



TOUGHBOOK

For more information please visit
www.toughbook.eu

Panasonic Connect Europe GmbH, Hagenauer Straße 43, 65203 Wiesbaden (Germany)

Active Matrix colour display conforms to industry standards. Some displays may contain isolated illuminated or dark pixels as an artefact of the manufacturing process (effective pixels: minimum 99.998%). RAM capacity calculated as follows: 1 MB = 1,048,576 bytes. HDD capacity calculated as follows: 1 GB = 1,000,000,000 bytes. TOUGHBOOK is a brand name and registered trademark of Panasonic Corporation. Google, the Google logo, YouTube and Android are trademarks of Google Inc. Intel, the Intel logo, Intel Core, and Intel vPro are trademarks of Intel Corporation or its subsidiaries. Microsoft® and Windows® are registered trademarks of Microsoft® Corporation of the United States and/or other countries. All other brand names shown are the registered trademarks of the relevant companies. All rights reserved. All working conditions, times and figures quoted are optimum or ideal levels and may differ as a result of individual and local circumstances. Technical specifications are subject to change without notice.

* Exclusive option, pre configured or accessory.
¹ Tested by an independent third party lab following MIL-STD 810G, MIL-STD 810H and IEC 60529.

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**Panasonic
CONNECT**

TOUGHBOOK

TOUGH is
setting the
performance standard

Explore our range
of rugged devices

Windows 11

Intel® Core™ i5 vPro® processor

intel
CORE
vPRO
i5

Tablets



TOUGHBOOK G2

10.1" fully rugged Windows tablet

TOUGHBOOK 33

12" fully rugged Windows tablet

TOUGHBOOK G2

10.1" fully rugged 2-in-1 detachable Windows tablet

TOUGHBOOK 33

12" fully rugged 2-in-1 detachable Windows notebook

TOUGHBOOK 40

14" fully rugged clamshell notebook

TOUGHBOOK 55

14" rugged clamshell notebook

Mobile Computing Platform / CPU	Intel® Core™ i5-10310U vPro® processor (1.7 up to 4.4 GHz (with Turbo Boost), 6 MB Intel® Smart Cache)	Intel® Core™ i5-10310U vPro® processor (1.7 up to 4.4 GHz (with Turbo Boost), 6 MB Intel® Smart Cache)	Intel® Core™ i5-10310U vPro® processor (1.7 up to 4.4 GHz (with Turbo Boost), 6 MB Intel® Smart Cache)	Intel® Core™ i5-10310U vPro® processor (1.7 up to 4.4 GHz (with Turbo Boost), 6 MB Intel® Smart Cache)	Intel® Core™ i5-1145G7 vPro® processor (1.1 GHz up to 4.4 GHz) or Intel® Core™ i7-1185G7 vPro® processor (1.2 GHz up to 4.8 GHz)	Intel® Core™ i5-1145G7 vPro® processor (1.1 GHz up to 4.4 GHz) or Intel® Core™ i7-1185G7 vPro® processor (1.2 GHz up to 4.8 GHz)				
Operating System	Windows 11 Pro 64-bit Windows 10 Pro 64-bit Downgrade Model optional	Windows 11 Pro 64-bit Windows 10 Pro 64-bit Downgrade Model optional	Windows 11 Pro 64-bit Windows 10 Pro 64-bit Downgrade Model optional	Windows 11 Pro 64-bit Windows 10 Pro 64-bit Downgrade Model optional	Windows 11 Pro 64-bit Windows 10 Pro 64-bit Downgrade Model optional	Windows 11 Pro 64-bit Windows 10 Pro 64-bit Downgrade Model optional				
Memory & Storage	16 GB DDR4 RAM (max. 32 GB) 512 GB NVMe OPAL SSD (max. 1 TB) (with heater) Quick Release SSD SKU optional	16 GB DDR4 RAM (max. 32 GB) 512 GB NVMe OPAL SSD (max. 1 TB) (with heater) Quick Release SSD SKU optional	16 GB DDR4 RAM (max. 32 GB) 512 GB NVMe OPAL SSD (max. 1 TB) (with heater) Quick Release SSD SKU optional	16 GB DDR4 RAM (max. 32 GB) 512 GB NVMe OPAL SSD (max. 1 TB) (with heater) Quick Release SSD SKU optional	16 GB DDR4 RAM (max. 64 GB) 512 GB NVMe OPAL SSD (max. 2 TB) (with heater)	8 GB DDR4 RAM (max. 64 GB) HD model: 256 GB NVMe OPAL SSD (max. 2 TB) (with heater) Full-HD and Full-HD Touch model: 512 GB NVMe OPAL SSD (max. 2 TB)				
Display	10.1" Active Matrix (TFT) IPS colour LCD 1,920 × 1,200 pixels, WUXGA (up to 1,000 cd/m ²) Anti reflection with glove and rain modes Dual touch as standard (10 finger capacitive touchscreen and Digitiser)	12.0" Active Matrix (TFT) colour LCD, QHD (2,160 × 1,440 pixels), up to 1,200 cd/m ² brightness, Aspect ratio 3:2, Anti reflection with glove and rain modes Dual touch as standard (10 finger capacitive touchscreen and Digitiser)	10.1" Active Matrix (TFT) IPS colour LCD 1,920 × 1,200 pixels, WUXGA (up to 1,000 cd/m ²) Anti reflection with glove and rain modes Dual touch as standard (10 finger capacitive touchscreen and Digitiser)	12.0" Active Matrix (TFT) colour LCD, QHD (2,160 × 1,440 pixels), up to 1,200 cd/m ² brightness, Aspect ratio 3:2, Anti reflection with glove and rain modes Dual touch as standard (10 finger capacitive touchscreen and Digitiser)	14" Active Matrix (TFT) IPS colour LCD 1,920 × 1,080 pixels, Full-HD (up to 1,200 cd/m ²) Anti reflection with Auto glove and rain modes 10 finger capacitive touchscreen	14" Active Matrix (TFT) display HD model: (1,366 × 768 pixels) Full-HD Model: IPS (1,920 × 1,080 pixels) (up to 1,000 cd/m ²) Full-HD Touch Model: IPS (1,920 × 1,080 pixels) with 10 finger capacitive touchscreen (up to 1,000 cd/m ²)				
Camera	Front: 2 MP with IR for Windows Hello / privacy shutter Rear: 8 MP with LED flash	Front: 2 MP with IR for Windows Hello / privacy shutter Rear: 8 MP with Laser AF	Front: 2 MP with IR for Windows Hello / privacy shutter Rear: 8 MP with LED flash	Front: 2 MP with IR for Windows Hello / privacy shutter Rear: 8 MP with Laser AF	5 MP with IR / privacy shutter (Windows Hello compliant) optional	HD and Full-HD model: 2 MP with IR for Windows Hello / privacy shutter (optional) Full-HD touch model: 2 MP with IR for Windows Hello / privacy shutter				
Expansion Slots	Configuration Port*: 2nd Gigabit LAN, True Serial, USB 2.0 Type-A, 1D/2D Barcode Reader, FLIR Thermal Imaging Rear Expansion Area*: HF-RFID Reader, Smart Card Reader		Configuration Port*: 2nd Gigabit LAN, True Serial, USB 2.0 Type-A, 1D/2D Barcode Reader, FLIR Thermal Imaging Rear Expansion Area*: HF-RFID Reader, Smart Card Reader	SD/SDXC Memory Card: ×1 SDXC (Keyboard Base)	Left Expansion Area* 2nd SSD, Smart Card Reader, DVD Multi Drive, Blu Ray Drive Right Expansion Area* 2nd Battery, Smart Card Reader Rear Expansion Area* VGA + True Serial (RS232) + 2nd native GLAN, USB 3.1 Type A + True Serial (RS232) + 2nd HDMI, USB 3.1 Type A + USB 3.1 Type A + 2nd HDMI Palm Rest Expansion Area* Fingerprint reader (Windows Hello) Fingerprint reader (Windows Hello, Multi-user authentication) Contactless Smart Card Reader	Universal Bay*: 2nd SSD, Smart Card Reader, DVD Multi Drive, Blu Ray Drive Front Expansion Slot*: 2nd Battery, Fingerprint Reader, Contactless Smart Card Reader (HF-RFID), Smart Card Reader Rear Expansion Slot*: VGA + True Serial + 4th USB 3.1, VGA + True Serial + 2nd native GLAN, VGA + True Serial + Rugged USB 2.0				
Interfaces	DC Input: ×1 USB 3.1: ×1 USB 3.1 Type-C: ×1 LAN: ×1	Serial: ×1 optional HDMI: ×1 USB 3.1 Typy c: ×1 USB 3.0: ×1 USB 2.0: ×1 optional Rugged USB: ×1 optional LAN: ×1	2D Barcode Reader: ×1 optional Smartcard Reader: ×1 optional HF RFID: ×1 optional Fingerprint Reader: ×1 optional Headset: ×1 DC Input: ×1	DC Input: ×1 USB 3.1: ×1 USB 3.1 Type-C: ×1 LAN: ×1	Serial: ×1 (Keyboard Base), ×1 optional (Main Unit) HDMI: ×2 (Keyboard Base & Main Unit) VGA: ×1 (Keyboard Base) USB 3.1 Typy c: ×1 (Main Unit) USB 3.0: ×2 (Keyboard Base), ×1 (Main Unit) USB 2.0: ×1 (Keyboard Base), ×1 optional (Main Unit) Rugged USB: ×1 optional (Main Unit) LAN: ×2 (Keyboard Base & Main Unit)	2D Barcode Reader: ×1 optional (Main Unit) Smartcard Reader: ×1 optional (Main Unit) HF RFID: ×1 optional (Main Unit) Fingerprint Reader: ×1 optional (Main Unit) Port Replicator: ×1 (Keyboard Base) External Antenna Connector: ×1 (Keyboard Base) Headset: ×1 DC Input: ×2 (Keyboard Base & Main Unit)	USB 3.2 Gen 1 Type-A: ×2 Thunderbolt 4: ×1 Micro SDXC Memory Card: ×1 HDMI: ×1	Headset: ×1 DC In: ×1 Port Replicator: ×1 Quad Path Through Connector: ×1	USB 3.1: ×2 Thunderbolt 4: ×1 Micro SDXC Memory Card: ×1 HDMI: ×1 Headset: ×1	DC In: ×1 Port Replicator: ×1 Dual Path Through Connector (optional): ×1
Connectivity	Bluetooth®: Version 5.1 + EDR Class 1 Intel® Wi-Fi 6 AX201 LAN: IEEE 802.3 10Base-T / IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T	Bluetooth®: Version 5.1 + EDR Class 1 Intel® Wi-Fi 6 AX201 LAN: IEEE 802.3 10Base-T / IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T	Bluetooth®: Version 5.1 + EDR Class 1 Intel® Wi-Fi 6 AX201 LAN: IEEE 802.3 10Base-T / IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T	Bluetooth®: Version 5.1 + EDR Class 1 Intel® Wi-Fi 6 AX201 LAN: IEEE 802.3 10Base-T / IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T	Bluetooth®: Version 5.1 + EDR Class 1 Intel® Wi-Fi 6 AX201 LAN: IEEE 802.3 10Base-T / IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T	Bluetooth® 5.1 Class 1 Wireless LAN Intel® Wi-Fi 6 AX201 Mobile Broadband* 4G LTE, EM7690, eSIM support 5G, EM9190, eSIM support in Summer 2022 Global Positioning* u-blox NEO-M8J (supports GPS, GLONASS, Beidou, Galileo)	Bluetooth®: Version 5.1 + EDR Class 1 Intel® Wi-Fi 6 AX201 LAN: IEEE 802.3 10Base-T / IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T			
Power	AC Adaptor: Input: 100-240 V AC, 50/60 Hz, Output: 15.6 V DC, 7.05 A Battery: Li-Ion (11.4 V, 4,360 mAh), user replaceable Battery Life: Approx. 12 hours (Mobile Mark™ 2014) Hot Swap Battery: Optional	AC Adaptor: Input: 100-240 V AC, 50/60 Hz, Output: 15.6 V DC, 7.05 A Standard Battery: Li-Ion 11.1 V, 1,990 mAh ×2, user replaceable, hot swappable Extended Battery (Factory option): Li-Ion 10.8 V, 4,120 mAh ×2, user replaceable, hot swappable Battery Life (Tablet only): Approx. 11 hours, approx. 22 hours with optional Extended Battery (Mobile Mark™ 2014)	AC Adaptor: Input: 100-240 V AC, 50/60 Hz, Output: 15.6 V DC, 7.05 A Battery: Li-Ion (11.4 V, 4,360 mAh), user replaceable Battery Life: Approx. 12 hours (Mobile Mark™ 2014) Hot Swap Battery: Optional	AC Adaptor: Input: 100-240 V AC, 50/60 Hz, Output: 15.6 V DC, 7.05 A Standard Battery: Li-Ion 11.1 V, 1,990 mAh ×2, user replaceable, hot swappable Extended Battery (Factory option): Li-Ion 10.8 V, 4,120 mAh ×2, user replaceable, hot swappable Battery Life (2-in-1 Detachable): Approx. 10 hours, approx. 20 hours with optional Extended Battery (Mobile Mark™ 2014) Battery Life (Tablet only): Approx. 11 hours, approx. 22 hours with optional Extended Battery (Mobile Mark™ 2014)	AC Adaptor: Input: 100-240 V AC, 50/60 Hz, Output: 15.6 V DC, 7.05 A Standard Battery: Li-Ion 11.1 V, 1,990 mAh ×2, user replaceable, hot swappable Extended Battery (Factory option): Li-Ion 10.8 V, 4,120 mAh ×2, user replaceable, hot swappable Battery Life (2-in-1 Detachable): Approx. 10 hours, approx. 20 hours with optional Extended Battery (Mobile Mark™ 2014) Battery Life (Tablet only): Approx. 11 hours, approx. 22 hours with optional Extended Battery (Mobile Mark™ 2014)	AC Adapter Input: 100-240 V AC, 50/60 Hz, Output: 15.6 V DC, 7.05 A Battery Lithium-Ion 10.8 V, 6,500 mAh (typ.), 6,300 mAh (min.) Battery Life HD: Approx. 18 hours (Mobile Mark™ 2014), approx. 19 hours (Mobile Mark™ 2014), approx. 36 hours with 2nd battery (Mobile Mark™ 2014) Power Management Standby function, ACPI BIOS Hot Swap* With 2nd Battery	AC Adaptor: Input: 100-240 V AC, 50/60 Hz, Output: 15.6 V DC, 7.05 A Battery: Lithium-Ion 10.8 V, 6,500 mAh (typ.), 6,300 mAh (min.) Battery Life HD: Approx. 18 hours (Mobile Mark™ 2014), approx. 38 hours with optional 2nd battery (Mobile Mark™ 2014) Battery Life Full-HD / Full-HD Touch: Approx. 18 hours (Mobile Mark™ 2014), approx. 36 hours with optional 2nd battery (Mobile Mark™ 2014) Hot Swap Battery: Optional			
Security Features	TPM (Trusted Platform Module), TCG V2.0 Integrated hardware security lock slot Microsoft Windows 11 Secured-core PC	TPM (Trusted Platform Module), TCG V2.0 Integrated hardware security lock slot Microsoft Windows 11 Secured-core PC	TPM (Trusted Platform Module), TCG V2.0 Integrated hardware security lock slot Microsoft Windows 11 Secured-core PC	TPM (Trusted Platform Module), TCG V2.0 Integrated hardware security lock slot Microsoft Windows 11 Secured-core PC	TPM 2.0 Password security Integrated hardware security lock slot Microsoft Windows 11 Secured-core PC	TPM (Trusted Platform Module), TCG V2.0 Integrated hardware security lock slot Microsoft Windows 11 Secured-core PC				
Dimensions (W x H x D) & Weight	279 × 188 × 23.5 mm (without protruding parts) 1.19 kg	308.0 × 243.6 × 21.6 mm (without protruding parts) 1.56 kg	279 × 188 × 23.5 mm (without protruding parts) 1.19 kg	313.0 × 288.4 × 46.1 mm (without protruding parts) 2.79 kg	354 × 293 × 54.4 mm (without protruding parts) 3.375 kg	345 × 272 × 32.8 mm (without protruding parts) HD model: 2.08 kg Full HD model w/o touchscreen: 2.13 kg Full HD model with touchscreen: 2.22 kg				
Options for Integration	4G LTE with eSIM support, 5G with eSIM support, GPS	4G LTE with eSIM support, GPS	4G LTE with eSIM support, 5G with eSIM support, GPS	4G LTE with eSIM support, GPS	4G LTE with eSIM support, 5G with eSIM support, GPS	4G LTE with eSIM support, GPS				
Ruggedisation	MIL-STD 810H tested ¹ Water resistance test: IEC529 (IIS C0920) IPX5 ¹ Dust resistance test: IEC529 (IIS C0920) IP6X ¹ Gravity drop resistance test: 180 cm drop ¹ Operating temperature: -29 to +60 °C ¹	MIL-STD 810G tested ¹ Water resistance test: IEC529 (IIS C0920) IPX5 ¹ Dust resistance test: IEC529 (IIS C0920) IP6X ¹ Gravity drop resistance test: 150 cm drop ¹ Operating temperature: -29 to +60 °C ¹	MIL-STD 810H tested ¹ Water resistance test: IEC529 (IIS C0920) IPX5 ¹ Dust resistance test: IEC529 (IIS C0920) IP6X ¹ Gravity drop resistance test: 180 cm drop ¹ Operating temperature: -29 to +60 °C ¹	MIL-STD 810G tested ¹ Water resistance test: IEC529 (IIS C0920) IPX5 ¹ Dust resistance test: IEC529 (IIS C0920) IP6X ¹ Gravity drop resistance test: 150 cm drop ¹ Operating temperature: -29 to +60 °C ¹	MIL-STD 810H tested ³ Water resistance test: IEC529 (IIS C0920) IPX6 ¹ Dust resistance test: IEC529 (IIS C0920) IP6X ¹ Gravity drop resistance test: 180 cm drop ¹ Operating temperature: -29 to +60 °C ¹	MIL-STD 810H tested ¹ Water resistance test: IEC529 (IIS C0920) IPX3 ¹ Dust resistance test: IEC529 (IIS C0920) IP5X ¹ Gravity drop resistance test: 91 cm drop ¹ Operating temperature: -29 to +60 °C ¹				