Asus SpaceLink WL-100 User Manual

Wlan pc card

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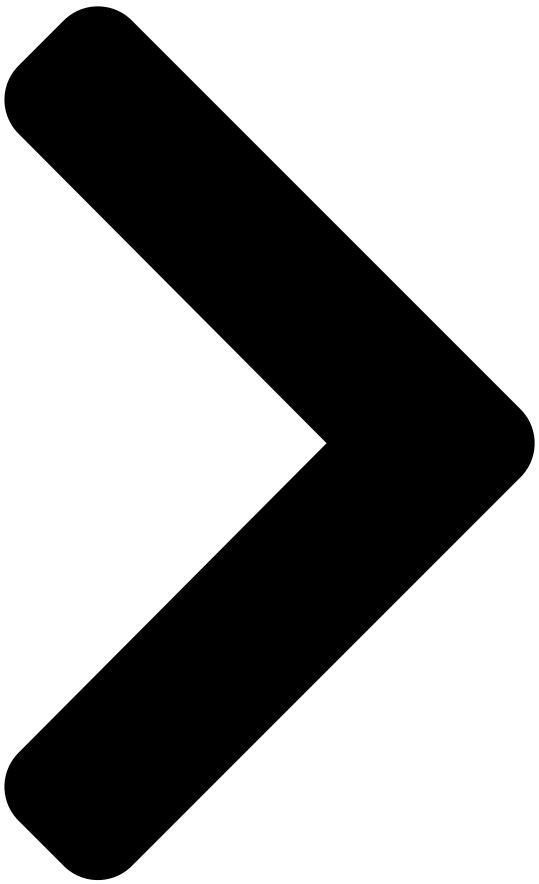

ASUS SpaceLink
WL-100 WLAN PC Card
User's Manual

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Computer Hardware Asus SpaceLink WL-100 Quick Start Manual

(6 pages)

Computer Hardware ASUS SpaceLink WL-110 User Manual

Wlan cf card (16 pages)

Computer Hardware Asus WL-140 User Manual

Usb spacelink client for 802.11b wireless networks (66 pages)

Computer Hardware Asus WL-120 User Manual

Wlan mini-pci card (56 pages)

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Agp-v2740 series 3d multimedia accelerator (24 pages)

Computer Hardware ASUS ASMB6-IKVM User Manual

Server management board (114 pages)

Summary of Contents for Asus SpaceLink WL-100

Page 1 ASUS SpaceLink WL-100 WLAN PC Card User’s Manual...

Page 2 Product warranty or service will not be extended if: (1) the product is re- paired, modified or altered, unless such repair, modification of alteration is authorized in writing by ASUS; or (2) the serial number of the product is defaced or missing.

Page 3 Harkortstr. 25, 40880 Ratingen, BRD, Germany General Fax: +49-2102-442066

General Email: sales@asuscom.de (for marketing requests only) Technical Support Support Hotline: MB/Others: +49-2102-9599-0 Notebook (Tel): +49-2102-9599-10 Support Fax: +49-2102-9599-11 Support (Email): www.asuscom.de/de/support (for online support) Web Site: www.asuscom.de ASUS SpaceLink WL-100 WLAN PC Card...

Page 4: Safety Statements

Radio Interference Regulations of the Cana- dian Department of Communications. This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. ASUS SpaceLink WL-100 WLAN PC Card...

Page 5: Table Of Contents

2.4 Installing Drivers for Windows CE .....18 2.5 Installing Drivers for Linux .....18 2.6 Reading the Wireless LAN PC Card LEDs ..... 19 2.7 Installing ASUS SpaceLink PC Card Utilities .....20 3. Software Reference ..... 22 3.1 Overview .....22 3.2 Windows XP Wireless Options .....

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Page 7: Introduction

Modem and one ISP account si- multaneously with no excessive, tedious ties! Connected anywhere, at any time, your family will feel closer by the invisible magic of the ASUS SpaceLink PC Card! ASUS SpaceLink WL-100 WLAN PC Card...

Page 8: Package Contents

Chapter 1 - Introduction 1.2 Package Contents When you receive the Wireless LAN package, it should contain the follow- ing items: • ASUS SpaceLink PC Card (PCMCIA Type II) • User's Manual • CD-ROM Disc (Windows/Linux drivers, utilities, manual) If any of the above items are not included or damaged, contact your local dealer for instructions.

Page 9: Installation

2.1 Installing Drivers for Windows 1. Turn ON your computer and enter Windows. 2. Insert the ASUS SpaceLink PC Card into a PCMCIA Type II slot with the connector side first. The "LNK" and "AIR" LEDs represent the top side and the "MAC" address sticker represents the bottom side. Push the PC Card into the slot until it is firmly seated.

Page 10 Windows XP - [CD]:\Driver\WinXP Where [CD] represents the driver letter of your CD-ROM drive. 6. Wait while Windows searches for the device driver for the ASUS SpaceLink PC Card. When Windows finds the driver "ASUS SpaceLink WL-100 WLAN PC Card", click Next.

Page 11: Verifying Installation

Chapter 2 - Installation 2.1.1 Verifying Installation Windows ME 1. Right-click "My Computer" on the desktop 2. Click Device Manager and look under and select Properties. "Network adapters" for "Wireless LAN PC Card". ASUS SpaceLink WL-100 WLAN PC Card...

Page 12 Chapter 2 - Installation Windows XP 2. Double-click System icon. 1. Open the Control Panel through the Start menu. 3. Click Device Manager on the "Hardware" 4. Click Network adapters. page. ASUS SpaceLink WL-100 WLAN PC Card...

Page 13: Orientating The Antenna

Chapter 2 - Installation 2.2 Orientating the Antenna The ASUS SpaceLink PC Card has two integrated antennas, one external omnidirectional antenna and the other is a built-in diversity antenna. It is recommended that you adjust the external antenna straight up for maxi- mum range and higher link quality.

Page 14: Verifying The Tcp/Ip Protocol

Chapter 2 - Installation 2.3 Verifying the TCP/IP Protocol Windows ME For the ASUS SpaceLink PC Card to work, you must have the TCP/IP protocol installed. Follow the procedure here to verify the protocol. 1. Right-click "My Network Places" on the 2.

Page 15: Installing The Tcp/Ip Protocol

2.3.1 Installing the TCP/IP Protocol Windows ME If your operating system does not have the TCP/IP protocol installed, you must do so to use the ASUS SpaceLink PC Card. 1. From the screen above, click the Add button. 2. Select Protocol and click Add.

Page 16: Configuring Tcp/Ip Properties

“Specify an IP address” and type in the IP address and Subnet Mask as provided by your network administrator. If you want to route traffic through an IP sharing device, you have to setup the ASUS SpaceLink PC Card in the same Subnet as that of Access Point.

Page 17: Configuring Advanced Tcp/Ip Properties

3. If Windows asks to restart your computer now, press Yes. 2.3.4 Verifying TCP/IP Settings Windows ME: Run “winipcfg” from the Start Windows XP: Use “ipconfig” from the menu to verify TCP/IP settings. command prompt to verify settings. ASUS SpaceLink WL-100 WLAN PC Card...

Page 18: Installing Drivers For Windows Ce

Chapter 2 - Installation 2.4 Installing Drivers for Windows CE The ASUS SpaceLink WLAN Card drivers can be installed in Windows CE 3.0 or later device. ActiveSync must be installed in your Windows com- puter (desktop or Notebook PC). 1. Connect the Pocket PC to your computer. Once it detects the link, ActiveSync window will open.

Page 19: Reading The Wireless Lan Pc Card Leds

Chapter 2 - Installation 2.6 Reading the Wireless LAN PC Card LEDs The part of the ASUS SpaceLink PC Card that protrudes out of the PCMCIA socket consists of two LEDs that indicate the status of the ASUS SpaceLink PC Card .

Page 20: Installing Asus Spacelink Pc Card Utilities

Chapter 3 - Reference 2.7 Installing ASUS SpaceLink PC Card Utilities 1. Insert the ASUS SpaceLink PC Card support CD and an autorun menu will appear. If your autorun is disabled. Double click SETUP.EXE in the root directory of the support CD.

Page 21

Chapter 2 - Installation Installing ASUS SpaceLink PC Card Utilities (Cont’) Windows ME 1. Click Next on the Welcome screen. 2. Click Yes after reading the License Agreement. 3. Browse to another Destination Directory 4. Enter another Program Folder name or or click Next to use the default.

Page 22: Software Reference

Chapter 3 - Reference 3. Software Reference 3.1 Overview The ASUS SpaceLink PC Card software includes five groups of utilities. • Control Center – Makes it easy to launch applications and activate network location settings. • Wireless Settings – Allows users to control the ASUS SpaceLink PC Card.

Page 23: Windows Xp Wireless Options

Select one of the three radio buttons to decide your Windows XP wireless networking environment. Use XP and ASUS utilities together – Use both Windows XP and ASUS utilities together to configure the ASUS SpaceLink PC Card. Only use XP wireless function – Only use Windows XP wireless network settings to configure the ASUS SpaceLink PC Card.

Page 24: Control Center

Using the Control Center Taskbar 1. The Control Center Taskbar menu display the following information: • The link quality of the ASUS SpaceLink PC Card (Excellent, Good, Fair, Poor, Not Linked) • Whether the ASUS SpaceLink PC Card is connected to the Internet...

Page 25

Preferences – Customizes the way the Control Center program be- haves. You can create a Control Center shortcut on the desktop. You can also set whether Control Center starts up with Windows. • Exit – Closes the Control Center program. ASUS SpaceLink WL-100 WLAN PC Card...

Page 26: Wireless Settings

Launches the Wireless Settings application. 3.4 Wireless Settings Wireless Settings is an application that allows you to control your ASUS SpaceLink PC Card. Use Wireless Settings to View or Modify the configu- ration settings and monitor the operational status of your PC Card. Once Wireless Settings is launched, you can see the tabbed property sheet.

Page 27: More Than One Asus Spacelink Card

Chapter 3 - Reference More than one ASUS SpaceLink Card If you have more than one ASUS SpaceLink Card. You will be given a device selection window when you launch the “Wireless Settings” utility. 3.4.1 Status - Status Tab You can view the information about the ASUS SpaceLink PC Card from the general menu.

Page 28 INT_TEST_FAIL – Interrupt test failed. NOT_AVAILABLE – Cannot get PC Card status. SSID Shows the SSID that the ASUS SpaceLink PC Card is currently using. MAC address Indicates the hardware address of the ASUS SpaceLink PC Card. MAC address is a unique identifier for networking devices (typically written as twelve hexadecimal digits 0 through 9 and A through F, six hexadecimal numbers separated by colons, i.e.

Page 29 Access Point and search for a better link with another Access Point. This function will take some time. Change SSID – Click on this to set the SSID. Search & Connect – Click on this to connect to an available network. ASUS SpaceLink WL-100 WLAN PC Card...

Page 30: Status - Connection Tab

Chapter 3 - Reference 3.4.2 Status - Connection Tab You can view the current link statistics about the ASUS SpaceLink PC Card. These statistics are updated once per second and are valid only if the ASUS SpaceLink PC Card exists.

Page 31: Status - Ip Config Tab

IP address, subnet mask, default gateway and Windows Inter- net Naming Service (WINS) and DNS configuration. Button IP Release - Releases the DHCP IP address for the ASUS SpaceLink PC Card. IP Renew - Renews the DHCP IP address for the ASUS SpaceLink PC Card.

Page 32: Config - Basic Tab

Chapter 3 - Reference 3.4.4 Config - Basic Tab Lets you can change the ASUS SpaceLink PC Card configurations without rebooting your computer. Network Type Infrastructure – Select the Infrastructure mode to establish a connec- tion with an Access Point. Your computer is able to access wireless LAN and wired LAN (Ethernet), via an associated access point.

Page 33 Chapter 3 - Reference SSID Use the SSID filed to configure the SSID for the ASUS SpaceLink PC Card. You can enter a new SSID or select one from the drop-down list box. SSID stands for “Service Set Identifier”, which is a string used to identify a wire- less LAN.

Page 34 Chapter 3 - Reference PS Mode Use the PS Mode to control ASUS SpaceLink PC Card’s power saving settings. Unchecking the checkbox will allow a full powered state that yields the best performance. This mode is recommended for devices running on AC power.

Page 35: Config - Encryption Tab

Chapter 3 - Reference 3.4.5 Config - Encryption Tab Lets you configure the ASUS SpaceLink PC Card encryption settings. For data confidentiality in a wireless environment, IEEE 802.11 specifies a Wired Equivalent Privacy (WEP) algorithm to offer transmission privacy similar to wired network. The WEP uses keys to encrypt transmitted data packets and decrypt received data packets.

Page 36 Click the Apply button to create your encryption keys. After you click the Apply button, the “Wireless Settings” utility uses asterisks to mask your keys. Click Apply to save and activate the new configurations. ASUS SpaceLink WL-100 WLAN PC Card...

Page 37 “Initialization Vector” (not under user control). This together makes 64 bits (40 + 24). Some vendors refer to this level of WEP as 40 bits and others refer to this as 64 bits. ASUS SpaceLink products use the term 64 bits when referring to this lower level of encryption.

Page 38: Config - Advanced Tab

Chapter 3 - Reference 3.4.6 Config - Advanced Tab Advanced tab provides some additional settings for the ASUS SpaceLink PC Card. The “Advanced” tab is hidden until you click Advanced on the Config - Basic page. NOTE: This page is for advanced users. Do not change these set- tings if you do not fully understand these items.

Page 39 That is where Authentication services come in. If a mutual authentication relation- ship has not been established between the ASUS SpaceLink PC Card(s) and the Access Point(s), an association cannot be established.

Page 40: Survey - Site Survey Tab

Use the Site Survey tab to view statistics on the wireless networks avail- able to the ASUS SpaceLink PC Card. The Site Survey tab is read-only with no user configurable data fields. Use the Site Survey tab to view the following network parameters.

Page 41: About - Version Info Tab

Chapter 3 - Reference 3.4.8 About - Version Info Tab Click about to view version information. The version under the copyright is the utility version. The version information field includes driver, hard- ware, and firmware versions. ASUS SpaceLink WL-100 WLAN PC Card...

Page 42: Link Status

Chapter 3 - Reference 3.4.9 Link Status ASUS SpaceLink PC Card connection quality icon appears on the left of the ASUS WLAN Card Settings. Use the icon to view the current signal quality of the adapter. Excellent Link Quality (Infrastructure)

Page 43: Mobile Manager

Starting Mobile Manager • Click the Windows Start button, select Programs, select ASUS WLAN Card Utilities, and then click Mobile Manager. • Right-click the Control Center icon on the Windows taskbar and then click Mobile Manager.

Page 44: Main Window

INI File. The INI file can be placed on a floppy diskette and then imported by other computers using Mobile Manager. This can also be used as a backup feature for yourself. Exit - Close the Mobile Manager utility. ASUS SpaceLink WL-100 WLAN PC Card...

Page 45 Small Icons - Displays small icons for each configuration. List - Shows the configuration names in a list. Details - The Detailed view expands this list to include information about the configurations. The information includes configuration name, type, and description. ASUS SpaceLink WL-100 WLAN PC Card...

Page 46 Contents - Displays the WinHelp contents window (the one you are reading now) for online Help. About Mobile Manager - Displays the version number and copy- right information for Mobile Manager. Click on the logo to connect to ASUS’ website. ASUS SpaceLink WL-100 WLAN PC Card...

Page 47: Using New Configuration Wizard

ASUS SpaceLink PC Card installed in your PC. • Wired Local Area Network Configuration: You must have a NIC (LAN card) (other than ASUS SpaceLink PC Card) installed in your PC. • Dialup Networking Configuration: You must have a modem in- stalled in your PC.

Page 48: Using Edit Configuration

Double-click one existing configuration on the Main window. Then the Edit Configuration dialog starts. The Edit Configuration dialog contains various settings, which you select by clicking the buttons at the left of the window. Each setting is described below. ASUS SpaceLink WL-100 WLAN PC Card...

Page 49 Select Quick logon to wait until the shared network drives is actually used to attempt the login. Select Logon and restore network connections to logon to all shared network drives when the user logs into Windows. ASUS SpaceLink WL-100 WLAN PC Card...

Page 50 Fully Auto – Automatic transmit data rate fallback to 1, 2, 5.5, or 11 megabits per second for communication with other devices. Auto 1 or 2 Mbps – The ASUS SpaceLink PC Card will use the most suitable transmission rate of either 1 Mbps or 2 Mbps.

Page 51 Specify an IP address – Ask your network administrator for the IP address and subnet mask that you should use. Type in the IP Address and Subnet Mask fields manually. ASUS SpaceLink WL-100 WLAN PC Card...

Page 52 Scope ID for those computers to communicate within the group. The Scope ID is usually left blank. Use DHCP for WINS Resolution – If a DHCP server is available that is configured to provide information on available WINS servers. ASUS SpaceLink WL-100 WLAN PC Card...

Page 53 Select Enable software compression checkbox to specify whether incom- ing or outgoing information is compressed before it is sent. This is useful to speed up the transfer of information. Compression occurs only if both computers are using compatible compression. ASUS SpaceLink WL-100 WLAN PC Card...

Page 54 IP header compression for this connection. IP header compression optimizes data transfer between computers. Use default gateway on remote network – Specifies whether IP traf- fic is routed to the WAN connection by default. ASUS SpaceLink WL-100 WLAN PC Card...

Page 55 Click Cancel button to close the Edit Configuration dialog box without saving any changes you have made. Click Close button to close the Edit Configuration dialog box and save any changes that you have made. ASUS SpaceLink WL-100 WLAN PC Card...

Page 56: Site Monitor

Access Points to provide the best coverage for a wireless network. 3.6.1 Starting Site Monitor • Click the Windows Start button, select Programs, select ASUS WLAN Card Utilities, and then click Site Monitor. • Right-click the Control Center icon on the Windows taskbar and then click Site Monitor.

Page 57: Monitor

During the test, the Start button toggles to Stop. You can click Start button to begin the link test and click Stop button at any time to terminate the test. ASUS SpaceLink WL-100 WLAN PC Card...

Page 58: Live Update

Chapter 3 - Reference 3.7 Live Update Live Update is a utility that allows you to update your ASUS SpaceLink PC Card’s firmware and drivers. The use of this utility assumes that you are properly connected to Internet through an Internet Service Provide (ISP).

Page 59 Chapter 3 - Reference 3. Follow any on-screen instructions or prompts to complete setup. If you already have the latest revision of your ASUS SpaceLink PC Card’s firmware files or driver files, Live Update reports that no update is necessary. When Live Update starts the firmware upgrade, a warning message will tell you that incorrect firmware upgrades may cause your ASUS SpaceLink PC Card to malfunction.

Page 60: Windows Xp Wireless Properties

“SSID” of available networks and set the and 1 bar meaning poor signal. connection preference order with the Move up and Move down buttons. The radio tower with a signal icon identifies the currently connected access point. ASUS SpaceLink WL-100 WLAN PC Card...

Page 61 3.8 Windows XP Wireless Properties (Cont.) 5. The “Authentication” page allows you to 6. The “Advanced” page allows you to set add security settings. Read Windows firewall and sharing. Read Windows help help for more information. for more information. ASUS SpaceLink WL-100 WLAN PC Card...

Page 62 Chapter 3 - Reference ASUS SpaceLink WL-100 WLAN PC Card...

Page 63: Troubleshooting

Follow the procedure below to configure your ASUS SpaceLink PC Card. a. Verify that the “Network Type” is in “Infrastructure” mode. b. Verify that the “SSID” of your ASUS SpaceLink PC Card is set to “any” or set to the same “SSID” of an Access Point.

Page 64 Follow the procedure below to configure your ASUS SpaceLink PC Card. a. Verify that the “Network Type” is in “Ad Hoc” mode. b. Verify that the “SSID” of your ASUS SpaceLink PC Card is set to “any” or set to the same “SSID” of the other station (or another ASUS SpaceLink PC Card).

Page 65: Glossary

802.3 standard. Ethernet is normally a shared media LAN meaning all de- vices on the network segment share total bandwidth. Ethernet networks operate at 10Mbps using CSMA/CD to run over 10-BaseT cables. Gateway A network component that acts as an entrance to another network. ASUS SpaceLink WL-100 WLAN PC Card...

Page 66 ISM Bands (Industrial, Scientific, and Medicine Bands) Radio frequency bands that the Federal Communications Commission (FCC) authorized for wireless LANs. The ISM bands are located at 902 MHz, 2.400 GHz, and 5.7 GHz. ASUS SpaceLink WL-100 WLAN PC Card...

Page 67 Hertz. One gigahertz (GHz) is one billion Hertz. The standard US electri- cal power frequency is 60 Hz, the AM broadcast radio frequency band is 0.55-1.6 MHz, the FM broadcast radio frequency band is 88-108 MHz, and wireless 802.11 LANs operate at 2.4 GHz. ASUS SpaceLink WL-100 WLAN PC Card...

Page 68 Soft- ware implementing TCP usually resides in the operating system and uses the IP to transmit information across the network. ASUS SpaceLink WL-100 WLAN PC Card...