Panasonic recommends Windows.

Panasonic



TOUGHBOOK 20

- 10.1" Fully Rugged PC For Use as a Laptop or Tablet
- Sunlight-viewable Display Works With or Without Gloves
- Optional Bridge Battery Enables Hot-swap Battery Replacement for Continuous Use
- Integrated 2nd Battery, SmartCard, Barcode, Magstripe, Fingerprint, Serial Options and More[1]
- Removable Battery
- Built-in Handle Also Functions as a Kickstand

IP65

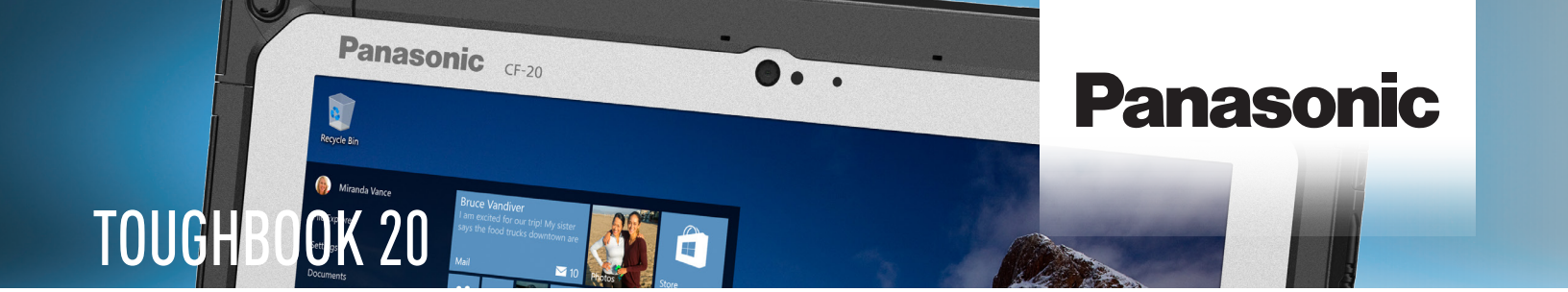
MIL-STD-810G

THE WORLD'S FIRST FULLY RUGGED DETACHABLE LAPTOP.

The Toughbook 20 is the first fully rugged detachable PC with a removable keyboard that quickly transforms from a laptop into a fully functioning tablet with just one hand. At only 3.9 pounds, it's good on the go with a clever built in handle that also functions as a kickstand, an optional bridge battery allows hot swappable battery replacement while running without disruption and the broadest range of ports and integrated options in its class. The Toughbook 20 display can be used with or without gloves and its sunlight-viewable 800 nit IPS display with direct bonding enables wider viewing angles and richer colors.

1.800.662.3537
us.panasonic.com/toughbook/20

TOUGHBOOK®



TOUGHBOOK 20

Panasonic

Panasonic recommends Windows.

SOFTWARE
- Win 10 Pro (available Windows 7 Professional downgrade option)
- Panasonic Utilities (including Dashboard)

DURABILITY
- Designed for MIL-STD-810G (drop, shock, vibration, rain, dust, sand, altitude, freeze/thaw, high/low temperature, temperature shock, humidity, explosive atmosphere)
- Designed for MIL-STD-461F
- IP65 sealed all-weather design
- Optional hazardous location class I division 2, groups ABCD certified model[1]
- Solid state drive heater
- Magnesium alloy chassis encased with ABS and elastomer edges
- Built-in dual purpose handle & kickstand
- Removable battery
- Optional rotating hand strap
- Reinforced locking port covers
- Raised bezel for LCD impact protection
- Preinstalled replaceable screen film

CPU
- Intel® Core™ m5-6Y57 vPro™ Processor
  - 1.1GHz with Turbo Boost up to 2.8GHz
  - 4MB Cache

STORAGE & MEMORY
- 8GB SDRAM (DDR3L - 1600MHz)[2,3]
- 128GB SSD with heater[2,3]
- Optional 256/512GB SSD with heaters[2,3]
- Optional OPAL encrypted SSD with heater (future availability)

DISPLAY
- 10.1" WUXGA 1920 x 1200
  - 10-point capacitive gloved multi touch
  - 10-point capacitive gloved multi touch + digitizer
- 2-800 nit
- IPS display with direct bonding
- Anti-reflective (AR) and anti-glare (AG) screen treatments
- Intel HD Graphics 515
- Dual monitor support
- Concealed mode (configurable)

AUDIO
- Integrated dual array microphone
- Intel® High Definition Audio compliant
- Integrated speaker
- On-screen and button volume controls

KEYBOARD & INPUT
- Multi Touch or Multi Touch + Digitizer
  - Both support gloves and rain mode
- 7 tablet buttons (2 user-definable A1/A2 buttons)
- Waterproof IP55 stylus pen, integrated stylus holder and tether
- On-screen QWERTY keyboard
- 82-key with dedicated Windows® key
- Emissive backlit keyboard
- Pressure-sensitive touchpad with multi touch

CAMERAS
- 1080p webcam with dual array mic
- Optional 8MP rear camera with autofocus, triple LED flash and camera on/off indicator

INTERFACE & EXPANSION
- On the tablet:
  - USB 3.0 x1 (optional 2nd USB[4,5]) — Type A
    - USB 3.0 is high powered 1.5A USB (supports Always on USB, USB rapid charging)
  - MicroSDXC — UHS-I
  - HDMI — Type A
  - 10/100/1000 Ethernet — RJ-45
  - Optional Serial (True)[4,5] — D-sub 9-pin
  - Headphones/speaker — Mini-jack stereo
  - Micro-SIM — 3FF
- On the keyboard dock:
  - USB 3.0 x2, USB 2.0 x1 — Type A
  - SDXC — UHS-I
  - HDMI — Type A
  - VGA — D-sub 15-pin
  - 10/100/1000 Ethernet — RJ-45
  - Serial (USB) — D-sub 9-pin

WIRELESS
- Optional 4G LTE multi carrier mobile broadband with satellite GPS[6]
- Optional dedicated GPS (u-blox NEO M8N)[6]
- Intel® Dual Band Wireless AC8260 Wi-Fi 802.11a/b/g/n/ac
- Intel® Pro Wireless Display (WiDi)
- Bluetooth® v4.1 (Class 1) + EDR
- Security
  - Authentication: LEAP, WPA, 802.1x, EAP-TLS, EAP-FAST, PEAP
  - Encryption: CKIP, TKIP, 128-bit and 64-bit WEP, Hardware AES
- Dual high-gain antenna pass-through

POWER SUPPLY
- Li-Ion battery pack:
  - Standard in tablet; optional 2nd battery in keyboard dock
  - 11.4V, 2600mAh (each battery)
- Battery operation: Full shift with optional 2nd battery[7]
- Battery charging time: Approximately 3 hours (3.5 hours with optional 2nd battery)
- Optional bridge battery: 1 minute hot swap time

POWER MANAGEMENT
- Suspend/Resume Function, Hibernation, Standby

SECURITY FEATURES
- Password Security: Supervisor, User, Hard Disk Lock
- Kensington cable lock slots x2 (on tablet and keyboard dock)
- Trusted platform module (TPM) security chip v.1.2
- Absolute® Data & Device Security (DDS), formerly Absolute Computrace® in BIOS[8]
- Optional Fingerprint reader[1,9]
- Optional Insertable SmartCard reader[9]
- Optional Contactless SmartCard/NFC reader[1,9]
  - ISO 14443 A/B compliant

WARRANTY
- 3-year limited warranty, parts and labor

DIMENSIONS & WEIGHT
- 10.7" (L) x 9.2" (W) x 1.3" (H)[10]
- 3.9 lbs.[11]

HAZARDOUS LOCATION CERTIFICATIONS[1]
- ANSI/ISA 12.12.01-2013
  - Optional class I division 2, groups ABCD certified model

INTEGRATED OPTIONS[12]
- Choice of dedicated GPS or 4G LTE multi carrier mobile broadband with satellite GPS
- Choice on tablet of 1D/2D capable barcode reader (N6603), serial (true), or second USB 2.0 port[5]
- Choice on tablet of magstripe reader, insertable SmartCard reader, contactless SmartCard/NFC reader or fingerprint reader[1,5]
- 8MP rear camera
- Bridge battery
- 256/512GB SSD with heaters
- OPAL encrypted SSD with heater (future availability)

ACCESSORIES[12]
- AC Adapter (3-prong)
- Battery Pack
- 4-Bay Battery Charger
- LIND Car Adapter 120W
- ToughMate ModuFlex 20 Case
- ToughMate ComUniversal Carrying Case
- ToughMate Backpack
- Rotating Hand Strap
- Desktop Dock
- Vehicle Docks
- Multi Touch Replacement Waterproof Stylus
- Multi Touch + Digitizer Replacement Waterproof Stylus
- Tether
- 10.1" LCD Protector Film

Please consult your reseller or Panasonic representative before purchasing.

[1] Hazardous Location model, Contactless Smartcard/NFC, Magstripe and Fingerprint readers available early Summer 2015.

[2] 1GB = 1,000,000,000 bytes.

[3] Total usable memory will be less depending upon actual system configuration.

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

[5] Serial, 2nd USB and the Magstripe reader integrated options increase the overall height and prohibit use in convertible mode.

[6] Dedicated GPS and 4G LTE are mutually exclusive.

[7] 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.

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

[9] Magstripe, Insertable SmartCard, Contactless SmartCard/NFC and Fingerprint Readers are mutually exclusive.

[10] Includes tablet and keyboard dock with handle. Tablet when detached is 10.7" (L) x 7.7" (W) x 0.6" (H). Serial, 2nd USB, Magstripe reader integrated options increase overall height and prohibit use in convertible mode.

[11] Includes tablet and keyboard dock with handle. Tablet when detached is 2.1 lbs. Optional 2nd battery weighs 0.4 lbs.

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





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