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 including optional FirstNet Ready™ CF-20 EM7511 Band 14 mobile broadband. 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.
**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, salt, sand, altitude, freeze/thaw, high/low temperature, temperature shock, solar radiation, salt fog, humidity, explosive atmosphere
- MIL-STD-461F certified
- IP65 certified sealed all-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 drives header
- 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™ 6, 7th Gen processor (7th Gen CPU)
- 2.7GHz with turbo Boost up to 3.9GHz, 4MB cache

**STORAGE & MEMORY**
- Factory installed 8GB or 16GB SDRAM [LPDDR4-16474MTs]’
- 256GB or 512GB SSD with heater
- Optional quick-release SSD (comes with inserted Smartcard CAC reader)’
- Optional OPAL encrypted SSD with heater

**DISPLAY**
- 10.1” WUXGA 1920 x 1200
- 16:9 point capacitive gloved multi touch + digitizer
- 260 cd/m²
- IPS display with direct bonding
- Anti-reflective (AR) and anti-glare (AG) screen treatments
- Intel® HD Graphics 615
- 4 monitor support
- Concealed mode (configurable)
- Hyperspectral color sensors
- Optional contactless Smartcard CAC or fingerprint reader or quick-release SSD (comes with inserted Smartcard CAC)**9**

**AUDIO**
- Integrated dual array microphone
- Intel® High Definition Audio compliant
- Integrated speaker
- On-screen and button volume and mute controls
- Concealed mode
- Stereo speakers
- 3.5mm Mini-Jack stereo, Microphone in and Headphone out
- Optional class I division 2, groups ABCD certified model

**CAMERAS**
- 8MP rear camera with autofocus and triple LED flash
- On the tablet:
  - Pressure-sensitive touchpad with multi touch
  - 82-key with dedicated Windows® key
  - Supports glove mode and rain mode
  - Water-Proof IP55 stylus pen with integrated stylus holder, tether and cleaning cloth
  - On-screen and button volume and mute controls
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  - On-screen and button volume and mute controls

**POWER**
- Optional 4G LTE-A multi-carrier mobile broadband with satellite GPS
- 11.4V, 2600mAh (each battery)
- Battery operation:
  - 8.5 hours (7 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

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

**DIMENSIONS & WEIGHT**
- 10.7” (L) x 9.2” (W) x 1.1” (H)
- 3.9 lbs.

**HAZARDOUS LOCATION CERTIFICATIONS**
- ATEX/IECEx 2.12.01.01 – Optional class I division 2, groups ABCD certified model

**INTERFACE & EXPANSION**
- On the tablet:
  - USB 3.0 x1 (optional 2nd USB 2.0)**7**
  - - Type A (USB 3.0 is 1.5A)
  - - MicroSDXC
  - - HDMI Type A
  - - RJ-45
  - - 10/100/1000 Ethernet
  - - Audio In/Out
  - - SIM
- On the keyboard:
  - Docking Connector
  - USB 3.0 x2, USB 2.0 x1
  - Audio In/Out
  - Type A
  - SDXC
  - HDMI
  - VGA
  - RJ-45
  - 10/100/1000 Ethernet
  - USB
- On-screen keyboard
- USB 3.0 x1 (optional 2nd USB 2.0) Type A
- 5V DC, 1.5A
- Audio In/Out 3.5mm Mini-jack stereo
- Optional class I division 2, groups ABCD certified model

**WIRELESS**
- Optional 4G LTE-A multi-carrier mobile broadband with satellite GPS
- - Certified with AT&T, FirstNet™, Verizon, Sprint and P.18011
- Optional dedicated GPS (u-blox NEO M8N)**7**
- Dual high-gain antenna pass-through
- Optional Bluetooth® v4.1 (Class 1) + EDR

**SECURITY FEATURES**
- TPM v2.0
- FIPS 140-3 compliant
- Puriﬁer® 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 reader
- - 13.56MHz (ISO 14443 A/B compliant)

**SELECT ACCESSORIES**
- AC Adapter Standard 65W (3-prong) CF-AA4413CM
- Battery Pack CF-AA2713AM
- 4-Bay Battery Charger CF-VEB201M
- Battery Pack CF-VZSU0UW
- Battery Pack CF-VZSU00UW
- Battery Pack CF-VZSU00UW
- Battery Pack CF-VZSU00UW
- Battery Pack CF-VZSU00UW
- Battery Pack CF-VZSU00UW
- USB 3.0 Cable x2
- Shoulder Strap, Screen Cover, and Rotating Hand Strap
- Table Desktop Cradle CF-VEK202U
- Shoulder Strap, Screen Cover, and Rotating Hand Strap
- Laptop Desktop Dock
- Table Desktop Cradle CF-VEK202U
- AntennaPlus Dual LTE & GPS Antenna Kit
- ToughMate Always-on Case TBC20AOCS-P
- ToughMate Rotating Hand & Shoulder Strap TBC2052STP-P
- Kensington lock slots x2 (on tablet and keyboard)
- 10/100/1000 Ethernet RJ-45
- Audio In/Out 3.5mm Mini-jack stereo
- Optional Serial (True) D-sub 9-pin
- Audio In/Out 3.5mm Mini-jack stereo
- Optional class I division 2, groups ABCD certified model

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

**TOP FEATURES**
- - Panasonic recommends Windows.
- - Multi Touch + Digitizer IP55 Stylus CF-VNP023U
- - Tablet Desktop Cradle CF-VEK202U
- - Shoulder Strap, Screen Cover, and Rotating Hand Strap
- - Table Desktop Cradle CF-VEK202U
- - AntennaPlus Dual LTE & GPS Antenna Kit
- - ToughMate Always-on Case TBC20AOCS-P
- - ToughMate Rotating Hand & Shoulder Strap TBC2052STP-P

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