WISP Medical PC



User's Manual

Version 1.6

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Declaration of Conformity

EMC

CE/FCC Class B

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This equipment may not cause harmful interference.

2. This equipment must accept any interference that may cause undesired operation.

Applicable Standards:

EN 55022: 2006 + A1: 2007, Class B EN 61000-3-2: 2006 EN 61000-3-3: 1995 + A1: 2001 + A2: 2005 EN 55024: 1998 + A1: 2001 + A2: 2003 IEC 61000-4-2: 2008 IEC 61000-4-3: 2006 + A1: 2007 IEC 61000-4-4: 2004 IEC 61000-4-5: 2005 IEC 61000-4-6: 2007 IEC 61000-4-8: 1993 + A1: 2000 IEC 61000-4-11: 2004 FCC 47 CFR Part 15 Subpart ICES-003 Issue 4 ANSI C63.4-2003

Safety Applicable Standards: EN 60601-1 UL 60601-1

Chapter 1

General Information

1.1 Packing Contents

Following illustration displays the package contents of **WISP**. If any of the following items is damaged or missed out please contact us right away.



Classification

- 1. Level of production against electric shock: not classified
- 2. Level of protection against the ingress of water: IPX0
- 3. Type of protection against: Power by Class I
- 4. Mode of operation: Continuous Operation

1.2 System Specifications

System		
CPU	Intel® Atom™ CPU Z510 1.10GHz FSB:533MHz	
	L2:512K	
Chipset	Intel® System Controller Hub US15W	
Graphics Controller	Intel Graphics Media Accelerator 500	
Memory	Transcend DDR2 533 1GB SODIMM	
Storage	Transcend 16GB CF	
Operation System	Windows Embeddad 2009	
Peripherals & Devices		
USB Port	USB Port x 2	
Connectivity	RTL 8111C GbE LANs	
	WLAN 802.11 a/b/g/n support	
	MCS7830 USB Enternet support	
Power Source	Internal SNP-Z057 (60W, Medical Level)	
Power Input	100-240 Vac, 47-63 Hz, Max. 60 W	
Button	Wireless on/off button	
Mechanical & Environm	ental	
Operating Temp	0 ~ 40°C	
Vibration	5 grms/5 ~ 500Hz/random operation	
Shock	10G/peak (11ms)	
Regulatory	CE,FCC Class-B	
	EN60601-1	
	UL60601-1	
Dimensions	530x41x155	
Net Weight	10.5Kg	

1.3 System Overview

1.3.1 Front Side



1.3.2 Rear Side



1.3.3 Left Side



1.4 Dimensions

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1.5 Cleaning and Disinfecting



Do not use sharp tools.

Never immerse electrical connectors in water or other liquids. Such actions may damage the device.

If you accidentally spill liquid on a device, disconnect the unit from the power source.

Contact your service personnel regarding the continued safety of the unit before placing it back in operation.

Do not spray cleaning agent on the chassis.

Do not use disinfectants that contain phenol.

Do not autoclave or clean the device or its peripherals with strong aromatic, chlorinated, ketene, ether, or Esther solvents, sharp tools or abrasives.

During normal use of the WiSP may become soiled and should, therefore, be cleaned regularly.

Cleaning instructions follow:

1. Wipe the WiSP with a clean cloth that has been moistened in the cleaning solution.

2. Prepare agent per manufacturer's instructions or hospital protocol. Wipe thoroughly with a clean cloth.

1.6 Additional Information and Assistance

Contact your distributor, sales representative, or Portwell's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:

- 1. Product name and serial number
- 2. Description of your peripheral attachments
- 3. Description of your software (operating system, version, application software, etc.)
- 4. A complete description of the problem
- 5. The exact wording of any error messages
- 6. This equipment is a source of electromagnetic waves. Before use please, make sure that there are not EMI sensitive devices in its surrounding which may malfunction therefore.

Manufacturer Portwell, Inc. Add: No. 242, Bo-Ai Street, Shu-Lin Dist., New Taipei City 238, Taiwan. Tel: +886-2-7731-8888 Fax: +886-2-7731-9888

1.7 System Setting

WiSP is terminal control system of the network none has VGA display. Must be connected via Ethernet cable to the internal system.



Must be to trained service personnel of the install and

setting.

1.8 Power-On Problems

If the system does not boot after you have applied power, check the following factors that might have caused the boot failure.

- The external power cord may be loosely connected.
- Loose or improperly connected internal power cables.



Note: Do not remove the grounding cable.

1.9 Install a Wall Mount



Set 1. Using the included screws, find the ones that match the wall mount screw holes on the right of system.



Set 2. Close the cover and need to use a screw driver to tighten down the screw at the bottom.



Chapter 2

Locating Controls and Driver installations

2.1 Location Controls

2.1.1 Front Panel

The front panel contains wireless ON/OFF LED, USB port and wireless status LED



2.1.2 Rear I/O

The Rear I/O side contains LAN port and Wireless switch.



2.2 Driver Installation

Before you install the drivers, you must make sure the Operating System, in this case, Windows XP) is installed first.

2.2.1 Chipset Component Driver Installation

1. Put the CD ROM into the CD-ROM drive, Click **Chipset** directory to install the device driver.



2. Make sure you have closed all programs running and then click **Next** to continue



3. Please read the license agreement first, and click Yes to continue.



4. Please read the Readme file for system requirements and installation information, and click **Next** to continue.



5. The chipset device driver installation is completed. Click **Next** to continue.



6. To have the installation take effect, select the **Yes** radio button and click **Finish** to restart your computer.



2.2.2 Intel Graphics GMCH Chip Driver Installation

- 1. Click **VGA** directory to install the device driver.
 - WISP Driver (D:) File Edit View Pavorites Tools Help 1 🔇 Back 🔹 🜔 - 🏂 🔎 Search 😥 Folders 🔢 -Address D.D. 👻 🛃 Go File and Folder Tasks * Chipset. MC57832 Rename this folder Move this folder Realtek_LAN_WinDriver RT2870_U68_Wireless Copy this falcer Publish this Folder to the Web 🞧 Chare this folder 150 🔁 E-mail this footer's files X Delete this forder Other Places 2 😼 My Computer A My Documents C Shared Occurrents Ny Network Flaces Details 8
- 2. Make sure you have closed all programs running and then click **Next** to continue.



3. Please read the license agreement first, and click Yes to continue.



4. Please read the Readme file for system requirements and installation information, and click **Next** to continue.



5. Please wait for a while for the data extracting and file copying.



6. After installing the graphics device driver, click **Finish** with **Yes** radio button selected to restart your computer.



2.2.3 Realtek Gigabit Ethernet Controller Driver Installation

1. Click **Realtek_LAN_WinDriver** directory to install the device driver.



2. Click Next to continue.



3. Click Install to start installation.

REAL FER GOL & FE Ethernet	PCI-LINIC UNVER - InstallSmeld Wizard	<u></u>
The waard is ready to begin ins	n Kalabion	
	Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Click I witzerd	Cancel to exit the
JustallShidd	(Back) (Jistail)	Cancal

4. Click Finish to close the wizard window.



2.2.4 MCS7832 USB Ethernet Controller Driver Installation

1. Click MCS7832 directory to install the device driver.



2. Auto install for USB Ethernet

H	Installation is in ProgressPlease wait!		
T.	Transit 1	E a a	

3. After the driver is installed, the USB Ethernet device information in Device Manager may appear with an exclamation mark. To solve this problem, please go through the following few steps to manually update the driver for this device on the Device Manager". You just need to do it once.

Double left-click the mouse on the "USB Device" icon under the "USB –MAC Controller" icon to update driver.



4. You will see the "Hardware Update Wizard" appearing on your desktop. Please select "**Yes, now and every time I connector a device**" and then click "**Next**".



5. The driver is now completed updated. Click "Finish".

Hardware Update Wizard	
	Completing the Hardware Update Wizard The wizard has finished installing the software for: HighSpeed USB-Ethernet Adapter
Contraction of the local division of the loc	Click Finish to close the wizard.
	K Back Finish Cancel

2.2.5 Wireless Driver Installation

1. Click **RTL2870_USB_Wireless** directory to install the device driver.



2. Please read the license agreement first, and click Next to continue.



3. Select the setup type, click Next to continue. The default setting is "Install driver and Ralink WLAN Utility".

Setup Type Select the setup type that bes	l suks your needs.	
	Choose to instal	
Ralink	 Instal driver and Raink WLAN Utility Instal driver only 	

4. Select the configuration Tools type, click Next to continue. The default setting is "Ralink Configuration Tool".



5. The WLAN driver is being installed. When the progress bar reaches the end, the installation is done.



6. Once the installation is completed, a Wireless LAN window as the figure shown below will pop up (for installing it the first time). This windows displays the status of wireless signals and provides setting options.



Chapter 3 BIOS Setup Information

WISP is equipped with the AMI BIOS stored in Flash ROM. These BIOS has a built-in Setup program that allows users to modify the basic system configuration easily. This type of information is stored in CMOS RAM so that it is retained during power-off periods. When system is turned on, NANO-8045L communicates with peripheral devices and checks its hardware resources against the configuration information stored in the CMOS memory. If any error is detected, or the CMOS parameters need to be initially defined, the diagnostic program will prompt the user

to enter the SETUP program. Some errors are significant enough to abort the start-up.

3.1 Entering Setup

Turn on or reboot the computer. When the message, "Hit if you want to run

SETUP" appears, press key to enter BIOS setup program.

If the message disappears before you respond, but you still wish to enter Setup, please restart the system to try "COLD START" again by turning it OFF and then ON, or touch the "RESET" button. You may also restart from "WARM START" by pressing <Ctrl>, <Alt>, and <Delete> keys simultaneously. If you do not press the

keys at the right time and the system will not boot, an error message will be displayed

and you will again be asked to,

Press <F1> to Run SETUP or Resume

The BIOS setup program provides a General Help screen. You can call up this screen

from any menu by simply pressing <F1>. The Help screen lists the appropriate keys

to use and the possible selections for the highlighted item. Press <Esc> to exit the

Help screen.

÷	Select	t Screen	11	Select Item
	Chang	ge Option/Field	Enter	Go to Sub Screen
PGDN	Next	Page	PGUP	Previous Page
IOME	Go to	o Top of Screen	END	Go to Bottom of Screen
F2/F3	Chang	e Colors	F7	Discard Changes
F8	Load	Failsafe Defaults	F9	Load Optimal Defaults
F10	Save	and Exit	ESC	Exit

[0k]

3.2 Main Menu

Use this menu for basic system configurations such as time, date etc.

		BIOS SE	TUP UTILITY		
lain Advanced	PCIPnP	Boot	Security	Chipset	Exit
System Overview				Use	(ENTER) . (TAB)
AMIBIOS	c			or sele	ect a field.
Build Date:12/03/0	8			lleo	[+] or [-] to
ID :1AAAA00	0			con	figure system Date.
Processor					
Intel(R) Atom(TM)	CPU 2510	@ 1.100	Hz		
Speed :1100MHz					
Count :1					
System Memory					Select Screen
Size :251MB				11	Select Item Change Field
System Time		[05:1	7:01]	Tab	Select Field
System Bate		ISun	/10/2009]	F1	General Help Saug and Exit
CMC Lo-Module:0D2.	023x, Hi-	Module:6	0D2.015x	ESC	Exit
		1 1000 5	0000 0000 100		-

AMI BIOS, Processor, System Memory

These items show the firmware and hardware specifications of your system. Read only.

System Time

The time format is <Hour> <Minute> <Second>. Use [+] or [-] to configure system Time.

System Date

The date format is <Day>, <Month> <Date> <Year>. Use [+] or [-] to configure system Date.

3.3 Advanced

Use this menu to set up the items of special enhanced features.

BIOS SETUP UTILITY	
Main <mark>Advanced PCIPnP Boot Security C</mark>	nipset Exit
HainAdvancedPCIPnPBootSecurityClAdvanced Settings	Configure CPU. * Select Screen 14 Select Item
	Enter 60 to Sub Screen F1 General Help F10 Save and Exit ESC Exit

CPU Configuration

These items show the advanced specifications of your CPU. Read only.

BIOS SETUP UT Advanced	ILITY
Configure advanced CPU settings Module Version:3F.13	Disabled for WindowsXP
Manufacturer:Intel Intel(R) Atom(TM) CPU Z530 @ 1.60GHz Frequency :1.59GHz FSB Speed :533MHz Cache L1 :24 KB Cache L2 :512 KB Ratio Actual Value:12	
Max CPUID Value Limit Intel(R) Virtualization Tech Execute-Disable Bit Capability Hyper Threading Technology Intel(R) SpeedStep(tm) tech (Enabled) (Enabled)	 Select Screen t4 Select Item Change Option F1 General Help F10 Save and Exit ESC Exit
v02.61 (C) Comunicht 1985-2006. A	F10 ESC merican Megatrends

Max CPUID Value Limit

Disable for Windows XP.

Execute-Disable Bit Capability

When disable, force the XD feature flag to always return 0.

Hyper Threading Technology

Enable for Windows XP and Linux4 (OS optimized for Hyper Threading Technology) and disabled for other OS (OS not optimized for Hyper-Threading Technology)

Intel(R) SpeedSetup(™) tech

Disable: Disable GV3 Enable: Enable GV3

IDE Configuration

The IDE Configuration the IDE devices, such as hard disk drive or CD-ROM drive. It

uses a separate sub menu to configure each hard disk drive (Master and Slave).



ATA/IDE Configuration

The choice: Disabled, Compatible.

Primary IDE Master/Slave

While entering setup, BIOS auto detects the presence of IDE devices. This display shows the status of auto detection of IDE devices.

B	IOS SETUP UT	ILITY	
Advanced			
Primary IDE Master			Select the type of device connected
Device :Not Detected			to the system.
Туре	lAutol		
LBA/Large Mode	LAutol		
Block (Multi-Sector Transfer)	[Auto]		
DNA Mode	[Auto]		
S.M.A.R.T.	[Auto]		
32Bit Data Transfer	[Enabled]		
			+ Select Screen
			TI Select Item
			+- Change uption
			F10 Saue and Exit
			ESC Exit
	Williams H.	w kinge	
v02.61 (C) Copyright	1985-2006, A	merican Me	gatrends, Inc.

[Type] Press PgUp/<+> or PgDn/<-> to select [Manual], [None] or [Auto] type.

You can use [Manual] to define your own drive type manually.

[LBA/Large Mode] Enabling LBA causes Logical Block Addressing to be used in place of Cylinders, Heads and Sectors.

[Block (Multi-Sector Transfer)] Any selection except Disabled determines the number

of sectors transferred per block.

[PIO Mode] Indicates the type of PIO (Programmed Input/Output).

[DMA Mode] Indicates the type of Ultra DMA.

[S.M.A.R.T.] This allows you to activate the S.M.A.R.T. (Self-Monitoring Analysis &

Reporting Technology) capability for the hard disks. S.M.A.R.T is a utility that monitors your disk status to predict hard disk failure. This gives you an opportunity

to move data from a hard disk that is going to fail to a safe place before the hard disk

becomes offline.

[32 Bit Data Transfer] Enable/Disable 32-bit Data Transfer.

Hard Disk Write Protect

Disabled/Enabled device write protection, this will be effective only if device is accessed through BIOS.

The choice: Disabled, Enabled.

IDE Detect Time Out (Sec)

Select the time out value for detecting ATA/ATAPI device (s).

The choice: 0, 5, 10, 15, 20, 25, 30, 35.

ATA (PI) 80Pin Cable Detection

Select the mechanism for detecting 80Pin ATA (PI) cable.

The choice: Host & Device, Host, Device.

Super IO Configuration

Serial Port 1 Address

Allows BIOS Select Serial Port1 Base Addresses.

The choice: Disabled, 3F8/IRQ4.

Watch Dog Timer Set

This BIOS testing option is able to reset the system according to the selected table.

The choice: Disabled, 10, 20, 30, 40 Sec, 1Min, 2Min, 4Min.

Hardware Health Configuration

Configuration / monitor the Hardware Health.

Hardware Health Configuration		Fan confiruration
System Temperature CPU Temperature	:44°C/111°F :37°C/98°F	- mode setting
Ucore 5USB *3.3U * 5 U * 12U 3USB UBAT SYSTEM Hode Setting SYSTEM PWM Control	:0.960 U :5.376 U :3.264 U :5.350 U :12.144 U :3.216 U :3.136 U Uramal Hode [250]	 Select Screen 14 Select Item Change Option F1 General Help F10 Save and Exit ESC Exit

SYSFAN Mode Setting

Fan configuration mode setting.

The choice: Manual Mode, Thermal Cruise Mode.

SYSFAN PWM Control

The PWM duty cycle control.

The choice: 0 to 255.

ACPI Configuration

Select for Advanced ACPI Configuration.

BLOS SETUP UT Advanced	11.017
ACPI Settings Concret ACPI Configuration Advanced ACPI Configuration Chipset ACPI Configuration	General ACPI Configuration settings
	 Select Screen Select Item Enter Go to Sub Screen F1 General Help F10 Save and Exit ESC Exit
002.61 (C)Copyright 1985-2006, f	merican Negatrends, Inc.

General ACPI Configuration

ITY
Select the ACPI
System Suspend.
+ Select Screen †4 Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit

Suspend mode

This item specifies the power saving modes for ACPI function. If your operating system supports ACPI, you can choose to enter the Standby mode in S3 (STR) function through the setting of this field. Option is:

[S3 (STR)] The S3 sleep mode is a lower power state where the information of system

configuration and open applications/ files is saved to main memory that remains powered while most other hardware components turn off to save energy. The information stored in memory will be used to restore the system when a "wake up"

event occurs.

Repost Video on S3 Resume

Determines whether to invoke VGA BIOS post on S3/STR resume.

The choice: No, Yes

Advanced ACPI Configuration

Advanced ACPI Configuration settings, Use this section to configure additional ACPI options.



ACPI Version Features

Enable RSDP pointers to 64-bit Fixed System Description Tables.

The choice: ACPI v1.0 / ACPI v2.0 / ACPI v3.0.

ACPI APIC support

Include ACPI APIC table pointer to RSDT pointer list.

The choice: Disabled, Enabled.

AMI OEMB table

Include OEMB table pointer to R(X) SDT pointer list.

Headless mode

Enable / Disable Headless operation mode through ACPI.

The choice: Disabled, Enabled.

Chipset ACPI Configuration

Chipset ACPI related Configuration settings, Use this section to configure additional

ACPI options.

Advanced	IOS SETUP UTILITY	
South Bridge ACPI Configuration		Enable/Disable
APIC ACHI SUL INU USB Device Wakeup From S3/S4	Disabled) Disabled)	HPIC HCPI SCI INQ.
		 Select Screen Select Iten Change Option General Help Save and Exit

APIC ACPI SCI IRQ

Enable / Disable APIC ACPI SCI IRQ.

The choice: Disabled, Enabled.

USB Device Wakeup From S3/S4

Enable / Disable USB device Wake from S3/S4 mode.

MPS Configuration

Configure the Multi-Processor Table.

Advanced	BIOS SETUP UTILITY	
MPS Configuration		Select MPS
NES New Lation	[1.4]	- Kev 15 10m.
		+ Select Screen 14 Select Item +- Change Option
		F1 General Help F10 Save and Exit ESC Exit
v02.61 (C) Comuri	oht 1985-2006, American	Megatrends, Inc.

MPS Revision

This field allows you to select which MPS (Multi-Processor Specification) version to

be used for the operating system. You need to select the MPS version supported by

your operating system. To find out which version to use, consult the vendor of your

operating system.

The choice: 1.1, 1.4.

PCI Express Configuration

Configure PCI Express Support.



Active State Power-Management

PCI Express LOs and L1 link power states.

Smbios Configuration

SMBIOS Configuration Menu.

Subios Configuration Screen Advanced		
Smbios Configuration Smbios Smi Support	Enabledi SMBIOS SMI Wrapper support for PnP Func 50h-54h	
	 Select Screen Select Item Change Option General Help Save and Exit ESC Exit 	
v02.61 (C) Copyr	ght 1985-2006, American Megatrends, Inc.	

Smbios Smi Support

SMBIOS SMI Wrapper supports for PnP Func 50h-54h.

USB Configuration

BIOS SETUP UTILITY Bdvanced		
USB Configuration	Enables support for	
Module Version - 2.24.3-13.4 USB Devices Enabled : 1 Keyboard	Tegacy USB. AUTO option disables legacy support if no USB devices are connected.	
Legacy USB Support Enabled USB 2.0 Controller Mode HiSpeed BIOS EHCI Hand-Off Enabled	+ Select Screen 14 Select Item +- Change Ontion	
	F1 General Help F10 Save and Exit ESC Exit	

Legacy USB Support

Set to [Enabled] if you need to use any USB 1.1/2.0 device in the operating system

that does not support or have any USB 1.1/2.0 driver installed, such as DOS and SCO

Unix.

The choice: Disabled, Enabled, Auto.

USB 2.0 Controller Mode

This setting specifies the operation mode of the onboard USB 2.0 controller. The choice: FullSpeed, HiSpeed.

BIOS EHCI Hand-Off

This is a workaround for OSes without EHCI hand-off support. The EHCI ownership change should claim by EHCI driver.

3.4 PCIPnP

Advanced PCI/PnP setting wrong values in below sections may cause system to malfunction.

BIOS SETUP UTILITY		
Main Advanced PCIPnP	Boot Security	Chipset Exit
Advanced PCI/PnP Settings		Clear NURAM during Susten Boot.
WARNING: Setting wrong value may cause system to	s in below sections malfunction.	
Clear NUMM		
Plug & Play O/S	[No]	
PCI Latency Timer	[64]	
Allocate IRQ to PCI UGA	[Yes]	
Palette Snooping	[Disabled]	
PCI IDE BusMaster	[Enabled]	
OffBoard PCI/ISA IDE Card	[Auto]	
		Select Screen
1RU3	Invailablei	TI Select Item
1 KU4	[Available]	+- Change Uption
1805	[Available]	F1 General Help
1807	[Available]	F10 Save and Exit
1803	lAvailable	ESC Exit
TRUTO	thuailable	
IKUII	thuallablel	

Clear NVRAM

Clear NVRAM during System Boot.

The choice: No, Yes.

Plug & Play O/S

No: lets the BIOS configure all the devices in the system.

Yes: lets the operating system configure Plug and Play (PnP) devices not required for

boot if your system has a Plug and Play operating system.

The choice: No, Yes.

PCI Latency Timer

Select value in units of PCI clocks for PCI device latency timer register.

The choice: 32, 64, 96, 128, 160, 192, 224, 248.

Allocate IRQ to PCI VGA

Yes: Assigns IRQ to PCI VGA card if card requests an IRQ. No: Does not assign IRQ to PCI VGA card even if card requests an IRQ.

The choice: No, Yes.

Palette Snooping

Enabled: informs the PCI devices that an ISA graphics device is installed in the system so the card will function correctly.

The choice: Disabled, Enabled.

PCI IDE BusMaster

Enabled: Uses PCI bus mastering for reading / writing to IDE drives.

The choice: Disabled, Enabled.

OffBoard PCI/ISA IDE Card

Some PCI IDE cards may require this to be set to the PCI slot number that is holding

the card. AUTO: Works for most PCI IDE cards.

The choice: Auto, PCI Slot1, PCI Slot2, PCI Slot3, PCI Slot4, PCI Slot5, PCI Slot6.

IRQ 3 / IRQ 4 / IRQ5 / IRQ7 / IRQ 9 / IRQ 10 / IRQ 11 / IRQ 14 / IRQ 15

Available: Specified IRQ is available to be used by PCI/PnP devices. Reserved: Specified IRQ is reserved for used by Legacy ISA devices.

The choice: Available, Reserved.

Reserved Memory Size

Select Size of memory block to reserve for legacy ISA devices.

The choice: Disabled, 16K, 32K, 64K

3.5 Boot

Use this menu to specify the priority of boot devices.



Boot Settings Configuration

Boot Settings Configuration		Allows BIOS to skip
Quiet Boot Quiet Boot AddOn ROM Display Mode Bootup Nun-Lock PS/2 Mouse Support Vait For 'F1' If Error Hit 'DEL' Message Display Interrupt 19 Capture	EnabledI [Disabled] [Force BIOS] [On] [Auto] [Enabled] [Enabled] [Disabled]	 certain tests while booting. This will decrease the time needed to boot the system. * Select Screen 11 Select Item +- Change Option
		F1 General Help F10 Save and Exit ESC Exit

<u>Quick Boot</u>

Enabling this setting will cause the BIOS power-on self test routine to skip some of its

tests during boot up for faster system boot.

The choice: Disabled, Enabled.

<u>Quiet Boot</u>

This BIOS feature determines if the BIOS should hide the normal POST messages with the motherboard or system manufacturer's full-screen logo. When it is enabled,

the BIOS will display the full-screen logo during the boot-up sequence, hiding normal POST messages.

When it is disabled, the BIOS will display the normal POST messages, instead of the

full-screen logo.

Please note that enabling this BIOS feature often adds 2-3 seconds of delay to the booting sequence. This delay ensures that the logo is displayed for a sufficient

amount of time. Therefore, it is recommended that you disable this BIOS feature for a faster boot-up time.

The choice: Disabled, Enabled.

AddOn ROM Display Mode

This item is used to determine the display mode when an optional ROM is initialized during POST. When set to [Force BIOS], the display mode used by AMI BIOS is used.

Select [Keep Current] if you want to use the display mode of optional ROM.

The choice: Force BIOS, Keep Current.

Bootup Num-Lock

This setting is to set the Num Lock status when the system is powered on. Setting to [On] will turn on the Num Lock key when the system is powered on. Setting to [Off] will allow users to use the arrow keys on the numeric keypad.

The choice: Off, On.

PS/2 Mouse support

Select [Enabled] if you need to use a PS/2-interfaced mouse in the operating system.

The choice: Disabled, Enabled, Auto.

Wait For 'F1' If Error

When this setting is set to [Enabled] and the boot sequence encounters an error, it asks you to press F1. If disabled, the system continues to boot without waiting for

you

to press any keys.

The choice: Disabled, Enabled.

<u>Hit 'DEL' Message Display</u>

Set this option to [Disabled] to prevent the message as follows:

Hit Del if you want to run setup

It will prevent the message from appearing on the first BIOS screen when the computer boots. Set it to [Enabled] when you want to run the BIOS Setup Utility.

The choice: Disabled, Enabled.

Interrupt 19 Capture

Interrupt 19 is the software interrupt that handles the boot disk function. When enabled, this BIOS feature allows the ROM BIOS of these host adaptors to "capture"

Interrupt 19 during the boot process so that drives attached to these adaptors can

function as bootable disks. In addition, it allows you to gain access to the host adaptor's ROM setup utility, if one is available.

When disabled, the ROM BIOS of these host adaptors will not be able to "capture" Interrupt 19. Therefore, you will not be able to boot operating systems from any bootable disks attached to these host adaptors. Nor will you be able to gain access to

their ROM setup utilities.

The choice: Disabled, Enabled.

Boot Device Priority

Boot Device Priority		Specifies the boot
1st Boot Device	DNetwork:IBA GE Sio)	A device enclosed in parenthesis has been disabled in the corresponding type menu.
		+ Select Screen †4 Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit

1st Boot Device

The items allow you to set the sequence of boot devices where BIOS attempts to load

the disk operating system. First press <Enter> to enter the sub-menu. Then you may

use the arrow keys ($\uparrow\downarrow$) to select the desired device, then press <+>, <-> or <PageUp>, <PageDown> key to move it up/down in the priority list.

The choice: (Network: IBA GE Slot 0200 v1324), Disabled.

3.6 Security

et Exit nstall or Change the assword.
nstall or Change the assword.
H55MULU +
Select Screen 4 Select Item
nter Change 1 General Help
10 Save and Exit
+ 1 E F F

Use this menu to set supervisor and user passwords.

Supervisor Password / Change Supervisor Password

Supervisor Password controls access to the BIOS Setup utility. These settings allow

you to set or change the supervisor password.

User Password / Change User Password

User Password controls access to the system at boot. These settings allow you to set or

change the user password.

Boot Sector Virus Protection

Boot Sector Virus Protection.

3.7 Chipset

This menu controls the advanced features of the onboard Northbridge and Southbridge.



North Bridge Chipset Configuration



Primary Graphics Adapter

Select which graphics controller to use as the primary boot device.

The choice: IGD, PCIe/IGD.

Integrated Graphics Mode Selec

Select the amount of system memory used by the internal graphics device.

The choice: Disabled, Enabled, 1MB, Enabled, 4MB, Enabled, 8MB.

Boot Display Configuration

BIOS SETUP UTILITY Chipset		
Boot Display Configuration		Options
Boot Display Device Local Flat Panel Scaling Flat Panel Type DPST Control TV Standard	External CRT3 [Auto] [1024x768 (Samsung] [VBIOS-Default] [VBIOS-Default]	Auto Integrated LUDS External DUI/HDMI External TU External CRT External LUDS
		 Select Screen Select Item Change Option General Help Gave and Exit ESC Exit

Boot Display Device

The choice: Auto, Integrated LVDS, External DVI/HDMI, External TV, External CRT

External LVDS.

Local Flat Panel Scaling

The choice: Auto, Forced Scaling, Disabled.

Flat Panel Type

The choice: 640x480 (generic), 800x600 (generic), 1024x768 (generic), 640x480 (NEC 8.4"), 800x600 (NEC 9"), 1024x600 (TMD 5.61"), 1024x600 (Samsung 4.8"), 1024x768 (Samsung 15"), 1280x768 (Sharp 7.2"), 1280x800 (Samsung 15.4"), 1366x768 (TMD 11.1").

DPST Control

The choice: VBIOS-Default, DPST Disabled, DPST Enabled at Level 1~Level 5.

TV Standard

The choice: VBIOS-Default, NTSC, PAL, SECAM, SMPTE240M, ITU-R television,

SMPTE295M, SMPTE296M, CEA 7702, CEA 7703.

BIOS SETUP UTILITY Chipset		
South Bridge Chipset Configuration		Number of UCHI
USB Functions USB 2.0 Controller USB Client Controller SDIO Controller Audio Controller Codec SLP_S4# Min. Assertion Width Restore on AC Power Loss Serial LPD Mode	16 USB Fortal [Enabled] [Disabled] [Enabled] [Azalia] [1 to 2 seconds] [Last State] [Continuous]	 ports in system ECHI ONLY is automatically added.
PCIE Ports Configuration PCIE Port 0 PCIE Port 1	[Auto] [Auto]	 Select Screen Select Iten Change Option General Help Save and Exit ESC Exit

South Bridge Chipset Configuration

USB Functions

This setting specifies the function of the onboard USB controller.

The choice: Disabled, 2 USB Ports, 4 USB Ports, 6 USB Ports.

USB 2.0 Controller

Set to [Enabled] if you need to use any USB 2.0 device in the operating system that

does not support or have any USB 2.0 driver installed, such as DOS.

The choice: Enabled, Disabled.

USB Client Controller

The choice: Enabled, Disabled.

SDIO controller

The choice: Enabled, Disabled.

Audio Controller Codec

The choice: Auto, Azalia, Disabled.

SLP_S4# Min. Assertion Width

The choice: 4 to 5 seconds, 3 to 4 seconds, 2 to 3 seconds, 1 to 2 seconds.

Restore on AC Power Loss

This item allows user to configure the power status of using ATX power supply after

a serious power loss occurs.

The choice: Power Off, Power On, Last State.

Serial IRQ Mode

The choice: Continuous, Quiet.

PCIE Port 0

The choice: Auto, Enabled, Disabled.

PCIE Port 1

The choice: Auto, Enabled, Disabled.

<u>3.8 Exit</u>

This menu allows you to load the BIOS default values or factory default settings into

the BIOS and exit the BIOS setup utility with or without changes.



Save Changes and Exit

Exit System Setup and save your changes to CMOS. Pressing <Enter> on this item

asks for confirmation: Save changes to CMOS and exit the Setup Utility.

Discard Changes and Exit

Abandon all changes and exit the Setup Utility.

Discard Changes

Abandon all changes and continue with the Setup Utility.

Load Optimal Defaults

Use this menu to load the default values set by the SBC manufacturer specifically for

optimal performance of the SBC.

Load Failsafe Defaults

Use this menu to load the default values set by the BIOS vendor for stable system performance.

Chapter 4 Appendix

4.1 Protective Packing

Carefully packing your "WiSP" System (save the box and packing materials for future use).

See the picture below for packing the "WiSP" System:



4.2 FCC Caution

This device complies with Part 15 of the 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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 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.

Radiation Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.