



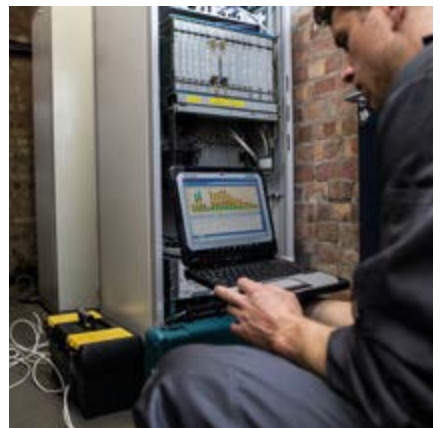
Panasonic

BUSINESS



COMPUTER PRODUCTS BY PANASONIC

TRANSFORMING THE WAY BUSINESSES WORK



TOUGHBOOK

TOUGHPAD

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FULLY RUGGED



FZ-B2

7" fully rugged Android tablet

Mobile Computing Platform / CPU	Intel® Atom™ x5-Z8550 processor (1.44GHz, 2MB Cache)
Operating System	Android™ 6.0
Memory & Storage	2GB RAM 32GB eMMC
Display	7" Active Matrix (TFT) colour LCD 1280 x 800 pixels, WXGA (up to 500cd/m ²) 10 finger capacitive touchscreen
Camera	Front: 2MP Rear: 8MP with LED light
Expansion Slots	MicroSDHC Memory Card: x1 (max. 32GB)
Interfaces	Headset: x1 DC Input: x1 USB 3.0: x1 USB 3.1 type C OTG: x1 Port Replicator: x1 2D Barcode Reader: x1 optional (configuration port) Smartcard Reader: x1 optional (business expansion module) Port Replicator: x1 External Antenna Connector: x1 optional
Connectivity	Bluetooth®: Version 4.2 + EDR Class 1 Wireless LAN: Intel® Dual Band Wireless-AC 8260 Dedicated GPS
Power	AC Adaptor: Input: 100–240V AC, 50Hz/60Hz; Output: 16V DC, 3.75A Battery: Lithium-Ion (7.2V, 3220mAh), user replaceable Battery Life: Approx. 8 hours Hot Swap Battery: Optional via business expansion module
Security Features	Optional Smartcard Reader
Dimensions (W x H x D) & Weight	203mm x 18mm x 132mm (7.98" x 5.20" x 0.71") 540g (1.2lb)
Options for Integration	4G LTE
Ruggedisation	Water resistance test: IEC529 [JIS C0920] IPX5 ⁴ Dust resistance test: IEC529 [JIS C0920] IP6X ⁴ Gravity drop resistance test: 150cm drop ¹

FULLY RUGGED



FZ-M1

7" fully rugged Windows tablet

Mobile Computing Platform / CPU	Intel® Core™ m5-6Y57 vPro™ processor (1.1GHz to 2.8GHz (with Turbo Boost), 4MB Intel® Smart Cache) [Standard Model] or Intel® Atom™ x5-Z8550 processor (1.44GHz, 2MB Cache) [Value Model]
Operating System	Windows 10 Pro
Memory & Storage	4GB RAM (max. 8GB), 128GB SSD [Standard model] or 2GB RAM (max. 4GB), 128GB SSD eMMC [Value model]
Display	7" Active Matrix (TFT) colour LCD 1280 x 800 pixels, WXGA (up to 500cd/m ²) 10 finger capacitive touchscreen
Camera	Front: 2MP Rear: 8MP with LED light
Expansion Slots	MicroSD/SDXC memory card: x1
Interfaces	Headset: x1 DC Input: x1 USB 3.0: x1 Serial: x1 optional (configuration port) LAN: x1 optional (configuration port) 2D Barcode Reader: x1 optional (configuration port) Smartcard Reader: x1 optional (business expansion module) UHF RFID: x1 optional (business expansion module) Port Replicator: x1 External Antenna Connector: x1 optional
Connectivity	Bluetooth®: Version 4.1 + EDR Class 1 Wireless LAN: Intel® Dual Band Wireless-AC 8260 LAN: IEEE 802.3 10BASE-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T optional
Power	AC Adaptor: Input: 100–240V AC, 50Hz/60Hz; Output: 16V DC, 4.06A Battery: Lithium-Ion (7.2V, 3220mAh), user replaceable Battery Life: Approx. 8 hours [Mobile Mark™ 2007, 60cd/m ²) Hot Swap Battery: Optional via business expansion module
Security Features	TPM (Trusted Platform Module, TCG V2.0 Windows 10, V1.2 Windows 7 compliant) [Standard Model] or TPM (Trusted Platform Module, TCG V2.0 Windows 10) [Value Model] Integrated hardware security lock slot
Dimensions (W x H x D) & Weight	203mm x 18mm x 132mm / 7.98" x 5.20" x 0.71" 540g / 1.2lb
Options for Integration	4G LTE, GPS
Ruggedisation	Water resistance test: IEC529 [JIS C0920] IPX5 ⁴ Dust resistance test: IEC529 [JIS C0920] IP6X ⁴ Gravity drop resistance test: 180cm drop ¹



FULLY RUGGED



CF-20

10" fully rugged 2-in-1 detachable notebook

Mobile Computing Platform / CPU	Intel® Core™ m5-6Y57 vPro™ processor (1.1GHz to 2.8GHz [with Turbo Boost], 4MB Intel® Smart Cache)
Operating System	Windows 10 Pro
Memory & Storage	8GB RAM (4GB project based) 256 GB SSD (Optional 128 GB SSD)
Display	10.1 Active Matrix (TFT) IPS colour LCD, 1920 x 1200 pixels, WUXGA (up to 800cd/m ²) Anti Glare, Anti Reflection 10 finger capacitive touchscreen Dual Touch Model with Digitiser optional
Camera	Front: 2MP Rear: 8MP, still picture
Expansion Slots	SD/SDXC Memory Card: x1 SDXC (Keyboard Base), x1 Micro-SDXC (Main Unit)
Interfaces	Serial: x1 (Keyboard Base), x1 optional (Main Unit) HDMI: x1 (Keyboard Base), x1 (Main Unit) Headset: x1 (Main Unit) DC Input: x2 Jack (Keyboard Base & Main Unit) USB 2.0: x1 (Keyboard Base), optional x1 (Main Unit) USB 3.0: x2 (Keyboard Base), x1 (Main Unit) LAN: x1 (Keyboard Base), x1 (Main Unit) 2D Barcode Reader: optional x1 (Main Unit) Smartcard Reader: optional x1 (Main Unit) HF RFID: optional x1 (Main Unit) Fingerprint Reader: x1 optional (Main Unit) Port Replicator: x1 External Antenna Connector: x1
Connectivity	Bluetooth® Version v4.1 Class 1 Wireless LAN Intel® Dual Band Wireless-AC 8260 LAN IEEE 802.3 10BASE-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T
Power	AC Adaptor: Input: 100V-240V AC, 50 Hz/ 60 Hz, Output: 16 V DC, 4.06A Battery: Lithium-Ion (11.4V, 2600mAh), user replaceable Battery Life: Approx. 10 hours (Mobile Mark™ 2007, 60cd/m ²); Approx. 20 hours with 2nd battery in Keyboard Base (Mobile Mark™ 2007, 60cd/m ²) Hot Swap Battery: Standard
Security Features	TPM (Trusted Platform Module, TCG V1.2 compliant), Integrated hardware security lock slot, Password security (supervisor password, user password, Storage lock)
Dimensions (W x H x D) & Weight	272mm x 233mm x 33.5mm (10.7" x 9.17" x 1.32") (Main Unit + Keyboard Base) 272mm x 196mm x 16.4mm (10.7" x 7.7" x 0.65") (Main Unit) 1.76kg (3.9lb) (Main Unit + Keyboard Base) 950g (2.1lb) (Main Unit)
Options for Integration	4G LTE, dedicated GPS (U-Blox NEO-M8N)
Ruggedisation	Water resistance test: IEC529 (JIS C0920) IPX5 ⁴ , MIL-STD 810G 506.5, I & III ⁴ Dust resistance test: IEC529 (JIS C0920) IP6X ⁴ , MIL-STD 810G 510.5, I & II ⁴ Gravity drop resistance test: MIL-STD 810G 516.6, (120cm drop) ⁴ Vibration resistance test: MIL-STD 810G 514.6, category 4, 5 & 20 ⁴

FULLY RUGGED



CF-33

12" fully rugged 2-in-1 detachable PC, available as '2-in-1 Detachable' and 'Tablet only' versions

Mobile Computing Platform / CPU	Intel® Core™ i5-7300U vPro™ processor (2.6 GHz up to 3.5 GHz [with Turbo Boost], 3 MB Intel® Smart Cache)
Operating System	Windows 10 Pro
Memory & Storage	8GB RAM (16GB project based) 256GB SSD (Optional 512GB SSD)
Display	12.0" Active Matrix (TFT) colour LCD, QHD (2160 x 1440 pixels), up to 1200cd/m ² brightness, Aspect ratio 3:2, Anti Reflection with glove and rain modes Dual touch as standard (10 finger capacitive touchscreen and digitiser)
Camera	Front: 2MP with IR for Windows Hello Rear: 8MP
Expansion Slots	SD/SDXC Memory Card: x1 SDXC (Keyboard Base), x1 Micro-SDXC (Main Unit)
Interfaces	Serial: x1 (Keyboard Base), x1 optional (Main Unit) HDMI: x1 (Keyboard Base), x1 (Main Unit) VGA: x1 (Keyboard Base) USB 3.0: x2 (Keyboard Base), x1 (Main Unit) USB 2.0: x1 (Keyboard Base), x1 optional (Main Unit) Rugged USB: x1 optional (Main Unit) LAN: x1 (Keyboard Base), x1 (Main Unit) 2D Barcode Reader: x1 optional (Main Unit) Smartcard Reader: x1 optional (Main Unit) HF RFID: x1 optional (Main Unit) Fingerprint Reader: x1 optional (Main Unit) Port Replicator: x1 External Antenna Connector: x1 Headset: x1 (Main Unit) DC Input: x2 (Keyboard Base & Main Unit)
Connectivity	Bluetooth® Version v4.1 Class 1 WLAN: Intel® Dual Band Wireless-AC 8265 LAN (Tablet and Keyboard): IEEE 802.3 10BASE-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T
Power	AC Adaptor: Input: 100V-240V AC, 50 Hz/ 60 Hz, Output: 15.6 V DC, 7.05 A Standard Battery: Li-ion 11.1 V, 1,990 mAh x 2, user replaceable, hot swappable Extended Battery (Factory option): Li-ion 10.8 V, 4120 mAh x 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)
Security Features	TPM (Trusted Platform Module, TCG V2.0 compliant), Integrated hardware security lock slot, Password security (supervisor password, user password, Storage lock)
Dimensions (W x H x D) & Weight	2-in-1 Detachable: 313.0 x 288.4 x 46.1mm (12.3" x 11.4" x 1.8"), 2.761 kg (6.1 lb.) Tablet only version: 308.0 x 243.6 x 21.6mm (12.1" x 9.6" x 0.9"), 1.527 kg (3.4 lb.)
Options for Integration	4G LTE, dedicated GPS (U-Blox NEO-M8N)
Ruggedisation	Water resistance test: IEC529 (JIS C0920) IPX5 ⁴ , MIL-STD 810G 506.5, I & III ⁴ Dust resistance test: IEC529 (JIS C0920) IP6X ⁴ , MIL-STD 810G 510.5, I & II ⁴ Gravity drop resistance test: MIL-STD 810G 516.6, (150cm drop) ⁴ Vibration resistance test: MIL-STD 810G 514.6, category 4, 5 & 20 ⁴



FULLY RUGGED



CF-31

13.1" fully rugged clamshell notebook

Mobile Computing Platform / CPU	Intel® Core™ i5-5300U vPro™ processor (2.3GHz, 3MB Intel® Smart Cache)
Operating System	Windows 10 Pro
Memory & Storage	4GB RAM (max. 16GB) 500GB HDD (SATA)
Display	13.1" LCD sunlight-viewable XGA Active Matrix (TFT) colour LCD (up to 1,200cd/m ²) with circular polariser; concealed mode
Camera	
Expansion Slots	SD/SDXC memory card: x1 RAM module: x1 DDR3L 200-pin SO-DIMM
Optical Drive	Multimedia pocket: will accept optional multidrive
Interfaces	Serial (16550A compatible): D-sub, 9-pin External display (VGA port): mini D-sub, 15-pin HDMI: x1 Headphone: mini-jack, 3.5 DIA Microphone: mini-jack, 3.5 DIA, stereo DC input: jack USB 2.0: x3 USB 3.0: x1 LAN: RJ-45 (2nd LAN optional, project based) Firewire (IEEE1394a): x1 (optional, project based) Port replicator: x1 External antenna: x1
Connectivity	Bluetooth®: Version 4.0 + EDR Class 1 Wireless LAN: Intel® Dual Band Wireless-AC 7265 LAN: IEEE 802.3 10BASE-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T (2nd gigabit LAN project based)
Power	AC adapter: input: 100–240V AC, 50Hz/60Hz; output: 15.6V DC, 7.05A Battery: Lithium-Ion (10.65V, typical 8550mAh / minimum 8100mAh) Battery life: approx. 18 hours (Mobile Mark™ 2007, LCD brightness: 60cd/m ²)
Security Features	TPM (TCG V1.2 compliant), integrated hardware security lock slot, password security (supervisor password, user password, Storage lock)
Dimensions (W x H x D) & Weight	302mm x 73.5mm x 292mm / 11.9" x 2.9" x 11.5" (excluding protrusions) 3.72kg / 8.2lb
Options for Integration	4G LTE, dedicated GPS, fingerprint reader, smart card reader
Ruggedisation	Water resistance test: IEC529 (JIS C0920) IP-X5 ⁴ , MIL-STD 810G 506.5, III ⁴ Dust resistance test: IEC529 (JIS C0920) IP-6X ⁴ , MIL-STD 810G 510.5, Level ⁴ Gravity drop resistance test: MIL-STD 810G 516.6, (180cm drop) ⁴ Vibration resistance test: MIL-STD 810G 514.6, category 20 & 24 ⁴

FULLY RUGGED



FZ-G1

10" fully rugged Windows tablet

Mobile Computing Platform / CPU	Intel® Core™ i5-6300U vPro™ processor (2.4 GHz up to 3.0 GHz (with Turbo Boost), 3 MB Intel® Smart Cache)
Operating System	Windows 10 Pro
Memory & Storage	4GB RAM (max. 8GB) 128GB SSD
Display	10.1" Active Matrix (TFT) IPS pro next colour LCD, 1920 x 1200 pixels, WUXGA (up to 800cd/m ²) with circular polariser 10 finger capacitive touchscreen and digitiser Intel® HD Graphics 520
Camera	Front: 720p Rear: 8MP
Expansion Slots	MicroSD/SDXC memory card: x1 optional (configuration port)
Optical Drive	
Interfaces	Headset: x1 HDMI: x1 DC Input: x1 USB 3.0: x1 LAN: x1 standard (configuration port) USB 2.0: x1 optional (configuration port) Serial: x1 optional (configuration port) Port Replicator: x1 External Antenna Connector: x1
Connectivity	Bluetooth®: Version 4.1 + EDR Class 1 Wireless LAN: Intel® Dual Band Wireless-AC 8260 LAN: IEEE 802.3 10BASE-T / IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T
Power	AC Adaptor: Input: 100–240V AC, 50Hz/60Hz; Output: 16V DC, 4.06A Battery: Lithium-Ion (11.1V, 4200mAh), user replaceable Battery Life: Approx. 14 hours (Mobile Mark™ 2007, 60cd/m ²) Hot Swap Battery: Optional
Security Features	TPM (TCG V1.2 compliant), integrated hardware security lock slot, password security (supervisor password, user password, Storage lock)
Dimensions (W x H x D) & Weight	270mm x 19mm x 188mm (10.6" x 0.75" x 7.4") 1.1kg (2.43lb)
Options for Integration	4G LTE, GPS, Smart Card Reader
Ruggedisation	Water resistance test: IEC529 (JIS C0920) IPX5 ⁴ , MIL-STD 810G 506.5, III ⁴ Dust resistance test: IEC529 (JIS C0920) IP6X ⁴ , MIL-STD 810G 510.5, Level ⁴ Gravity drop resistance test: MIL-STD 810G 516.6, (180cm drop) ⁴ Vibration resistance test: MIL-STD 810G 514.6, category 20 & 24 ⁴



FULLY RUGGED



CF-D1

13.3" fully rugged Windows tablet PC

Mobile Computing Platform / CPU	Intel® Core™ i5-6300U vPro™ processor (2.4 GHz up to 3.0 GHz (with Turbo Boost), 3 MB Intel® Smart Cache)
Operating System	Windows 10 Pro
Memory & Storage	4GB RAM (max. 8GB) 500GB HDD (SATA)
Display	13.3" Active Matrix (TFT) colour LCD 1366 x 768 pixels (HD) with resistive touchscreen (up to 400cd/m ²)
Camera	Rear: 5MP optional
Expansion Slots	PC Card: x1, Type I or II, Allowable current 3.3V: 400 mA, 5V: 400 mA ExpressCard: x1, ExpressCard /34 or /54 SD/SDXC Memory Card: x1 RAM Module: x1 DDR3 200-pin SO-DIMM
Interfaces	Serial: x1 VGA: x1 optional ⁵ (eliminates serial) Headphone: x1 Microphone: x1 DC Input: x1 USB 2.0: x2 USB 3.0: x1 4th USB: x1 optional ⁵ (Modular Bay Port) Rugged USB: 2.0 x1 or x2 optional ⁵ (Modular Bay Port) LAN: x1, 2nd LAN optional ⁵ (Modular Bay Port) Industry Cradle: x1
Connectivity	Bluetooth®: Version 4.1 + EDR Class 1 Wireless LAN Intel® Dual Band Wireless-AC 8260 LAN: IEEE 802.3 10BASE-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T (2nd LAN 100MBit optional ³)
Power	AC Adaptor: Input: 100-240V AC, 50Hz/60Hz; Output: 15.6V DC, 7.05A Battery: Lithium-Ion (10.8V, 6.2Ah) Battery Life: Approx. 9 hours (Mobile Mark™ 2007, 60cd/m ²)
Security Features	Password security (supervisor password, user password, Storage lock), Kensington Lock, Smartcard Reader (optional)
Dimensions (W x H x D) & Weight	349mm x 46mm x 244mm (13.7" x 1.8" x 9.6") 2.25kg (4.96lb)
Options for Integration	4G LTE, GPS
Ruggedisation	Water resistance test: IPX5 ¹ Dust resistance test: IP6X ¹ Gravity drop resistance test: 90cm drop ⁵

FULLY RUGGED



FZ-A2

10" fully rugged Android tablet

	Intel® Atom™ x5-Z8550 processor (1.44GHz, 2MB Cache)
	Android™ 6.0
	4GB RAM 32GB eMMC
	10.1" Active Matrix (TFT) IPS colour LCD, 1920 x 1200 pixels, WUXGA (up to 800cd/m ²) Anti Glare, Anti Reflection 10 finger capacitive touchscreen
	Front: 2MP Rear: 8MP with LED light
	MicroSDHC memory card: x1 (max. 32GB)
	Headset: x1 DC Input: x1 USB 3.0: x1 USB 3.1 type C OTG: x1 HDMI: x1 USB 2.0: x1 optional (configuration port) 2D Barcode Reader: x1 optional (configuration port) Smartcard Reader: x1 optional (business expansion module) Port Replicator: x1 External Antenna Connector: x1 optional
	Bluetooth®: Version 4.1 + EDR Class 1 Wireless LAN: Intel® Dual Band Wireless-AC 8260
	AC Adaptor: Input: 100V-240V AC, 50 Hz/ 60 Hz, Output: 16 V DC, 4.06A Battery Lithium-Ion (11.4V, 2600mAh), user replaceable Battery Life: Approx. 9 hours Hot Swap Battery: Optional
	Optional Smartcard Reader
	272mm x 16.4mm x 196mm (10.71" x 0.65" x 7.72") 880g (1.94lb)
	4G LTE
	Water resistance test: IEC529 (JIS C0920) IPX5 ⁴ Dust resistance test: IEC529 (JIS C0920) IP6X ⁴ Gravity drop resistance test: 150cm drop ¹



SEMI RUGGED



CF-54

14" semi rugged clamshell notebook, available as 'Entry', 'Mid' and 'Premium' versions

Mobile Computing Platform / CPU	Intel® Core™ i5-7300U vPro™ processor (2.6 GHz up to 3.5 GHz (with Turbo Boost), 3 MB Intel® Smart Cache)
Operating System	Windows 10 Pro
Memory & Storage	Entry model: 4GB RAM (max. 16GB), 500GB HDD (Optional 256/512/1024GB SSD) Mid model: 4GB RAM (max. 16GB), 256GB SSD (Optional 512/1024GB SSD) Premium model: 8GB RAM (max. 16GB), 256GB SSD (Optional 512/1024GB SSD)
Display	14" Active Matrix (TFT) display. Entry model: HD (1366 x768) without Touchscreen, Mid model: FullHD IPS (1920 x1080) without Touch screen. Premium model: FullHD IPS (1920 x1080) with 10 finger capacitive touchscreen (up to 1,000cd/m²)
Camera	Front: 2MP optional
Expansion Slots	SD/SDXC Memory Card: x1 RAM Module: x2, DDR3L 200-pin SO-DIMM, one slot occupied Config Area: DVD Multi Drive (as standard) or PC Card (Type I or Type II) or 2nd battery (6 cell) or Smart card reader
Optical Drive	DVD Multi Drive (as standard, in the Config area)
Interfaces	USB 3.0: x3 HDMI: x1 True Serial: x1 VGA port: x1 LAN port: x1 standard, x1 optional (exclusive option at configuration port) Headset: x1 DC Input: Jack Port Replicator: x1 USB 2.0: x1 (exclusive option at configuration port) Dedicated GPS: x1 (exclusive option at configuration port) Rugged USB 2.0: x1 (exclusive option at configuration port) External Antenna Connector: x1 optional
Connectivity	Bluetooth®: 4.1 + EDR Class 1 Wireless LAN: Intel® Dual Band Wireless-AC 8265 LAN: IEEE 802.3 10BASE-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T
Power	AC Adaptor: Input: 100V-240V AC, 50 Hz/60 Hz, Output: 15.6 V DC, 7.05 A Battery: Lithium-Ion 6 cell Battery Life: Approx. 10 hours (Mobile Mark™ 2014) Approx. 17 hours (with optional 2nd battery) Hot swap Battery: optional
Security Features	TPM (TCG V2.0 compliant), Password security (supervisor password, user password, Storage lock), Integrated hardware security lock slot
Dimensions (W x H x D) & Weight	345mm x 272mm x 39.0mm (13.6" x 10.7" x 1.54"), with extended cover HD model: 1.99kg (4.39lb) FullHD model w/o touchscreen: 1.9kg (4.19lb) FullHD model with touchscreen: 2.1kg (4.63lb)
Options for Integration	4G LTE, dedicated GPS (U-Blox NEO-M8N), HF RFID or Fingerprint Reader, Smart Card Reader, Bridge Battery, Dual Pass Through Antenna, 2MP webcam
Ruggedisation	Withstands drops from a height of 90cm⁴ Dust & Water resistance: IP51⁴ Complete inner surface (Keyboard, Touch pad, hinges and Display) is spill-proof ¹ MIL-STD 810G (Vibration, altitude, drop, shock, temperature & humidity)⁴ Operating temperature: -20 °C to +60 °C⁴

SEMI RUGGED



FZ-Q2

12.5" semi rugged 2-in-1 detachable notebook

Mobile Computing Platform / CPU	Intel® Core™ m5-6Y57 vPro™ processor (1.1GHz to 2.8GHz (with Turbo Boost), 4MB Intel® Smart Cache)
Operating System	Windows 10 Pro
Memory & Storage	4GB RAM (max. 8GB project based) 128 GB SSD (256GB project based)
Display	12.5" Active Matrix (TFT) IPS colour LCD, 1920 x 1080 pixels, FHD, Anti Glare, Anti Reflection 10 finger capacitive touchscreen
Camera	Front: 1080p Rear: 8MP
Expansion Slots	SD/SDXC Memory Card: x1 Micro-SDXC (Main Unit)
Optical Drive	
Interfaces	Headset: x1 USB 3.0: x1 Serial: x1 HDMI: x1 LAN: x1 DC Input: x1
Connectivity	Bluetooth® Version v4.1 Class 1 Wireless LAN Intel® Dual Band Wireless-AC 8260 LAN IEEE 802.3 10BASE-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T
Power	AC Adaptor: Input: 100V-240V AC, 50 Hz / 60 Hz, Output: 16 V DC, 3.75A Battery: Lithium-Ion (7.6V, 4860mAh) Battery Life: Approx. 9 hours (Mobile Mark™ 2014)
Security Features	TPM (Trusted Platform Module, TCG V2.0 compliant), Integrated hardware security lock slot, Password security (supervisor password, user password, Storage lock)
Dimensions (W x H x D) & Weight	340mm x 220mm x 43mm (13.4" x 8.66" x 1.69") (Main Unit + Keyboard Base) 340mm x 220mm x 22mm (13.4" x 8.66" x 0.87") (Main Unit) 1.93kg (4.25lb) (Main Unit + Keyboard Base) 1.09kg (2.40lb) (Main Unit)
Options for Integration	4G LTE, -10°C SSD heater (project based)
Ruggedisation	Passed a 76cm free-fall test⁴ and 100-kgf pressurized vibration test⁴



BUSINESS RUGGED



CF-XZ6

12" business rugged 2-in-1 detachable notebook

Mobile Computing Platform / CPU	Intel® Core™ i5-7300U vPro™ processor (2.6 GHz up to 3.5 GHz (with Turbo Boost), 3 MB Intel® Smart Cache)
Operating System	Windows 10 Pro
Memory & Storage	8GB RAM (4GB or 16GB project based) 256GB SSD (Optional 512GB SSD)
Display	12.0" QHD (2160 x 1440 pixels), Aspect ratio 3:2 and Anti-Reflection screen 10 finger capacitive multi-touch with optional Active pen
Camera	Front: 2MP with IR for Windows Hello Rear: 8MP with LED light
Expansion Slots	SDXC card (UHS-I / UHS-II): x 1 (Keyboard base)
Interfaces	USB 3.0: x3 (Keyboard base) LAN: x1 (Keyboard base) VGA: x1 (Keyboard base) HDMI: x1 (Keyboard base) Headphone: x1 (Main unit) USB 3.1 (Gen1) Type-CTM: x1 (Main unit)
Connectivity	Bluetooth® Version v4.1 Class 1 Wireless LAN: Intel® Dual Band Wireless-AC 8265 LAN (Keyboard base): 1000BASE-T/100BASE-TX/10BASE-T
Power	AC Adaptor: Input:100V-240V AC, 50Hz/60Hz, Output:16V DC, 4.06A Main unit battery (Built-in): 4-cell battery, Li-ion 7.6 V, 3,540 mAh Keyboard base battery (End-user removable, Hot swap): 4-cell battery, Li-ion 7.6 V, 5,200 mAh 2-in-1 Detachable battery Life: Approx. 14 hours (Mobile Mark™ 2014) Tablet only battery Life: Approx. 6.5 hours (Mobile Mark™ 2014)
Security Features	TPM (Trusted Platform Module, TCG V2.0 compliant), Integrated hardware security lock slot, Password security (supervisor password, user password, Storage lock)
Dimensions (W x H x D) & Weight	2-in-1 Detachable: 288.5mm x 223.7mm x 22mm (11.36" x 8.80" x 0.87"), Approx. 1.18kg (2.60lb), Tablet only: 286.5mm x 206.2mm x 9.5mm (11.28" x 8.12" x 0.37"), Approx. 640g (1.41lb)
Options for Integration	4G LTE (Nano SIM at Main unit)
Ruggedisation	Passes a 76cm free-fall test ^{1,3} 100kgf pressurised vibration test ^{1,3}

KEY TECHNOLOGIES

Toughbook and Toughpad notebook PCs and tablets are no ordinary devices. Our specialist engineers and production professionals design and build every part of every model. So each form, feature and function is created specifically for purpose.



RUGGED TECHNOLOGY



WIRELESS TECHNOLOGY



DYNAMIC PERFORMANCE TECHNOLOGY



BUSINESS INTERFACE TECHNOLOGY



PAYMENT TECHNOLOGY



SCREEN TECHNOLOGY



WEIGHT TECHNOLOGY



BATTERY TECHNOLOGY



As an ENERGY STAR® Partner, Panasonic Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency. 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: 1MB = 1,048,576 bytes. HDD capacity calculated as follows: 1GB = 1,000,000,000 bytes. Toughbook and Toughpad are brand names and registered trademarks of Panasonic Corporation. Google, the Google logo, YouTube and Android are trademarks of Google Inc. Intel, the Intel logo, Intel Core, Intel vPro, Core Inside and vPro Inside are trademarks of Intel Corporation in the U.S. and other countries. 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.

¹Tested in Panasonic Factory. ²Config. A: 1x PC Card Type I or II + 1x ExpressCard; Config. B: 2x PC Card Type I or II, no ExpressCard. ³The shock resistance, pressure resistance, and splashproof functions are not a guarantee against damage or malfunction. ⁴Tested by an independent third party lab following MIL-STD-810G and IEC 60529. ⁵Project based. Only one interface can be selected. ⁶Safety Certifications list available at www.toughbook.eu.

Computer Product Solutions (CPS) BU, Panasonic System Communications Company Europe (PSCEU), Panasonic Marketing Europe GmbH, Hagenauer Straße 43, 65203 Wiesbaden (Germany).

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FULLY RUGGED



FZ-F1/FZ-N1

4.7" fully rugged Windows/Android handheld

Mobile Computing Platform / CPU	FZ-F1 & FZ-N1: Qualcomm® MSM8974AB 2.3 GHz Quad-core processor
Operating System	FZ-F1: Windows 10 IoT Mobile Enterprise FZ-N1: Android™ 5.1.1
Memory & Storage	2GB RAM 16GB eMMC storage
Display	4.7" HD (1280 x 720 pixels) sunlight-readable display with Glove & Rain mode (up to 500cd/m²) 10 finger capacitive touchscreen As default supports optional Passive and optional Active pen (For Bio-metric signatures)
Camera	Front: 5MP Rear: 8MP with LED Flash
Expansion Slots	MicroSDXC Memory Card: x1 (max. 64GB)
Interfaces	Headset: x1 Micro USB 2.0: x1 Docking connector: x1
Connectivity	Bluetooth®: 4.1 Class 1 Wireless LAN: IEEE 802.11a/b/g/n/ac Voice & Data: 4G LTE, HSPA+, UMTS, EDGE, GPRS, GSM Dual micro SIM (Single standby) GPS: 2 m CEP50 (±2 to 4 m), GLONASS NFC: Built-in (Type A, B, Felica)
Power	AC Adapter: Input: 100V-240V AC, 50Hz/60Hz; Output: 16V DC, 3.75A Standard battery: Li-Ion 3.8V, 3200 mAh (Warm swappable) Optional extended battery: Li-Ion 3.8V, 6400 mAh (Warm swappable) Battery Life (Standard/Extended battery): – up to 8 hours / 16 hours of continuous data access – up to 24 hours / 48 hours talk time – up to 700 hours / 1400 hours standby time Battery Charging Time: Full charge in approx. 2 hours with Standard battery / approx. 4 hours with optional extended battery
Security Features	FIPS140-2 level-1 compliant & Built-in ARM® TrustZone®
Dimensions (W x H x D) & Weight	74mm x 156mm x 16.3mm/31mm (barcode reader section) (2.9" x 6.1" x 0.6"/1.2") (barcode reader section) Approx. 277g (0.61lb)
Options for Integration	
Ruggedisation	MIL-STD 810G certified (vibration, altitude, drop, shock, temperature and humidity) ⁴ 180cm drop resistant ⁴ IP67 (submersible in water up to 1 metre for 30 minutes) ⁴ -10°C to +50°C operating temperature ⁴ 2,000 drops (1,000 tumbles), 1.0 m (3.2 ft.) ⁴ Raised bezel for display protection

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