Panasonic recommends Windows.

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

IP65

6-FOOT DROP RATING

MIL-STD-810G

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.

TOUGHBOOK®



Panasonic

Panasonic recommends Windows.

SOFTWARE
- Windows® 8.1 Pro 64-bit (available Windows® 7 Professional downgrade option)
- Panasonic Utilities, Recovery Partition

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 design[1]
- Hard drive heater
- Full magnesium alloy case with handle
- Shock-mounted flex-connect hard drive with quick-release
- Reinforced locking port covers
- Pre-installed replaceable screen film for touchscreen protection

CPU[2]
- Intel® Core™ i5-5300U vPro™ Processor
  - 2.3GHz with Turbo Boost up to 2.9GHz
  - 3MB cache

STORAGE & MEMORY
- 4GB-16GB SDRAM (DDR3L-1600MHz)[3,4]
- Shock-mounted flex-connect hard drive with quick-release
  - 500GB 7200rpm with heater[4]
  - Optional 128GB, 256GB and 512GB solid state drives (SSD) with heaters[4]

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
- HD Graphics 5500, max. 1785MB shared VRAM with Windows 8.1 32-bit[3]
- External video support up to 1280 x 1024 at 16.7 million colors
- Concealed mode (configurable)

AUDIO
- Intel® high-definition audio compliant
- Integrated front-facing speaker
- Keyboard volume and mute controls

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

MULTIMEDIA BAY
- Optional DVD Super MULTI Drive or Media Bay 2nd battery

EXPANSION SLOTS
- PC card type II x 1
- SD card (SDXC)
- ExpressCard/54 x 1

INTERFACE

Docking connector	80-pin
HDMI	Type A
VGA	D-sub 15-pin
Headphones/speaker	Mini-jack stereo
Microphone/line in	Mini-jack stereo
Serial	D-sub 9-pin
Ext. antenna conn.	50 ohm coaxial
USB 3.0 (x 1), USB 2.0 (x 3)	Type A
Optional IEEE 1394a (FireWire)	4-pin
10/100/1000 Ethernet	RJ-45
Optional 10/100/1000 2nd LAN (Ethernet)	RJ-45

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

POWER SUPPLY
- Battery operation: 18 hours (27 hours with optional media bay 2nd battery)[5]
- Long life Li-Ion 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

POWER MANAGEMENT
- Suspend/Resume Function, Hibernation, Standby, ACPI BIOST

SECURITY FEATURES
- Password Security: Supervisor, User, Hard Disk Lock
- Kensington cable lock slot
- Trusted platform module (TPM) security chip v.1.2
- Computrace® theft protection agent in BIOS[6]
- Intel® Anti-Theft Technology
- Optional fingerprint reader
- Optional insertable SmartCard reader

WARRANTY
- 3-year limited warranty, parts and labor

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)

INTEGRATED OPTIONS[7]
- 4G LTE multi carrier mobile broadband with satellite GPS
- GPS (u-blox NEO-M8N)
- Webcam
- 2nd LAN or FireWire
- Insertable SmartCard reader
- Fingerprint reader
- Media bay 2nd battery
- HDD and battery lock
- 128GB, 256GB and 512GB solid state drives (SSD) with heaters

SELECT ACCESSORIES[7]

AC Adapter (3-prong)	CF-AA5713AM
Long Life Battery Pack	CF-VZSU46AU
Media Bay 2nd Battery	CF-VZSU1431U
Battery Charger	CF-VCBTB2W
LIND 3-Bay Battery Charger	PACH329-1857-P
LIND Car Adapter 120W	CF-LNDDC120
ToughMate ComUniversal Carrying Case (large capacity)	TBCCOMUNV-P
ToughMate Backpack	TBCBPK-P
ToughMate Sling 31 Case	TBC31CASE-P
DVD Super MULTI Drive	CF-VDM312U
Memory Cards	
– 4GB DDR3	CF-WMBA1304G
– 8GB DDR3	CF-KBAS08GM
Desktop Dock	CF-VEB311U
Vehicle Docks (no pass-through)	
– Panasonic	CF-WEB301M
– Gamber-Johnson with LIND power supply	7160-0318-04-P
– Havis with LIND power supply	CF-H-PAN-112-P
Vehicle Docks (single pass-through)	
– Panasonic	CF-WEB301MA
– Gamber-Johnson with LIND power supply	7160-0318-05-P
– Havis with LIND power supply	CF-H-PAN-112-1-P
Vehicle Docks (dual pass-through)	
– Panasonic	CF-WEB301MB
– Gamber-Johnson with LIND power supply	7160-0318-06-P
– Havis with LIND power supply	CF-H-PAN-112-2-P
Touchscreen Large Stylus with Tether Hole	CF-VNP009U
Tether	CF-VNT002U
13.1" LCD Protector Film	CF-VPF15U

Please consult your reseller or Panasonic representative before purchasing.

[1]Tested by national independent third party lab following MIL-STD-810G Method 516.6 Procedure IV for transit drop test and IEC 60529 Sections 13.4, 13.6.2, 14.2.5 and 14.3 for IP65.

[2]An Intel Core i7 processor is also available.

[3]The size of the VRAM cannot be set by the user and varies by operating system as well as size of RAM. Windows 7 64-bit max. VRAM is 1696MB with 4GB of memory.

[4]1GB = 1,000,000,000 bytes.

[5]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.

[6]Requires software and activation to enable theft protection.

[7]Accessories and Integrated Options may vary depending on your notebook configuration. Visit Panasonic website for more accessories and details.





TOUGHBOOK®

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