1. Introduction

1.1 WLAN BOX

The MS-6978 WLAN BOX is a standard USB Adapter which fits into any USB Interface. It has two LED indicators and an integrated internal diversity antenna.

Now our WLAN BOX combines the advantage of USB Adapter and Wireless LAN, which overcomes the limitations of wired networks. It provides fast, simple, mobile and reliable access, and is designed for computers with Microsoft Windows[®] 98SE, ME, 2000, and XP.

1.2 System Requirements

Installation of the WLAN BOX, you will need:

- 1. Desktop/Notebook PC compatible computer with USB interface and CD-ROM drive.
- 2. Windows[®] 98SE/ME/2000/XP operating system.
- Minimum 5M bytes free disk space for installing the WLAN BOX driver and utility program.

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:

Any changes or modifications not expressly approved by the grantee of this device could void

the user's authority to operate the equipment.

1.3 Package Content

Unpack the package and check all the items carefully. If any item contained is damaged or missing, please contact your local dealer as soon as possible. Also, keep the box and packing materials in case you need to ship the unit in the future.

Your WLAN BOX package should contain the following items:



1.4 Connecting to PC



Connecting this A-connector to the USB connector of your Desktop/Notebook PC. Connecting this B-type connector to the WLAN BOX.



MSI Reminds You...

We strongly recommend that the WLAN BOX should put vertically while using to get better performance instead of laying horizontally.

2. Driver and Utility Installation

This part provides the procedure to install drivers and the utility. Each installation procedure comes with a drawing and instruction. Follow the instruction step by step to finish installation. Please note that the WLAN BOX should be connected into your PC after the installation of driver and utility is finished.

2.1 Installation for Windows® 98SE/ME/2000

During the installation, Windows[®] 98SE/ME/2000 may need to copy Windows system files from the Windows[®] 98SE/ME/2000/ XP installation disk/CD. Therefore please prepare a copy of the Windows[®] 98SE/ME/2000 installation disk/CD at hand before installing the driver if possible.

Installation Procedure:

- Insert the WLAN BOX installation CD into your CD-ROM drive, and then the setup program should start automatically. If it doesn't start, click the *Start* button at the Taskbar and then select *Run*. Enter *E:\setup.exe* if E is your CD-drive.
- 2. Then click Next to read the License Agreement and click Yes to



agree with and continue, or **No** to end the installation. Then specify the location that you want the software installed in your computer.

nstallShield Wizard
Choose Destination Location Select folder where Setup will instal files.
Setup will install PC2PC Wireless LAN Software in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C/L./MSI/PC2PC Wireless LAN Software/
nstallGhield
< <u>B</u> ack Cancel

3. Then click *Next* to start installation, then click *Finish* to continue as you are notified the installation has been completed.



4. *InstallShield Wizard* may ask you to restart your computer. Choose *Yes* and click *Finish* to restart your PC.



 After restarting your PC, you will find a icon indicated MSI Wireless LAN on your taskbar. Just double-click on it for configuration.





2.2 Installation for Windows® XP

Installation Procedure:

- 1. The first 3 procedues will be the same as in Windows[®] 98SE/ME/ 2000. Please refer to step 1 to 3 at page 4 to 5.
- Insert your MS-6978 WLAN BOX software into your computer, and the following window will appear.



Choose Install the software automatically (Recommended) and click Next.

3. The Found New Hradware Wizard will start searching for MSI PC2PC WLAN Card. Click *Next* to continue.



4. Please wait for the system to install the software of the new hardware. It may take few minutes.



5. The new hardware installation is complete. Click *Finish* to close the wizard.



 After the hardware installation finished, click on the Wireless Network Connection icon in the right bottom of system bar, then click View Available Wireless Network.



 The Connect to Wireless Network window appears. Choose which network you'd like to join in Available networks: list, then click Connect.



8. The connection is available if you see the following pop-up near the *Wireless Network Connection* icon in the right bottom of system bar.





MSI Reminds You...

Please note you can only connect to one network each time. If you want to connect to another network, please select the desired network then click the **Connect** button again.

Advanced settings

You may do some advanced settings with the following steps:

- Right click on the Wireless Network Connection icon and choose View available wireless networks, then click Connect to wireless Network.
- 2. The Connect to Wireless Network window appears. Click Advanced.

ks: off				
ures the us e the key, a	e of a ne nd then c	twork key click Conns	WEP). To rol	access
difficulty co	onnecting) to a netw	ork, click A	dvance
	pures the us in the Key (a difficulty co	gures the use of a ne e the key, and then difficulty connecting	aures the use of a network key (e the key, and then click Conne g difficulty connecting to a netwo	aures the use of a network key (WEP). To e the key, and then click Connect: gdifficulty connecting to a network, click A

- 2. The Wireless Networks tab appears. All the available networks will show in the Available Networks fields, and you can click Refresh button to refresh or search for the available networks. You may also choose the networks you prefer in the Preferred networks and use the Move up/Move down button to set the priority of your preferred networks.
- Click on the *Configure* button to configure the status of existed networks, or click on the *Add* button to add a new network.

🗕 Wireless Network Connection 3 Properties 👘 🕐 🔀
General Wireless Networks Authentication Advanced
Vise Windows to configure my wireless network settings Available networks: To connect to an available network, click Configure.
i Hello Configure
Aarkdesk
A 1234 Hefresh
Automatically connect to available networks in the order listed below:
Hello Move up Move down
Add Remove Properties
Learn about setting up wireless network configuration. Advanced
OK Cancel

4. The window below will appear to let you add, configure or set encryption for the network.

Wireless Network Pro	perties 🛛 💽 🔀				
Network name (SSID):	IBSS wep off				
Wireless network key (W	EP)				
This network requires a key for the following:					
Data encryption (WEP enabled)					
Network Authentic	ation (Shared mode)				
Network key:					
Key format:	ASCII characters				
Key length:	104 bits (13 characters) 💌				
Key index (advanced):	0				
The key is provided f	or me automatically				
This is a computer-to-co	omputer (ad hoc) network: wireless				
access points are not u	sed				
	OK Cancel				

 Click Advanced button in the Wireless Network Connection Properties, and the window below will appear. You can set the desired option according your preference or situation.

Advanced ? 🔀
Networks to access
 Any available network (access point preferred)
O Access point (infrastructure) networks only
Computer-to-computer (ad hoc) networks only
Automatically connect to non-preferred networks

- Any available network (access point preferred) --- Any available network detected can be selected.
- Access point (infrastructure) networks only --- Only access point (infrastructure) networks can be accessed and connected.
- Computer-to-computer (ad hoc) networks only --- Only ad hoc networks within the range of your computer can be accessed and connected.
- Automatically connect to non-preferred networks --- Check this box to automatically connect to available networks that do not appear in the *Preferred networks* list.

2.3 Uninstallation for Windows[®] 98SE/ME/2000/XP

If you want to uninstall PC2PC Wireless LAN Software, please follow the steps as below:



MSI Reminds You...

We strongly recommend to uninstall the older version first before you install updated driver.

Uninstall Procedure:

 From the right bottom corner of system bar, right-click on the icon, and a window will appear as below. Please note this procedure is only for Windows[®] 98SE/ME/2000.



Click Exit.

 Select Start -> Settings -> Control Panel -> Add/Remove Programs. Choose PC2PC Wireless LAN Software in the Install/Uninstall list. Then click Add/Remove, and click OK.

A	.dd/Remo	ve Progra	ms Properties		? ×
	Install/Uni	nstall Win	idows Setup S	tartup Disk	
	₽	To install drive, clic	لاج a new program f k Install.	rom a floppy disl	< or CD-ROM
					Install
	3	Ihe follov Windows, componer Add/Rem	ving software ca . To remove a pr nts, select it from ove.	n be automatica ogram or to moo i the list and clic	Ily removed by lify its installed k
	Intel(FI)	PRO Etherr	net Adapter and	Software	
ς	PC2PC	Wireless L4	N Software		
	Trend O WinZip	lfficeScan \	Win95		
				Ad	ld/ <u>R</u> emove
			OK	Cancel	Apply

3. The software will be removed automatically.

3. Configure the Configuration Utility for Windows[®] 98SE/ME/2000

MSI Wireless LAN Monitor Utility is a powerful application which helps you to configure MSI PC2PC WLAN Card, change Adapter information about link, configuration and encryption, show the information of utility/driver/firmwave version, and monitor the statistics of the communication.

3.1 Monitor

The Monitor screen provides information of the current link between the MSI PC2PC WLAN Card and the wireless Access Point. You need to click *Change* first to adjust the settings, then click *Submit* to save your changes.

ISI Wireless LAN I	Aonitor Utility	X
MSI P	C2PC WLAN Card	
Operating Mod Channel SSID Tx Rate Radio	e Infrastructure V 11 V Change F00140GR0UP Fixed 11 Mbps V Cencel	
Status Signal Strength Link Quality	Associated - BSSID: 00-02-20-1C-D5-96 100 % 97 %	
	Hide	

Operating Mode:

- Ad-Hoc --- this is non-standard peer-to-peer mode of operation and needs no Access Point. When wireless clients are operated in this mode, all wireless clients require the same channel number and SSID. When "Ad-Hoc" mode is selected, the utility will provide a selection for channel setting.
- ▶ Infrastructure --- this mode of operation needs the use of an

Access Point. In this mode, all wireless communicatins between computers have to be via the Access Point.

You may consult to your Network Administrator if you are not familiar with the settings described above.

Channel:

Specify the operating radio frequency channel in "Ad-Hoc" mode, which should be set to the same channel as the other points in the wireless network

SSID:

Means Service Set Identifier, an unique name shared among all points in a wireless network. It must be identical for all points in the network. MS-6978 will be able to connect to an Access Point with the same SSID

Tx Rate:

This field sets the current transmitting rate of the USB Adapter. There are four fixed rates: 1 Mbps, 2 Mbps, 5.5 Mbps, and 11 Mbps. The Tx Rate should be set to Auto rate to optimize performance and range, which will adjust the transfer speed for best performance and longest range automatically.

Radio:

Set to **On** to activate the radio.

Status

It shows status information about the radio link

Signal Strengh --- This bar shows the received signal strength level. The higher the blue bar is, the more power the radio signal is received by the USB Adapter.

Link Quality --- This bar shows the measured signal level and connection status. The higher the blue bar is, the better the radio signal is received by the USB Adapter.

MSI Wireless LAN Monit	tor Utility 🔀
MSI PC2PC Monitor Statistics Sit	WLAN Card
Operating Mode Channel SSID T x Rate Radio	AdHoc
Status Signal Strength Link Quality	Ready - BSSID: 02-00-E4-E4-76-45
	Hide



MSI Reminds You...

These two bars are available only in "Infrastructure" Operating Mode.

3.2 Statistics

This option shows the available statistic information, including Data Packets, Management Packets and Rejected Packets. Press *Clear* to renew this statistics list.

MSI Wireless	LAN Mo	nitor Utility			×
	MSI PC2	PC WLAN Ca	rd	•	
Monitor 9	itatistics	Site Survey	Encryption	Advanced	Info
			Tx	Rx	
Data P.	ackets —				
Succ	essful		26	46	
Unsu	ccessful		0	0	
- Mgmt F	ackets -				
Succ	essful		2	6613	
Unsu	ccessful		0	0	
Rejecte	ed Packet	\$	0	0	
				Cle	ar
				H	lide

3.3 Site Survey

By choosing this *Site Survey* option in any of the two modes, all the channels can be scanned in order to find all the access points within the range of your card.

MSI	Wireless LAN Moni	tor Utility					×
	MSI PC2P0	CWLAN Card			•		
J	Monitor Statistics S	ite Survey Encry	ption A	dvani	ced	nfo	
	BSSID	SSID	Signal	Ch	WEP	Тур	
	02-00-8D-47-86-71 00-40-96-48-88-CC	ADHOC Multicast	100 %	1	No No	Ad-I Infr	
	00-02-2D-1C-D5-96 02-00-DA-5F-37-0C	F00140GROUP MSI	100 % 100 %	11 13	No Yes	Infra Ad-I	
	I						
		Re-Sc	can).	(Cancel		
					Hi	de	

It includes the information about BSSID (Basic Service Set Identification) and SSID of the access point(s), the signal strengh, the channel where the access point(s) operates, and whether or not WEP (Wired Equivalent Privacy) encryption is used. You may press **Re-Scan** button to update this list. If you want to associate with any of the Access Point(s), double click on the desired one, and the system will bring you back to the **Monitor** screen to show you the parameters of the connection newly established.

3.4 Encryption

By choosing this option in any of the two modes, you can set for different WEP keys and specify which one of them to use.

MSI Wireless LAN Monitor Utility
MSI PC2PC WLAN Card
Encyption Disabled
Key #1 G4 8# 128 8# Key #2 ************************************
WEP Key to use Key #1 WEP Mode Mandatory Authentication Type Auto
Submit

Encryption:

You may enable or disable encryption function in this option. Key #1 ~ Key #4:

If you enable encryption, you may choose any of the available WEP keys in these fields in 64-bit or 128-bit WEB keys.

▶ 64 Bit --- There will be 10 hexadecimal digital.

▶ 128 Bit --- There will be 26 hexadecimal digital.

WEP Key to use:

The key you choose should be the same for each point on the network.

WEP mode:

This field let you set the WEP mode. The setting options are *Mandatory* and *Optional*.

- Mandatory --- If you choose this mode, not only WEP will be used, but also any other station needs to use WEP encryption in order to establish a communication with your station.
- Optional --- In Optional mode, your station can communicate with every other station regardless if they use WEP or not.



MSI Reminds You...

The WEP keys must be in HEX format.

Authenication Type:

MS-6978 supports two types of authentication: *Open System, Shared Key.*

- Open System --- It is the authentication algorithm used by MS-6978, which is also the default selection. If the Access Point is used *Open System* authentication, then the wireless adapter will need to be set to the same authentication type.
- Shared Key --- It is available only when WEP encrption is enabled on MS-6978. *Shared Key* authentication supports authentication of hosts as either a member of a group with a shared secret key or a member of those who don't have a shared secret key. The use of WEP privacy mechanism is required to share the key without transmitting the secret key in the open in *Shared Key* authenication.

Finally click *Submit* to save the changes.

3.5 Advanced

In this option you can change advanced configuration settings, such as Preamble Type, Fregmentation Threshold, RTS/CTS Threshold.

MSI Wireless LAN Monitor Utility	×
MSI PC2PC WLAN Card	
Monitor Statistics Site Survey Encryption Advanced Info	
C Long Preamble Type C Short C Auto	
Fragmentation Threshold (Disabled) 2346 RTS/CTS Threshold	
(Disabled) 2347	
Hide	

Preamble Type:

You may set the length of preamble in this field. Setting options: *Long, Short, Auto.*

- ► Long --- It is set to 144 bits.
- ► Short --- It is set to 72 bits.
- Auto ---MS-6978 supports an auto-detection feature, it automatically selects the *Preamble Type* depending on the Access Point Preamble Type if this option is selected.

Fragmentation Threshold:

You may set the length of the fragment in this field. Please note that each fragment should not be larger than the Fragmentation Threshold.

RTS/CTS Threshold:

You may set the length threshold. Only when the length of the MPDU is greater than the length threshold, an USB adapter uses a RTS/CTS exchange for directed frames.



MSI Reminds You...

Changing the settings here is not recommended unless you are familiar with those advanced configurations.

3.6 Info

The *Info* screen shows the information about MSI PC2PC WLAN card, including Driver, Firewave, Application and MAC Address. Click the MSI hyperlink and it will bring you to MSI website for more information and technical support of this product.

MSI Wi	reless LAN Monitor U	tility	×
	MSI PC2PC WLA	N Card	
Mo	nitor Statistics Site Su	vey Encryption Advanced Info	
	WLAN PC 2 PC	http://www.msi.com.tw Copyright 2002 MSI Corporation	
	Driver	2.6.5.193	
	Firmware	0.90.0.68	
	Application	3.1.4.22	
	MAC Address	00-10-DC-69-78-34	
		Hide	

4. Connecting to a Network

This part describes how to prepare for connection to network and some basic outline of networking basics, including sharing files, printing from an computer on the network, or accessing the Internet on multiple computers with one connection.

The following in *Control Panel -> Network -> Configuration* is required for all computers if you want to connect to a network:

- 1. Check Client for Microsoft Network is installed.
- 2. Check TCP/IP -> MSI PC2PC WLAN Card is installed.
- 3. Check File and printer sharing for Microsoft Networks.

4.1 Computer Identification

Please verify that each computer has a unique name and common workgroup name, if you had previously given your Windows 98SE/ME/2000 computers names.

1. On your Desktop, right-click the icon *My Network Places* select *Properties* from the context menu.



2. Click the *Identification* tab in the dialog box.

Network	?
Configuration	dentification Access Control
Wi button con de:	dows uses the following information to identify your puter on the network. Please type a name for this puter, the workgroup it will appear in, and a short cription of the computer.
<u>C</u> omputer na	ne: WLAN_EWinME
Workgroup:	MSI
Co <u>m</u> puter Description:	Test EWinME for WLAN
	OK Cancel

- 3. In the *Computer name* box, type a unique, identifying name for this particular computer. This will be the name of this computer used by other computers on your network to communicate with. Each computer's name must be unique on a particular network to avoid confusion. Please note that the computer's name should not be more than 15 characters without space.
- Type the workgroup name which this computer will belong to in the *Workgroup* box. All the computers on your network should have an identical Workgroup name.
- The Computer Description box is optional. You may enter a description that helps to identify this computer on your network.

Then click Close.

6. Repeat this process for each computer on your network to ensure that they all have unique "Computer Name" and identical "Workgroup".

4.2 How to install TCP/IP

By default, Windows[®] 98SE/ME/2000 will install TCP/IP automatically.



1. Go to Start -> Settings -> Control Panel.

Double-click on the Network.



2. If you do see the *TCP/IP* network as the following screen, plese select the *MSI PC2PC WLAN Card*, and click *Add*.

Network	? ×
Configuration	
The following network components are install	ed:
B MSI PC2PC WLAN Card	
Add Remove	Properties
Primary Network Logon:	
Jwindows Logon	
Eile and Print Sharing	
Description A network adapter is a hardware device the connects your computer to a network.	at physically
0	K Cancel

Select Protocal, and click Add.



3. Select Microsort, then scroll down to select TCP/IP.

Select Network Protocol		×
Click the Network an installation disk	Protocol that you want to install, then click OK. If you hav for this device, click Have Disk.	e
Manufacturers:	Network Protocols:	
🏹 Microsoft	ATM Call Manager	-
	TATM LAN Emulation Client	
	FIFX/SFX-compatible Protocol	
	VetBEUI	
	C PPP over ATM (protocol)	
	<u>H</u> ave Disk	
	OK Cancel	

Now the *TCP/IP for MSI PC2PC WLAN Card* will be available. Now the TCP/IP installation is finished.

4.3 Configuring a Dynamic IP Address

When the drivers are installed, the default setting here is set to obtain IP dynamically through a DHCP server. If you'd like check or change the settings, please follow the steps below:

1. Go to Start -> Settings -> Control Panel.



2. Double-click on Network.



3. Click on TCP/IP and then click Properties.



4. When the *TCP/IP Properties* window appears, choose *IP Address* tab and select *Obtain an IP Address Automatically.*

Bindings DNS Configuration	Gateway	winced WINS Confi	guration	IP Address
An IP address car If your network do your network adm	n be automa es not autor inistrator for	tically assigner natically assign an address, ar	d to this c h IP addre hd then ty	omputer. esses, ask ipe it in
the space below.				
🕐 🛛 Dbtain an IF	address au	tomatically	>	
C Specify an I	address:-			
Sybnet Ma	sk:			
Detect conn	ection to ne	twork media		

5. When the *Network properties* window comes back up, click *OK*. Then click *Yes* to reboot the computer.

4.4 Configuring a Static IP Address

1. Go to Start -> Settings -> Control Panel.



2. Double-click on Network.



3. Click on TCP/IP and then click Properties.

Network
Configuration Identification Access Control
The following network components are installed:
Client for Microsoft Networks MSI PC2PC WLAN Card
Add Hemove Properties
Client for Microsoft Networks
Ele and Print Sharing
Description TCP/IP is the protocol you use to connect to the Internet and wide-area networks.
OK Cancel

- 4. When the *TCP/IP Properties* window appears, choose *IP Address* tab and select *Specify an IP Address*.
- Enter an IP address into the empty field. Suggested IP Range is 172.16.0.2 to 172.16.0.254, and suggested Subnet Mask is 255. 255.255.0 Then click *OK*. When the *Network Properties* window comes back up, click *OK*. Then click *Yes* to reboot the computer.

CP/IP Properties					
Bindings Advanced NetBIOS					
DNS Configuration G	iateway WINS Confi	iguration IP Address			
An IP address can be automatically assigned to this computer. If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.					
◯ <u>O</u> btain an IP ad	C Dbtain an IP address automatically				
Specify an IP a	<u>Specify an IP address:</u>				
IP Address: 172.16.0.5					
S <u>u</u> bnet Mask:	255.255.255	. 0			
☑ Detect connection to network media					
	OK	Cancel			



4.5 Checking TCP/IP Address of the MSI PC2PC WLAN Card

For Window[®] 98SE/ME:

- 1. Go to Start -> Run.
- 2. Enter command in the Open: box. Click OK.
- 3. A DOS prompt window appears.
- 4. Enter winipcfg in the Open box. Click OK.

Run	<u>?</u> ×
2	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:	winipcfg
	OK Cancel Browse

5. The *IP Configuration* screen will be displayed, and the IP address will be displayed in the IP Address box. Please make sure the configuration of IP Address, Subnet Mask and Default Gateway is correct.

P Configuration Ethernet Adapter Information	
	MSI PC2PC WLAN Card
Adapter Address	00-10-DC-69-78-34
IP Address	172.16.0.14
Subnet Mask	255.255.255.0
Default Gateway	172.16.0.1
OK Release All Re	ne <u>w</u> All More Info >>

6. Click on *More Info* to display additional IP information.

P Configuration		
- Host Information		
Host Name	WLAN_EWINME	
DNS Servers	172.16.0.1	
Node Type	Broadcast	
NetBIOS Scope Id		
IP Routing Enabled	WINS Proxy Enab	led 🗌
NetBIOS Resolution Uses DNS		
Ethernet Adapter Information		
	MSI PC2PC WLAN Card	•
Adapter Address	00-10-DC-69-78-34	
IP Address	172.16.0.14	
Subnet Mask	255.255.255.0	
Default Gateway	172.16.0.1	
DHCP Server	172.16.0.1	
Primary WINS Server		
Secondary WINS Server		
Lease Obtained	08 27 02 10:10:08 AM	
Lease Expires	08 29 02 10:10:08 AM	
OK Release Re	enew Release All Rene	<u>w</u> All

For Window[®] 2000/XP:

- 1. Go to Start -> Run..
- 2. Enter command in the Open box. Click OK.
- 3. A DOS prompt window appears.
- 4. Enter *ipconfig /all* to display IP information.

Select Command Prompt	×
Windows 2000 IP Configuration	
Host Name Candy	
Primary DNS Suffix	
Node Type	
IP Routing Enabled No	
WINS Proxy Enabled No	
Ethernet adapter Local Area Connection 27:	
Connection-specific DNS Suffix . :	
Description MSI PC2PC WLAN Card	
Physical Address 00-10-DC-69-78-32	
DHCP Enabled Yes	
Autoconfiguration Enabled : Yes	
IP Address	
Subnet Mask	
Default Gateway	
Lasso Obtained	
Later Evolution	111
Event Experies	
C:\>	-

4.6 Checking the Connection by Pinging

- 1. Go to Start -> Run..
- 2. Enter command in the Open box. Click OK.
- 3. A DOS prompt window appears.
- 4. Type *ping 172.16.0.1*, which is the the IP address of the Gateway in this case , and press *Enter* key.



Then you'll get replies if the pinging is successful.

4.7 Sharing Files

You may now open and save files on other computer once your computers are connected together on a network. You will also be able to specify particular folders or disk drives to "share" and even password to protect them. Please verify that each computer has a unique name and common workgroup name, if you had previously

given your Windows[®] 98SE/ME/2000 computers names. Follw the steps below to share specific files and folders with other computers on your network.

- On your Desktop, right-click the My Network Places icon and select Properties from the context menu.
- 2. You will configure your computers network settings in this dialog mostly. It is also available through the *Network* icon in the *Control Panel*.



3. Click the File and Print Sharing button.

Network ?X				
Configuration Identification Access Control				
The following network components are installed:				
Client for Microsoft Networks KSI PC2PC WLAN Card				
ТСРЛР				
Add Remove Properties				
Primary Network Logon:				
Client for Microsoft Networks				
Eile and Print Sharing				
Description TCP/IP is the protocol you use to connect to the Internet and wide-area networks.				
OK Cancel				

- 4. Click to put a check mark next to *I want to be able to give others access to my files*.
- 5. Then click OK on the File and Print Sharing dialog box.



- 6. Click OK on the Network dialog box.
- 7. Provide the Windows® 98SE/2000/ME CD or direct Windows to the proper location of the installation files if prompted. Then reboot if prompted.
- Now you can identify a particular folder or disk drive to share, which means you can share a folder that both you and your family member/colleague needs to

ramily member/colleadue needs to access occassionally. You can also share your CD-ROM drive for others to use if your other computer does not have CD-ROM. Both of these processes are the same. Only the disk drives and folders that you specifically identify as shared will be accessible to other computers on your network.

- Locate the disk drive or folder you want to share in Windows Explorer or the My Computer icon on your desktop.
- 10. Right-click on the disk drive or folder and select *Sharing*.



11. Select *Share As:* to set the parameters for sharing this particular disk drive or folder.

ly Music Properties	?
General Sharing	
Not Shared	
Shared As:	
Share Name: MY MUSIC	
Comment:	
Access Type:	
C Bead-Only	
• Eul	
Depends on Password	
Passwords:	
Read-Only Password	
Full Access Password:	
OK Can	cel Apply

- 12. The Share Name: box is used to identify the disk drive or folder you are sharing to other computers on the network, which can be helpful as more resources on your network for others.
- 13. The *Comment:* box is optional, which can be used to further describe the disk drive or folder for others on the network.
- 14. Access Type: allows you to designate how much someone else can do with this disk drive or folder. Read-Only only allows others to look at or open the files on the disk drive or in the folder. Full allows others to read, write, open, save, copy, move, and even delete files on the disk or in the folder. Depends on Password gives other computers access conditional on the password they provide.
- 15. Passwords: allow you to apply a level of security to your shared disk drives and folders. Any other computer (user) will be asked

to enter the password you designate here before accessing the disk drive or folder. Two passwords are used to give two levels of security (or access) to others on the network using the *Depends on Password* setting. Leaving the *Password* boxes empty will give everyone on the network access to the disk drive or folder.

- 16. Click **OK** to continue. You will be prompted to enter the password(s) you provided for verification. Type the password (s) just as you entered them again.
- 17. Now you may access this disk drive or folder from another computer on your network. You may do so by double-clicking the *My Network Places* icon on your desktop or inside Windows Explorer.
- 18. Navigate to the computer with the shared disk drive or folder (recognized by the *Computer Name* you provided) and doubleclick. Now you should see the disk drive or folder, and doubleclick. If you specified a password when sharing this disk drive or folder, you will be asked for the password.
- 19. You can access a disk drive or folder shared over the network from most Windows[®] 98/ME/2000 applications. You can map these disk drives and folers to a drive letter on another computer to make this process easier. For example, on a computer where you are accessing a shared folder from another computer, inside Windows Explorer right-click and select *Map Network Drive*. Now you are able to assign an available drive letter. Checking *Reconnect at logon* allows Windows to map this network drive each time when you start your computer.

4.8 Use Windows® XP as Access Point

Windows[®] XP provides an feature in the *Control Panel* to help to link two networks..

1. In the *Control Panel*, select *Network Connections* and the window below will appear.



2. Select *Wireless Network Connection* and *Local Area Connection* simultaneously, and right click to select *Bridge Connections*.



- Then go to Start -> Run. Enter cmd in the Open box, the click OK. A DOS prompt window appears.
- 4. Then type net bridge show adapter.
- 5. Then type *netsh bridge set adapter X forcecompatmode=enable*, where *X* is your ethernet identifier.
- 6. Then type *netsh bridge set adapter Y forcecompatmode=enable*, where *Y* is your wireless identifier.



 Right click the Wireless Network Connection icon in the right bottom of system bar, choose View Available Wireless Network ---> Advanced. You will get Wireless Network Connection Properties window. Click Add button to add a new wireless network connection.

All Ardinels on Mathema	de la actual	
ral Wireless Netwo	rks Authentication	Advanced
Use Windows to con vailable networks: — o connect to an avai	figure my wireless net lable network, click C	twork settings Configure.
abcDEFghi		Configure
svnl		Defeat
Ø ð		riefresh
		Move up
		Move down
Add R arn about setting up	emove Prope wireless network	Advanced
Add R an about setting up	emove Prope wireless network	Move de Move de rties

8. Enter the namae for this new network in the Network name (SSID):, and put a check mark next to This is a computer-to-computer (ad-hoc) network; wireless access point are not used. In this case, this computer will function as an access point, while other computers can use this network name (which is "aaa" in the picture below) to connect to. Once they connect successfully, they could access the ethernet LAN via Network Neighborhood.

Network name (SSID):	ddd	_
- Wireless network key (W	'EP)	
This network requires a l	key for the following:	
Data encryption (W	/EP enabled)	
Network Authentic	ation (Shared mode)	
Network key:		
Key format:	ASCII characters	~
Key length:	104 bits (13 characters)	~
Key index (advanced):	0	
The key is provided f	or me automatically	
This is a computer-to-co	omputer (ad hoc) network; v	vireless

5. Troubleshooting

This part describes the problems and corresponding solutions of driver installation.

To check if the wireless network adapter drivers are loaded properly:

1. Go to Start -> Settings -> Control Panel.



2. Double-click on System.



3. Click on the Device Manager Tab.



- 4. Click on the "+" symbol in front of Network Adapters.
- 5. Highlight MSI PC2PC WLAN Card.
- 6. Click on Properties.

7. Check under *Device Status* to see if the MSI PC2PC WLAN Card is working properly.

MSI PC2PC WLAN Card Properties	<u>?</u> ×
General Driver Power Management	
MSI PC2PC WLAN Card	
Device type: Network adapters	
Manufacturer: MSI	
Hardware version: Not available	
Device status	
This device is working properly.	
Device usage	
Disable in this hardware profile	
Exists in all bardware profiles	
and a second second	
OK	Cancel

6. Technical Support

Micro-Star International provides free technical support. If a problem arises with your system and no solution can be obtained from this user's manual, please contact your place of purchase or local distributor. Alternatively, please try the following help resources for further guidance.

- Visit the MSI website for FAQ, technical guide, driver and software updates, and other information: http://www.msi. com.tw/
- Contact our technical staff at: support@msi.com.tw