

## AMILO Notebook Sa 3650

### Express your passion

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Version 1

Pages 5

Enjoy your personal independence and experience the smooth and pearly finish of the AMILO Notebook S series.

### Key Features

#### Processor technology

- AMD next-generation mobile processor technology

#### Operating System

- Windows Vista® Home Premium

#### Innovation

- Supporting AMILO GraphicBooster for superior discrete graphics performance for 3D gaming experience. Run up to 3 displays simultaneously, 2 of them via the AMILO GraphicBooster powered by ATI Mobility Radeon™ HD 3870 premium graphics (512 MB dedicated video memory)

#### Reliability

- Spill-proof keyboard to protect your notebook against accidentally spilt liquids
  - Enough time to shut down the notebook
  - Have the liquid removed from the notebook
  - Protects your investment and your data
- Engineered in Germany means the test center in Germany tests conformity to international standards and customer-specific requirements
- A+ grade LCD panels for better picture quality

#### Mobility

- 13.3-inch form-factor that fits in almost every bag
- Integrated draft-n Wireless LAN to go online when and wherever you want
- ATI Radeon™ HD 3200 onboard graphics for an extended battery runtime of up to 4.5 hours

#### Entertainment and Multimedia

- The integrated Logitech® QuickCam® with low-light technology for great video-quality even in low-light conditions and the built-in digital array microphone are perfect for Internet telephony (VoIP) and video chats
- LCD WXGA display with BrilliantView technology for vivid colors, amazing sharpness and impressive contrast
- Enjoy your favorite Hollywood blockbuster on an external display via DVI-I (with HDCP support)

#### More convenience thanks to

- The silent mode function that causes a noticeable reduction in fan noise
- The included protection sleeve to protect your notebook from bumps and scratches



Fujitsu Siemens Computers recommends Windows Vista® Home Premium

**Operating system and Recovery**

Operating system	Genuine Windows Vista® Home Premium (32-bit version)
Fujitsu Siemens Computers Recovery Program	Backup and restore the original status of the hard disk and create system restore disks  or individual recovery media on CD or DVD are included

**Architecture**

System architecture	AMD next-generation mobile processor technology
Chipset	AMD 780G + SB700

**Processors<sup>1</sup>**

AMD Turion™ X2 Ultra processor	ZM-80 (2.1 GHz, 2 MB L2 cache) ZM-82 (2.2 GHz, 2 MB L2 cache) ZM-84 (2.3 GHz, 2 MB L2 cache) ZM-86 (2.4 GHz, 2 MB L2 cache)
AMD Turion™ X2 Dual-Core processor or AMD Athlon™ X2 Dual-Core processor	RM-70 (2.0 GHz, 1 MB L2 cache) QL-60 (1.9 GHz, 1 MB L2 cache)

**Memory**

	2 SO-DIMM memory slots (no memory on board)
Memory speed	800 MHz
Memory type	DDR 2 RAM
Memory modules	1024 or 2048 MB
Max. memory size <sup>1, 2</sup>	4096 MB

**Drives****Hard disk drive**

HDD type	SATA
HDD size	2.5-inch
HDD speed	5400 rpm
HDD cache	8 MB
HDD capacity <sup>1</sup>	250 or 320 GB

**Optical disc drive (built-in)**

ODD type	SATA, slim-slot
ODD technology	SuperMulti-format DVD burner with dual double layer (DL) support
ODD read speed	CD-ROM 24x, DVD-ROM 8x
ODD write speed	CD-R 24x, CD-RW 16x, DVD+R 8x, DVD-R 8x, DVD+RW 8x, DVD-RW 6x, DVD+R DL (8.5 GB) 4x, DVD-R DL (8.5 GB) 4x, DVD-RAM 5x

**Display**

Display type	BrilliantView LCD
Display size	13.3-inch
Display resolution (intern)	1280 x 800 pixels
Display resolution (extern)	480p, 720p and 1080i
Resolution type	WXGA
Reaction time	25 ms (typ.)
Brightness (typ.)	200 NIT
Contrast (typ.)	400 : 1
Compliance with standards	ISO 13406-2 class II

**Graphics**

Graphic card full name	ATI Radeon™ HD 3200
Dedicated video memory	64 MB dedicated local frame buffer video memory for extended battery life
Shared video memory <sup>3</sup>	Up to 1582 MB shared memory
3D Benchmark 2006	Up to 1500 points (depending on configuration)
Graphic features	<ul style="list-style-type: none"> <li>■ Dual display support, to use LCD and external display via DVI-I simultaneously</li> <li>■ DirectX® 10 support</li> </ul>

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**Interfaces**

Video	1x DVI-I (incl. HDCP)
Audio	1x line in, 1x microphone in, 1x line out/ headphone out combined with S/PDIF out
Network	1x LAN (RJ-45)
Wireless	1x WLAN, 1x BT
Data	1x eSATA combined with USB, 2x USB 2.0, 1x IEEE1394, 1x ExpressCard slot (54 / 34 mm) 1x external graphic box port 1x 15-in-1 card reader <sup>4</sup> SD, miniSD, MicroSD, SDHC MS, MS-Duo MMC, RS-MMC, MMC-Micro MSPRO, MS-PRO Duo, MS-Pro HG, MS-Pro HG Duo, M2 xD picture card
Power supply	1x DC-in

**Communication**

Integrated Bluetooth®	2.1
LAN (Local Area Network)	10 / 100 / 1000 Mbps
Built-in WLAN (Wireless Local Area Network)	Yes
WLAN type	draft-n 802.11a/b/g/n
WLAN max. data rate	up to 300 Mbps
WLAN encryption	WEP, WPA and WPA2
For use in	BE, CH, DK, DE, EE, FI, FR, EL, IE, IS, IT, LI, LV, LT, LU, MT, NL, NO, PL, AT, PT, SE, SK, ES, CZ, HU, UK, CY
Option <sup>1</sup>	
WLAN type	draft-n 802.11b/g/n
WLAN max. data rate	up to 300 Mbps
WLAN encryption	WEP, WPA and WPA2
For use in	BE, CH, DK, DE, EE, FI, FR, EL, IE, IS, IT, LI, LV, LT, LU, MT, NL, NO, PL, AT, PT, SE, SK, ES, CZ, HU, UK, CY

**Multimedia****Audio**

Audio chip	Support of HD audio for S/PDIF output with up to 7.1 channels Realtek ALC888
Speakers	2x built-in speakers (1.5 W each)
Microphone	Built-in digital array microphone
Subwoofer	-
Input device	Sound volume control via function key

**Integrated Webcam**

Image sensor	1.3 mega pixels Logitech® QuickCam®
Frames per second	30 <sup>5</sup>
Features	<ul style="list-style-type: none"> <li>■ Auto focus</li> <li>■ Automatic brightness adjustment with status LED (blue: on, red: streaming / application on)</li> <li>■ Low-light technology for great video-quality even in dark surrounding</li> </ul>

**Input devices / Control buttons**

Power button	Located on top of the keyboard, back-lighted
Keyboard	Spill-proof keyboard with 85 keys
Touchpad	Hidden touchpad, with left and right mouse button, touchpad disable function via function key combination (Fn+F6)
Multimedia keys	Located on top of the keyboard to launch the following applications: <ul style="list-style-type: none"> <li>■ Silent mode function (reduce noise level / fan speed, by reducing the CPU performance, office applications, Internet and DVD playback are not affected)</li> <li>■ DVD playback</li> <li>■ ODD eject</li> </ul>

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Hot keys	The following hot keys or key combinations are available <ul style="list-style-type: none"> <li>■ Fn+F1 WLAN / Bluetooth on / off</li> <li>■ Fn+F3 Mute on / off</li> <li>■ Fn+F4 Volume down</li> <li>■ Fn+F5 Volume up</li> <li>■ Fn+F6 Touchpad on / off</li> <li>■ Fn+F7 Camera on / off</li> <li>■ Fn+F8 Brightness down</li> <li>■ Fn+F9 Brightness up</li> <li>■ Fn+F10 Display switch</li> <li>■ Fn-F11 Silent mode</li> <li>■ Fn+F12 S3 Sleep mode</li> </ul>
<b>Status indicators</b>	The notebook has 3 status LEDs: <ul style="list-style-type: none"> <li>■ Power status (&amp; suspend) Blue (always on): on; Blue blinking: stand by, None: off</li> <li>■ Battery charge Blue (always on): full, Blue blinking: charging; Red blinking: &lt; 10 % capacity</li> <li>■ WLAN / Bluetooth Blue: on; None: off</li> </ul>
<b>Security</b>	
Supervisor and user password	Yes
Kensington lock	Yes
Lid switch (hidden)	Yes
<b>ACPI functions</b>	ACPI 3.0 compliant for Vista requirement <ul style="list-style-type: none"> <li>■ S1 LCD off</li> <li>■ S3 save to RAM</li> <li>■ S4 save to disk</li> <li>■ S5 soft off</li> </ul>
<b>Power System</b>	
<b>Battery<sup>6</sup></b>	
Battery type <sup>1</sup>	Lithium-Ion battery 6 cells, 11.1 V / 2600 mAh (cell) / 4400 mAh (pack) or 9 cells, 14.8 V / 2600 mAh (cell) / 4800 mAh (pack)
Battery runtime (idle mode) <sup>7</sup>	Up to 4:25 hours (9-cell); up to 3:10 hours (6-cell)
Battery runtime (DVD playback) <sup>8</sup>	Up to 3:10 hours (9-cell); up to 2:00 hours (6-cell)
Battery charging time (idle mode) <sup>9</sup>	Up to 1:40 hours (9-cell); up to 1:25 hours (6-cell)
Battery charging time (maximum active mode) <sup>10</sup>	Up to 2:35 hours (9-cell); up to 1:40 hours (6-cell)
Battery charging time (normal use) <sup>11</sup>	Up to 1:55 hours (9-cell); up to 1:25 hours (6-cell)
Battery charging time (off mode)	Up to 1:40 hours (9-cell); up to 1:28 hours (6-cell)
<b>AC Adapter</b>	Dynamic charge supported, ACPI 2.0 supported
Wide Range AC adapter	110 - 240 V AC, 50 - 60 Hz
Output	90 W with 20 V DC, 4.5 A
<b>Energy consumption</b>	
S0 (idle mode)	15.9 W
S0 (max. active mode) <sup>12</sup>	30.2 W
S3 (stand by / energy saving mode)	0.43 W
S4 (hibernate)	0.01 W
S5 (off mode)	0.01 W
<b>Noise emission</b>	
Idle mode <sup>13</sup>	27.5 dBA (25.6 dBA with silent mode)
Maximum active mode <sup>14</sup>	33.2 dBA (25.7 dBA with silent mode)
<b>Operating conditions</b>	
Operational	5 °C to 35 °C (ambient temperature) 10 % to 90 % relative humidity, non-condensing
AC input	100 - 240 V, 50 - 60 Hz
<b>Dimensions and weight</b>	
W x D x H	318 x 235 x 36.5 (front) / 41.0 (back) mm
Weight	2.4 kg <sup>15</sup>

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<b>Certifications</b>	GOST (WLAN) CE Marking R&TTE (WLAN, Bluetooth®)
<b>Warranty</b>	Country specific terms
<b>Operational Software</b>	
Home office	Microsoft® Works Microsoft® Office Home and Student Trial Adobe Reader Windows Mail (within Vista operating system) Windows Calendar (within Vista operating system)
Multimedia	Nero Essentials S (CD / DVD write software) Vista DVD Playback Pack (DVD playback software) Windows Media Center (within Windows Vista® Home Premium operating system) Windows Media Player (within Vista operating system) Logitech® QuickCam® application software  Optional (only with Blu-ray Disc™ drive) CyberLink Power DVD (playback software for Blu-ray Disc™) <sup>1</sup>
Internet	Microsoft® Internet Explorer Country specific Internet provider
Security	Norman security software solution
<b>Accessories</b>	
Included	AC adapter 90 W First Battery 6 or 9 cells Notebook protection sleeve
Manuals	Manual (on hard disk), quick start guide, safety guide, warranty guide, recovery guide
Drivers	Updates downloadable at <a href="http://www.fujitsu-siemens.com">http://www.fujitsu-siemens.com</a>

<sup>1</sup> Depending on exact configuration. Please check at your local retailer

<sup>2</sup> DISCLAIMER: Up to 1 GB may not be available with 32-bit operating systems due to system resource requirements if system is preinstalled with 4096 MB RAM

<sup>3</sup> Shared video memory size may vary depending on configuration. Used video memory size depends on Microsoft® Windows Vista® memory management

- 1024 MB system memory enables up to 447 MB static and shared memory  
- 2048 MB system memory enables up to 959 MB static and shared memory  
- 3072 MB system memory enables up to 1471 MB static and shared memory  
- 4096 MB system memory enables up to 1582 MB static and shared memory

<sup>4</sup> An adapter is needed for the following card formats: RS-MMC, MMC-Micro, miniSD, MicroSD, SDHC, MS-Duo, MS-PRO Duo, MS-Pro HG, MS-Pro HG Duo, M2

<sup>5</sup> AMILOcam frame rate can vary significantly depending on the used software application

<sup>6</sup> DISCLAIMER: Battery life may vary depending on product model, configuration, applications, power management settings and features utilized. Recharge time varies depending on usage. The recharge capacity may decrease after some months so that the battery lifetime as well as operating time can not be assured for the whole lifetime of the notebook

<sup>7</sup> Tested with 3DMark 4.0.1 ("power saver mode")

<sup>8</sup> DVD playback tested with Vista DVD playback

<sup>9</sup> System in Vista idle / power saving mode

<sup>10</sup> Tested with 3DMark 2003

<sup>11</sup> DVD playback tested with Vista DVD playback

<sup>12</sup> Tested with 3DMark 2006

<sup>13</sup> Tested with QAFE 8.01, sieve.exe, Diskload.exe according to ISO 7779 and ISO 9296

<sup>14</sup> Tested with QAFE 8.01, sieve.exe, Diskload.exe according to ISO 7779 and ISO 9296

<sup>15</sup> Weight may vary depending on actual configuration

**The configuration described in this document is generic only and non-binding. For the exact configuration of your AMILO, please contact your licensed dealer.**