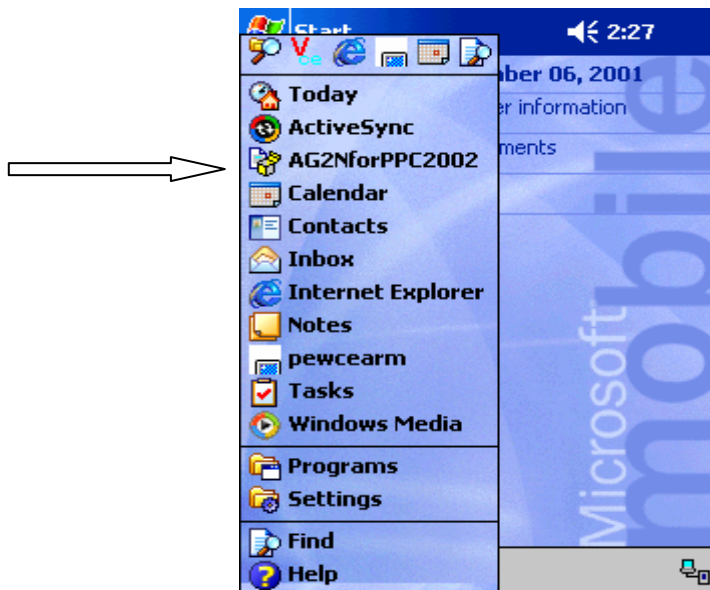
### - PDA Setup

- 1) 4.1 PDA , Active Sync PC
- 2) Active Sync가 connected Wireless LAN Installation CD CD-ROM
- 3) CD 'WinCE' PDA OS  
(AG2NforPPC2002.cab) PDA [Mobile Device] \ My Pocket PC \ Windows \ Start Menu



4-3-1

- 4) PDA AG2NforPPC2002.cab

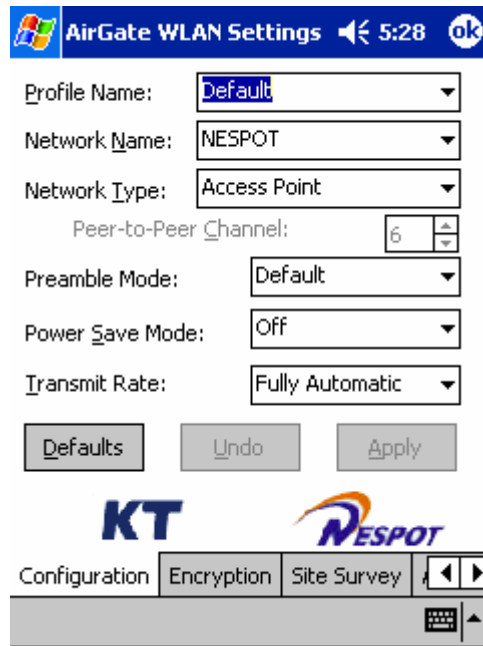


4-3-2

- 5)
- 6) PDA CF type AirGate2000C
- 7)
- 8) 가

4.4 Utility

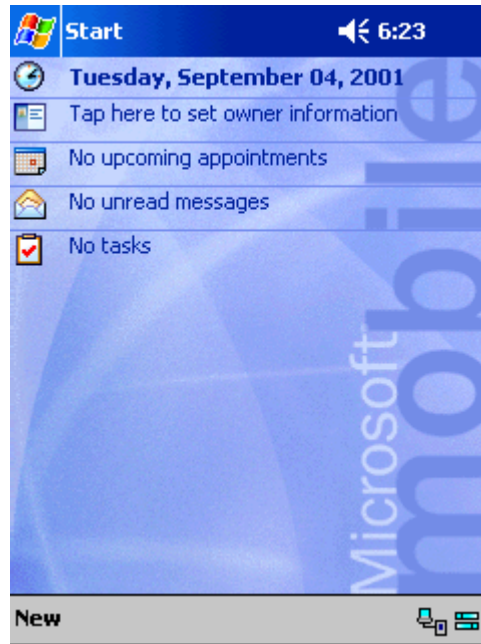
- 1. CF Card PDA CF



4-4-1

- 2. OK utility 가 가

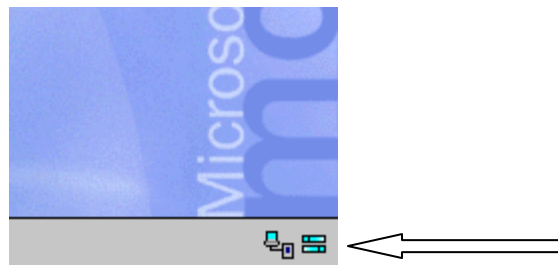




4-4-2

**-Configuration**

1.



4-4-3

2.

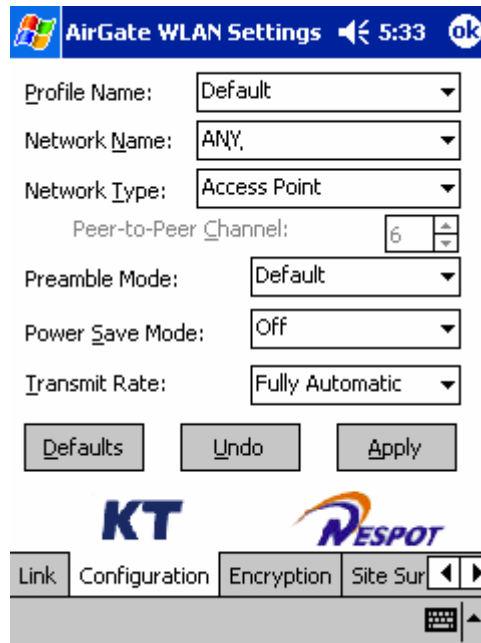
Advanced Configuration



4-4-4

3. Network Name (SSID)

4. SSID ANY AP 가 가 AP



4-4-5

5. SSID가 Network

Name NESPOT

**AirGate WLAN Settings** 6:07 **ok**

Profile Name: Default

Network Name: NESPOT

Network Type: Access Point

Peer-to-Peer Channel: 6

Preamble Mode: Default

Power Save Mode: Off

Transmit Rate: Fully Automatic

Defaults Undo Apply

KT NESPOT

Link Configuration Encryption Site Sur

4-4-6

6. Network type . AP , Access Point

7. Peer to Peer mode AP

ssid apply

**AirGate WLAN Settings** 5:34 **ok**

Profile Name: Default

Network Name: NESPOT

Network Type: Peer-to-Peer

Peer-to-Peer Channel: 6

Preamble Mode: Default

Power Save Mode: Off

Transmit Rate: Fully Automatic

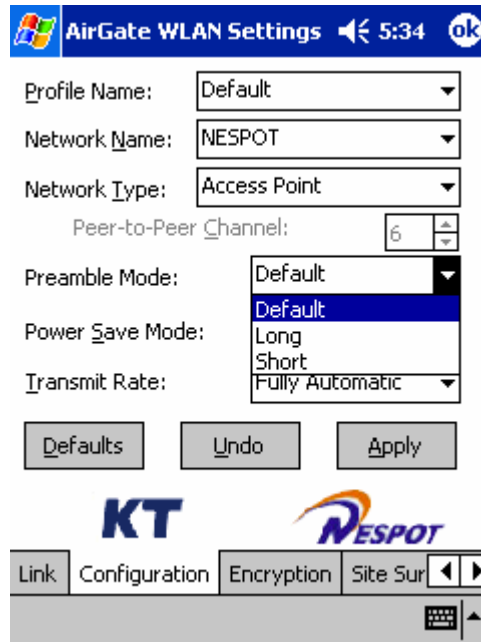
Defaults Undo Apply

KT NESPOT

Link Configuration Encryption Site Sur

4-4-7

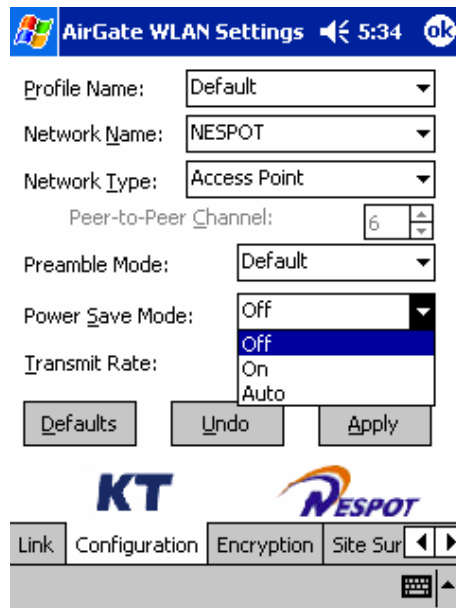
## 8. Preamble mode



4-4-8

## 9. Power save mode

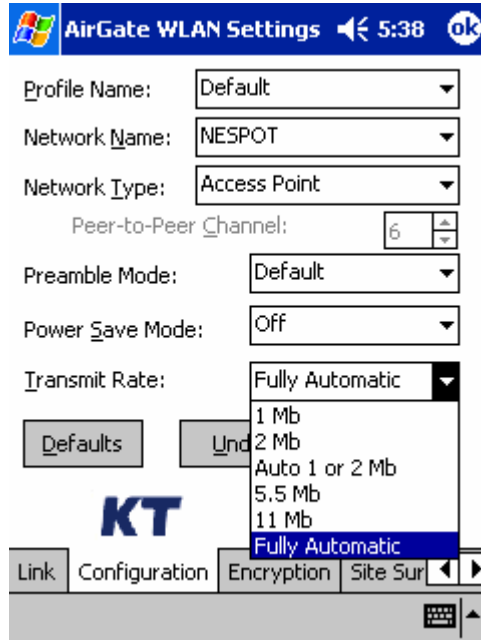
Auto



4-4-9

10. Transmit Rate

Auto



4-4-10

**-Encryption**

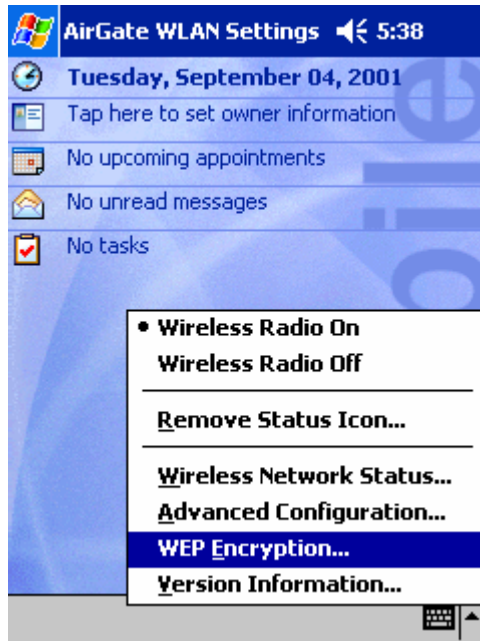
WEP key

AP station

AP 가 WEP Encryption mode

1.

WEP Encryption



4-4-11

2. WEP key

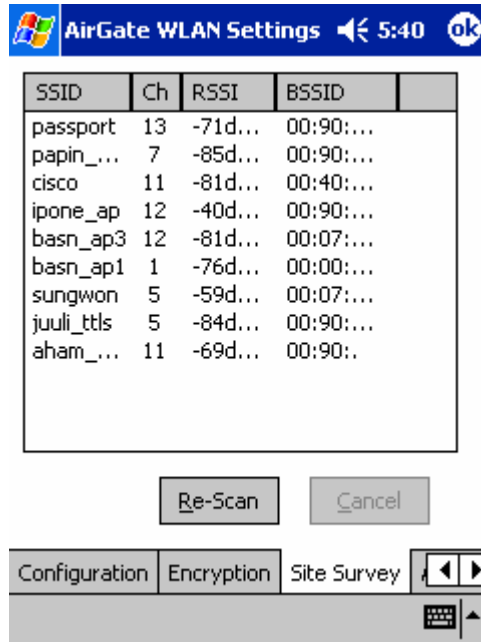
2.3



4-4-12

-Site Survey

AP survey



**AirGate WLAN Settings** 5:40 **ok**

SSID	Ch	RSSI	BSSID
passport	13	-71d...	00:90:...
papin_...	7	-85d...	00:90:...
cisco	11	-81d...	00:40:...
ipone_ap	12	-40d...	00:90:...
basn_ap3	12	-81d...	00:07:...
basn_ap1	1	-76d...	00:00:...
sungwon	5	-59d...	00:07:...
juuli_ttls	5	-84d...	00:90:...
aham_...	11	-69d...	00:90:.

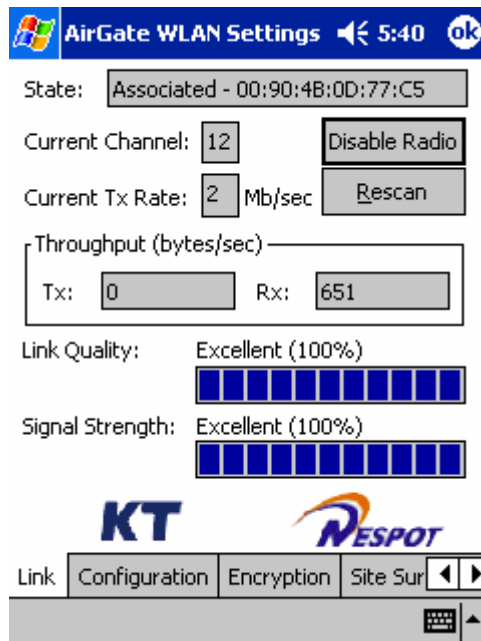
Re-Scan Cancel

Configuration Encryption Site Survey

4-4-13

-link  
link

link



**AirGate WLAN Settings** 5:40 **ok**

State: Associated - 00:90:4B:0D:77:C5

Current Channel: 12 Disable Radio

Current Tx Rate: 2 Mb/sec Rescan

Throughput (bytes/sec)

Tx: 0 Rx: 651

Link Quality: Excellent (100%)

Signal Strength: Excellent (100%)

**KT** **NESPOT**

Link Configuration Encryption Site Sur

4-4-14

## 4.5

IP address

1.

→ Settings → Connections → Network Adapters → IPhone AirGate

Wireless LAN Card

Properties



4-5-1



4-5-2



2. IP address

Use server assigned IP Address

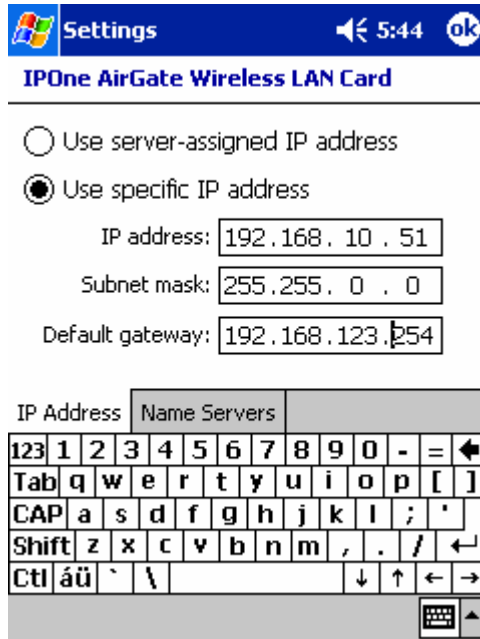


4-5-3

3. IP address

use specific IP address

IP address



4-5-4

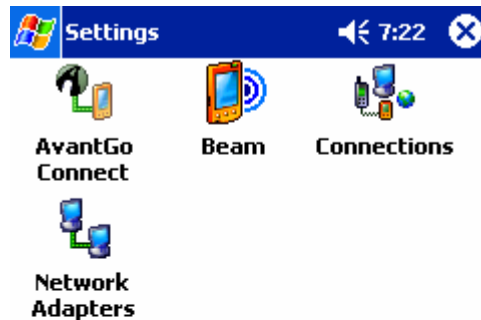
## 4.6 Network card connection

card connection type

1. → Setting → Connections → Connections

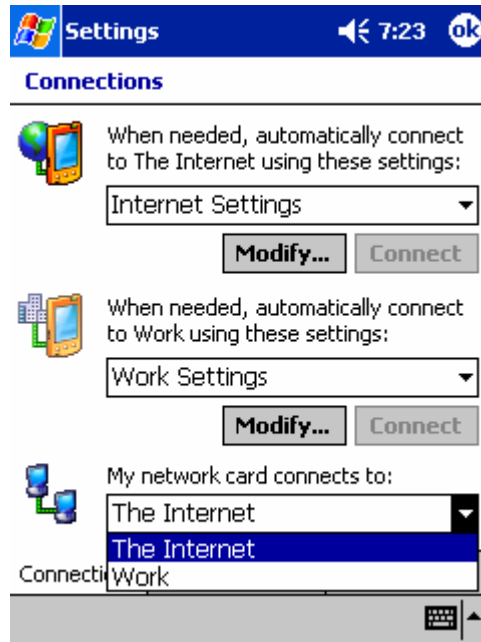


4-6-1



4-6-2

3. My network card connects to The Internet



4-6-3

4.



	<ul style="list-style-type: none"> <li>- 가</li> <li>- 가</li> <li>-</li> </ul>
	<ul style="list-style-type: none"> <li>- PC PC</li> <li>- 가</li> <li>-</li> <li>- 가</li> <li>-</li> <li>-</li> <li>- Client Utility Link Quality, Signal Strength</li> <li>- 가</li> </ul>

**A**

Features and Benefits

<b>Features</b>	<b>Benefits</b>
11Mbps data transfer rate	High-speed data transmission
Automatic data rate scaling at 11, 5.5, 2 and 1 Mbps	Optimized throughput, range and connectivity
IEEE 802.11b compliant	Fully interoperable with IEEE802.11b compliant products
Wired Equivalent Privacy (WEP) encryption and decryption support	Powerful data security at 64 and 128 bits
Compact Flash <b>Type-I</b> Standard	Supports a variety of popular computing devices such as PDA, Pocket PC, Tablet PC, Webpad and Handheld device
Site Survey Utility	Allows users to browser the available active access points which users can connect
Supports both PDA and Windows operating systems	Flexible to work with both your PDA and your notebook PC
Wide coverage range up to 300 meters in open space	Wireless connectivity for all your computers
Advanced Power Management	Very low power consumption delivers extended battery life for client devices
Plug and Play Compact Flash Type-I interface	Easy installation
Significantly improved indoor multipath distortion	Higher link quality in indoor environment
Seamless roaming	Full mobility
Direct Sequence Spread Spectrum (DSSS) Technology	Provides robust, interference-resistant, and secure wireless connection

## Product Specifications

### General

Radio Data Rate	11, 5.5, 2 and 1 Mbps, Auto Fall-Back
Range (open environment)	11 Mbps –150m 5.5 Mbps –200m 2 Mbps – 300m 1 Mbps –400m
Operating Voltage	3.3V
Regulation Certifications	FCC Part 15/UL, ETSI 300/328/CE
Compatibility	Fully interoperable with IEEE802.11b compliant products
LED Indicator	RF Link activity

### Network Information

Network Architecture	Support ad-hoc, peer-to-peer networks and infrastructure communications to wired Ethernet networks via Access Point
Driver Software Support	Windows 98/ME/2K/XP, Windows CE 3.0, Windows CE.NET(Future), PocketPC 2000/2002, HandheldPC 2000
Access Protocol	CSMA/CA
Roaming	IEEE802.11b compliant
Security	64/128-bit WEP data encryption

### Radio

Frequency Range	U.S., Europe and Japan product covering 2.4 to 2.484 GHz, programmable for different country regulations
Radio Type	Direct Sequence Spread Spectrum (DSSS)
Modulation	CCK (11, 5.5Mbps) DQPSK (2Mbps) DBPSK (1Mbps)
Operation Channels	11 for North America, 14 for Japan, 13 for Europe, 2 for Spain, 4 for France
RF Output Power	15dBm(30mW)
Antenna	Integrated, with built-in diversity
Sensitivity @FER=0.08	11 Mbps <-85dbm ; 5.5 Mbps <-87dbm 2 Mbps <-89dbm ; 1 Mbps <-91dbm

Environmental

Temperature Range	-10 C to 50 C (14 F to 122 F)-operating -30 C to 80 C (-22 F to 176 F)-storage
Humidity	95% maximum non condensing

Physical Specifications

Form Factor	Fits Compact Flash Type-I Slots
Dimensions	55.4(L) mm x 42.8(W) mm x 3.3(H) mm 2.18(L) in x 1.69(W) in x 0.13(H) in
Weight	45.36 g/ 1.6oz




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