TOUGHBOOK

For more information please visit
www.toughbook.eu

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

TOUGHBOOK G2
* Optional
** One option exclusive possible in Top Expansion Bay Area, needs to be decided at purchase
*** One option exclusive possible in Rear Expansion Bay Area, End User replaceable
**** Tested by an independent third-party lab following MIL-STD-810H and IEC 60529, Sections 13.4, 13.6.2, 14.2.5 and 14.3

TOUGHBOOK 33
* Optional
** One option exclusive possible in configuration port / business expansion module
*** Tested by an independent third-party lab following MIL-STD-810H and IEC 60529, Sections 13.4, 13.6.2, 14.2.5 and 14.3

TOUGHBOOK 40
* Optional
** Exclusive option, pre-configured or accessory
*** Tested by an independent third-party lab following MIL-STD-810H and IEC 60529

TOUGHBOOK 55
* Optional
** Exclusive option, pre-configured or accessory
*** Tested by an independent third-party lab following MIL-STD-810H and IEC 60529

Panasonic CONNECT

MADE FOR THE CHALLENGE
Built for the front line

Explore our range of rugged devices

Windows 11

Intel® Core™ Ultra 5 processor

intel CORE ULTRA 5

TOUGHBOOK

Tablets

Laptops and 2-in-1 Devices

Intel CORE ULTRA 5

	TOUGHBOOK G2	TOUGHBOOK 33	TOUGHBOOK G2	TOUGHBOOK 33	TOUGHBOOK 40	TOUGHBOOK 55
	10.1" fully rugged Windows tablet	12" fully rugged Windows tablet	10.1" fully rugged 2-in-1 detachable Windows tablet	12" fully rugged 2-in-1 detachable Windows notebook	14" fully rugged clamshell Windows notebook	14" rugged clamshell Windows notebook
Mobile Computing Platform / CPU	Intel® Core™ Ultra5 processor 135U (with Intel vPro® Technology)	Intel® Core™ i5-1345U vPro™ Processor or Intel® Core™ i7 1370P vPro™ Processor	Intel® Core™ Ultra5 processor 135U (with Intel vPro® Technology)	Intel® Core™ i5-1345U vPro™ Processor or Intel® Core™ i7 1370P vPro™ Processor	Intel Core™ Ultra5 135H Processor (with Intel vPro Technology) Intel Core™ Ultra7 165H Processor (with Intel vPro Technology) optional	Intel® Core™ i5 1345U vPro™ Processor or Intel® Core™ i7 1370P vPro™ Processor
Operating System	Windows 11 Pro	Windows 11 Pro	Windows 11 Pro	Windows 11 Pro	Windows 11 Pro	Windows 11 Pro
Memory & Storage	16 GB DDR5x RAM (max. 32 GB) 512 GB OPAL NVMe SSD (up to 2 TB optional) with heater Quick-release SSD SKU optional	16 GB DDR4 RAM (max. 32 GB) 512 GB OPAL NVMe SSD (up to 2 TB optional) with heater	16 GB DDR5x RAM (max. 32 GB) 512 GB OPAL NVMe SSD (up to 2 TB optional) with heater Quick-release SSD SKU optional	16 GB DDR4 RAM (max. 32 GB) 512 GB OPAL NVMe SSD (up to 2 TB optional) with heater	16 GB DDR5 RAM (max. 64 GB) 512 GB NVMe OPAL SSD (max. 2 TB)	16 GB DDR4 RAM (max. 64 GB) 512 GB NVMe OPAL SSD (max. 2 TB) (with heater)
Display	10.1" Active Matrix (TFT) colour LCD 1,920 × 1,200 (WUXGA) LCD with sunlight-viewable glove-enabled capacitive touchscreen (up to 1,000 cd/m²), IP55 digitiser	12.0" Active Matrix (TFT) colour LCD 2,160 × 1,440 (QHD) LCD with sunlight-viewable glove-enabled capacitive touchscreen (up to 1,200 cd/m²), IP55 digitiser	10.1" Active Matrix (TFT) colour LCD 1,920 × 1,200 (WUXGA) LCD with sunlight-viewable glove-enabled capacitive touchscreen (up to 1,000 cd/m²), IP55 digitiser	12.0" Active Matrix (TFT) colour LCD 2,160 × 1,440 (QHD) LCD with sunlight-viewable glove-enabled capacitive touchscreen (up to 1,200 cd/m²), IP55 digitiser	14" Active Matrix (TFT) IPS colour LCD 1,920 × 1,080 pixels Full-HD (up to 1,200 cd/m²) anti-reflection with automatic glove and rain modes 10-finger capacitive touchscreen	HD Model: 14" Active Matrix (TFT) colour LCD 1,366 × 768 pixels Full-HD Touch model: 14" Active Matrix (TFT) colour LCD 1,920 × 1,080 pixels, capacitive 10-finger touchscreen, up to 1,000 cd/m² brightness
Camera	Front: 2 MP with IR / privacy shutter (Windows Hello compliant) Rear: 13 MP with autofocus and LED flash	Front: 2 MP with IR / privacy shutter (Windows Hello compliant) Rear: 13 MP with autofocus and LED flash	Front: 2 MP with IR / privacy shutter (Windows Hello compliant) Rear: 13 MP with autofocus and LED flash	Front: 2 MP with IR / privacy shutter (Windows Hello compliant) Rear: 8 MP with autofocus and LED flash	5 MP with IR / privacy shutter (Windows Hello compliant) optional	HD Model: 2 MP with IR / privacy shutter (Windows Hello compliant) optional Full-HD Touch model: 2 MP with IR / privacy shutter (Windows Hello compliant)
Expansion Slots	Top Expansion Bay Area** – serial, 2D barcode reader, 2nd USB 2.0, micro SD, 2nd LAN, Thermal by FLIR® Rear Expansion Bay Area*** – smart card reader, HF-RFID (NFC), fingerprint reader	Configuration Port (Tablet)** – Serial, 2D barcode reader, 2nd USB 2.0 Business Expansion Module (Tablet)** – Smart card reader, HF-RFID (NFC), fingerprint reader	Top Expansion Bay Area** – serial, 2D barcode reader, 2nd USB 2.0, micro SD, 2nd LAN, Thermal by FLIR® Rear Expansion Bay Area*** – smart card reader, HF-RFID (NFC), fingerprint reader	Configuration Port (Tablet)** – Serial, 2D barcode reader, 2nd USB 2.0 Business Expansion Module (Tablet)** –Smart card reader, HF-RFID (NFC), fingerprint reader	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, USB 3.1 Palm Rest Expansion Area** – Fingerprint reader (Windows Hello, multi-user authentication), HF-RFID (NFC)	TOUGHBOOK Universal Bay** – 2nd SSD, smart card reader, DVD multi drive, Blu-ray drive Front Expansion Slot** – 2nd battery, fingerprint reader, HF-RFID (NFC), smart card reader Rear Expansion Slot** – VGA + True Serial + 4th USB 3.2, VGA + True Serial + 2nd native GLAN, VGA + True Serial + Rugged USB 2.0, 4th USB 3.2 + USB Type C
Interfaces	USB 3.2 Type A: ×1 Thunderbolt 4: ×1 LAN: ×1 Headset: ×1 DC In: ×1 Port Replicator: ×1 Dual Antenna Connector: ×1	USB 3.2 Type A: ×1 Thunderbolt 4: ×1 USB 2.0: ×1** HDMI: ×1 LAN: ×1 Native Serial Port: ×1** Headset: ×1 DC In: ×1 Port Replicator: ×1 Dual Antenna Connector: ×1	USB 3.2 Type A: ×1 (×1 Tablet, ×1 Keyboard) USB 3.2 Type C: ×1 Thunderbolt 4: ×1 LAN: ×1 Headset: ×1 DC In: ×1 Port Replicator: ×1 Dual Antenna Connector: ×1	SD/SDXC Memory Card: ×1 (Keyboard) USB 3.2 Type A: ×3 (×1 Tablet, ×2 Keyboard) Thunderbolt 4: ×1 USB 2.0: ×1 optional (Tablet**), ×1 (Keyboard) HDMI: ×1 (Tablet), ×1 (Keyboard) VGA: ×1 (Keyboard) / LAN: ×1 (Tablet), ×1 (Keyboard) Native Serial Port: ×1 optional (Tablet**), ×1 (Keyboard) Headset: ×1 (Tablet), ×1 (Keyboard) DC In: x2 (Tablet + Keyboard) Port Replicator: ×1 (Keyboard) Dual Antenna Connector: ×1 (Keyboard)	USB 3.2 Type A: ×2 Thunderbolt 4: ×2 Micro SDXC Memory Card: ×1 HDMI: ×1 / Headset: ×1 DC In: ×1 Port Replicator: ×1 Quad Path Through Connector: ×1	Micro SDXC Memory Card: ×1 USB 3.2 Type A: ×2 Thunderbolt 4: ×1 HDMI: ×1 / LAN: ×1 Headset: ×1 DC In: ×1 Port Replicator: x1* Dual Pass-Through Connector: ×1*
Connectivity	Bluetooth®: 5.3 Class 1 Intel® Wi-Fi6E AX211 LAN: IEEE 802.3 10Base-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T 4G or 5G with eSIM support optional Dedicated GPS optional	Bluetooth®: 5.3 Class 1 Intel® Wi-Fi 6E AX211 LAN: IEEE 802.3 10Base-T / IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T 4G or 5G with eSIM support optional Dedicated GPS optional	Bluetooth®: 5.3 Class 1 Intel® Wi-Fi6E AX211 LAN: IEEE 802.3 10Base-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T 4G or 5G with eSIM support optional Dedicated GPS optional	Bluetooth®: 5.3 Class 1 Intel® Wi-Fi6E AX211 LAN: IEEE 802.3 10Base-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T (Tablet + Keyboard) 4G or 5G with eSIM support optional Dedicated GPS optional	Bluetooth® 5.3: Class 1 Wireless LAN Intel® Wi-Fi 7 BE200 LAN: IEEE 802.3 10Base-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T 4G or 5G with eSIM support optional Dedicated GPS optional	Bluetooth®: 5.3 Class 1 Intel® Wi-Fi6E AX211 LAN: IEEE 802.3 10Base-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T (2nd GLAN optional) 4G or 5G with eSIM support optional Dedicated GPS optional
Power	AC Adaptor: Input – 100–240 V AC, 50/60 Hz / Output – 15.6 V. DC, 7.05 A Standard Battery: Lithium-ion 11.4V, 4,360mAh (50Whr) Extended Battery: Lithium-ion 10.8V, 6,300mAh (68Whr) Standard Battery Life: Approx 11 hours (Mobile Mark™ 25) Extended Battery Life: Approx. 15 hours (Mobile Mark™ 25)	AC Adaptor: Input – 100–240 V AC, 50/60 Hz / Output – 15.6 V DC, 4.06A Standard Battery: x2 Lithium-ion (3 cell, 22Whr) Extended Battery: x2 Lithium-ion (6 cell, 45 Whr) optional Standard Battery Life: Approx. 7.5 hours (Mobile Mark™ 25) Extended Battery Life: Approx. 15.5 hours (Mobile Mark™ 25)	AC Adaptor: Input – 100–240 V AC, 50/60 Hz / Output – 15.6 V DC, 7.05 A Standard Battery: Lithium-ion 11.4 V, 4,360 mAh (50 Whr) Extended Battery: x2 Lithium-ion (6 cell, 45 Whr) optional Standard Battery Life: Approx. 7 hours (Mobile Mark™ 25) Extended Battery: Lithium-ion 10.8 V, 6,300 mAh (68 Whr) Extended Battery Life: Approx. 11.5 hours (Mobile Mark™ 25)	AC Adaptor: Input – 100–240 V AC, 50/60 Hz / Output – 15.6 V DC, 4.06A Standard Battery: x2 Lithium-ion (3 cell, 22Whr) Extended Battery: x2 Lithium-ion (6 cell, 45 Whr) optional Standard Battery Life: Approx. 7 hours (Mobile Mark™ 25) Extended Battery Life: Approx. 15 hours (Mobile Mark™ 25)	AC Adapter Input: 100–240 V AC, 50/60 Hz, Output: 15.6 V DC, 7.05 A Standard Battery: Lithium-Ion 10.8 V, 6,500 mAh (typ.), 6,300 mAh (min.) Standard Battery Life: 12 hours (Mobile Mark™ 25) Extended Battery Life: 24 hours with 2nd battery Mobile Mark™ 25) Power management standby function, ACPI BIOS Hot Swap® with 2nd Battery	AC Adapter Input: 100–240 V AC, 50/60 Hz, Output: 115.6 V DC, 7.05 A Standard Battery: Lithium-Ion 10.8 V, 6,500 mAh (typ.), 6,300 mAh (min.) Standard Battery Life: Approx. 10 hours (Mobile Mark™ 25) Extended Battery Life: Approx. 20 hours with 2nd battery (Mobile Mark™ 25) Hot-swap capability* with 2nd battery
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 (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
Dimensions (W × H × D) & Weight	279 × 188 × 23.5 mm / 11.0 × 7.4 × 1.0" (without protruding parts) Approx. 1.19 kg / 2.64 lb	Standard Battery: 308.0 × 243.6 × 21.6 mm / 12.1 × 9.6 × 0.9" (without protruding parts) Approx. 1.54 kg / 3.4 lb Extended Battery: 308.0 × 243.6 × 32.1 mm / 12.1 × 9.6 × 1.3" (without protruding parts) Approx. 1.9 kg / 4.1 lb	287 × 235 × 52.7 mm / 11.3 × 9.3 × 2.1" (without protruding parts) Approx. 2.1 kg / 4.62 lb	Standard Battery: 313.0 × 288.4 × 46.1 mm / 12.3 × 11.4 × 1.8" (without protruding parts) Approx. 2.81 kg Extended Battery: 313.0 × 288.4 × 56.6 mm / 12.3 ×11.4 × 2.2" (without protruding parts) Approx. 3.14 kg	354 × 301 × 54.4 mm (without protruding parts) Approx. 3.375 kg	345 × 272 × 32.8 mm (without protruding parts) HD model: Approx. 2.08 kg Full-HD Touch model: Approx. 2.22 kg
Ruggedisation	Water Resistance: IEC529 (JIS C0920) IPx5*** Dust Resistance: IEC529 (JIS C0920) IP6x*** Drop Resistance: MIL-STD 810H, 180 cm*** Operating Temperature: MIL-STD 810H, –29 to 60 °C***	Water Resistance: IEC529 (JIS C0920) IPx5*** Dust Resistance: IEC529 (JIS C0920) IP6x*** Drop Resistance: MIL-STD 810H, 150 cm*** Operating Temperature: MIL-STD 810H, –29 to 60 °C***	Water Resistance: IEC529 (JIS C0920) IPx5*** Dust Resistance: IEC529 (JIS C0920) IP6x*** Drop Resistance: MIL-STD 810H, 180 cm*** Operating Temperature: MIL-STD 810H, –29 to 60 °C***	Water Resistance: IEC529 (JIS C0920) IPx5*** Dust Resistance: IEC529 (JIS C0920) IP6x*** Drop Resistance: MIL-STD 810H, 150 cm*** Operating Temperature: MIL-STD 810H, –29 to 60 °C***	Water Resistance: IEC529 (JIS C0920) IPX6*** Dust Resistance: IEC529 (JIS C0920) IP5X*** Drop Resistance: MIL-STD 810H, 180 cm*** Operating Temperature: MIL-STD 810H, –29 to +60 °C***	Water Resistance: IEC529 (JIS C0920) IPX3 *** Dust Resistance: IEC529 (JIS C0920) IP5X*** Drop Resistance: MIL-STD 810H, 150 cm*** Operating Temperature: MIL-STD 810H, –29 to +60 °C***