Panasonic



TOUGHBOOK 31

- Sunlight-viewable Touchscreen with Panasonic CircuLumin™ Technology
- Full Magnesium Alloy Case with Handle
- 18-hour Battery Life (27 Hours with Optional Media Bay 2nd Battery)
- Standard Backlit Keyboard
- Optional 4G LTE Multi Carrier Mobile Broadband with Satellite GPS







POWERFUL, RUGGED AND WIRELESS.

Panasonic presents the Toughbook® 31, the reliable laptop offering the world's most rugged design. With drop-shock protection and a MIL-STD-810G certification, it's the undisputed leader in the fully rugged category. Its new Intel® Core™ i5 processor packs a punch to deliver desktop-class performance and amazing battery life—18 hours, or 27 hours with optional media bay 2nd battery. Combine six generations of delivering rugged performance plus 15 years of consistent docking compatibility, and you have a computer that will go the distance with you anytime, anywhere.







Panasonic recommends Windows.

SOFTWARE	■ Windows® Pro 64-bit (available Windows® 7 Professional downgrade option) ■ Panasonic Utilities, Recovery Partition	SECURITY FEATURES Password Security: Supervisor, User, Hard Disk Lock	
DURABILITY	 MIL-STD-810G certified (6' drop, shock, vibration, rain, dust, sand, altitude, freeze/thaw, high/low temperature, temperature shock, humidity, explosive atmosphere)¹ MIL-STD-461F certified IP65 certified sealed all-weather design¹ Hard drive heater Full magnesium alloy case with handle 	Falsword becturity: Supervisor, oser, hard bisk bock Kensington cable lock slot Trusted platform module [TPM] security chip v.1.2 Computrace* theft protection agent in BIOS* Intel® Anti-Theft Technology Optional fingerprint reader Optional insertable SmartCard reader	
	Shock-mounted flex-connect hard drive with quick-release Reinforced locking port covers Pre-installed replaceable screen film for touchscreen protection	WARRANTY 3-year limited warranty, parts and labor	
CPU ²	■ Intel® Core™ i5-5300U vPro™ Processor - 2.3GHz with Turbo Boost up to 2.9GHz - 3MB cache	DIMENSIONS & WEIGHT ■ 11.5"(L) x 11.9"(W) x 2.9"(H) ■ 7.9 lbs. (8.2 lbs. with optional media bay 2nd battery)	
STORAGE & MEMORY	 4GB-16GB SDRAM (DDR3L-1600MHz)^{3,4} Shock-mounted flex-connect hard drive with quick-release 500GB 7200rpm with heater Optional 126GB, 256GB and 512GB solid state drives (SSD) with heaters⁴ 	INTEGRATED OPTIONS? 4 G LTE multi carrier mobile broadband with satellite GPS 6PS (u-blox NEO-MBN) Webcam 2 nd LAN or FireWire	
DISPLAY	13.1" XGA sunlight-viewable touchscreen LED 1024 x 768 - Panasonic CircuLumin" technology - 2-1200 nit - Circular polarizer - Anti-reflective and anti-glare screen treatments - BD Graphics 5500, max. 1785MB shared VRAM with Windows 8.1 32-bit ³	 Insertable SmartCard reader Fingerprint reader Media bay 2nd battery HDD and battery lock 1286B, 2566B and 5126B solid state drives (SSD) with heater SELECT ACCESSORIES ⁷	
	 External video support up to 1280 x 1024 at 16.7 million colors Concealed mode (configurable) 	AC Adapter (3-prong)Long Life Battery Pack	CF-AA5713 CF-VZSU46
AUDIO	 Intel® high-definition audio compliant Integrated front-facing speaker Keyboard volume and mute controls 	 Media Bay 2nd Battery Battery Charger LIND 3-Bay Battery Charger LIND Car Adapter 120W 	CF-VZSU14 CF-VCBTB2 PACH329-1 CF-LNDDC
KEYBOARD & INPUT	■ Touchscreen ■ Integrated stylus holder ■ 87-key with dedicated Windows® key ■ Backlit keyboard ■ Sealed rubber or plastic emissive ■ Pressure-sensitive touchpad with vertical scrolling support	ToughMate ComUniversal Carrying Case (Large capacity) ToughMate Backpack ToughMate Sling 31 Case DVD Super MULTI Drive Memory Cards - 468 DDR3	TBCCOMUN TBCBPK-P TBC31CASE CF-VDM312 CF-WMBA1
MULTIMEDIA BAY	Optional DVD Super MULTI Drive or Media Bay 2nd battery	- 8GB DDR3 - Desktop Dock	CF-KBAS08 CF-VEB311
EXPANSION SLOTS	PC card type II x 1 SD card (SDXC) ExpressCard/54 x 1	Vehicle Docks (no pass-through) Panasonic Gamber-Johnson with LIND power supply Havis with LIND power supply	CF-WEB30 ⁻ 7160-0318- CF-H-PAN-
INTERFACE	■ Docking connector 80-pin	Vehicle Docks (single pass-through) Panasonic Gamber-Johnson with LIND power supply Havis with LIND power supply Vehicle Docks (dual pass-through) Panasonic Gamber-Johnson with LIND power supply Havis with LIND power supply Touchscreen Large Stylus with Tether Hole Tether 13.1" LCD Protector Film	CF-WEB30' 7160-0318- CF-H-PAN- CF-WEB30' 7160-0318- CF-H-PAN- CF-VNP009 CF-VNT002 CF-VPF15U
WIRELESS	Optional integrated 4G LTE multi carrier mobile broadband with satellite GPS Optional GPS (u-blox NEO-M8N) Intel® Dual Band Wireless-AC7265 802.11a/b/g/n/ac Bluetooth® v4.0 + EDR (Class 1) Security - Authentication: LEAP, WPA, 802.1x, EAP-TLS, EAP-FAST, PEAP - Encryption: CKIP, TKIP, 128-bit and 64-bit WEP, Hardware AES User-selectable antenna pass-through (dual standard, single optional) Slide on/off switch	Tested by national independent third party lab following MIL-STD-810G Method 516.6 Proce test and IEC 60529 Sections 13.4, 13.6.2, 14.2.5 and 14.3 for IP65. An Intel Core 77 processor is also available. The size of the VRAM cannot be set by the user and varies by operating system as well as 64-bit max. VRAM is 1694MB with 468 of memory.	
POWER SUPPLY	 Battery operation: 18 hours (27 hours with optional media bay 2nd battery)⁵ Long life Li-lon battery pack (10.65V, typical 8550mAh, minimum 8100mAh) Battery charge time: 3.5 hours on/off (7 hours with optional media bay 2nd battery)⁵ AC Adapter: AC 100V-240V 50/60Hz, auto sensing/switching worldwide power supply 	4168 = 1,000,000,000 bytes. Battery performance features such as charge time and life span can vary according to the the computer and battery are used. Battery operation and recharge times will vary based o screen brightness, applications, features, power management, battery conditioning and oth Battery testing results from MobileMark 2007 running Windows 7 Professional.	
DOLLIED MANAGEMENT		⁶ Requires software and activation to enable theft protection.	

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301MA 8-05-P N-112-1-P

301MB 301MB 18-06-P AN-112-2-P 009U 002U 15U

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**Hole = 1,000,000,0000 bytes.

**Battery performance features such as charge time and life span can vary according to the conditions under which the computer and battery are used. Battery operation and recharge times will vary based on many factors, including screen brightness, applications, features, power management, battery conditioning and other customer preferences. Battery testing results from MobileMark 2007 running Windows 7 Professional.

*Requires software and activation to enable theft protection.

*Accessories and Integrated Options may vary depending on your notebook configuration.







Suspend/Resume Function, Hibernation, Standby, ACPI BIOST



POWER MANAGEMENT