



# Tecra M5-S5331

High performance **by design.**

## Powerful.

The flagship of the Tecra® family, the Tecra® M5 delivers the optimal balance of performance, reliability, security and longevity designed to maximize productivity for mobile business users in any mobile setting - today and tomorrow.

## Productive.

Mobility meets exceptional security, durability and reliability with the latest Intel® Centrino® Duo Mobile Technology and meticulously engineered EasyGuard™ Technology including shock-absorbing design for HDD protection<sup>15</sup>, spill-resistant keyboard<sup>16</sup>, fingerprint reader for one-touch security management, and commercial-grade encryption engines. All packed into a platform that epitomizes thin-and-light productivity.

From multi-tasking to multimedia, mobile performance doesn't get any better than this. Powered by Intel® Centrino® Duo Mobile Technology featuring the Intel® Core Duo Processors,<sup>3</sup> the Tecra M5 offers superior desktop and mobile performance.

Meticulously engineered EasyGuard™ Technology prepares users for the rigors of mobile computing with exceptional protection, security, connectivity, reliability and productivity.

EasyGuard™ Protect & Fix integrates lightweight shock-absorbing technologies into the notebook's design to buffer and cushion the HDD, display, inverter and other critical components in the event of accidental drops or bumps.

HDD shock absorption<sup>15</sup> and the intelligent free-fall-detecting 3D accelerometer protect sensitive hard disks in the event of a fall or excessive vibration. When a potential fall is detected, the 3D accelerometer helps prevent damaging contact between the HDD head and spinning disk.

EasyGuard™ Protect & Fix's spill-resistant keyboard<sup>16</sup> incorporates extra insulation and water resistance to provide a barrier between circuitry and moisture - allowing users enough time to save their work, close files and shut down the system.

EasyGuard™ Secure incorporates an embedded biometric sensor allowing users to easily log in by simply swiping their fingers across the built-in reader, preventing unauthorized access to the notebook.

## Detailed Specifications

### Operating System<sup>1</sup>

- Microsoft® Windows® XP Professional

### Processor and Chipset<sup>2</sup>

**Intel® Centrino® Duo Mobile Technology featuring:**

- Intel® Core™ Duo Processor T2400 (1.83GHz, 2M L2, 667MHz FSB)
- Mobile Intel® 945GM Express Chipset
- Intel® PRO/Wireless 3945ABG (802.11a/b/g)

### Memory<sup>4</sup>

- Configured with 512MB DDR2 533MHz SDRAM (using one memory module, one memory expansion slot open)
- 512MB(min)/4096MB (max), 2 memory slots using 256MB, 512MB, 1024MB, or 2048MB PC4200 DDR2 533MHz or PC5300 DDR2 667MHz SDRAM, dual-channel support requires two memory modules of same capacity and clockspeed

### Hard Disk Drive<sup>6</sup>

- 80GB (5400 RPM) Serial-ATA (S-ATA) hard disk drive; 9.5mm height

### Slim SelectBay Optical Disk Drive<sup>6</sup>

- DVD SuperMulti (+/-R double layer) drive supporting 11 formats: Maximum speed and compatibility: CD-ROM (24x:read), CD-R (24x:write), CD-RW (10x:write), DVD-ROM (8x:read), DVD-R (Single Layer, 8x:write), DVD-R (Double Layer, 2x: write), DVD-RW (4x:write), DVD+R (Single Layer, 8x:write), DVD+R (Double Layer, 2.4x:write), DVD+RW (4x:write), DVD-RAM (5x:write)

### Display<sup>7</sup>

- 14.1" diagonal TFT active-matrix LCD display at 1024x768 native resolution (XGA)

### Graphics<sup>8</sup>

- Intel® Graphics Media Accelerator 950 with 8MB-128MB dynamically allocated shared graphics memory

### Sound

- Built-in stereo speakers
- SigmaTel STAC9200 24-bit stereo software sound: Supports Direct 3D Sound, DirectSound, Direct Music, MIDI (playback); Connected BUS: High Definition Audio
- Sound Volume Control Dial
- Built-in microphone

### Input Devices

- Keyboard: 85 key US keyboard; Hot Key Functions (Fn); Windows Key Function; Application Key Function
- Toshiba AccuPoint™ and TouchPad™ dual pointing device
- TouchPad™ Enable/Disable (FN+F9 or by help of software)
- Control Buttons: Toshiba Assist button to launch Toshiba Assist control panel; Presentation button to quickly connect to projectors

### Communications

- Toshiba V.92 software modem<sup>9</sup>
- Intel® 10 Base-T/100 Base-TX/1000 Base-T Ethernet
- Integrated Intel® PRO/Wireless Network Connection 3945ABG (802.11a/b/g)<sup>10</sup>

### Expandability

- 2 main memory slots,
- 1 PC Card slot support 1 Type II, PCMCIA R2.01, PC Card16, CardBus
- ExpressCard™ slot supporting ExpressCard/34 and ExpressCard/54
- Secure Digital slot (supports SDIO)

### Ports

- Video

- RGB (monitor) output port
- S-Video output port

### • Audio

- Microphone input port
- Headphone output port

### • Data

- i.LINK™ IEEE-1394
- Universal Serial Bus (USB v2.0) – 3 ports
- RJ-45 LAN port
- RJ-11 modem port
- Serial port
- 240-pin docking connector

### Physical Description

- Dimensions (WxDxH Front/H Rear): 12.4" (315.6mm) x 10.3" (261.0mm) x 1.23" (31.2mm)[F]/1.35" (34.2mm)[R] without feet
- Weight: Starting at 5.05 lbs (2.29kg) depending upon configuration<sup>11</sup>
- Indicators: Main Battery Charging, DC-IN, Power/Sleep, HDD Activity, Wireless On, Caps Lock, Arrow Mode, Numeric Lock
- Chassis Description: Case material: PCABS+Magnesium; LCD Cover Color: Titanium Silver
- Physical Security: Slot for cable lock; Items protected by a screw: Memory, HDD
- Software Security: Passwords: User power-on password, supervisor password; Hotkey locks: Screen Blank

### Power Supply

- 75W (15V x 5A) Auto sensing external AC Adapter, 100-240V / 50-60Hz frequency (Universal) input.
- Dimensions (WxDxH): 5.0" (127.0mm) x 2.01" (51.0mm) x 1.18" (30.0mm)
- Weight: starting at 0.78 lbs (355 g)

### Battery<sup>12</sup>

- 6-cell (4700mAh) rechargeable, removable Lithium Ion (Li-Ion) battery pack
- Dimensions (WxDxH): 8.15" (207.0mm) x 0.79" (20.0mm) x 1.17" (45.0mm)
- Weight: starting at 0.75 lbs (338 g)
- Battery Life (measured by MobileMark™)<sup>13</sup>
  - Included 6-cell battery: 4 hours, 2 minutes
  - Optional 9-cell battery: 6 hours, 18 minutes
  - Optional 12-cell battery: 7 hours, 41 minutes
- Recharge Time: Main Battery Off/On – approximately 3.0 hrs/approximately 3.5 to 13.0 hrs

### Toshiba Easyguard™<sup>14</sup>

- Protect & Fix
  - Shock Absorbing Design<sup>15</sup>: HDD Shock Absorber
  - Hard Disk Drive Protection: 3D Accelerometer, HDD Dome Shock Protector, HDD Shock Absorber
  - Spill-Resistant Keyboard<sup>16</sup>
  - Magnesium Alloy Casework
- TOSHIBA PC Diagnostic Tool
- Key Component Access
- Secure
  - Multiple-Level Password Utilities
  - Fingerprint Reader (includes software for password and identity management)
  - Trusted Platform Module (TPM 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
- Optimize
  - Presentation Button
  - TOSHIBA Zooming Utility

## Tegra M5-S5331<sup>1</sup> Detailed Product Specifications

- One-touch Resolution Charge
- TOSHIBA Power Saver Utility
- Wireless On/Off Switch
- TOSHIBA Fn-esse® Shortcut Utility
- TOSHIBA Mouse Utility
- FN Shortcut Keys

### Software<sup>17</sup>

- Toshiba Software and Utilities
  - TOSHIBA ConfigFree®
  - TOSHIBA Custom Utilities
  - Electronic User's Guide
- Third-party Software
  - Microsoft® Office OneNote™ 2003
  - Microsoft® Works®
  - Intuit® Quicken® New User Edition 2005
  - Sun® Java™ 2 Runtime Environment
  - Adobe® Acrobat® Reader
  - InterVideo® WinDVD® 5
  - InterVideo® WinDVD Creator 2 Platinum
  - Sonic Solutions® RecordNow!™ Basic for Toshiba
  - Sonic Solutions® Drive Letter Access™ (DLA)
  - Microsoft® Windows® Media Player Version 10
  - Yahoo! Music Engine
  - Google Toolbar
  - MyYahoo! Toshiba Start Page
- Trial Software
  - McAfee® VirusScan™ (30-day trial)
  - McAfee® antiSpyware (30-day trial)
  - McAfee® Personal Firewall Plus (30-day trial)
  - McAfee® SpamKiller® (30-day trial)
  - AOL® Internet Service (90-day trial)<sup>18</sup>

### Limited Warranty<sup>19</sup>

- 3-Year Standard Limited Warranty

## Accessories

### Power

- |                |  |
|----------------|--|
| • PA3283U-3ACA | Toshiba 75W Global AC Adapter                                  |
| • PA3356U-2BRS | Toshiba Primary Li Ion Battery Pack (6 Cell)                   |
| • PA3509U-1BRM | Toshiba Primary Extended Capacity Li Ion Battery Pack (9 Cell) |
| • PA3357U-1BRL | Toshiba Primary High Capacity Li Ion Battery Pack (12 Cell)    |
| • PA3129U-2BRS | Toshiba Slim SelectBay 2nd Battery Pack                        |
| • PA3091U-2CHG | Toshiba Battery Charger with Integrated AC Adapter             |

### Expansion

- PA3474U-1PRP Toshiba Advanced Port Replicator III Plus

### Security and Protection

- PA1370U-1ETC Toshiba Keyboard Protector (Tegra/Satellite/Qosmio)
- PA4110U Targus DEFCON CL Notebook Cable Lock

### Storage

- |                |  |
|----------------|--|
| • PA3109U-3FDD | Toshiba UV Floppy Disk Drive Kit                   |
| • PA3407U-1H80 | Toshiba 80GB HDD Kit with (Bracket) 5400 rpm SATA  |
| • PA3430U-1HA0 | Toshiba 100GB HDD Kit with (Bracket) 5400 rpm SATA |
| • PA3134U-1ETC | Toshiba Slim SelectBay HDD Adapter (Black Bezel)   |
| • PA1399U-1MEM | Toshiba 1GB USB Hi-Speed Flash Drive               |

### Wireless and Bluetooth

- PA3455U-1BTM Toshiba USB Adapter with Bluetooth 2.0 + EDR Capability

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Some software may differ from its retail version if available, and may not include user manuals or all program functionality. <sup>3</sup> 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, compute-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 altitudes >1,000 meters or >3,280 feet above sea level); 8. Use of complex applications at temperatures outside the range of 5°C to 30°C (41°F to 86° F) or >25°C (77°F) at high altitudes (all temperature references are approximate and may vary depending on the specific computer model - please visit [www.pcgoustop.toshiba.com](http://www.pcgoustop.toshiba.com) for details); CPU performance may also vary from specifications due to system configuration; 9. 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. Read additional restrictions under "Environmental Conditions" and "Performance Considerations" in the user manual. <sup>4</sup> Performance may vary depending on the system configuration. <sup>5</sup> Performance may vary depending on the system configuration. <sup>6</sup> Performance may vary depending on the system configuration. <sup>7</sup> Performance may vary depending on the system configuration. <sup>8</sup> Performance may vary depending on the system configuration. <sup>9</sup> Performance may vary depending on the system configuration. <sup>10</sup> Performance may vary depending on the system configuration. <sup>11</sup> Weight may vary depending on the system configuration. <sup>12</sup> 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 selected 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 its 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](http://www.accessories.toshiba.com). <sup>13</sup> Measured by MobileMark. MobileMark is a trademark of the Business Applications Performance Corporation. <sup>14</sup> 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.easycard.toshiba.com](http://www.easycard.toshiba.com) for detailed information. <sup>15</sup> Toshiba 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 for details. <sup>16</sup> 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. <sup>17</sup> Some software may differ from its retail version if available, and may not include user manuals or all program functionality. Certain Microsoft software products 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 re-installations of the software products or reconfigurations of the computer, and may be completed by Internet or telephone (all charges may apply). <sup>18</sup> Availability may be limited, especially during peak times. TO AVOID BEING CHARGED A MONTHLY MEMBERSHIP FEE, SIMPLY CANCEL BEFORE THE THREE-MONTH PROMOTIONAL PERIOD ENDS. Performance services vary by country and communication charges may apply, including, but not limited to, international long distance charges. <sup>19</sup> The terms and conditions of Toshiba's standard warranty are available at [www.warranty.toshiba.com](http://www.warranty.toshiba.com). ©Copyright 2006. All Rights Reserved.