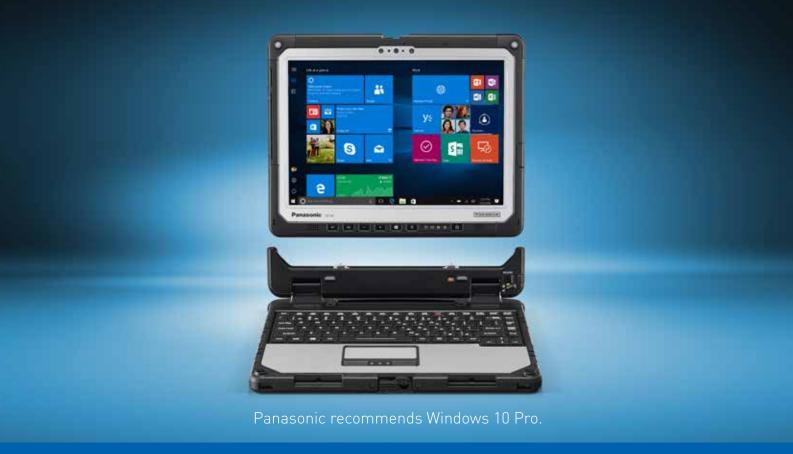# Panasonic

Panasonic recommends Windows 10 Pro.

TOUGHBOOK 33

- Available with Windows 10 Pro

- First fully rugged product with a 3:2 screen for easier handling and better viewing of business applications

- 3x the resolution, 50% brighter and 15% larger display than any other device in its class[1]

- Generation of vehicle dock backwards compatibility[2]

- Infrared webcam and Microsoft Hello enables biometric user authentication[3]

- Twin battery design enables hot-swap battery replacement for continuous use

- LTE-Advanced for faster speeds

- TPM 2.0 Security[4]

MIL-STD-810G

MIL-STD-461F

IP65

ENGINEERED TO EQUIP THE EXTRAORDINARY.

The Panasonic Toughbook 33 offers unparalleled flexibility in even the most demanding and extreme environments and is one of the world's first fully rugged 2-in-1 PC with a 3:2 screen. Inspired by the increasing demands of mobile professionals, the Toughbook 33 delivers rugged mobility in a highly customizable package that also includes a generation of backward compatibility[2]. Available accessories include two distinct vehicle docks for new deployments as well as an innovative vehicle dock adapter which allows drop-in placement onto any of Panasonic's large installed base of Toughbook 31 vehicle docks, offering investment protection while saving time and resources. A wide range of integrated options such as serial port, barcode, fingerprint, insertable and contactless SmartCard CAC readers as well as a choice of two keyboards assure Toughbook 33 can be customized to meet the unique needs of a diverse customer base.

1.866.413.3099
business.panasonic.ca

TOUGHBOOK

Panasonic recommends Windows 10 Pro.

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

DURABILITY
- Designed to meet MIL-STD-810G (drop, shock, vibration, rain, dust, sand, altitude, freeze/thaw, high/low temperature, temperature shock, solar radiation, salt, fog, humidity, explosive atmosphere)
- MIL-STD-461F certified[5]
- IP65 certified sealed all-weather design[5,6]
- Magnesium alloy chassis encased with ABS and elastomer edges
- Built-in dual purpose handle & kickstand (available on Premium Keyboard)
- Solid state drive heater
- Removable battery
- Removable storage drive[7]
- Reinforced locking port covers
- Raised bezel for LCD impact protection
- Preinstalled replaceable screen film for LCD protection

CPU & OPERATING SYSTEM
- Windows® 10 Pro 64-bit
  – Intel® Core™ i5-7300U vPro™ processor
  – 3MB cache, 2.6GHz up to 3.5GHz with Intel® Turbo Boost
  – Intel® Core™ i7-7600U vPro™ processor[8]
  – 4MB cache, 2.8GHz up to 3.9GHz with Intel® Turbo Boost
- Windows® 10 Pro with Windows 7 Professional 64-bit downgrade
  – Intel® Core™ i5-6300U vPro™ processor
  – 3MB cache, 2.4GHz up to 3.0GHz with Intel® Turbo Boos
  – Intel® Core™ i7-6600U vPro™ processor[8]
  – 4MB cache, 2.6GHz up to 3.4GHz with Intel® Turbo Boost

STORAGE & MEMORY
- Factory installed 8GB or 16GB SDRAM (LPDDR3 - 1866MT/s)[9]
- 256GB or 512GB removable SSD with heater[7,9]
- Optional OPAL encrypted SSD with heater

DISPLAY
- 12.0" 3:2 QHD 2160 x 1440
  – 10-point capacitive gloved multi touch + digitizer
- 2-1200 nit
- Direct bonding
- Anti-reflective (AR) screen treatment
- Intel HD Graphics 620 (520 on i5-6300U and i7-6600U models)
- 4 monitor support (with Premium Keyboard)
- Concealed mode (configurable)

AUDIO
- Integrated dual array microphone
- Intel® High Definition Audio compliant
- Integrated speakers (front-facing)
- On-screen and button volume and mute controls

CAMERAS
- 1080p webcam with dual array mic and camera on/off indicator
  – Infrared with Microsoft Hello support[3]
- 8MP rear camera with autofocus and triple LED flash[10]

KEYBOARD & INPUT
- Waterproof IP55 stylus pen with integrated stylus holder, tether and cleaning cloth
- Supports glove mode and rain mode
- 7 tablet buttons (5 user-definable including A1/A2 buttons)
- On-screen QWERTY keyboard
- Optional keyboards (Lite and Premium):[11,14]
  – Emissive red backlit with 4 adjustable levels
  – 87-key with dedicated Windows® key
  – Pressure-sensitive touchpad with multi touch

INTERFACE & EXPANSION
- On the tablet:
  – Docking Connector — 25-pin
  – USB 3.0 x1 (optional 2nd USB 2.0)[12]
  – Type A (USB 3.0 is 1.5A)
  – MicroSDXC — UHS-I
  – HDMI — Type A
  – 10/100/1000 Ethernet — RJ-45
  – Optional Serial (True)[12] — D-sub 9-pin
  – Audio In/Out — 3.5mm Mini-jack stereo
  – Nano-SIM — 4FF
- On the Premium Keyboard:
  – Docking Connector — 25-pin
  – USB 3.0 x2, USB 2.0 x1 — Type A
  – SDXC — UHS-II
  – HDMI — Type A
  – VGA — D-sub 15-pin
  – 10/100/1000 Ethernet — RJ-45
  – Serial (USB) — D-sub 9-pin

WIRELESS
- Optional 4G LTE-Advanced multi carrier mobile broadband with satellite GPS
- Optional dedicated GPS (u-blox NEO M8N)
- Dual high-gain antenna pass-through
- Intel® Dual Band Wireless-AC 8265 Wi-Fi 802.11a/b/g/n/ac
- Bluetooth® v4.1 (Class 1) + EDR[13]

POWER
- Hot-swappable twin Li-Ion battery packs
  – Standard lightweight batteries: 11.1V, 1990mAh (each battery)
  – Optional long life batteries: 10.8V, 4120mAh (each battery)[14]
- Battery operation:
  – i5-7300U & i7-7600 models: 10 hours (20 hours with opt. long life batteries)[15]
  – i5-6300U & i7-6600 models: 8 hours (16 hours with opt. long life batteries)[15]
- Battery charging time: 3 hours (with in parallel charging technology)[15]
- AC Adapter: AC 100V-240V 50/60Hz, auto sensing/switching worldwide power supply

SECURITY FEATURES
- TPM v.2.0[4]
- NIST BIOS compliant
- Persistence® technology by Absolute embedded in BIOS[16]
- Kensington cable lock slots x2 (on tablet and Premium Keyboard)
- Optional fingerprint reader[17]
- Optional insertable SmartCard CAC reader[17]
- Optional contactless SmartCard CAC reader 13.56MHz (ISO 14443 A/B compliant)[17]

WARRANTY
- 3-year limited warranty, parts and labor

DIMENSIONS & WEIGHT
- 12.3" (L) x 11.4" (W) x 1.8" (H)[18]
- 6.1 lbs.[19]

INTEGRATED OPTIONS[20]
- 4G LTE-Advanced multi carrier mobile broadband with satellite GPS
- Dedicated GPS (u-blox NEO-M8N)
- Choice on tablet of 1D/2D capable barcode reader (N6603), serial (true), or second USB 2.0 port[12]
- Choice on tablet of insertable SmartCard CAC, contactless SmartCard CAC or fingerprint reader[17]

ACCESSORIES[20]

AC Adapter 100W (3-prong)	CFAA5713AM
Lightweight Battery Pack (3-cell)	CFVZSU1AW
Long life Battery Pack (6-cell)[14]	CFVZSU1BW
4-Bay Battery Charger	CFVCB331M
LIND Car Charger 120W	CFLNDDC120
ToughMate ComUniversal Jr. Carrying Case	TBCCOMUJRP
ToughMate Backpack	TBCBPKP
Rotating Hand Strap[14]	CFVST332U
Hand Strap	CFVST331U
Shoulder Belt	CFVNS331U
Port Replicator	CFVEB331U
Multi Touch + Digitizer IP55 Stylus	CFVNP023U
Tether	CFVNT002U
12.0" LCD Protector Film	CFVPF34U
Laptop Vehicle Docks (requires Premium Keyboard)	
-Gamber-Johnson Laptop Dock, NO RF	7160-0909-00
-Gamber-Johnson Laptop Dock, Dual RF	7160-0909-02
-Gamber-Johnson Laptop Cradle, No RF, No Electronics	7160-0910-00
Tablet Lite Vehicle Docks	
-Gamber-Johnson Lite Tablet Dock no RF	7160-0907-06
-Gamber-Johnson Lite Tablet Dock Dual RF	7160-0907-07
-Gamber-Johnson Tablet Cradle No RF, No Electronics	7160-0908-00
Vehicle Dock Adapter (VDA)	
-For use with Slim Keyboard	CFVWK331MP
Slim Keyboard	
-English	CFVKB331M
-French Canadian	CFWKBS331C
Full Keyboard Dock	
-English	CFVEK331LMP
-French Canadian	**CFVEK331LCP**

Please consult your reseller or Panasonic representative before purchasing.

1 As of May 2017 when comparing fully rugged 2-in-1's laptops, convertibles, detachables and tablets with a 11.0-12.0" display.

2 Requires purchase of 31 Vehicle Dock Adapter (VDA). VDA has been tested and approved to work with Gamber-Johnson 7160-0318 and Havis PAN-111/112 vehicle docks. Do not use with other vehicle docks without consulting first with your Panasonic representative.

3 For i5-7300U and i7-7600U models only.

4 TPM 1.2 ships by default on i5-6300U and i7-6600U models, but can run TPM2.0 – see below Microsoft link for details: support.microsoft.com/en-us/help/2920188/update-to-add-support-for-tpm-2.0-in-windows-7-and-windows-server-2008-r2.

5 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 IP.

6 IP rating requires both batteries in tablet.

7 Requires training, approval and/or purchase of a SSD no return service sku through Panasonic, otherwise any damage incurred will be out of warranty and not eligible for advance exchange. Please contact a Panasonic representative for program details.

8 Requires special order. Please contact a Panasonic representative for details.

9 1GB = 1,000,000,000 bytes. Total usable memory will be less depending upon actual system configuration.

10 Rear camera does not function on i5-6300U and i7-6600U models running Windows 7 Professional.

11 Fn keys, I/O ports, reverse docking into convertible mode available on Premium Keyboard only. Lite Keyboard opens at 100° angle.

12 Barcode, Serial (true) and 2nd USB 2.0 Port are mutually exclusive.

13 Bluetooth 4.0 (Class 1) + EDR on i5-6300U and i7-6600U models.

14 Long Life Batteries increases the overall height 0.4" and prohibits use in convertible mode. Not compatible with 33 Tablet Vehicle Dock when using tablet with Long Life Batteries and CF-VST332U.

15 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. Battery life results are for i5-7300U and i7-7600U models – i5-6300U and i7-6600U is to be determined.

16 Requires software and activation to enable theft protection.

17 Insertable SmartCard CAC, Contactless SmartCard CAC, and Fingerprint Readers are mutually exclusive.

18 Includes tablet and Premium Keyboard. Tablet with Lite Keyboard is 12.1" (L) x 9.6" (W) x 1.5" (H). Tablet when detached is 12.1" (L) x 9.6" (W) x 0.9" (H). Optional long life batteries adds 0.4" (H).

19 Includes tablet and Premium Keyboard. Tablet with Lite Keyboard is 4.8 lbs. Tablet when detached is 3.4 lbs. Optional long life batteries adds 0.8 lbs.

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

1.866.413.3099
business.panasonic.ca

intel CORE i5 vPro 7th Gen

TOUGHBOOK®