

Qosmio X870 Detailed Product Specification¹

Model Name	Description	Part Number	UPC
X870-BT2G23	Genuine Windows [®] 7 Home Premium, Intel [®] Core™ i7-3610QM Processor, 4GB DDR3, 750GB 5400rpm SATA, NVIDIA [®] GeForce [®] GTX 670M with Optimus™, DVD-SuperMulti, 17.3" widescreen HD+, Wi-Fi [®] 802.11 b/g/n wireless LAN, 8-cell battery, 1 year standard limited warranty	PSPLXU-02M019	022265232774

Operating System ^{c1} 2

- [Genuine](#) Windows[®] 7 Home Premium 64-bit, SP1
- [Genuine](#) Windows[®] 7 Professional 64-bit, SP1(optional)

Processor³ and Graphics⁴

- Intel[®] Core™ i7-3610QM Processor
 - 2.3 GHz (3.3 GHz with Turbo Boost Technology 2.0), 6MB L3 Cache
- Mobile Intel[®] HM76 Express Chipset
- NVIDIA[®] GeForce[®] GTX 670M with Optimus™, featuring 3GB of GDDR5 discrete graphics memory

Memory⁵

- Configured with 4GB DDR3 1600MHz (max 16GB-Home Premium, max 32GB Professional)
- 6GB(4GB+2GB),8GB(4GB+4GB),12GB(3x4GB),16GB(4x4GB)
- 32GB(4x8GB)(Win 7 Professional ONLY)
- 4 main memory slots. Three slots are occupied.

Storage Drive⁶

Primary Hard Drive

- 750GB (5400 RPM) Serial ATA hard disk drive
- 750GB (7200 RPM) Serial ATA hard disk drive(optional)
- 750GB (7200 RPM) Hybrid 8GB Serial ATA Disk Drive (optional)
- 128GB Serial ATA solid state drive(optional)
- 256 GB Serial ATA solid state drive(optional)

Secondary Hard Drive

- 500GB (5400 RPM) Serial ATA hard disk drive(optional)
- 640GB (5400 RPM) Serial ATA hard disk drive(optional)
- 750GB (5400 RPM) Serial ATA hard disk drive(optional)
- 1 TB (5400 RPM) Serial ATA hard disk drive(optional)
- TOSHIBA Hard Drive Impact Sensor (3D sensor)

Fixed Optical Disk Drive⁷

- DVD SuperMulti drive supporting 11 formats
 - Maximum Read speed and compatibility: CD-ROM (24x), CD-R (24x), CD-RW (24x), DVD-ROM (8x), DVD-R (8x), DVD-R DL (6x), DVD-RW (8x), DVD+R (8x), DVD+R DL (6x), DVD+RW (8x), DVD-RAM (5x)
- Blu-Ray Disc[®] (BD-ROM) and DVD SuperMulti drive with supporting 12 formats⁸(optional)
 - Maximum speed and compatibility: CD-ROM (24x), CD-R (24x), CD-RW (4x), DVD-ROM (8x), DVD-R (8x), DVD-R DL (4x), DVD-RW (6x), DVD+R (8x), DVD+R DL (4x), DVD+RW (8x), DVD-RAM (5x), BD-ROM (6x)
- Blu-ray Disc[®] Rewriteable (BD-RE) and DVD SuperMulti drive supporting 16 formats⁹
 - Maximum speed and compatibility: CD-ROM (24x), CD-R (24x), CD-RW (4x), DVD-ROM (8x), DVD-R (8x), DVD-R DL (4x), DVD-RW (6x), DVD+R (8x), DVD+R DL (4x), DVD+RW (8x), DVD-RAM (5x), BD-ROM (6x),BD-R (6x),BD-R DL (4x),BD-RE (2x), BD-RE DL (2x)

Display¹⁰

- 17.3" diagonal widescreen TruBrite[®] TFT LCD display at 1600 x 900 native resolution (HD+)
 - Native support for 720p content
 - 16:9 aspect ratio
 - LED backlight

Sound

- harman/kardon[®] Quad Speakers
- SRS Premium Sound 3D™

Input Devices

- Premium Raised Tile Keyboard with 10-Keypad
 - LED Backlit
- ClickPad pointing device with multi-touch control
- One Touch Function Keys

Communications

- Full HD Webcam and microphone
- 10/100/1000 Ethernet
- Wi-Fi[®] Wireless networking (802.11b/g/n)¹¹
- Wi-Fi[®] Wireless networking (802.11b/g/n)¹² + Bluetooth[®] version 4.0(optional)
- Intel[®] Wi-Fi[®] Wireless networking (802.11b/g/n + WiDi Ready) (Optional). Requires optional display adapter sold separately
 - Intel[®] Wireless Display Ready¹³

Expandability

- Memory Card Reader
 - Secure Digital, Secure Digital High Capacity, Secure Digital Extended Capacity, Mini SD, Micro SD, Multi Media Card [shared slot; may require adapter for use]

Ports

- Video
 - RGB (monitor) output
 - HDMI[®]
- Audio
 - Microphone input port with Toshiba Sleep and Music¹⁴
 - Headphone output port
- Data
 - 4 USB 3.0¹⁵ ports (2 with USB Sleep and Charge¹⁶)
 - RJ-45 LAN port
- Security
 - Slot for Security Lock

Physical Description

- Black Widow Styling in Diamond-Textured Aluminum
- Dimensions (W x D x H): 16.5" x 10.7" x 1.16"/1.7" (with feet)
- Weight: Starting at 7.5 lbs., depending upon configuration¹⁷

Battery¹⁸

- 8 cell/47Wh Lithium Ion battery pack

Power Supply

- 180W (19V 9.5A) 100-240V/50-60Hz AC Adapter.
- Dimensions (W x H x D): 6.7" x 3.4" x 1.6"
- Weight: starting at 1.9 lbs.

Software ^{c1} 19

- Toshiba Software and Utilities
 - TOSHIBA Assist
 - TOSHIBA App PlaceSM
 - TOSHIBA Book Place™
 - TOSHIBA Bluetooth Stack for Windows
 - TOSHIBA Bulletin Board
 - TOSHIBA Disc Creator
 - TOSHIBA eco Utility™
 - TOSHIBA Face Recognition
 - TOSHIBA HDD/SSD Alert
 - TOSHIBA Laptop Checkup²⁰
 - TOSHIBA Media Controller²⁰

- TOSHIBA PC Health Monitor
- TOSHIBA Recovery Disc Creator
- TOSHIBA ReelTime
- TOSHIBA Service Station
- TOSHIBA Resolution+[®] Upconvert Technology for Media Player²¹
- TOSHIBA Value Added Package
- TOSHIBA Video Player
- TOSHIBA Web Camera Application
- Third-party Software
 - Microsoft[®] Windows Media Player
 - Microsoft[®] Windows[®] Live™ Essentials including Photo Gallery, Messenger, Mail and Writer.
 - Microsoft[®] Office Starter 2010 (Reduced functionality Word[®] and Excel[®] with advertising)²²
 - Microsoft[®] Silverlight™
 - Internet Explorer[®]9
 - Adobe[®] Acrobat[®] Reader
 - Google[®] Toolbar
 - Corel[®] Digital Studio(for units with BD-RE only)
 - Microsoft[®] Office[®] Home and Student 2010 (If purchased at time of system configuration)
 - Microsoft[®] Office[®] Small Business 2010 (If purchased at time of system configuration)
 - Microsoft[®] Office[®] Professional 2010 (If purchased at time of system configuration)
 - Norton Internet Security™ 2012 (12-month subscription, if purchased at time of system configuration)
- Special Offers and Trial Software
 - Amazon.com[®]
 - NetZero[®] Internet Service
 - Norton Internet Security™ 2012 (30-day trial subscription)
 - QuickBooks[®] Online Banking
 - Skype[®]
 - Toshiba Online Backup (30-day trial subscription)

1 YEAR STANDARD LIMITED WARRANTY²³

2 YEAR STANDARD LIMITED WARRANTY²⁴(optional)

3 YEAR STANDARD LIMITED WARRANTY²⁵(optional)

Environmental Specifications

- This product is RoHS²⁶ compatible
- ENERGY STAR[®] Qualified
- EPEAT[®] Gold Rated

	Operating	Non-operating
Temperature ²⁷	5° to 35° C	-20° to 60° C
Relative Humidity (non-condensing)	20% to 90%	10% to 95%
Thermal Gradient	15° C per hour (max)	20° C per hour (max)
Altitude (relative to sea level)	0 to 10,000 meters	0 to 40,000 meters
Shock	10G	60G
Vibration	0.5G	1.0G

Service Upgrades and Extensions

Subject to Change

While Toshiba has made every effort at the time of publication to ensure the accuracy of the information provided herein, product specifications, configurations, prices, system/component/options availability are all subject to change without notice. For the most up-to-date product information about your computer, or to stay current with the various computer software or hardware options, visit Toshiba's Web site at <http://www.support.toshiba.com>

Return Policy

Notwithstanding anything to the contrary in any third party License Agreement or product documentation supplied with your PC, Toshiba America Information Systems, Inc. ("TAIS") does not accept the return of component parts, or bundled software, that have been removed from the PC system. Pro-rata refunds on individual PC components or bundled software, including the operating system, will not be granted. If you wish to return a complete PC system, contact the TAIS dealer where you purchased the product, and comply with the dealer's standard return policies and procedures.

Toshiba offers many different enhanced services such as SystemGuard[®], On-Site Repair, and ServiceExpress to provide additional support to your notebook PC. For a full description and complete list of programs and program terms and conditions, please visit www.support.toshiba.com.

Accessories

For additional and most updated accessories, please visit www.accessories.toshiba.com

Memory Upgrade

Part Number	Description
PA5037U-1M4G	Toshiba 4GB PC3-12800 DDR3-1600MHz Memory Module
PA5037U-1M8G	Toshiba 8GB PC3-12800 DDR3-1600MHz Memory Module

Power

Part Number	Description
PA3546U-1ACA	Toshiba 180W Global AC Adapter
PA5036U-1BRS	Toshiba Primary Li Ion Battery Pack (8 Cell, 47Wh)

Expansion

Part Number	Description
PA3778U-1PRP	dynadock V Universal USB Docking Station
PA3927U-1PRP	dynadock U3.0 Universal USB 3.0 Docking Station

Storage

Part Number	Description
PA3877U-1M8B	Toshiba 8GB USB Hi-Speed Swivel-Retractable Flash Drive
PA3877U-1MAB	Toshiba 16GB USB Hi-Speed Swivel-Retractable Flash Drive
PA3877U-1MBB	Toshiba 32GB USB Hi-Speed Swivel-Retractable Flash Drive
HDTC605XW3A1	Toshiba 500GB Canvio 3.0 USB Portable Hard Drive, White
HDTC607XK3A1	Toshiba 750GB Canvio 3.0 USB Portable Hard Drive, Black
HDTC610XS3B1	Toshiba 1TB Canvio 3.0 USB Portable Hard Drive, Silver

Bluetooth

Part Number	Description
PA3710U-1BTM	Toshiba Bluetooth V 2.1+EDR USB Nano Adapter(for units without Bluetooth)
PA3847U-1ETB	Toshiba Bluetooth Laser Mouse, Gloss Black(if Bluetooth is installed)
PA3847U-1ETC	Toshiba Bluetooth Laser Mouse, Magnesium Black(if Bluetooth is installed)

Carrying Case

Part Number	Description
PA1464U-1SP8	Toshiba 18.4" Metropolitan Carrying Case (Fits up to 18.4")
PA1453U-1BG8	Toshiba 18.4" Gaming Backpack (Fits up to 18.4")

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9740 Irvine Boulevard
Irvine CA 92618

ToshibaDirect website: <http://www.toshibadirect.com>

TAIS website for resellers: <http://sell.toshiba.com>

TAIS PC Support website: <http://support.toshiba.com>

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^{C1} **64-bit computing:**

64-bit computing requires that the following hardware and software requirements are met:

- 64-bit Operating System
- 64-bit CPU, Chipset and BIOS (Basic Input/Output System)
- 64-bit Device drivers
- 64-bit applications

Certain device drivers and/or applications may not be compatible with a 64-bit CPU and therefore may not function properly. See "Detailed Specs" for more information.

¹ **Product Series Legal Footnote.** The product specifications and configuration information are designed for a product Series. Your particular model may not have all the features and specifications listed or illustrated. For more detailed information about the features and specifications on your particular model, please visit Toshiba's Web site at pcsupport.toshiba.com.

Product Offering Legal Footnote. Toshiba America Information Systems, Inc. reserves the right to modify or withdraw this offer at anytime without notice

² **Operating System.** Also see **64-Bit Computing** Legal Footnote, if applicable.

Certain Microsoft® software product(s) included with this computer may use technological measures for copy protection. IN SUCH EVENT, YOU WILL NOT BE ABLE TO USE THE PRODUCT IF YOU DO NOT FULLY COMPLY WITH THE PRODUCT ACTIVATION PROCEDURES. Product activation procedures and Microsoft's privacy policy will be detailed during initial launch of the product, or upon certain reinstallations of the software product(s) or reconfigurations of the computer, and may be completed by Internet or telephone (toll charges may apply).

Some software may differ from its retail version (if available), and may not include user manuals or all program functionality.

Offers. Offer terms, duration and product availability all subject to change without notice

³ **Processor (Central Processing Unit).** Also see **64-Bit Computing** Legal Footnote, if applicable.

CPU performance in your computer product may vary from specifications under the following conditions:

1. use of certain external peripheral products
2. use of battery power instead of AC power
3. use of certain multimedia, computer generated graphics or video applications
4. use of standard telephone lines or low speed network connections
5. use of complex modeling software, such as high end computer aided design applications
6. use of several applications or functionalities simultaneously
7. use of computer in areas with low air pressure (high altitude >1,000 meters or >3,280 feet above sea level)
8. use of computer at temperatures outside the range of 5°C to 30°C (41°F to 86°F) or >25°C (77°F) at high altitude (all temperature references are approximate and may vary depending on the specific computer model – please visit the Toshiba website at www.pcsupport.toshiba.com for details).

CPU performance may also vary from specifications due to design configuration.

Under some conditions, your computer product may automatically shut-down. This is a normal protective feature designed to reduce the risk of lost data or damage to the product when used outside recommended conditions. To avoid risk of lost data, always make back-up copies of data by periodically storing it on an external storage medium. Use your computer product only under recommended conditions. Read additional restrictions under "Environmental Conditions" in your product "Detailed Specs." Contact Toshiba Technical Service and Support for more information.

⁴ **Graphics (Graphics Processing Unit).** GPU performance may vary depending on product model, design configuration, applications, power management settings and features utilized. GPU performance is only optimized when operating in AC power mode and may decrease considerably when operating in battery power mode.

Total Available Graphics Memory is the total of, as applicable, Dedicated Video Memory, System Video Memory and Shared System Memory. Shared System Memory will vary depending on system memory size and other factors.

⁵ **Memory (Main System).** Part of the main system memory may be used by the graphics system for graphics performance and therefore reduce the amount of main system memory available for other computing activities. The amount of main system memory allocated to support graphics may vary depending on the graphics system, applications utilized, system memory size and other factors. Computers configured with a 32-bit operating system can address up to 3GB of system memory. Only computers configured with a 64-bit operating system can address 4 GB or more of system memory.

⁶ **Storage Drive (Internal HDD Capacity).** One Gigabyte (GB) means $10^9 = 1,000,000,000$ bytes and One Terabyte (TB) means $10^{12} = 1,000,000,000,000$ bytes using powers of 10. The computer operating system, however, reports storage capacity using powers of 2 for the definition of 1 GB = $2^{30} = 1,073,741,824$ bytes and 1TB = $2^{40} = 1,099,511,627,776$ bytes, and therefore shows less storage capacity. Available storage capacity will also be less if the computer includes one or more pre-installed operating systems, such as Microsoft Operating System and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

⁷ **Optical Drive.** Due to manufacturing and quality variations in third party optical media (e.g., CD or DVD) or optical media players/recorders, in certain cases, your Toshiba optical drive may not record on certain optical media that bear the applicable logo, or playback optical media recorded by other PCs or optical media recorders. Additionally, certain optical

media recorded on your optical drive may not playback or operate properly on other PCs or optical media players. These problems are not due to any defect in your Toshiba PC or optical drive. Please refer to your PC's product specification for listing of specific format compatibilities.

Recording or viewing of certain optical media may be limited or prevented in accordance with applicable copy protection standards.

⁸ **Blu-Ray Disc™ Player Technology.** Compatibility and/or performance issues are possible. Certain interactive features may not be supported due to compatibility, network settings or other conditions. Advanced Access Content System (AACs) keys are integrated into your computer for copy protection purposes. Occasional renewal is required and will initially be provided at no charge. [After the initial period, Corel Corporation will provide AACs key renewals pursuant to its then current terms and conditions.](#) For more information on AACs key, visit www.aacsla.com/home.

Depending on Blu-ray Disc content, you may experience "frame dropping" or lower performance. Viewing on external display requires a RGB/HDCP supported HDMI port. External power required for viewing of Blu-ray content. Dual view feature not supported. You must close all other applications during Blu-ray Disc playback.

⁹ **Blu-Ray Disc™ Player Technology.** Compatibility and/or performance issues are possible. Certain interactive features may not be supported due to compatibility, network settings or other conditions. Advanced Access Content System (AACs) keys are integrated into your computer for copy protection purposes. Occasional renewal is required and will initially be provided at no charge. [After the initial period, Corel Corporation will provide AACs key renewals pursuant to its then current terms and conditions.](#) For more information on AACs key, visit www.aacsla.com/home.

Depending on Blu-ray Disc content, you may experience "frame dropping" or lower performance. Viewing on external display requires a RGB/HDCP supported HDMI port. External power required for viewing of Blu-ray content. Dual view feature not supported. You must close all other applications during Blu-ray Disc playback.

¹⁰ **Display.** Small bright dots may appear on your screen display when you turn on your PC. Your display contains an extremely large number of thin-film transistors (TFT) and is manufactured using high-precision technology. Any small bright dots that may appear on your display are an intrinsic characteristic of the TFT manufacturing technology. Over a period of time, and depending on the usage of the computer, the brightness of the screen will deteriorate. This is also an intrinsic characteristic of the screen technology. When the computer is operated on battery power, the screen will dim and you may not be able to increase the brightness of the screen while on battery power.

¹¹ **Wireless** May require purchase of additional software, external hardware, or services. Transmission speeds may vary. Certain optional features within the wireless-n specifications (if available on your system) may not be supported.

¹² **Wireless** May require purchase of additional software, external hardware, or services. Transmission speeds may vary. Certain optional features within the wireless-n specifications (if available on your system) may not be supported.

¹³ **Intel® Wireless Display.** Copy protection technology, if any, associated with the content may prevent or limit viewing of content.

¹⁴ **Sleep & Music:** In this mode, the headphone jack and mute functions are disabled. The volume and sound quality will diminish as the speakers not tuned in Windows® mode. Use the volume control on your audio device to adjust sound. Audio line-in cable is not included

¹⁵ **USB 3.0.** 5Gbps is the maximum theoretical interface transfer rate per the specifications of the Universal Serial Bus 3.0. Actual transfer rate will vary depending on your system configuration and other factors.

¹⁶ **USB Sleep & Charge.** The "USB Sleep & Charge function" may not work with certain external devices even if they are compliant with the USB specification. In those cases, turn the power of the computer ON to charge the device.

¹⁷ **Weight.** Weight may vary depending on product configuration, vendor components, manufacturing variability and options selected.

¹⁸ **Battery Life Rating.** Measured by MobileMark® 2007. MobileMark is a trademark of the Business Applications Performance Corporation. Rating based on either MobileMark Productivity 2007 modeling a user performing common mobile office activities or Reader 2007 modeling a user reading documents. See "Detailed Specifications" for test used. Details of MobileMark 2007 testing are available at www.bapco.com. Rating is for comparison purposes only, and does not indicate the battery life that will be obtained by any individual user. Actual battery life may vary considerably from specifications depending on product model, configuration, applications, power management settings and features utilized, as well as the natural performance variations produced by the design of individual components. The battery life rating is only achieved on the select models and configurations tested by Toshiba under the specific test settings at the time of publication and is not an estimate of a system's battery life under any conditions other than the specific test settings. After a period of time, the battery will lose its ability to perform at maximum capacity and will need to be replaced. This is normal for all batteries.

¹⁹ **Software.** Some software may differ from its retail version (if available), and may not include user manuals or all program functionality.

Certain Microsoft® software products (including Microsoft Office Small Business Accounting if applicable) included with this computer may use technological measures for copy protection. IN SUCH EVENT, YOU WILL NOT BE ABLE TO USE THE PRODUCT IF YOU DO NOT FULLY COMPLY WITH THE PRODUCT ACTIVATION PROCEDURES. Product activation procedures and Microsoft's privacy policy will be detailed during initial launch of the product, or upon certain reinstallations of the software products or reconfigurations of the computer, and may be completed by Internet or telephone (toll charges may apply).

Includes Microsoft® Office 2010 preloaded. Purchase a Product Key to activate a full Microsoft Office 2010 suite.

²⁰ **Toshiba Media Controller.** Copy protection technology, if any, associated with the content may prevent or limit sharing of content.

²¹ **Upconverter/Upconversion Technology (Resolution+® Technology).** Viewing enhancements may vary depending upon content quality and display device capability/functionality/settings. Depending on the quality of the content, some video noise may be visible.

²² **Microsoft® Office Starter 2010:** Includes Microsoft® Office 2010 preloaded. Purchase a Product Key to activate a full Microsoft Office 2010 suite

²³ **Warranty.** The terms and conditions of Toshiba's standard limited warranty are available at www.warranty.toshiba.com.

²⁴ **Warranty.** The terms and conditions of Toshiba's standard limited warranty are available at www.warranty.toshiba.com.

²⁵ **Warranty.** The terms and conditions of Toshiba's standard limited warranty are available at www.warranty.toshiba.com.

²⁶ **RoHS.** This notebook is compatible with European Union Directive 2002/95/EC, Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (RoHS), which restricts use of lead, cadmium, mercury, hexavalent chromium, PBB, and PBDE. Toshiba requires its notebook component suppliers to meet RoHS requirements and verifies its suppliers' commitment to meeting RoHS requirements by conducting component sampling inspections during the product design approval process.

²⁷ **Temperature (Environmental) Conditions.** All temperature references are approximate and the performance of your computer may vary from specifications even when operating within the recommended temperature range.