
2. Introduction and Specification

2 – 1. Product Features



High-Performance Notebook Computer

- Intel Core™2 Duo Processor and DDR III Memory
- Wireless LAN (Optional), Bluetooth (Optional)
- Fingerprint recognition (Optional), TPM(Trusted Platform Module) (Optional)



Supports Various Multimedia Functions

- Supports Play AVStation which allows you to enjoy various multimedia items (Optional)
- A video chatting/conference function adopting the camera module (Optional)
- An HDMI port that enables viewing a full HD picture on the TV



Easy-to-Use and Convenient Functions

- Various Hot Key Functions
- Multi-Card Slot
- Luxurious, Ergonomic Design
- Convenient Touchpad Gesture Functions (Optional)



Optional items may be changed or may not be provided depending on the computer model.

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2 – 2. Specifition

2 – 2 – 1. HW Information

Processor and Motherboard	Description
CPU	Intel® Core™ 2 Duo Processor Penryn/Merom/Celeron (Max 25W)
Speed	Intel® Core™ 2 Duo Processor P9500 (2.53GHz, 1066MHz, 6MB) Intel® Core™ 2 Duo Processor P8600 (2.40GHz, 1066MHz, 3MB) Intel® Core™ 2 Duo Processor P8400 (2.26GHz, 1066MHz, 3MB) Intel® Core™ 2 Duo Processor P7350
Cache	6MB (Intel® Core™ 2 Duo Processor P9500) 3MB (Intel® Core™ 2 Duo Processor P8600, P8400, P7350)
Chipset	Intel Cantiga PM + ICH9-M
BIOS	8 Mbit, Flash upgradable, SPI ROM
Thermal Design Performance	MAX. 25W
Display and Graphics	
LCD	14.1" HD LED LCD WXGA(HD, 1280X800, 16:10)
LCD Vendor / [1st vendor]	AMLCD
LCD Viewable Area	303.36(H) x 189.6(V) (14.1" diagonal)
LCD Resolution	(1280 x 800) x 262,144 color (18 bit)
Dot Pitch	0.2370(H) x 0.2370(V) (TYP.)
Viewing angle	Hor. +40/-50, Ver. +15/-25
Graphics Controller	nVIDIA GeForce 9200M GS 256 NVIDIA NB9M-GE, GS
Video Memory	256MB gDDR3
Max.Resolution for LFP LVDS	1280X800 x 32Bits color (WXGA)
Max.Resolution for External Monitor	2,048 x 1,536 @ 32bps (CRT)
VGA	2,048 x 1,536
HDMI	1080p
Controls	Keyboard Brightness Control
Camera	Support
Storage	
Hard Disk Drive	9.5mmH 2.5" HDD, Removable
Supports	SATA II 3.0Gbit/s PHY, with backward compatibility with 1.5Gbit/s
Average Access Time	Read Max.14ms Write Max. 15ms
Speed	5400rpm SATA
Capacity	120GB / 160GB / 200GB / 250GB / 320GB : HGST,Fujitsu,Samsung, Toshiba, WDStorage 120 / 160 / 200 / 250 / 320GB SATA 5400rpm
Optical Disk Drive	Super Multi Dual Layer (DL) Super Multi Light Scribe (LS) Blu-Ray
Type	Fixed type (Factory Option)
S/W supplied	Cyberlink DVD Suite , Burning function in Windows Vista
Security	RPC-II Regional Encoding
Audio	
Sound	Intel HD (High Definition) Audio
Controller	HD Audio Codec, ALC262
Conversion	Built-in high performance 20-bit ADC & 24-bit DAC

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Processor and Motherboard	Description
Internal Interfaces	Embedded stereo speakers
Speaker Power Rating	2 Speakers x 1.5 Watt with enclosure each
External Interfaces	Microphone, Headphone
Controls	Keyboard volume control
Microphone	
Microphone	1 integrated mono microphone
Sensitivity	-40±3 dB
Output Impedance	Max. 2,200 Ohm
Network Tools	
LAN	Integrated 10/100/1000 Mbps Ethernet
Chipset	Marvell 88E8055
Features	S3 Wake on LAN
Wireless LAN	Intel 802.11 a/g/n 1X2 , 3X3
Type	Mini Card
Chipset	Intel Pro/Wireless 512AN_MMW
Antenna	Integrated 2 / 3 Antenna
Bluetooth	Bluetooth V2.0 + EDR (Enhanced Data Rate)
Type	USB daughter card with integrated PIFA antenna
Chipset	Broadcom BCM2045
Standard	version 2.0
I/O Interface	
Memory card slot	7-in-1 Multi Memory Card Slot SD / SDHC / MMC / xD / Memory Stick / Memory Stick Pro / High Speed MMC
PC Card Slots	
Type	Express Card 34mm
I/O Ports	
USB	3 (USB2.0)
HDMI	1
Audio Jacks	Headphone-out , MIC-in
LAN	RJ45
Power	1(5pie)
Input Devices	
Key board	Isolation 88KEY
Special Features on KBD	F7(Magic Doctor), F8(SpeedUp Manager), Silver Nano Anti-Bacteria Technology
Touchpad	Synaptics touchpad with Gesture function
Camera	1.3 M pixel Camera
Power and Power Management	
Battery	Li-Ion Battery Standard : 6 Cell (AA-PB3NC6B, Bundle) Long life : 9 Cell (AA-PL2NC9B, Option)
AC Adapter (60W)/AC Adapter II (90W)	SPA-P30 (Product ID : AD-6019) SADP-90FH B (Product ID : AA-PA1N90W)
OS	
WHQL	Windows Vista Basic Logo Windows Vista Premium Logo Windows Vista Business Logo

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Processor and Motherboard	Description
Windows Vista	Windows Vista Home Basic Windows Vista Home Premium Windows Vista Business
Certification	
EMC, Safety, RF, Modem, Energy, Adapter 등	규격 종류 : EMC, Safety, RF (무선랜, BT), Energy 규격, -한국 : MIC (EMC, RF), EK (Safety, Adapter), Energy -구주 : CE (EMC), TUV (Safety, Adapter), ETSI(RF) -러시아 : GOSTR (EMC, Safety), FAS (통신, RF) -미국 : UL (Safety), FCC (EMC, 통신, RF) -기타 : Macrovision, 친환경마크(RoHS) (유럽, 한국), K-Mark (한국품질프로세스) , HDMI
Manual	
Electronic Manual	New type Manual
PL Document	Hard copy
Warranty Card	Hard copy
Installation Guide	Windows Vista - Hard copy

2. Introduction and Specification

2 - 2 - 2. LCD

- General Information

Item	Specification	Unit	Note
Display area	303.36(H) x 189.6(V) (14.1" diagonal)	mm	
Driver element	a-Si TFT active matrix		
Display colors	262,144		
Number of pixel	1280 x RGB(3) x 800	pixel	16 : 10
Pixel arrangement	RGB vertical stripe		
Pixel pitch	0.2370(H) x 0.2370(V) (TYP.)	mm	
Display Mode	Normally white		
Surface treatment	Haze 0, Hard-Coating 3H		Antiglare

- Mechanical Information

Item		Min.	Typ.	Max.	Unit	Note
Module size	Horizontal (H)	315.7	316.0	316.3	mm	(W/PCB)
	Vertical (V)	214.2	214.5	214.8	mm	
	Depth (D)	-	2.85	3.1	mm	(3.5mm max at PCB side)
Weight		-	-	315	g	w/ PCB

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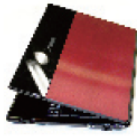



2 – 3. Comparing product specifications

Model	Santorini	Samoa
Feature		
CPU	Intel Core 2 Duo	Intel Core2 DUO ULV
LCD	14.1" WXGA LED	13.3" WXGA LED Type
Chipset	Intel Cantiga FSB (up to1066)	Intel GS45
Graphic	nVIDIA NB9M-GE	Internal Only
Memory	DDR3 upto 1066MHz	DDR3 800MHz
HDD	2.5 inch SATA	1.8inch SATA
ODD	9.5mm	외장
Comm.	Ethernet (Gigabit) HSDPA	Gigabit, WLAN HSDPA/Wimax
Camera	1.3 M	1.3M
Port & Security	VGA, HDMI, 3-in-1, 3 USB, 지문인식, TPM, Express Card	VGA, HDMI, 7-in-1, 3 USB, 지문인식, TPM, Express Card
OS	Windows® Vista™ Home Basic	Vista Home Premium/Biz
Dimension (mm)	333 x 245 x 20.9 ~ 31.9mm	311 x 228 x 16.5 ~ 30.9mm
Weight	1.84kg	1.27kg (W SSD, 6cell)

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2 - 4. Comparing product specifications jatasa.

Model	Santorini	Fujitsu S6510	Dell XMS 1330	B사 P300	Lenovo X300
Feature					
CPU	Intel Core 2 Duo	Intel Core 2 Duo	Intel Core 2 Duo	Intel Core 2 Duo	Intel Dual Core LV
LCD	14.1" WXGA LED	14.1" WXGA LED	13.3" WXGA	13.3" WXGA LED	13.3" WXGA+ LED
Chipset	Intel GS45	Intel GM 945	Intel GM965	Intel GM965	Intel 965 SFF GMS
Graphic	Intel Cantiga FSB (up to1066)	Internal Only	nVIDIA NB8M-GS	nVIDIA NB8M-GS	Internal Only
Memory	DDR3 upto 1066MHz	DDR2 667MHz	DDR2 667MHz	DDR2 667MHz	DDR2 667MHz
HDD	2.5 inch SATA	2.5 inch SATA	2.5 inch SATA 32GB SSD (Option)	2.5 inch SATA	SSD 64GB (1.8",8mm)
ODD	9.5mm	9.5mm	9.5mm(Slotloading)	None	7mm
Comm.	Ehternet(Gigabit) HSDPA	Ehternet(Gigabit)	Ehternet(10/100) HSDPA,EVDO		Ehternet(Gigabit) HSDPA/Wimax
Camera	1.3 M	1.3 M	2 M	1.3M	지원
OS	Windows® Vista™ Home Basic	Windows® Vista™ Home Basic	Windows® Vista™ Home Basic	Windows® Vista™ Home Basic	
Dimension	333 x 245 x 20.9~31.9	314 x 234 x 25.2 ~35.2	318 x 238 x 24.1~36.3	312 x 237 x 22.5~32	318 x 231 x 18.6~23.4
Weight	1.84 kg	1.81 kg	2.05 kg	1.6 kg	1.13~1.44kg

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2 – 5. Option Material List

CPU		
		
0902-002356	P7350_2.00G	AW80577SH0413M
0902-002341	P8400_2.26G	AW80577SH0513M
0902-002337	P8600_2.40G	AW80577SH0563M
0902-002340	P9500_2.53G	AW80576SH0616M
MEMORY		
		
1105-001923	DDR3 1066MHz, 1GByte, 128Mx64, SO-DIMM, 204P	M471B2874DZ1-CF8
1105-001921	DDR3 1066MHz, 2GByte, 128Mx64, SO-DIMM, 204P	M471B5673DZ1-CF8
HDD		
		
BA59-02286A	MK1246GSX	120G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02226A	WD1200BEVS-22UST0	120G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02202A	HTS542512K9A300	120G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02189A	HM121HI	120G,2.5INCH,SATA,160G/P,5400RPM,FDB
BA59-02215A	MK1237GSX	120G,2.5INCH,SATA,80G/P,5200RPM,FDB
BA59-02208A	MHY2120BH	120G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02287A	MK1646GSX	160G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02187A	HM160HI	160G,2.5INCH,SATA,160G/P,5400RPM,FDB
BA59-02227A	WD1600BEVS-22RST0	160G,2.5INCH,SATA,80G/P,5400RPM,FDB
BA59-02279A	WD1600BEVT-22ZCT0	160G,2.5INCH,SATA,160G/P,5400RPM,FDB
BA59-02209A	MHY2160BH	160G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02203A	HTS542516K9A300	160G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02290A	MK2046GSX	200G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02210A	MHY2200BH	200G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02204A	HTS542520K9A300	200G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02288A	MK2546GSX	250G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02228A	WD2500BEVS-22UST0	250G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02205A	HTS542525K9A300	250G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02190A	HM250JI	250G,2.5INCH,SATA,160G/P,5400RPM,FDB

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BA59-02211A	MHY2250BH	250G,2.5INCH,SATA,125G/P,5400RPM,FDB
BA59-02280A	WDC-WD3200BEVT-22ZCT0	320G,2.5INCH,SATA,160G/P,5400RPM,FDB
ODD		
		
BA96-03775A	9.5mm SATA DVD Supermulti	TS-U633A TSST
BA96-03774A	9.5mm SATA DVD Supermulti	DU-8A2S PLDS
BATTERY		
		
BA43-00162A	BATTERY 6C/ 4000mAh(SDI)	P32R04-06-H01
BA43-00150A	BATTERY 9C/ 5200mAh(SANYO)	3UR18650Y-2-SDN-14

2. Introduction and Specification

2 – 6. Function of Product

2-6-1. Overview

Front View



1	Camera Lens (Optional)	Using this lens, you can take still pictures and record video.
2	Power Button	Turns the computer on and off. 48
3	Speaker	A device used to generate sound.
4	Keyboard	A device to enter data by pressing the keys. 51
5	Fingerprint Sensor (Optional)	You can turn the computer on with your fingerprint or login to Windows. For more information, refer to the additionally supplied manual. (Only for models with the fingerprint identification system.) 149
6	Microphone	You can use the built-in microphone.
7	Multi Card Slot	A card slot that supports Memory Stick, Memory Stick Pro, SD Card, SDHC, MMC, MMC Plus and xD cards. 62
8	Status Indicators	Shows the operating status of the computer. The corresponding operating LED is lit when the corresponding function operates. 43
9	Touchpad/Touchpad Buttons	The touchpad and touchpad buttons provide functions similar to the mouse ball and buttons. 54
10	LCD	The screen images are displayed here.

2. Introduction and Specification

Status Indicators




1	Num Lock	This turns on when the Num Lock key is pressed and numeric keypad is activated. ☐ 53
2	Caps Lock	This turns on when the Caps Lock key is pressed allowing capital letters to be typed without holding the Shift button down.
3	Scroll Lock	This turns on when the Scroll Lock key is pressed and screen scroll is locked. ☐ 53
4	HDD/ODD	This turns on when the hard disk is or ODD being accessed.
5	Wireless LAN	This turns on when the wireless LAN is operating.
6	Charge Status	This shows the power source and the battery charge status. Green: When the battery is fully charged or the battery is not installed. Amber: When the battery is being charged. Off: When the computer is running on battery power without being connected to AC adapter.
7	Power	This shows the computer operating status. On: When the computer is operating. Blinks: When the computer is in Sleep mode.

2. Introdution and Specification

Right View



1	Wired LAN Port	Connect the Ethernet cable to this port.
2	Monitor Port	A port used to connect a monitor, TV or projector supporting a 15pin D-SUB interface. 66
3	USB Port	You can connect USB devices to the USB port such as a keyboard/mouse, digital camera, etc.
4	Fan Vents	<div>The internal heat of the computer is emitted through these holes. <div> If the vents are blocked the computer may overheat. Avoid blocking the vents as this may be dangerous.</div></div>
5	Microphone Jack	A jack used to connect the microphone.
6	Headphone Jack	A jack used to connect the headphones.

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Left View



1	ExpressCard Slot	Install the Express card into this slot. 65
2	CD Drive(ODD) (Optional)	Plays CD or DVD titles. Since an ODD(Optical Disk Drive) is optional, the installed drive depends on the computer model.
3	USB Port	You can connect USB devices to the USB port such as a keyboard/mouse, digital camera, etc.
4	Security Lock Port	You can connect a Kensington lock to the Security Lock Port to prevent the computer from being stolen.

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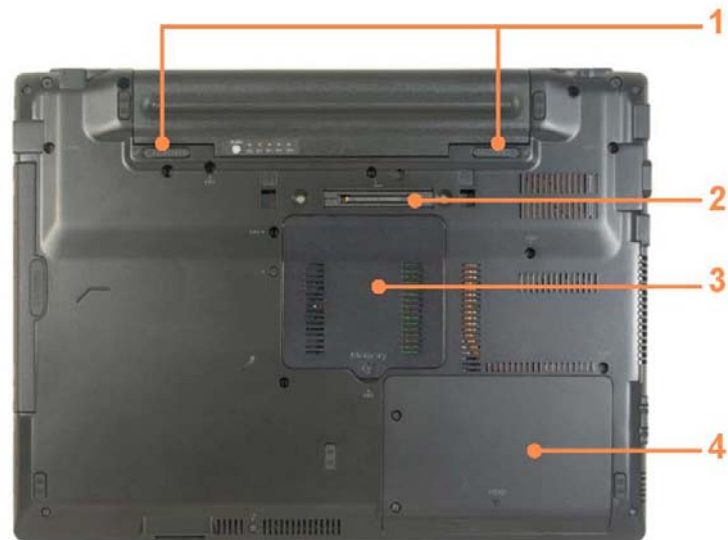
Back View



1	Modem Port (Optional)	A port to which a telephone cable is connected to in order to dial up to the Internet. To use the modem port, open up the rubber cap on the port.
2	USB Port	You can connect USB devices to the USB port such as a keyboard/mouse, digital camera, etc.
3	Battery	This is a Lithium-Ion rechargeable battery that supplies power to the computer.
4	Digital Video/Audio Port (HDMI)	You can connect an HDMI cable to this port. Using this port, you can enjoy digital video and audio on the TV.
5	DC Jack	A jack to connect the AC adapter that supplies power to the computer.

2. Introduction and Specification

Bottom View



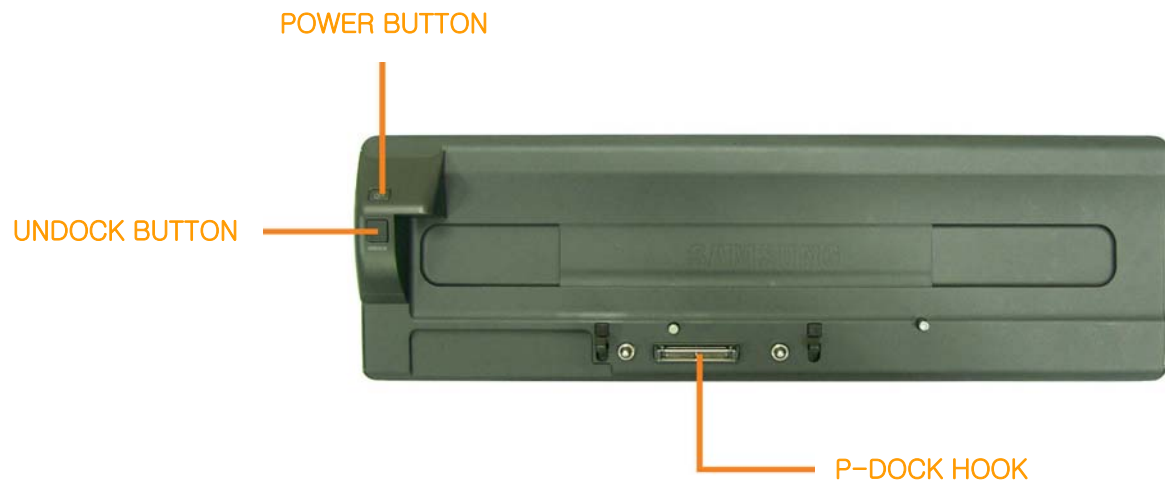
1	Battery Latches	The latch used to remove or install the battery.
2	P-Dock Connector (Optional)	You can connect a Docking Station that provides additional ports.
3	Memory Compartment Cover	The main memory is installed inside the cover.
4	Hard Disk Drive Compartment Cover	The hard disk drive is installed inside the cover.

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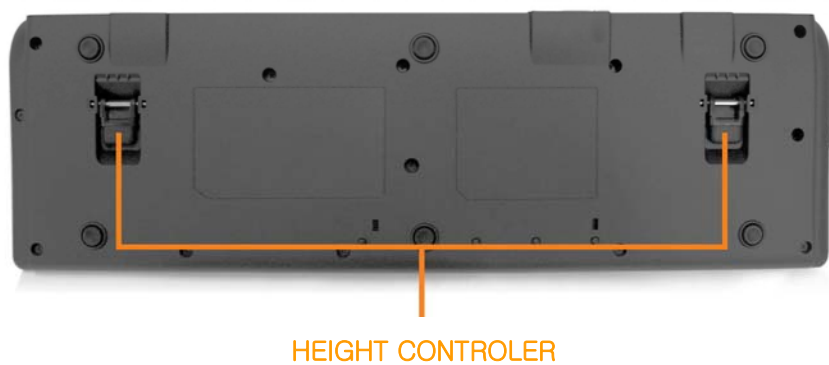
2. Introduction and Specification

2-6-2. P-Dock

Top side view



Bottom side view

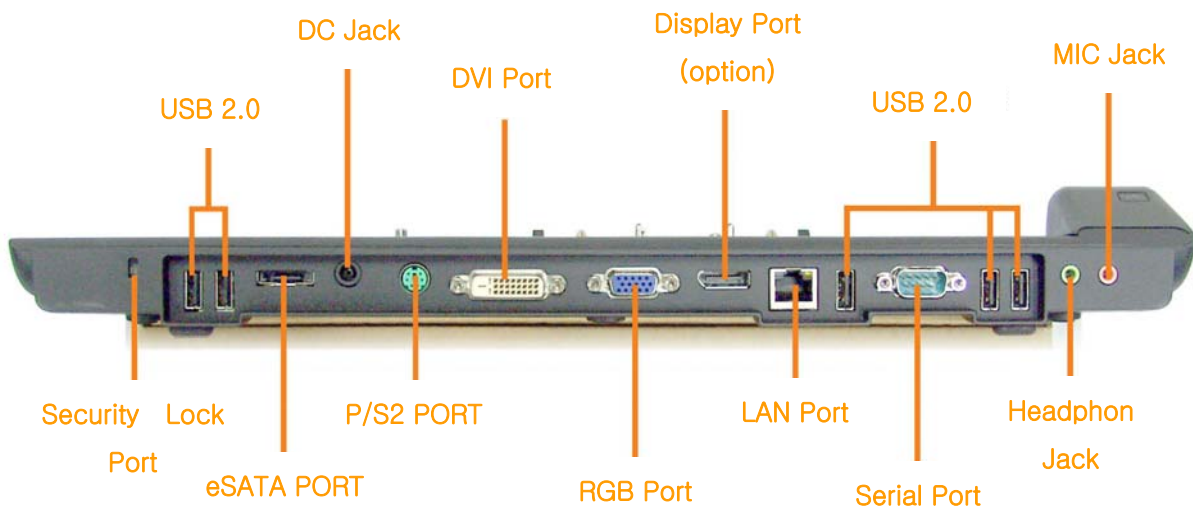


2. Introduction and Specification

Left Side View



Back Side View



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Isolation Keyboard



Shortcut Keys




You can use the following functions by pressing the keys below with the **Fn** key.



Fn+	Name	Function
	REST (Sleep Mode)	Switches to Sleep mode. To wake the computer up, press the Power button.
	Gauge	Shows the remaining battery charge. You can only use this function when the Easy Display Manager program is installed.
	Euro	Enters the Euro monetary unit symbol. This key may not be provided depending on the keyboard type.
	CRT/LCD	Switches the screen output to the LCD or external monitor when an external monitor (or TV) is connected to the computer. 66
	Backlit	Turns the LCD backlight on or off.
	Mute	Mutes or cancels mute.
	Samsung Magic Doctor	System diagnosis, recovery and Internet consultation program, Samsung Magic Doctor, will be launched.
	Easy SpeedUp Manager	You can select operation mode when you need maximum system performance or low-noise/low power consumption with one-click. <ul style="list-style-type: none"> ● Silent: Low-noise and low power consumption mode ● Normal: Normal Mode ● Speed: Maximum performance mode. The system operates in its maximum performance, and system resources are allocated to the currently active program with priority for maximum performance.
	Wireless LAN	Turns the wireless LAN function on or off in models with wireless LAN capability.

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Fn+	Name	Function
	Touchpad	Turns the Touchpad function on or off. When using an external mouse only, you can turn the Touchpad off.
	Num Lock	Turns the numeric keyboard on or off.
	Scroll Lock	If you turn the Scroll Lock on, you can scroll the screen up or down without changing the cursor location in some applications.

Screen Brightness Control

To adjust the LCD brightness press the **Fn** +  key combination or the **Fn** +  key combination.

The changed screen brightness is displayed at the center of the screen for a moment.

Volume Control

To control the volume, press the **Fn** +  key combination or the **Fn** +  key combination.

You can mute the sound or cancel the mute function by clicking the **Fn** +  key combination.

Isolation Key

The numbers are printed in blue on the numeric keys.

If Num Lock is turned on by pressing the **Fn** +  key combination, you can use the numeric keys to enter digits.

Other Function Key

- **Application Key** 
Performs the right-click mouse function (touchpad).
- **Internet Explorer Quick Launch Key** : ( + )
Launches Internet Explorer.

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2 – 7. SW List

Item		Specification	Ver	Comment
OS	Vista	Windows® Vista™ Home Basic		
	Wireless LAN driver	Marvell LAN Driver [10/100 & GbE]	10.62.1.3	
	Gfx driver	Nvidia 9200M GS	176.24	
	Sound Driver	ALC262-GR	6.0.1.5659LogoEDS	
	Touchpad Driver	Synaptics touchpad	11.1.3.0(Gesture)	
	Bluetooth Driver	Broadcom Bluetooth Driver	6.0.1.6300	
	LAN Driver	Marvell LAN Driver	10.62.1.3	
Application		Samsung Battery Manager 3.0	3.2.1.7	
		Samsung Recovery Solution 3	3.0.0.6	
		Samsung Update Plus	1.3.0.12	
		Samsung Magic Doctor 5.0	5.0.3.4	
		Infinion TPM utility	3.00.1413.00	
		Adobe Reader	8.1.0.137	
		McAfee Anti-Virus	8.0.226.0	
		Screen Saver	1.0.2.1	
		Wallpaper	2.0.0.0	
		Play Camera	2.0.0.13	
		MS Office 2007 Ready	1.2	
		Easy Speedup Manager	2.0.1.0	
		Easy Display Manager	2.2.9.0	
		Easy Network Manager	4.0.0.13	
		Easy Partition Manager	2.2.2.2b	

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2 – 8. Bios

Main

SATA Port 1

- HDD model name is displayed in this item for SATA Port 1.

Slot 1 Memory

- Memory size of the slot 1.

Slot 2 Memory

- Memory size of the slot 1.

Graphics Memory

- [Auto : Shared] : Selected graphics memory depend on system memory size automatically
 - [128 MB : Shared] : Selected 128 MB graphics memory size.
 - [256 MB : Shared] : Selected 256 MB graphics memory size.
 - [Max : Shared] : Selected maximum graphics memory size.
- these matters fall under windows XP, Graphics memory size selected automatically on Windows vista system.

Phoenix SecureCore(tm) Setup Utility								
Main		Advanced		Security	TPM State	Boot	Exit	
<div>System Time [19:00:00]</div> <div>System Date [04/24/2008]</div> <div>SATA Port 1 Slimtype DVD A DU8A2S-(PS)</div> <div>SATA Port 2 NONE</div> <div>CPU Type Intel(R) Core(TM) 2 Duo CPU</div> <div>CPU Speed 2.26 GHz</div> <div>Total Memory 2048 MB</div> <div>Slot1 Memory 1024 MB</div> <div>Slot2 Memory 1024 MB</div> <div>Graphics Memory [Auto : Shared]</div> <div>BIOS Version 00LU.MP00.</div> <div>MICOM Version 00LMMP00</div>							Item Specific Help	
							<Tap>,<Shift-Tap>, or <Enter> selects field.	
F1	Help	↑↓	Select Item	F5/F6	Change Values		F9	Setup Defaults
ESC	Exit	↔	Select Menu	Enter	Select ► Sub-Menu		F10	Save and Exit

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2. Introduction and Specification

BIOS Setup Graphic memory

- Select Auto or Max, main memory shared as like sheet that is under.

메인메모리 용량	1GB		2GB		3GB		4GB	
Mode	BIOS	XP	BIOS	XP	BIOS	XP	BIOS	XP
Auto	128MB	128MB	256MB	256MB	256MB	256MB	256MB	256MB
128MB	128MB	128MB	128MB	128MB	128MB	128MB	128MB	128MB
256MB	256MB	256MB	256MB	256MB	256MB	256MB	256MB	256MB
Max	512MB	512MB	1024MB	1024MB	1024MB	1024MB	1024MB	1024MB

∴ Max : New item of Intel Montevina Chipset(Internal Graphics)

- These matters fall under windows XP.
- Graphics memory size selected automatically on Windows vista system.
 (Auto control graphics memory size on windows Vista.)
 - System Momory Size 1GB : 253MB
 - System Momory Size 2GB : 765MB
 - System Momory Size 3GB : 1277MB
 - System Momory Size 4GB : 1292MB
 (Gfx Memory size can be a little different.)

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2. Introduction and Specification

Advanced

Intel(R) SpeedStep(TM)

- This selects whether Intel SpeedStep™ Thchnology is enabled or not.

Legacy OS Boot

- Enable support for Legacy OS Boot.

Legacy USB Support

- Enable support for Legacy Universal Serial Bus.

Large Disk Access Mode

- UNIX, Novell NetWare or other O/S, select 'Dos'.

Phoenix SecureCore(tm) Setup Utility					
Main	Advanced	Security	TPM State	Boot	Exit
Intel® SpeedStep™ [Enabled] Legacy OS Boot [Enabled] Legacy USB Support [Enabled] Large Disk Access Mode [DOS] AHCI Mode Control [Auto] EDB (Execute Disable Bit) [Disabled] Internal LAN [Enabled] Touch Pad Mouse [Enabled] CPU Power Saving Mode [Enabled] USB S3 Wake-up [Disabled] Purchased Date 2008/8					Item Specific Help This selects whether Intel® SpeedStep™ Technology is enabled or not. 'Disabled' means that system does not support Intel® SpeedStep™ Technology. 'Enabled' is recommended.
F1 Help	↑↓ Select Item	F5/F6 Change Values	F9 Setup Defaults		
ESC Exit	←→ Select Menu	Enter Select ► Sub-Menu	F10 Save and Exit		

AHCI Mode Control

- Select a AHCI mode always enabled or disabled.

EDB (Execute Disable Bit)

- supports the Data Execution Prevention (DEP) feature. DEP is a set of H/W & S/W technologies that perform additional checks on memory to help prevent malicious code from running on a system.

Internal LAN

- "Enabled" will allow the internal LAN to operate correctly.

CPU Power Saving Mode

- 'Enabled' will decrease system power consumption.

USB S3 Wake-up

- Select Enabled to support that system can be waked up from ACPI S3 state by USB activities.

Low Power Mode

- Enable or disable selection of Graphic Render Clock Low Power Mode enabled: 320MHz, Disabled: 533MHz

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2. Introduction and Specification

Security

Set the Supervisor Password

- Supervisor Password controls access to the setup utility.

Set a User Password

- User Password controls access to a few items in the setup utility.

Password on Boot

- Supervisor Password controls access to system boot.

Fixed Disk Boot Sector

- “Write Protect” will protect to write in Boot Sector of HDD.

TPM Support

- Enable Trusted Platform Module support

Phoenix SecureCore(tm) Setup Utility										
Main		Advanced		Security		TPM State		Boot	Exit	
<div>Supervisor Password</div> <div>Clear</div> <div>User Password</div> <div>Clear</div> <div>Set Supervisor Password</div> <div>[Enter]</div> <div>Set User Password</div> <div>[Enter]</div> <div>Password on boot</div> <div>[Enabled]</div> <div>Fixed disk boot sector</div> <div>[Normal]</div> <div>TPM Support</div> <div>[Enabled]</div>									Item Specific Help	
									Supervisor Password controls access to the setup utility	
F1	Help	↑↓	Select Item	F5/F6	Change Values			F9	Setup Defaults	
ESC	Exit	↔	Select Menu	Enter	Select ► Sub-Menu			F10	Save and Exit	

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2. Introduction and Specification

TPM

Change TPM State

- Select TPM state Activate or Deactivate.
 - No Change
 - Enable & Activate
 - Deactivate & Disable
 - Clear

Phoenix SecureCore(tm) Setup Utility															
Main		Advanced		Security		TPM State		Boot		Exit					
										Item Specific Help					
										Security Chip State		Disabled and Deactivated			
										Change TPM State		[No Change]		Change TPM State	
														A disabled security chip prevents encrypted data from being used	
								A deactivated security chip prevents a user from taking ownership							
F1	Help	↑↓	Select Item	F5/F6	Change Values			F9	Setup Defaults						
ESC	Exit	←→	Select Menu	Enter	Select ► Sub-Menu			F10	Save and Exit						

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2. Introduction and Specification

Boot Device

Boot Device Priority

- Select system boot options.

NumLock

- Selects Power-on state for Numlock.

Enable Keypad

- Select a method of Keypad.
 - [Only By Fn Key] : Leave the embedded keypad disabled when the Numlock LED is on.
 - [By NumLock] : Enable the embedded keypad when Numlock LED is on and no external keyboard is attached.

Summary Screen

- Display system configuration on boot.

Boot-time Diagnostic Screen

- Display the diagnostic screen during boot.

PXE OPROM

- This selects whether network boot PXE will be loaded or not during the POST.

Brightness Control Mode

- [Auto] : The brightness values are set by the status of AC adapter at each bootup.
- [User Control] : The brightness values could be remained regardless of the status of AC adapter.

Wireless Device Control

- [Always On / Off] : The wireless devices are turned on or not.
- [Last Status] : The wireless devices are restored to last status.

Smart Battery Calibration

- If you select this option, the system battery will be discharged completely for more accurate battery level detection. This option only works with SMART battery.

Phoenix SecureCore(tm) Setup Utility										
Main		Advanced		Security		TPM State		Boot	Exit	
<div>▶ Boot Device Priority</div> <div>Disabled and Deactivated</div> <div>NumLock</div> <div>[Off]</div> <div>Enable Keypad</div> <div>[By NumLock]</div> <div>Summary Screen</div> <div>[Disabled]</div> <div>Boot-time Diagnostic Screen</div> <div>[Disabled]</div> <div>PXE OPROM</div> <div>[Only with F12]</div> <div>Brightness Mode Control</div> <div>[Auto]</div> <div>Wireless Device Control</div> <div>[Always On]</div> <div>Smart Battery Calibration</div>									Item Specific Help	
									Select system boot options	

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Phoenix SecureCore(tm) Setup Utility					
Boot Device Priority				Boot	Item Specific Help
[Boot priority order] 1. AHCI CD : N/A 2. AHCI HDD : P0-TOSHIBA MK1216GSG 3. USB KEY : N/A 4. USB CD : N/A 5. USB FDD : N/A 6. USB HDD : N/A 7. PCI BEV : N/A 8. [Excluded from boot order] - IDE HDD : N/A - IDE CD : N/A - PCI SCSI : N/A - USB ZIP : N/A - USB LS120 : N/A				Keys used to view or configure device: Up and Down arrows select a device. <F6> and <F5> moves the device up or down. <x> exclude or include the device to boot. <Shift +1> enables or disables a device. <1 - 4> Loads default boot sequence.	
F1	Help	↑↓	Select Item	F5/F6	Change Values
ESC	Exit	←→	Select Menu	Enter	Select ► Sub-Menu
				F9	Setup Defaults
				F10	Save and Exit

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2. Introduction and Specification

Exit

Exit Saving changes

- Exit System Setup and save your changes to CMOS.

Exit Discarding Changes

- Exit utility without saving Setup data to CMOS.

Load Setup Defaults

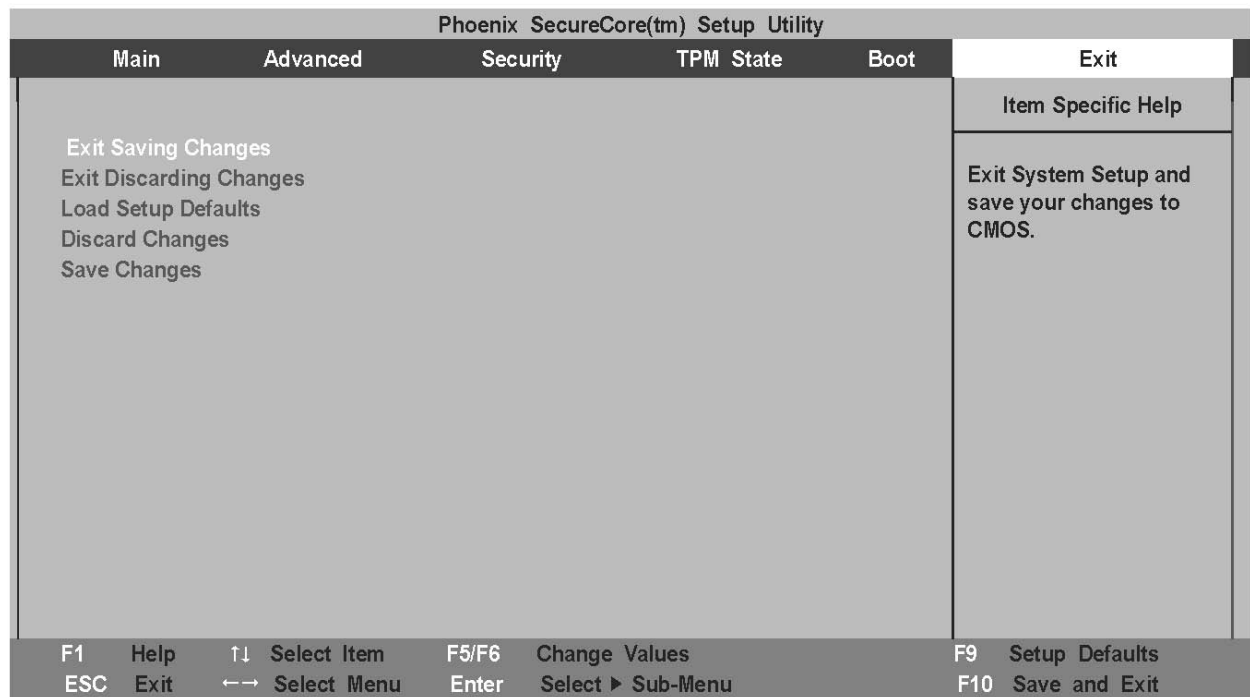
- Load default values for all SETUP items.

Discard Changes

- Load previous values from CMOS for all SETUP items.

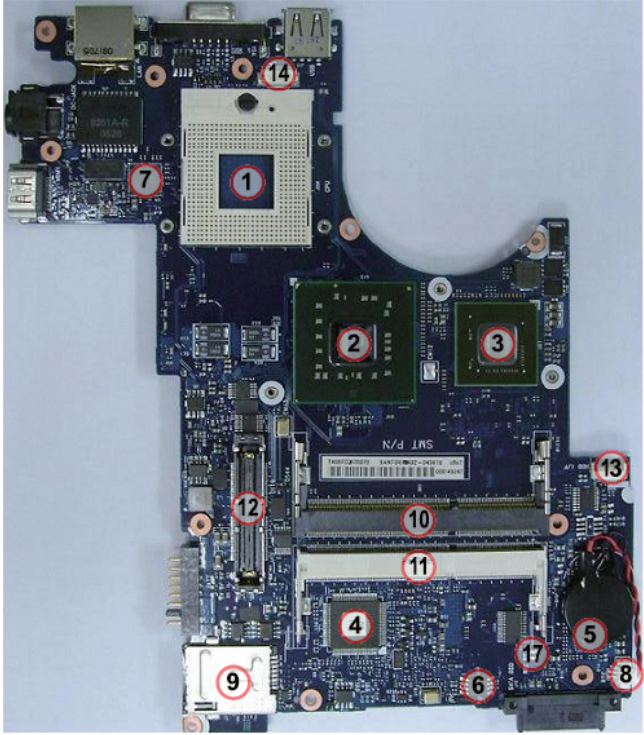
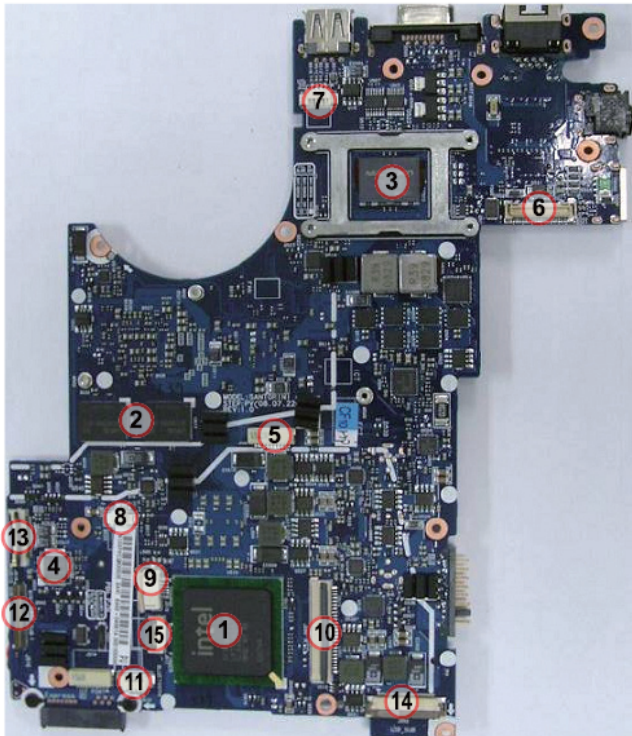
Save Changes

- Save Setup Data to CMOS.



2. Introduction and Specification

2 – 9. Mainboard Part Description

TOP	
	1 CPU Socket
	2 PM45 GMCH
	3 NB9M-GS GPU
	4 MICOM
	5 Clock generator
	6 BIOS ROM
	7 LAN Controller
	8 RTC Battery Cable Connector
	9 SIM Card Socket (SIM1)
	10 Memory Socket (DDR1)
	11 Memory Socket (DDR2)
	12 Docking Connector
	13 HDD FPC Connector
	14 FAN Cable Connector
Bottom	
	1 ICH9M
	2 Graphic RAM
	3 CPU Proadlizer
	4 Audio codec
	5 Debug Card Connector
	6 LCD Cable Connector
	7 Speaker connector
	8 Mic connector
	9 Touchpad FPC Connector
	10 Keyboard Connector
	11 Bluetooth Cable Connector
	12 PCI-E sub connector
	13 Audio/LED sub connector
	14 Modem/USB sub connector
	15 Fingerprint sub connector