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.
Panasonic recommends Windows.

SOFTWARE
- Panasonic Utilities (including Toolbox), 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, frezze/heat, halogen temperature, temperature shock, isolation, salt fog, humidity, explosive atmosphere1
- MIL-STD-461F certified2
- IP55 qualified all-weather fanless design3
- Optional hazardous location class 1 division 2, groups A/B/C/D certified model
- Magnesium alloy chassis ensnared with ABS and elastomer edges
- Reinforced in dual purpose handle & kickstand
- Solid state drive heater
- Removable battery
- Optional rotating hand strap
- Reinforced locking port covers
- Preinstalled replaceable screen film for LCD protection

OPERATING SYSTEM
- (5i-7Y57U model):
  - Intel® Core™ i5-7Y57 vPro™ processor (7° Gen CPU)
  - 1.2GHz with Turbo Boost up to 3.3GHz, 4MB cache
- Graphics
  - Intel® HD Graphics 615
- Memory (RAM) - factory installed
  - 8GB or 16GB (DDR3L-1866MT/s)
  - Optional 32GB SSD
- Storage Drive Shock-mounted with Heater
  - 256GB SSD
  - Optional 512GB SSD
  - Optional OPAL encrypted SSD

DISPLAY
- 10.1" WXGA 1920 x 1200
- 15-point capacitive gloved multi-touch (available only on m5-6Y57 model)
- 10-point capacitive gloved multi-touch + digitizer
- 2,880 Nit
- IPS display with direct bonding
- Anti-reflective (AR) and anti-glare (AG) screen treatments
- 4 monitor support
- Concealed mode (configurable)

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

CAMERAS
- 108p webcam with dual area mic and camera on/off indicator
- Infrared with Windows Hello support (i5-7Y57 model)
- BMP rear camera with autofocus and triple LED flash (optional on m5-6Y57 model)

KEYBOARD & INPUT
- Waterproof (IP65) stylus pen with integrated stylus holder, tether and cleaning cloth
- Supports gloved mode and rain mode
- 7 tablet buttons (5 user-definable A1/A2 buttons)
- On-screen QWERTY keyboard
- Infrared with Windows Hello support (i5-7Y57 model)
- Emissive white backlit keyboard with 4 adjustable levels
- Pressure-sensitive touchpads 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)
  - MicroSDXC
  - HDMI Type A
  - 10/100/1000 Ethernet RJ-45
  - Optional Serial (True)4
  - Audio In/Out 3.5mm Mini jack stereo
  - SIM 4FF (5i-757 model), 3FF (m5-6Y57 model)
- On the keyboard:
  - Docking Connector 24-pin
  - USB 3.0 x2, USB 2.0 x1
  - SDHC
  - HDMI Type A
  - VGA
  - 10/100/1000 Ethernet RJ-45
  - Serial (USB)

WIRELESS
- Optional 4G LTE-A multi-carrier mobile broadband w/satellite GPS (5i-757 model only)5
  - Certified with Verizon, AT&T, Sprint and T-Mobile6
  - Optional dedicated GPS (u-blox NEO M8)
  - Dual high-gain antenna pass-through
- Intel® Dual Band Wireless-AC 8260 Wi-Fi 802.11a/b/g/n/ac w/8260 on m5-6Y57 model
  - Bluetooth® v4.1 (Class 1) + EDR

POWER
- Li-ion battery pack:
  - Standard in tablet, optional 2nd battery in keyboard
  - 11.4V, 2600mAh (each battery)
- Battery operation:
  - 5i-757 model: 8.5 hours (17 hours with opt. 2nd battery)7
  - m5-6Y57 model: 8.5 hours (16 hours with opt. 2nd battery)7
- Battery charging time: 3 hours (3.5 hours with opt. 2nd battery)7
- Bridge battery: 1 minute hot swap time (optional on m5-6Y57 model)
- AC Adapter: AC 100-240 V 50/60Hz, auto ranging SWITCHING worldwide power supply

SECURITY FEATURES
- TPM v2.07
- NIST Biometric compliant
- Persistence technology by Absolute embedded in BIOS®
- Kensington cable lock slot x2 (on tablet and keyboard)
- Optional fingerprint reader
- Optional installable Smartcard CAC reader8
- Optional contactless Smartcard CAC reader9
- 13.56MHz (ISO 14443 A/B) compliant

WARRANTY
- 2 year limited warranty, parts and labor

DURABILITY
- 10.7" (L) x 9.2" (W) x 1.3" (H) (with keyboard) 7

HARDWARE LOCATIONS CERTIFICATIONS
- AN/AVS A-22.1-2013
- Optional class 1 division 2, groups A/B/C/D certified model

INTEGRATED OPTIONS
- Choice of dedicated 60 LTE multi carrier mobile broadband with satellite GPS (5i-757 model) or dedicated GPS (u-blox NEO MINI)
- Choice on tablet of 10/20 capable barcode reader (NU403), serial (true), or second USB 2.0 port
- Choice on tablet of magstripe, installable Smartcard CAC, contactless Smartcard CAC or fingerprint reader

SELECT ACCESSORIES
- AC Adapter Standard 45W [3 [optional]
- AC Adapter MIL-STD-616F [3 [optional]
- Battery Pack
- 4-Bay Battery Charger
- LCD Charger Tray
- LIND Solar Charge System
- ToughMate Commercial Jr. Carrying Case
- ToughMate Mobility Bundle (Carry Strap)
- ToughMate Always-on Case
- ToughMate Rotating Handle & Shoulder Strap
- Rotating Hand Strap
- Rotating Hand Strap (for units w/Magstrip only)
- Shoulder Strap
- Desktop Dock
- Laptop 2-in-1 Vehicle Dock (requires keyboard)
- Garmin-approach (dual RF)
- Harris (dual RF)
- Harris (dual RF)
- Dedicated GPS Dock (i5-7Y57 model) CF-VPF35U
- Spare KBard (CF-VEK201LMP)
- 10.1" LCD Protector Film (i5-7Y57 model)
- 10.1" LCD Protector Film (m5-6Y57 model)

Please consult your reseller or Panasonic representative before purchasing.

1. TPM 1.2 chip can be used on m5-6Y57 model, but can fail TPM3 - see below for more details. 
2. 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. 461F requires CF-AA5713AM.
3. To verify system is compliant with Fed. Procurement Policy (FPP) 3.9.4.2.1 and MIL-STD-188-203A, refer to sec. 3.9.4.2.1. 
4. 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, 14.2.5 and 14.3 for IP65. Refer to MIL-STD-188-203A.
5. 1TB = 1,000,000,000 bytes. Total usable memory will vary based on operating system configurations.
6. Barcode, Serial (true) and second USB 2.0 Port are mutually exclusive.
7. Magstrip, Serial, 2nd USB or Barcode+Insertable SmartCard integrated options increase overall height and prohibit use in convertible mode.
8. Dedicated GPS and Wi-Fi are mutually exclusive.
9. Battery performance metrics such as charge time and life span can vary according to the conditions under which the computer and battery are used. Battery particulars and exchange times will vary based on many factors, including screen brightness, applications, features, power management, battery conditioning and other customer preferences. Battery life results from MobileMark 2014 v4.0 test.
10. Requires software and activation to enable theft protection.
11. Magstrip, Installable Smartcard, Contactless Smartcard and Fingerprint Readers are mutually exclusive.
12. Includes tablet and keyboard with handle. Tablet when detached is 3.7 lbs. Optional battery weighs 0.4 lbs.
13. Optional hazardous location class 1 division 2, groups A/B/C/D certified model

For more information about Panasonic Toughbook, please visit, Panasonic.com/TPB

1-800-662-3537
na.panasonic.com/us/toughbook20

Panasonic recommends Windows.

Toughbook 20

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