



Panasonic recommends Windows.

## TOUGHBOOK 31

- Sunlight-viewable 1200 nit touchscreen with Panasonic CircuLumin™ Technology
- Full magnesium alloy case with handle
- 19.5-hour battery life (29 hours with optional media bay 2nd battery)<sup>1,5</sup>
- Standard backlit keyboard and DVD drive
- Industry leading driver packages for ease of deployment and support
- TPM 2.0 Security

MIL-STD-810G

MIL-STD-461F

IP65

ANSI HAZ LOC

6-FOOT DROP RATING

P.180  
100% WEAR-TESTING

## 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 Intel® Core™ i5 processor packs a punch and amazing battery life—19.5 hours, or 29 hours with optional media bay 2nd battery<sup>1,5</sup>. Combine six generations of delivering rugged performance plus an amazing 18 years of consistent docking compatibility, and you have a computer that will go the distance with you anytime, anywhere.

Telrepco, Inc.

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**TOUGHBOOK®**

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## SOFTWARE

- Windows® 10 Pro 64-bit
- Panasonic Utilities (including Dashboard), Recovery Partition
- Enterprise ready driver packages including CAB files and one-click driver bundles

## DURABILITY

- MIL-STD-810G certified (6' drop, shock, vibration, rain, dust, sand, altitude, freeze/thaw, high/low temperature, temperature shock, humidity, explosive atmosphere)<sup>2</sup>
- MIL-STD-461F certified<sup>2</sup>
- IP65 certified sealed all-weather design<sup>2</sup>
- Optional hazardous location class I division 2, groups ABCD certified model<sup>2</sup>
- Full magnesium alloy case with handle
- Storage drive heater
- Shock-mounted caged storage drive
- Removable quick-release battery and storage drive
- Reinforced locking port covers
- Preinstalled replaceable screen film for LCD protection

## CPU

- Intel® Core™ i5-7300U vPro™ Processor
  - 2.6GHz with Turbo Boost up to 3.5GHz, 3MB cache
- Intel® Core™ i7-7600U vPro™ processor<sup>3</sup>
  - 2.8GHz with Turbo Boost up to 3.9GHz, 4MB cache

## STORAGE &amp; MEMORY

- Factory Installed Memory (RAM) - 16GB or 32GB DDR4-2133MT/s<sup>4</sup>
- Shock-mounted storage drive with quick-release
  - 256GB or 512GB SSD with heater<sup>4</sup>
  - Optional OPAL encrypted SSD with heater

## DISPLAY

- 13.1" XGA 1024 x 768
  - Resistive touchscreen
- 2-1200 nit
- Panasonic CircuLumin™ technology
- Anti-reflective (AR), anti-glare (AG), and circular polarizer
- Intel® HD Graphics 620
- Triple monitor support
- Concealed mode (configurable)

## AUDIO

- Intel® High Definition Audio compliant
- Integrated speaker
- Keyboard volume and mute controls

## KEYBOARD &amp; INPUT

- Stylus pen with integrated stylus holder, tether and cleaning cloth
- 87-key with dedicated Windows® key
- Emissive backlit keyboard with 4 adjustable levels
- Pressure-sensitive touchpad with vertical scrolling

## MULTIMEDIA BAY

- DVD Super MULTI Drive or optional Media Bay 2nd Battery<sup>1</sup>

## INTERFACE &amp; EXPANSION

- Docking connector 80-pin
- USB 3.0 (x 1), USB 2.0 (x 3) Type A
- SD card (SDXC) UHS-I
- HDMI Type A
- VGA D-sub 15-pin
- 10/100/1000 Ethernet RJ-45
- Optional 10/100/1000 2nd LAN (Ethernet) RJ-45
- Audio In 3.5mm Mini-jack stereo
- Audio Out 3.5mm Mini-jack stereo
- Serial D-sub 9-pin
- Nano-SIM 4FF

## WIRELESS

- Optional 4G LTE-Advanced multi carrier mobile broadband with satellite GPS
  - Certified with Verizon, AT&T, Sprint and P.180
- Optional dedicated GPS (u-blox NEO-M8N)
- User-selectable antenna pass-through (dual standard, single optional)
- Intel® Dual Band Wireless-AC 8265 Wi-Fi 802.11a/b/g/n/ac
- Bluetooth® v4.1 + EDR (Class 1)
- Slide on/off switch

## POWER

- Standard long life Li-Ion battery pack (10.65V, typical 8550mAh, min. 8100mAh)
- MobileMark 2014 19.5 hours (29 hours with opt. media bay 2nd battery)<sup>1\*</sup>
- Battery charging time 3.5 hours on/off (7 hours with opt. media bay 2nd battery)<sup>2</sup>
- AC Adapter AC 100V-240V 50/60Hz, auto sensing/switching worldwide power supply

## SECURITY FEATURES

- TPM v2.0
- NIST BIOS compliant
- Persistence® technology by Absolute embedded in BIOS<sup>4</sup>
- Kensington cable lock slot
- Optional insertable SmartCard CAC reader

## WARRANTY

- 3-year limited warranty, parts and labor

## DIMENSIONS &amp; WEIGHT

- 11.5"(L) x 11.9"(W) x 2.9"(H)
- 8.6 lbs. (9.0 lbs. with optional media bay 2nd battery)

## HAZARDOUS LOCATION CERTIFICATIONS

- ANSI/ISA 2 12 01-2013
  - Optional class I division 2, groups ABCD certified model<sup>2</sup>

INTEGRATED OPTIONS<sup>2</sup>

- Dedicated GPS (u-blox NEO-M8N)
- 2nd LAN
- Insertable SmartCard CAC reader
- Media bay 2nd battery

SELECT ACCESSORIES<sup>2</sup>

- AC Adapter 100W (3-prong) CF-AA5713AM
- Standard 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 Charger 120W CF-LNDDC120
- LIND Solar Charge System PASC1580-4464
- ToughMate ComUniversal Carrying Case (large capacity) TBCCOMUNV-P
- ToughMate Backpack TBCBPK-P
- ToughMate Sling 31 Case TBC31CASE-P
- ToughMate Shoulder Strap TBCDLXSSKIT-P
- Desktop Dock CF-VEB311U
- Vehicle Docks (single pass-through)
  - Gamber-Johnson with LIND power supply 7160-0318-05-P
  - Havis CF-H-PAN-111-1-P
- Vehicle Docks (dual pass-through)
  - Gamber-Johnson with LIND power supply 7160-0318-06-P
  - Havis CF-H-PAN-111-2-P
- Touchscreen Stylus CF-VNP009U
- Tether CF-VNT002U
- 13.1" LCD Protector Film CF-VPF15U

Please consult your reseller or Panasonic representative before purchasing

<sup>1</sup> Media bay 2nd battery and DVD drive are mutually exclusive. DVD drive and media bay 2nd battery can be swapped out by user<sup>2</sup> 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<sup>3</sup> Requires special order. Please contact a Panasonic representative for details<sup>4</sup> 1GB = 1,000,000,000 bytes. Total usable memory will be less depending upon actual system configuration<sup>5</sup> 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 2014 at 150 nit<sup>6</sup> Requires software and activation to enable theft protection<sup>7</sup> Accessories and Integrated Options may vary depending on your notebook configuration. Visit Panasonic website for more accessories and details<sup>8</sup> Future availability

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