

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.

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TOUGHBOOK®

TOUGHBOOK 31

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SOFTWARE	<ul style="list-style-type: none"> Windows® 10 Pro (available Windows® 7 Professional downgrade option) Windows® 8.1 Pro 												
DURABILITY	<ul style="list-style-type: none"> 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 Shock-mounted flex-connect hard drive with quick-release Reinforced locking port covers Pre-installed replaceable screen film for touchscreen protection 												
CPU²	<ul style="list-style-type: none"> Intel® Core™ i5-5300U vPro™ Processor <ul style="list-style-type: none"> 2.3GHz with Turbo Boost up to 2.9GHz 3MB cache 												
STORAGE & MEMORY	<ul style="list-style-type: none"> 4GB-16GB SDRAM (DDR3L-1600MHz)^{3,4} Shock-mounted flex-connect hard drive with quick-release <ul style="list-style-type: none"> 500GB 7200rpm with heater⁴ Optional 128GB, 256GB and 512GB solid state drives (SSD) with heaters⁴ 												
DISPLAY	<ul style="list-style-type: none"> 13.1" XGA sunlight-viewable touchscreen LED 1024 x 768 <ul style="list-style-type: none"> 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-bit⁵ External video support up to 1280 x 1024 at 16.7 million colors Concealed mode (configurable) 												
AUDIO	<ul style="list-style-type: none"> Intel® high-definition audio compliant Integrated front-facing speaker Keyboard volume and mute controls 												
KEYBOARD & INPUT	<ul style="list-style-type: none"> Touchscreen Integrated stylus holder 87-key with dedicated Windows® key Backlit keyboard <ul style="list-style-type: none"> Sealed rubber or plastic emissive Pressure-sensitive touchpad with vertical scrolling support 												
MULTIMEDIA BAY	<ul style="list-style-type: none"> Optional DVD Super MULTI Drive or Media Bay 2nd battery 												
EXPANSION SLOTS	<ul style="list-style-type: none"> PC card type II x 1 SD card (SDXC) ExpressCard/54 x 1 												
INTERFACE	<table border="0"> <tr> <td> <ul style="list-style-type: none"> Docking connector HDMI VGA Headphones/speaker Microphone/line in Serial Ext. antenna conn. USB 3.0 (x 1), USB 2.0 (x 3) Optional IEEE 1394a (FireWire) 10/100/1000 Ethernet Optional 10/100/1000 2nd LAN (Ethernet) </td> <td> <table border="0"> <tr><td>80-pin</td><td>Type A</td></tr> <tr><td>D-sub 15-pin</td><td>Mini-jack stereo</td></tr> <tr><td>D-sub 9-pin</td><td>50 ohm coaxial</td></tr> <tr><td>Type A</td><td>4-pin</td></tr> <tr><td>RJ-45</td><td>RJ-45</td></tr> </table> </td> </tr> </table>	<ul style="list-style-type: none"> Docking connector HDMI VGA Headphones/speaker Microphone/line in Serial Ext. antenna conn. USB 3.0 (x 1), USB 2.0 (x 3) Optional IEEE 1394a (FireWire) 10/100/1000 Ethernet Optional 10/100/1000 2nd LAN (Ethernet) 	<table border="0"> <tr><td>80-pin</td><td>Type A</td></tr> <tr><td>D-sub 15-pin</td><td>Mini-jack stereo</td></tr> <tr><td>D-sub 9-pin</td><td>50 ohm coaxial</td></tr> <tr><td>Type A</td><td>4-pin</td></tr> <tr><td>RJ-45</td><td>RJ-45</td></tr> </table>	80-pin	Type A	D-sub 15-pin	Mini-jack stereo	D-sub 9-pin	50 ohm coaxial	Type A	4-pin	RJ-45	RJ-45
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WIRELESS	<ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Suspend/Resume Function, Hibernation, Standby, ACPI BIOS 												

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 BIOS⁶
- 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 OPTIONS⁷

- 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 ACCESSORIES⁸

- | | |
|--|---|
| <ul style="list-style-type: none"> AC Adapter (3-prong) Long Life Battery Pack Media Bay 2nd Battery Battery Charger LIND 3-Bay Battery Charger LIND Car Adapter 120W ToughMate ComUniversal Carrying Case (large capacity) ToughMate Backpack ToughMate Sling 31 Case DVD Super MULTI Drive Memory Cards <ul style="list-style-type: none"> 4GB DDR3 8GB DDR3 Desktop Dock Vehicle Docks (no pass-through) <ul style="list-style-type: none"> Panasonic Gamber-Johnson with LIND power supply Havis with LIND power supply Vehicle Docks (single pass-through) <ul style="list-style-type: none"> Panasonic Gamber-Johnson with LIND power supply Havis with LIND power supply Vehicle Docks (dual pass-through) <ul style="list-style-type: none"> Panasonic Gamber-Johnson with LIND power supply Havis with LIND power supply Touchscreen Large Stylus with Tether Hole Tether 13.1" LCD Protector Film | <ul style="list-style-type: none"> CF-AA5713AM CF-VZSU46AU CF-VZSU1431U CF-VCBTB2W PACH329-1857-P CF-LNDDC120 TBCCOMUNV-P TBCBPK-P TBC31CASE-P CF-VDM312U CF-WMBA1304G CF-KBAS08GM CF-VEB311U CF-WEB301M 7160-0318-04-P CF-H-PAN-112-P CF-WEB301MA 7160-0318-05-P CF-H-PAN-112-1-P CF-WEB301MB 7160-0318-06-P CF-H-PAN-112-2-P CF-VNP009U CF-VNT002U CF-VPF15U |
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Please consult your reseller or Panasonic representative before purchasing.

¹Tested 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.

²An Intel Core i7 processor is also available.

³The 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.

⁴1GB = 1,000,000,000 bytes.

⁵Battery 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.

⁶Requires software and activation to enable theft protection.

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



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