Panasonic recommends Windows.

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, a bridge battery that 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.

- 10.1” fully rugged PC for use as a laptop or tablet
- Infrared webcam and Windows Hello enables biometric user authentication
- Optional quick-release SSD includes insertable SmartCard CAC reader
- Bridge battery enables hot-swap battery replacement for continuous use
- Integrated 2nd battery, CAC SmartCard, fingerprint, magstripe, barcode options and more
- TPM 2.0 Security

Mk2

1.800.662.3537
na.panasonic.com/us/toughbook20
**TOUGHBOOK 20**

Panasonic recommends Windows.

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

**DURABILITY**
- MIL-STD-810G certified (4’ drop - 5 tablet only), shock, vibration, rain, dust, sand, altitude, freeze/thaw, high/low temperature, temperature shock, solar radiation, salt fog, humidity, explosive atmosphere
- MIL-STD-461F certified
- IP65 certified sealed against weather/fanless design
- Optional hazardous location class 1 division 2, groups ABCD certified model
- Magnesium alloy chassis encased with ABS and elastomer edges
- Built-in dual purpose handle & kickstand
- Solid state drive heater
- Optional quick-release storage drive***
- Removable battery
- Optional rotating hand strap
- Reinforced locking port covers
- Raised bezel for LCD impact protection
- Preinstalled replaceable screen film for LCD protection

**CPU**
- Intel® Core™ i5-7Y57 vPro™ processor (7th Gen CPU)
- 2.5GHz with Turbo Boost up to 3.3GHz, 4MB cache

**STORAGE & MEMORY**
- Factory installed 8GB or 16GB SDRAM (LPDDR4-16GAM1638)
- 256GB or 512GB SSD with heater
- Optional quick-release SSD encrypted with Intelligent SmartCard CAC reader
- Optional OPAL encrypted SSD with heater

**DISPLAY**
- 10.1” WXGA 1920 x 1200
- 10-point capacitive gloved multi touch + digitizer
- 2,880 nits
- IPS display with direct bonding
- Anti-reflective (AR) and anti-glare (AG) screen treatments
- Intel® HD Graphics 615
- 4 monitor support
- Concealed mode (configurable)

**AUDIO**
- Integrated dual array microphones
- Intel® High Definition Audio enabled
- Integrated speaker
- On-screen and button volume and mute controls
- Intel® High Definition Audio compliant
- Integrated dual array microphone
- On-screen QWERTY keyboard
- Supports glove mode and rain mode
- 8MP rear camera with autofocus and triple LED flash
- On-screen and button volume and mute controls
- Integrated speaker
- Supports glove mode and rain mode
- 8MP rear camera with autofocus and triple LED flash

**CAMERAS**
- 1080p webcam with dual array mic and camera on/off indicator
- Infrared with Windows Hello support
- 8MP rear camera with autofocus and triple LED flash

**KEYBOARD & INPUT**
- Waterproof (IP56) stylus pen with integrated stylus holder, tether and cleaning cloth
- Supports glove mode and rain mode
- 7 tablet buttons (3 user-definable A1/A2 buttons)
- On-screen GESTURE® keyboard
- ID-key with dedicated Windows key
- Emissive white backlit keyboard with 4 adjustable levels
- Pressure-sensitive touchpad with multi touch

**INTERFACE & EXPANSION**
- On the tablet:
  - USB 3.0 x1 (optional 2nd USB 2.0 Type A (USB 3.0 is 1.5A)
  - MicroSD
  - HDMI
  - USB 3.0 x2, USB 2.0 x2
  - Audio In/Out: 3.5mm Mini-jack stereo JUM
  - SDXC
  - Audio In/Out 3.5mm Mini-jack stereo JUM
  - Optional 4G LTE-A multi-carrier mobile broadband w/satellite GPS*1
  - Dual high-gain antenna pass-through
  - Bluetooth® v4.1 (Class 1) + EDR

**SECURITY FEATURES**
- TPM v2.0
- NIST Biometrics compliant
- Pinecone® technology by Absolute embedded in BIOS*
- Kensington cable lock slots x2 (on tablet and keyboard)
- Optional fingerprint reader
- Optional insertable SmartCard CAC reader*
- Optional contactless SmartCard (CAC)***
- 13.56MHz (ISO 14443 A/B compliant)

**WARRANTY**
- 2 year limited warranty, parts and labor

**DIMENSIONS & WEIGHT**
- 10.7” (L) x 9.2” (W) x 0.6” (H)**
- 2.9 lbs.

**HAZARDOUS LOCATION CERTIFICATIONS**
- ANSI/ISA 12.12-2013
- NEMA 4 rated
- Optional class I division 2, groups ABCD certified model

**INTEGRATED OPTIONS**
- Choice of dedicated 4G LTE multi carrier mobile broadband with satellite GPS or dedicated GPS (G-shock NEB MINI)
- Choice on tablet of 10/100 capable barcode reader (N4903, serial, true), or second USB 2.0 port
- Choice on tablet of magnetize, insertable SmartCard CAC, contactless SmartCard CAC or fingerprint reader or quick-release SSD (comes with insertable SmartCard CAC)**

**SELECT ACCESSORIES**
- AC Adapter Standard 45W (3-prong)
- AC Adapter MIL-STD-461F (3-prong)
- Battery Pack
- 9 Cell Battery Charger
- LIND Car Charger 120W
- LIND Solar Charger System
- Tough-Mate Mobility Bundle (Carry Strap
- TouchMateAlways-on-Can
- TouchMate Ruggedized Hand & Shoulder Strap
- Rotating Hand Strap
- Rotating Hand Strap (Magstripe or Quick-release SSD only)
- Shoulder Strap, Screen Cover and Rotating Hand Strap
- Laptop DeckTop Cradle
- Laptop 2-in-1 Vehicle Docks (requires keyboard)
- Gamber-Johnson (dual RF)
- Laptop Extended Vehicle Docks
- Gamber-Johnson (dual RF)
- AntennaPlus Dual LTE & GPS Antenna Kit
- Threaded White Mount
- Multi Touch + Digitizer IP56 Stylus
- Tether
- Spare Keyboard

**POWER**
- Li-ion battery pack:
  - Standard in tablet, optional 2nd battery in keyboard
  - 11.4V, 2600mAh (each battery)
- Battery operation:
  - 8.5 hours (17 hours with opt. 2nd battery)
- Battery charging time: 3 hours (3.5 hours with opt. 2nd battery)
- Bridge battery: 1 minute hot swap time
- AC Adapter: AC 100V-240V 50/60Hz, auto sensing/switching worldwide power supply
- 1.2GHz with Turbo Boost up to 2.5GHz, 4MB cache
- Factory installed 8GB or 16GB SDRAM (LPDDR4-16GAM1638)
- 256GB or 512GB SSD with heater
- Optional quick-release SSD encrypted with Intelligent SmartCard CAC reader
- Optional OPAL encrypted SSD with heater
- Integrated dual array microphones
- Intel® High Definition Audio enabled
- Integrated speaker
- On-screen and button volume and mute controls
- Intel® High Definition Audio compliant
- Integrated dual array microphone
- On-screen GESTURE® keyboard
- ID-key with dedicated Windows key
- Emissive white backlit keyboard with 4 adjustable levels
- Pressure-sensitive touchpad with multi touch
- On the tablet:
  - USB 3.0 x1 (optional 2nd USB 2.0) Type A (USB 3.0 is 1.5A)
  - MicroSD
  - HDMI
  - USB 10/100/1000 Ethernet RJ-45
  - Optional Serial (True)***
  - Audio In/Out 3.5mm Mini-jack stereo JUM
  - On the keyboard:
    - Docking Connector 24-pin
    - USB 3.0 x2, USB 2.0 x1
    - SDXC
    - HDMI
    - VESA
    - USB 10/100/1000 Ethernet RJ-45
    - Dual USB (USB 2.0 x2)

**WIRELESS**
- Optional 4G LTE-A multi-carrier mobile broadband w/satellite GPS
- - Certified with Verizon, AT&T, Sprint and T-Mobile
- Optional dedicated GPS (G-shock NEB MINI)
- Dual high-gain antenna pass-through
- Intel® Dual Band Wireless-AC 8265 Wi-Fi 802.11a/b/g/n/ac
- Bluetooth® v4.1

**TOUGHBOOK 20 Mk2**

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