

TECRA A10-ST9017 Detailed Product Specification¹

Model Name	Description	Part Number	UPC
A10-ST9017	Genuine Windows® 7 Professional, Intel® Core™ 2 Duo Processor P8700, 1GB DDR2, 160GB 5400rpm SATA, DVD-SuperMulti, 15.4" widescreen WXGA, Intel® Graphics Media Accelerator 4500MHD, Intel® WiFi® Link 5100AGN, 1 year standard limited warranty	PTSB1U-05R03U	883974344437

Operating System ²

- Genuine Windows® 7 Professional 32/64-bit with XP Pro, SP3 Recovery Media
- Genuine Windows® 7 Ultimate 32/64-bit
- Genuine Windows® XP Professional, SP3 with Windows® 7 Professional Recovery Media

Processor and Chipset ³

- Processor
 - Intel® Core™ 2 Duo Processor P8700
 - 2.53GHz, 3MB L2, 1066MHz FSB
 - Intel® Core™ 2 Duo Processor T9600
 - 2.8GHz, 6MB L2, 1066MHz FSB
- Chipset
 - Mobile Intel® GM45 Express Chipset (With Intel Graphics)
 - Mobile Intel® PM45 Express Chipset (With NVIDIA Graphics)

Memory⁴

- Configured with 1GB (1GBx1) PC2-6400 DDR2 SDRAM
- 2 memory slots
- 1GB (Min)/4GB (Max), with 1GB or 2GB PC2-6400 DDR2 memory modules

Hard Disk Drive Options⁵

- 160GB, 250GB, 320GB (5400 RPM) and 160GB, 200GB (7200 RPM) Serial ATA hard disk drive; 9.5mm height
- 64GB or 128GB SSD (Solid State Disk) Serial ATA Drive

Fixed Optical Disk Drive⁶

- DVD SuperMulti (+/-R double layer) drive supporting 11 formats
 - Maximum speed and compatibility: CD-ROM (24x), CD-R (24x), CD-RW (10x), DVD-ROM (8x), DVD-R (Single Layer, (8x)), DVD-R (Double Layer, (6x)), DVD-RW (6x), DVD+R (Single Layer, (2x)), DVD+R (Double Layer, (6x)), DVD+RW (6x), DVD-RAM (5x)

Display Options⁷

- 15.4" diagonal widescreen TFT LCD display at 1280 x 800 native resolution (WXGA)
- 15.4" diagonal widescreen TFT LCD display at 1680x1050 native resolution (WSXGA+)

Graphics⁸

- Intel® Graphics Media Accelerator 4500MHD with dynamically allocated shared graphics memory
- NVIDIA® Quadro NVS 150M discrete graphics with 256MB of dedicated graphics memory (Optional)

Sound

- Built-in stereo speakers
- Sound volume control dial
- Built-in microphone
- Integrated Webcam (Optional)

Input Devices

- 86 key US keyboard
- Toshiba Accupoint® II and TouchPad™ dual pointing device
- TouchPad™ Enable/Disable
- Control Buttons:
 - Toshiba Assist button to launch Toshiba Assist control panel
 - Windows Mobility Center button (Windows 7)
 - Presentation Button (Windows XP)

Communications

- Modem⁹
- Intel® 82567LM Gigabit Network Connection
- Integrated Wi-Fi® compliant wireless:
 - Intel® WiFi Link 5100AGN (1x2)¹⁰
- Integrated Bluetooth® version 2.1 plus Enhanced Data Rate (EDR) (Optional)

Expandability

- One PCMCIA – Type II Card Slot
- Bridge Media Adapter
 - Secure Digital, SDHC, Memory Stick™, Memory Stick PRO™, Multi Media Card, xD card [shared slots]

Ports

- Video
 - RGB (monitor) output port
- Audio
 - Microphone input port
 - Headphone output port
- Data
 - i.LINK™ IEEE-1394
 - Modem¹¹
 - Ethernet-RJ45
 - USB v2.0 – 4 ports with sleep and charge¹²
 - 3 x USB v2.0
 - 1 x eSATA/USB combo port
 - Serial port
 - Docking connector
- Supported on Toshiba Express Port Replicator II
 - DVI-D output port (With NVIDIA Graphics)
 - USB v2.0 – 6 ports
 - 10/100 Ethernet port
 - Serial Port
 - Parallel Port
 - Audio In
 - Audio Out
 - AC adapter and security lock supported
- Security
 - SmartCard Reader
 - Fingerprint reader
 - Reinforced Security Cable Lock Slot

Physical Description

- Dimensions (WxDxH Front/H Rear): 14.2" x 10.4" x 1.46" / 1.54" with feet
- Weight: Starting at 6.2 lbs depending upon configuration¹³
- LCD Cover Color: Titanium Silver

Power

- 75W (15V x 5A) Auto sensing 100-240V/50-60Hz AC Adapter.
- Dimensions (WxDxH): 5.00" x 2.01" x 1.38"
- Weight: starting at 0.78 lbs

Battery ¹⁴

- 5100mAh Lithium Ion battery pack
- Dimensions (WxDxH): 8.15" x 1.77" x 0.79"
- Weight: starting at 0.74 lbs
- Battery Life (measured by MobileMark™)¹⁵
 - Included 6-cell battery: 3 hours, 10 minutes

Toshiba EasyGuard® ¹⁶

- Protect & Fix
 - Shock Absorbing Design¹⁷

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- HDD Shock Absorber
- Hard Disk Drive Protection
 - HDD Dome Shock Protector
 - HDD Shock Absorber
- Spill-Resistant Keyboard¹⁸
- TOSHIBA PC Diagnostic Tool
- Key Component Access
- Secure
 - Multiple-Level Password Utilities
 - Fingerprint Reader (includes software for password and identity management)
 - AuthenTec EntréPad® TrueSuite®
 - Infineon TPM Software Professional Package
 - Trusted Platform Module v1.2
 - TOSHIBA Secure Digital Token Utility
 - Reinforced Security Cable Lock Slot
 - Execute Disable Bit
- Connect
 - Diversity Antenna
 - TOSHIBA ConfigFree®
 - Voice-over-IP Ready Design
 - TOSHIBA Bluetooth® Stack
- Optimize
 - Windows Mobility Center Button
 - TOSHIBA Zooming Utility
 - LCD Rotation Utility
 - One-touch Resolution Change
 - Wireless On/Off Switch
 - FN Shortcut Keys
- BIOSAPM, ACPI, PNP, VESA, DPMS, DDC, SM BIOS, PCI BIOS support
- Computrace® (BIOS enabled)

Software ^{C1} 19

- Toshiba Software and Utilities
 - TOSHIBA Value Added Package
 - Electronic User's Guide
 - TOSHIBA ConfigFree®
 - TOSHIBA Speech System
- Third-party Software
 - Sun® Java™ Runtime Environment
 - Adobe® Acrobat® Reader
 - InterVideo® WinDVD®
 - Google™ Desktop
 - Google™ Toolbar
 - Google™ Picasa™
- Trial Software
 - Microsoft Office Ready with Microsoft Office Professional 2007 60-day Trial Edition
 - Norton Internet Security™ 2008

Environmental Specifications

	Operating	Non-operating
Temperature ²⁰	5° to 35° C (41° to 95° F)	-20° to 65° C (-4° to 149° F)
Thermal Gradient	15° C per hour (max)	20° C per hour (max)
Relative Humidity (non-condensing)	20% to 80%	10% to 90%
Altitude (relative to sea level)	-60 to 3,000 meters	-60 to 10,000 meters
Shock	10G	60G
Vibration	0.5G, 0.25G w/ODD	1.0G

- Energy Star 5.0 Qualified
- This product is RoHS²¹ compatible
- EPEAT™ Gold

1 YEAR STANDARD LIMITED WARRANTY ²²

Service Upgrades and Extensions

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.pcsupport.toshiba.com.

Recommended Services

Extended Service Plan

Provides an extended service plan for up to 4 total years from the original notebook purchase date. Must be purchased within the first 6 months of notebook purchase.

Part Number	Description
WSN-PEQQ2V	2nd Year Extended Service Plan
WSN-PEQQ3V	2nd/3rd Year Extended Service Plan
WSN-PEQQ4V	2nd/3rd/4th Year Extended Service Plan

SystemGuard Accidental Damage Service w/ ServiceExpress²³

Provides advanced protection from damage caused from handling. Select your express repair service with either Depot Express or Carry-In Express and go to the front of the line. Extended Service Plan included except with 1 Year plan. Must be purchased within the first 30 days of notebook purchase.

Part Number	Description
WSN-PSGP1V	1st Year
WSN-PEGP2V	1st/2nd Year + Extended Service Plan
WSN-PEGP3V	1st/2nd/3rd Year + Extended Service Plan

SystemGuard Accidental Damage Service + On-Site Repair²⁴

Combines SystemGuard and On-Site Repair coverage. Extended Service Plan included except with 1 Year plan. Must be purchased within the first 30 days of notebook purchase.

Part Number	Description
WSN-PSGN1V	1st Year
WSN-PEGN2V	1st/2nd Year + Extended Service Plan
WSN-PEGN3V	1st/2nd/3rd Year + Extended Service Plan

ServiceExpress

Select your express repair service with either Depot Express or Carry-In Express. Depot Express: Your notebook will be repaired and returned via overnight shipment (excluding weekends and holidays). Carry-In Express: Take your notebook into a Premier ASP and go to the front of the line for expedited repair service. Extended Service Plan included except with 1 Year plan. Must be purchased within the first 30 days of notebook purchase.

Part Number	Description
WSN-PSQP1V	1st Year
WSN-PEQP2V	1st/2nd Year + Extended Service Plan
WSN-PEQP3V	1st/2nd/3rd Year + Extended Service Plan

On-Site Repair Service

On-site service will be provided at the customer's home or business location (excluding weekends and holidays) to perform the necessary hardware repairs. Extended Service Plan included except with 1 Year plan. Must be purchased within the first 6 months of notebook purchase.

Part Number	Description
WSN-PSQN1V	1st Year
WSN-PEQN2V	1st/2nd Year + Extended Service Plan
WSN-PEQN3V	1st/2nd/3rd Year + Extended Service Plan

Accessories

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

Part Number	Description
PA3669U-1M2G	Toshiba 2GB DDR2-800 Memory Module
PA3670U-1M4G	Toshiba 4GB DDR2-800 Memory Module

Power

Part Number	Description
PA3283U-5ACA	Toshiba 75W Global AC Adapter
PA3588U-1BRS	Toshiba Primary Li Ion Battery Pack (6 cell)

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PA3509U-1BRM	Toshiba Primary Extended Capacity Li Ion Battery Pack (9 cell)
PA3357U-3BRL	Toshiba Primary High Capacity Li Ion Battery Pack (12 cell)
PA3091U-2CHG	Toshiba Battery Charger w/Integrated AC Adapter

Expansion

Part Number	Description
PA3508U-1PRP	Toshiba Express Port Replicator w/90W AC Adapter
PA3579U-1ETC	Toshiba Universal Notebook/Projector Stand
PA3555U-1ETC	Toshiba USB Data Transfer Cable

Security & Protection

Part Number	Description
PA3567U-1ETC	Toshiba Keyboard Protector

Storage

Part Number	Description
PA3556U-1M2G	Toshiba 2GB USB Hi-Speed Flash Drive, ReadyBoost
PA3556U-1M4G	Toshiba 4GB USB Hi-Speed Flash Drive, ReadyBoost
PA3556U-1M8G	Toshiba 8GB USB Hi-Speed Flash Drive, ReadyBoost
HDDR160E03X	Toshiba External USB Hard Drive, 160GB
HDDR250E03X	Toshiba External USB Hard Drive, 250GB
HDDR320E03X	Toshiba External USB Hard Drive, 320GB

Wireless/Bluetooth

Part Number	Description
PA3624U-1BTM	Toshiba Bluetooth 2.0+EDR USB Adapter

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.pcsupport.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 America Information Systems, Incorporated ("TAIS")
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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. 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.

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 **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. For PC's configured with 4 GB of system memory, the full system memory space for computing activities will be considerably less and will vary by model and system configuration.

⁵ **Hard Disk Drive (HDD) Capacity.**

1 Gigabyte (GB) means $10^9 = 1,000,000,000$ 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 therefore shows less storage capacity. Available storage capacity will also be less if the product 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.

⁶ **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.

⁷ **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 with dim and you may not be able to increase the brightness of the screen while on battery power.

⁸ **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.

⁹ **Modem Speed.** 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.

¹⁰ **Wireless-N.** The wireless adapter is based on a draft release version of the IEEE 802.11n specification, and may not be compatible with, or support all features (e.g., security) of, certain Wi-Fi® equipment.

¹¹ **Modem Speed.** 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.

¹² **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.

¹³ **Weight.** Weight may vary depending on product configuration, vendor components, manufacturing variability and options selected.

¹⁴ **Battery Life.** 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. Published battery life numbers are achieved on select models and configurations tested by Toshiba at the time of publication. See "Detailed Specs" for specific battery measurement test. Recharge time varies depending on usage. Battery may not charge while computer is consuming full power. 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. To purchase a new battery pack, see the accessories information that shipped with your computer or visit the Toshiba web site at www.accessories.toshiba.com.

Battery life will be less than when using similar applications in the Windows Operating System

¹⁵ **Battery Life - MobileMark™.** Measured by MobileMark. MobileMark is a trademark of the Business Applications Performance Corporation.

¹⁶ **EasyGuard.** Toshiba EasyGuard™ technology comprises a number of features some of which may or may not be available on a particular Toshiba notebook depending on the model selected. See www.easyguard.toshiba.com for detailed information.

¹⁷ **Shock Protection.** Toshiba's shock absorption technology provides higher impact protection for your system as compared to Toshiba systems without similar shock protection features based on Toshiba's drop tests. Toshiba's standard limited warranty terms and limitations apply. Visit www.warranty.toshiba.com for details.

¹⁸ **Spill-Resistant Keyboard.** Under Toshiba testing conditions, the spill-resistant keyboard delayed the time for a water spill to reach the PC's main board to allow more time to properly close down the machine. Toshiba's standard limited warranty terms and limitations apply. Visit www.warranty.toshiba.com for details.

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).

Internet access is required to enable certain functionality of certain Microsoft products (including Microsoft Office Small Business Accounting 2006) which may be included with this 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.

²⁰ **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.

²¹ **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.

²² **Warranty:** The terms and conditions of Toshiba's standard limited warranty are available at www.warranty.toshiba.com.

²³ **Service Plans:** The terms and conditions of service upgrade and extension plans offered by Toshiba are available at www.pcsupport.toshiba.com.

²⁴ **Service Plans:** The terms and conditions of service upgrade and extension plans offered by Toshiba are available at www.pcsupport.toshiba.com.