

# TOSHIBA

Leading Innovation >>>



## Qosmio® G45-AV680



### Your Entertainment Showcase in High Definition.

The Qosmio G45 is, definitively, your luxe HD DVD<sup>9</sup> digital entertainment showcase notebook for high definition movies, high fidelity audio and high impact gaming. With a High Definition TV Tuner<sup>10</sup>, you have a variety of media at your fingertips with stunning 1080p Full HD imagery<sup>13</sup>. Intel® Centrino® Duo processor technology increases system responsiveness, makes multi-tasking faster, and extends battery life. New wireless 802.11ag<sup>4</sup> and draft "n"<sup>5</sup> Wi-Fi® provides reliable connections that won't slow you down.



Toshiba recommends  
Windows Vista™ Ultimate.



**1080P FULL HD**



# Qosmio® G45-AV680

## System Characteristics<sup>1</sup>

<b>Part Number and UPC</b>
<ul style="list-style-type: none"><li>Part Number: PQG41U-001001</li><li>UPC: 032017912502</li></ul>
<b>Operating System</b>
<ul style="list-style-type: none"><li>Genuine Windows Vista™ Ultimate (32-bit version)</li></ul>
<b>Processor and Chipset<sup>2</sup></b>
<b>Intel® Centrino® Duo processor technology featuring:</b> <ul style="list-style-type: none"><li>Intel® Core™ 2 Duo Processor T7300</li><li>-2.00GHz, 4MB L2, 800MHz FSB with 64-bit<sup>3</sup></li><li>Mobile Intel® PM965 Express Chipset</li><li>Intel® Wireless WiFi Link 4965AGN (802.11a/g/n)<sup>4,5</sup></li></ul>
<b>Memory<sup>6</sup></b>
<ul style="list-style-type: none"><li>Configured with 2048MB PC2-5300 DDR2 SDRAM (both memory slots may be occupied). Maximum capacity 4096MB</li><li>Intel® Turbo Memory: 1024MB</li></ul>
<b>Hard Disk Drive<sup>7</sup></b>
<ul style="list-style-type: none"><li>320GB using two Serial ATA hard disk drives;</li><li>-Primary + Secondary drive: 160GB + 160GB</li></ul>
<b>Fixed Optical Disk Drive<sup>8</sup></b>
<ul style="list-style-type: none"><li>HD DVD-R/DVD<sup>®</sup> SuperMulti (+/- double layer) drive (in one optical drive), supporting 13 formats</li><li>-Maximum speed and compatibility: HD DVD-R(1x), HD DVDROM (8x), CD-ROM (24x), CD-R (16x), CD-RW (4x), DVDROM (8x), DVD-R (4x), DVD+R (4x), DVD-RW (4x), DVD+R (Double Layer (2.4x)), DVD-R (Double Layer (2x)), DVD+RW (4x), DVD-RAM (3x))</li></ul>
<b>Toshiba TV Tuner<sup>10</sup></b>
<ul style="list-style-type: none"><li>TOSHIBA USB HDTV Tuner (External)<sup>11</sup></li></ul>
<b>Display<sup>12</sup></b>
<ul style="list-style-type: none"><li>17" diagonal widescreen Ultimate TruBrite® TFT active-matrix LCD display at 1920x1200 native resolution (WUXGA)</li><li>-Supports 1080p content<sup>13</sup></li><li>-Maximum Brightness Cd/m<sup>2</sup> - up to 350 Cd/m<sup>2</sup></li><li>-Contrast Ratio: 450:1</li><li>-Horizontal Viewing Angle: 140 Degree</li><li>-Vertical Viewing Angle: 110 Degree</li></ul>
<b>Graphics<sup>14</sup></b>
<ul style="list-style-type: none"><li>PCI-Express™ x16 graphics subsystem, featuring:<ul style="list-style-type: none"><li>-NVIDIA® GeForce™ 8600M GT with 512MB DDR2 discrete graphics memory, plus up to 255MB dynamically allocated shared graphics memory using NVIDIA® TurboCache™ technology<sup>15</sup></li><li>-Total available shared graphics memory 767MB</li></ul></li></ul>
<b>Sound</b>
<ul style="list-style-type: none"><li>1-bit Digital Amplifier</li><li>Four built-in harman/kardon® stereo speakers with built-in subwoofer</li><li>Sound Volume Control Dial</li><li>Built-in microphone</li></ul>
<b>Input Devices</b>
<ul style="list-style-type: none"><li>86 key US keyboard</li><li>TouchPad™ pointing device</li><li>TouchPad™ Enable/Disable</li><li>Control Buttons:<ul style="list-style-type: none"><li>-Internet button to launch default browser</li><li>-CD/DVD control buttons (Play/Pause, Stop, Prev Track, Next Track)</li></ul></li><li>Toshiba Remote Control</li></ul>
<b>Communications</b>
<ul style="list-style-type: none"><li>Webcam and microphone built into LCD bezel</li><li>Modem<sup>16</sup></li><li>10/100/1000 Ethernet</li><li>Intel® Wireless WiFi Link 4965AGN (802.11a/g/n)<sup>4,5</sup></li><li>Bluetooth® version 2.0 plus Enhanced Data Rate (EDR)</li><li>Consumer infrared for remote control</li></ul>
<b>Expandability</b>
<ul style="list-style-type: none"><li>2 main memory slots. Both slots may be occupied.</li><li>One PCMCIA – Type II/Type I Card Slot</li><li>ExpressCard™ slot (ExpressCard/34 and Express Card/54)</li><li>5-in-1 Bridge Media Adapter<ul style="list-style-type: none"><li>-Secure Digital, Memory Stick™, Memory Stick PRO™, MultiMedia Card, xD Picture Card (shared slots)</li></ul></li></ul>
<b>Ports</b>
<ul style="list-style-type: none"><li>Video</li><li>-RGB (monitor) output port</li><li>-S-Video output port</li><li>-HDMI output port</li></ul>

- Audio
  - S/P DIF output port (shared with headphone port)
  - Audio line-in
  - Microphone input port
  - Headphone output port
- Data
  - i.LINK™ IEEE -1394
  - USB v2.0 – 5 ports
- Security
  - Fingerprint reader

<b>Physical Description</b>
<ul style="list-style-type: none"><li>Dimensions (WxDxH Front/H Rear): 17.4" x 11.8" x 1.5" /1.78" without feet</li><li>Weight: Starting at 10.6 lbs depending upon configuration<sup>17</sup></li><li>LCD Cover Color: Cosmic Black Pearl</li></ul>
<b>Power</b>
<ul style="list-style-type: none"><li>120W (15V x 8A) 100-240V AC Adapter.</li><li>-Dimensions (WxDxH): 5.55" x 5.71" x 1.73"</li><li>-Weight: starting at 1.43 lbs</li></ul>
<b>Battery<sup>18</sup></b>
<ul style="list-style-type: none"><li>7050mAh Lithium Ion battery pack</li><li>-Dimensions (WxDxH): 5.55" x 3.86" x 0.80"</li><li>-Weight: starting at 1.08 lbs</li></ul>
<b>Software<sup>19</sup></b>
<ul style="list-style-type: none"><li>Toshiba Software and Utilities<ul style="list-style-type: none"><li>-TOSHIBA Value Added Package</li><li>-Electronic User's Guide</li><li>-Bluetooth Stack for Windows by Toshiba</li><li>-TOSHIBA ConfigFree®</li><li>-TOSHIBA Assist</li><li>-TOSHIBA Security Assist</li><li>-TOSHIBA Disc Creator</li><li>-TOSHIBA Extended Tiles for Windows Mobility Center</li><li>-TOSHIBA Speech System</li></ul></li><li>Third-party Software<ul style="list-style-type: none"><li>-TOSHIBA Game Console</li><li>-Microsoft Works Version 8.5</li><li>-Sun® Java™ 2 Runtime Environment</li><li>-Adobe® Acrobat® Reader 8.0</li><li>-Google™ Desktop</li><li>-Google™ Toolbar</li><li>-Google Picasa™</li><li>-Yahoo! Music™ Jukebox</li><li>-Ulead® DVD MovieFactory® 5 for TOSHIBA</li></ul></li><li>Trial Software<ul style="list-style-type: none"><li>-Microsoft Office Trial Home and Student 2007 Edition (60-day trial)</li><li>-McAfee® Internet Security Suite (30-day trial)</li></ul></li><li>Special Offers<ul style="list-style-type: none"><li>-Microsoft Office Live</li><li>-Shutterfly digital photo service</li><li>-Napster® music subscription service</li><li>-eMusic MP3 music subscription service</li><li>-VONGO<sup>SM</sup> internet video download service</li><li>-ebay®</li><li>-CNN Pipeline</li><li>-Skyline internet communications</li></ul></li></ul>
<b>Limited Warranty<sup>20</sup></b>
<ul style="list-style-type: none"><li>1 Year Standard Limited Warranty + On-Site Repair</li></ul>
<b>Accessories</b>
<b>Memory Upgrade</b>
<ul style="list-style-type: none"><li>PA3512U-1M1G Toshiba 1GB DDR2-667 Memory Module</li><li>PA3513U-1M2G Toshiba 2GB DDR2-667 Memory Module</li></ul>
<b>Power</b>
<ul style="list-style-type: none"><li>PA3237U-3ACA Toshiba 120W Global AC Adapter</li><li>PA3475U-1BRS Toshiba Primary Li Ion Battery Pack (9 Cell)</li></ul>
<b>Expansion</b>
<ul style="list-style-type: none"><li>PA3541U-2PRP Toshiba dynadock™ USB Docking Station with VGA port</li><li>PA3542U-2PRP Toshiba dynadock USB Docking Station with DVI port</li></ul>
<b>Security &amp; Protection</b>
<ul style="list-style-type: none"><li>PA3567U-1ETC Toshiba Keyboard Protector</li><li>PA410U Targus DEFCON CL Cable Lock</li></ul>
<b>Storage</b>
<ul style="list-style-type: none"><li>PA3109U-3FDD Toshiba USB Floppy Disk Drive Kit</li><li>PA1411U-1M1G Toshiba 1GB USB Hi-Speed Flash Drive</li></ul>

- PA1412U-1M2G Toshiba 2GB USB Hi-Speed Flash Drive

<b>Wireless &amp; Bluetooth</b>
<ul style="list-style-type: none"><li>PA3573U-1ETA Toshiba Wireless Mouse w/Bluetooth Technology (Black/Silver)</li><li>PA3573U-1ETB Toshiba Wireless Mouse w/Bluetooth Technology (Black/Red)</li></ul>

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<sup>1</sup> 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. Toshiba America Information Systems, Inc. reserves the right to modify or withdraw this offer at anytime without notice.<sup>2</sup> CPU performance may vary. See Processor Legal Footnote at www.info.toshiba.com. Intel® Dual Core Technology is a new technology designed to deliver improved performance to the notebook PC. Performance or compatibility may vary. For more information on Intel's Core 2 Duo processors, visit: <http://www.intel.com/core2duo/>.<sup>3</sup> 64-bit processors are designed to take advantage of 32 and 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. A 32-bit version of the operating system is preinstalled on your computer unless explicitly stated that the operating system is 64-bit. See "Detailed Specs" for more information.<sup>4</sup> May require purchase of additional software, external hardware, or services. Transmission speeds may vary. See Wireless Legal Footnote at www.info.toshiba.com.<sup>5</sup> The Intel® Wireless Wi-Fi® Link 4965AGN (802.11a/g/n) adapter is based on a draft "n" release version of the IEEE 802.11n specification, also known as "Draft N", which may not be compatible with, or support all features (e.g., security) of, certain Wi-Fi® equipment. Based on the theoretical bandwidth maximum enabled by 2x3 Draft-N implementations with 2 spatial streams. Actual wireless throughput and/or range will vary depending on your specific operating system, hardware and software configurations. Compatible wireless access point required. [http://www.intel.com/network/connectivity/resources/doc\\_library/tech\\_brief/314286.pdf](http://www.intel.com/network/connectivity/resources/doc_library/tech_brief/314286.pdf).<sup>6</sup> Memory size may vary. See Memory Legal Footnote at [www.info.toshiba.com](http://www.info.toshiba.com).<sup>7</sup> Hard drive capacity may vary. 1 Gigabyte (GB) means 109 – 1,000,000,000 bytes using powers of 10. See Hard Disk Drive Capacity Legal Footnote at [www.info.toshiba.com](http://www.info.toshiba.com).<sup>8</sup> Copy protection technology may prevent or limit recording or viewing of certain optical media (e.g., CD or DVD).<sup>9</sup> Because HD DVD is a new format that makes use of new technologies, certain disc, digital connection and other compatibility and/or performance issues are possible. Advanced interactive and navigation features of the HD DVD Video format including, but not limited to, Picture in Picture (PIPI) and network streaming features are not supported by this product. HD DVD Application Logo (HD DVD-ROM) represents the optical drive's conformity with the DVD Forum's verification criteria for HD DVD physical format, and does not represent compliance with the HD DVD Video specification defined by the DVD Forum. Advanced Access Content System (AACS) keys are integrated into your computer for copy protection purposes. Occasional renewal of the AACS key is required, and easily done by connecting to the Internet. AACS key renewal will be provided at no charge to purchasers. If the AACS key is not renewed, the HD DVD player software will stop playing AACS-protected HD DVD content. However, it will continue to play other forms of content, such as DVD discs or non-protected HD DVD content. For more information on AACS key, visit [www.aacsa.com/home](http://www.aacsa.com/home). See Toshiba HD DVD model "Detailed Specs" at [www.computers.toshiba.com](http://www.computers.toshiba.com) for important information on HD DVD playback capabilities.<sup>10</sup> TV tuner will function only in the country where the computer was purchased.<sup>11</sup> To receive digital cable TV channels, including premium programming, you must subscribe to a supported digital cable TV package, install and register your CableCARD and have internet connection. For more information about digital cable services, contact your local cable TV provider. The digital cable TV tuner does not support interactive services including, but not limited to, video-on-demand, pay-per-view or interactive programming guides. The digital cable TV tuner also does not support Satellite TV.<sup>12</sup> 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 with dim and you may not be able to increase the brightness of the screen while on battery power.<sup>13</sup> "1080P FULL HD" in Toshiba PC indicates "To have the LCD which has 1920x1080 or more pixels number, and to have the ability that the moving image of progressive (progressive-scanning) display system of 1920x1080 can be displayed with dot by dot."<sup>14</sup> GPU performance may vary. See Graphics Legal Footnote at [www.info.toshiba.com](http://www.info.toshiba.com).<sup>15</sup> The revolutionary new nVIDIA GPU utilizes the additional bandwidth of PCI Express to reach higher levels of graphics performance than traditional graphics memory solutions. The nVIDIA GPU shares the capacity and bandwidth of dedicated graphics memory and dynamically available system memory for turbocharged performance and larger total graphics memory. The VRAM capacity indicated in the NVIDIA display is the sum of the discrete graphics memory and the maximum possible graphics memory allocated dynamically by the system memory. The system memory capacity indicated in the Microsoft Windows PROPERTIES display is the maximum possible system memory capacity without adjustment for any system memory which may be dynamically allocated to the graphics system depending on demand.<sup>16</sup> Due to FCC limitations, speeds of 53 kbps are the maximum permissible transmission rates during download. Actual data transmission speeds will vary depending on line conditions.<sup>17</sup> Weight may vary. See Weight Legal Footnote at [www.info.toshiba.com](http://www.info.toshiba.com).<sup>18</sup> Battery life may vary. See Battery Life Legal Footnote at [www.info.toshiba.com](http://www.info.toshiba.com).<sup>19</sup> Some software may differ from its retail version (if available), and may not include user manuals or all program functionality. Internet access is required to enable certain functionality of certain Microsoft products which may be included with your computer. The Microsoft Office 2007 60-Day Trial software (if applicable) is intended for evaluation purposes only. You must activate the software before you can use it. Product activation procedures will be detailed during initial launch of the software; activation requires Internet access. This software has an expiration date of 60 days from date of first use, at which time the software will operate under reduced-functionality mode, limiting end-user options and operations. The Microsoft Office 2007 60-Day Trial software is distributed without charge to the End User Customer but if the End User wants to continue to use such product after the trial period, then the End User Customer will have to pay a fee for the perpetual version of such Office Product. For systems with Microsoft Money Essentials 2007 installed, note that some online services for Microsoft® Money 2007 and Microsoft® Money 2007 Essentials will expire on the earlier of two years after your activation of the software or September 1, 2009. Also, you may need to get some online services separately from your financial institution, which may charge a fee. See the online services policy at <http://money.msn.com/Money2007/OSP.asp>.<sup>20</sup> The terms and conditions of Toshiba's standard limited warranty are available at [www.info.toshiba.com](http://www.info.toshiba.com).