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BUSINESS



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## FULLY RUGGED



### CF-33

12" 2-in-1 fully rugged detachable notebook

<b>Mobile Computing Platform / CPU</b>	Intel® Core™ i5-7300U vPro™ Processor (2.6 GHz up to 3.5 GHz with Intel® Turbo Boost Technology, 3MB Intel® Smart Cache)
<b>Operating System</b>	Windows 10 Pro 64-bit
<b>Memory &amp; Storage</b>	8GB on board max 16GB 256GB SSD, max 512GB
<b>Display</b>	12" QHD (2160 x 1440 dots), Aspect ratio 3:2 Anti-Reflection (up to 1200cd/m <sup>2</sup> brightness) Touchscreen 10 finger capacitive multi-touchscreen Touchscreen mode: Touch/Pen/Pen and Touch/Touch(Water)/Touch(Glove) Graphic Chip: Intel® HD Graphics 620 (Built-in CPU)
<b>Camera</b>	Tablet:- Front: 2MP, 1920 x 1080 dots, 30fps(video)/1920 x 1080 dots(Still), Dual Microphone, with IR for Windows Hello Rear: 8MP, 2048 x 1536 dots, 15fps(video)/3264 x 2488 dots(Still), with LED flash, autofocus
<b>Expansion Slots</b>	Tablet: microSDXC card x1 Keyboard Base: micro SDXC card x1
<b>Interfaces</b>	USB 3.0 x3 (x1 Tablet, x2 Keyboard Base) HDMI x2 (x1 Tablet, x1 Keyboard Base) Dual Pass Through Antenna x2 (x1 Tablet, x1 Keyboard Base) LAN: IEEE 802.3 10Base-T / IEEE 802.3u 100Base-TX / IEEE 802.3ab 1000Base-T x2 (x1 Tablet, x1 Keyboard Base) Headset x1 (Tablet) nano SIM x1 (Tablet) USB 2.0 x1 (Keyboard base) Serial x1 (keyboard base) VGA port x1 (Keyboard base)
<b>Connectivity</b>	Bluetooth®: Version 4.1 + Classic mode/low energy mode, Class 1 Intel® Dual band Wireless-AC 8265 (a/b/g/n/ac) 4G Mobile Broadband: Option (Wireless modem EM7305 with GPS) LAN: IEEE 802.3 10 Base-T/IEEE 802.3u 100 Base-TX/IEEE 802.3ab 1000 Base-TX
<b>Power</b>	AC Adapter: Input: 100V ~ 240V, 50Hz/60Hz; Output: 15.6V, 4.06A Battery pack: Li-ion 11.1V, 1990 mAh x 2 Operating Time:- Tablet only: Approx. 11hrs Tablet + Keyboard Base: Approx. 10hrs
<b>Security Features</b>	Trusted platform module (TPM) [TCG V2.0 compliant], Integrated hardware security lock slot, Password security (supervisor password, user password, HDD lock)
<b>Dimensions (W x H x D)</b>	Tablet only: 308.0 x 243.6 x 21.6mm (12.1" x 9.6" x 0.9") Tablet + Keyboard Base: 313.0 x 288.4 x 46.1mm (12.3" x 11.4" x 1.8")
<b>Weight</b>	Tablet only: Approx. 1.527kg (3.4lbs) Tablet + Keyboard Base: Approx. 2.761kg (6.1lbs)
<b>Options for Integration</b>	Selectable one from True serial or BCR or 2nd USB 2.0 Selectable one from Fingerprint reader (200 x 400 pixels, 508 DPI) or Smartcard Reader or Contactless Smart Card reader *2 Selectable one from dedicated GPS(u blox NEO-M8N) or WWAN
<b>Ruggedisation</b>	Dust & Water resistance test: IP-65 Gravity drop resistance test: MIL STD 810G, 120cm(4 feet) drop for Laptop and Tablet on Plywood. 26 sided/drop on plywood. Test conducted in non operating condition *1 Operating temperature: -20°C to +50°C (14°F to 122°F) Storage temperature: -20°C to +60°C (-4°F to 140°F) Vibration resistance test: MIL STD 810G



## FULLY RUGGED



### CF-20

10.1" 2-in-1 fully rugged detachable notebook

<b>Mobile Computing Platform / CPU</b>	Intel® Core™ m5-6Y57 vPro™ processor (1.1 GHz up to 2.8 GHz with Intel® Turbo Boost Technology, 4MB Intel® Smart Cache)
<b>Operating System</b>	Windows 10 Pro 64-bit
<b>Memory &amp; Storage</b>	8GB on board 256GB SSD, (option: 128GB/512GB)
<b>Display</b>	10.1" sunlight-viewable WUXGA Active Matrix (TFT), 1920 x 1200 dots, Anti reflection, anti-glare (up to 800cd/m <sup>2</sup> brightness) Touchscreen 10 finger capacitive multi-touchscreen Touchscreen mode: Touch/Pen/Pen and Touch/Touch(Water)/Touch(Glove) Graphic Chip: Intel® HD Graphics 515 (Built-in CPU)
<b>Camera</b>	Tablet:- Front: 2MP, 1280 x 720 dots, 30fps(video)/1280 x 720 dots(still) Rear: 8MP with autofocus and LED light, 2048 x 1536 dots, 15fps(video)/3264 x 2488 dots(still)
<b>Expansion Slots</b>	Tablet: Micro SDXC card x1 Keyboard Base: micro SDXC card x1
<b>Interfaces</b>	USB 3.0 x3 (x1 Tablet, x2 Keyboard Base) LAN port (RJ-45) x2 (x1 Tablet, x1 Keyboard Base) HDMI x2 (x1 Tablet, x1 Keyboard Base) Serial x1 (Keyboard Base), x1 optional (Tablet Configuration Port) Headset x1 (Tablet) USB 2.0 x1 (Keyboard Base) VGA port x1 (Keyboard Base) Dual External Antenna Connector x1 (Keyboard Base) Port Replicator Connector x1
<b>Connectivity</b>	Bluetooth®: Version 4.1 + Classic mode/Low Energy mode, Class 1 WLAN: Intel® Dual Band Wireless-AC 8260 4G Mobile Broadband: Option (Wireless modem EM7305 with GPS) LAN: IEEE 802.3 10 Base-T/IEEE 802.3u 100 Base-TX/IEEE 802.3ab 1000 Base-TX
<b>Power</b>	AC Adapter: Input: 100V - 240V AC, 50Hz/60Hz, Output: 16 VDC, 4.06A Battery: Li-ion 11.4V, 2600mAh Operating Time: 8hrs (MobileMark™ 2014) *3 16 hours utilising 2 batteries in Tablet and Keyboard Base (MobileMark™ 2014)
<b>Security Features</b>	Trusted Platform Module (TPM) [TCG V1.2 compliant], Integrated hardware security lock slot, Password security (supervisor password, user password, HDD lock)
<b>Dimensions (W x H x D)</b>	Tablet only: 272mm x 196mm x 16.4mm (10.7" x 7.7" x 0.64") Tablet + Keyboard Base: 272 mm x 233 mm x 33.5 mm (10.7" x 9.17" x 1.31")
<b>Weight</b>	Tablet: Approx. 950g (2.09lbs) Tablet + Keyboard Base: Approx. 1.76kg (3.88lbs)
<b>Options for Integration</b>	Selectable one from Smartcard, Contactless Smart Card, Magnetic Stripe Reader and Fingerprint Reader Selectable one from True Serial, Barcode Reader and 2nd USB 2.0 Selectable one from Wireless WAN(with GPS) and GPS
<b>Ruggedisation</b>	Dust & Water resistance test: IP-65 Gravity drop resistance test: MIL STD 810G, 120cm on Plywood. Test conducted in non-operating condition *1 Operating temperature: -10°C to +50°C (14°F to 122°F) Storage temperature: -20°C to +60°C (-4°F to 140°F) Vibration resistance test: MIL STD 810G

\*1 This performance test does not guarantee against damage or malfunction \*2 Contactless smartcard reader: Compatible with ISO/IEC 14443 Type A, Type B and Felica Reader/Writer Mode \*3 Measured at LCD brightness: 60 cd/m<sup>2</sup>. Varies depending on the usage conditions or when an optional device is attached.



## FULLY RUGGED



### FZ-M1

7" Pocket size, Fanless Win 10 Tablet

<b>Mobile Computing Platform / CPU</b>	Intel® Core™ m5-6Y57 vPro™ processor (1.1 GHz up to 2.8 GHz with Intel® Turbo Boost Technology, 4MB Intel® Smart Cache)
<b>Operating System</b>	Windows 10 Pro 64-bit
<b>Memory &amp; Storage</b>	4GB on board(max. 8GB option) 128GB SSD, 256GB(option)
<b>Display</b>	7" sunlight-viewable WXGA (1280x800) Active Matrix (TFT) IPS LCD with circular polarizer(up to 500cd/m2 brightness) 10 finger capacitive multi-touchscreen Touchscreen mode: Pen only, Pen and Touch, Touch Only, Touch Only(Glove), Touch Only(Water)
<b>Camera</b>	Front: HD, 1920 x 1080 pixels, 30fps Rear: 8MP 3264 x 2448 pixels, 30 fps with LED Flash
<b>Expansion Slots</b>	Micro SDXC Memory Card: x1
<b>Interfaces</b>	USB 3.0 x1 Headset x1 Port Replicator Connector x1 Dual Antenna Connector (optional) x1
<b>Connectivity</b>	Bluetooth®: Version 4.1 + Classic mode/Low Energy mode, Class 1 WLAN: Intel® Dual Band Wireless-AC 8260 4G Mobile Broadband: Option (Wireless modem EM7305 with GPS)
<b>Power</b>	AC Adapter: Input 100V - 240V AC, 50Hz/60Hz, Output 16V DC, 3.75A Battery: Lithium-Ion (7.2V, 3320mAh) Operating Time: Up to 9hrs, MobileMark™ 2007, 60cd/m2 *2 Hot Swap Battery: Option
<b>Security Features</b>	Trusted platform module (TPM) [TCG V2.0 Windows 10, V1.2 Windows 7 compliant], Integrated hardware security lock slot. Password security (supervisor password, user password, HDD lock)
<b>Dimensions (W x H x D)</b>	203mm x 18mm x 132mm (7.98" x 5.20" x 0.71")
<b>Weight</b>	Approx. 540g (1.21lbs)
<b>Options for Integration</b>	Selectable one from Serial Port or LAN Port or Barcode Reader or USB 2.0 Port Selectable one from Smartcard Reader, Magstripe Reader, Contactless Smartcard Reader, UHF RFID, SD Card Gadget, Utility Gadget (When UHF RFID is used, other option, Barcode reader, LAN port, Serial port, USB2.0 port, Bridge Battery cannot be chosen) SD card gadget (SDXC card slot x1 and LAN port x1), Utility Gadget (serial port x1 and LAN port x1)
<b>Ruggedisation</b>	Dust & Water resistance test: IP-65 Gravity drop resistance test: MIL STD 810G, 150cm on Plywood. Test conducted in non operating condition. *1 Operating temperature: -10°C to +50°C (14°F to 122°F) Storage temperature: -20°C to +60°C (-4°F to 140°F) Vibration resistance test: MIL STD 810G



## FULLY RUGGED



### FZ-G1

10.1" Lightweight, Full HD Win 10 Tablet

<b>Mobile Computing Platform / CPU</b>	Intel® Core™ i5-6300U vPro™ Processor (2.4 GHz up to 3.0 GHz with Intel® Turbo Boost Technology, 3MB Intel® Smart cache)
<b>Operating System</b>	Windows 10 pro 64-bit
<b>Memory &amp; Storage</b>	4GB on board, 8GB option SSD: 128GB, (option: 256GB/512GB)
<b>Display</b>	10.1" sunlight-viewable WUXGA Active Matrix (TFT) IPS colour LCD (up to 800cd/m2 brightness), Intel® HD Graphics 520(built in CPU) 10 finger capacitive multi-touchscreen and Digitizer. Touchscreen mode: Pen only, Pen and Touch, Touch Only, Touch Only(Glove), Touch Only(Water)
<b>Camera</b>	Front: HD 720p video (still picture: 1.3mpixel) Rear: 8MP with autofocus and LED flash (option)
<b>Expansion Slots</b>	Micro SDXC card x1 (option)
<b>Interfaces</b>	USB 3.0 x1 HDMI x1 Headset x1 Port Replicator Connector (24 pin) x1 Optional:- USB: 2.0 x1 LAN port (RJ-45) x1 Dual External Antenna Connector x1 Serial x1
<b>Connectivity</b>	Bluetooth®: Version 4.1 + Classic mode/Low Energy mode, Class 1 WLAN: Intel® Dual Band Wireless-AC 8260 4G Mobile Broadband: Option (Sierra Wireless EM7305 modem with GPS)
<b>Power</b>	AC Adapter: Input 100V - 240V AC, 50Hz/60Hz, Output 16V DC, 4.06A Battery: Lithium-Ion (11.1V, 4200mAh) Operating Time: Up to 14hrs, MobileMark™2007, 60cd/m2 *2 Hot Swap Battery: Option
<b>Security Features</b>	Trusted platform module (TPM) [TCG V1.2 compliant] Integrated hardware security lock slot Password security (supervisor password, user password, HDD lock)
<b>Dimensions (W x H x D)</b>	270mm x 188mm x 19mm (10.6" x 7.4" x 0.75")
<b>Weight</b>	Approx. 1.1kg (2.43lbs)
<b>Options for Integration</b>	Selectable from Smartcard reader, Contactless Smartcard Reader, Bridge Battery or Smartcard Reader + Bridge Battery Selectable one from True serial or USB 2.0 or Wired LAN or Micro SD or 2D Barcode Reader or GPS
<b>Ruggedisation</b>	Dust & Water resistance test: IP-65 Gravity drop resistance test: MIL STD 810G, 120cm on Plywood.Test conducted in non-operating condition *1 Operating temperature: -10°C to +50°C (14°F to 122°F) Storage temperature: -20°C to +60°C (-4°F to 140°F) Vibration resistance test: MIL STD 810G





## FULLY RUGGED



### FZ-B2

7" Fanless Android 6 Tablet

<b>Mobile Computing Platform / CPU</b>	Intel® Atom™ x5-Z8550 processor (1.44GHz up to 2.4GHz, 2MB Cache)
<b>Operating System</b>	Android™ 6.0
<b>Memory &amp; Storage</b>	2GB RAM (LPDDR3) 32GB eMMC
<b>Display</b>	7" sunlight-viewable WXGA (1280x800) Active Matrix (TFT) IPS LCD with circular polarizer (up to 500cd/m2 brightness) Graphic Chip: Intel® HD Graphics 400 10 finger capacitive multi-touchscreen Touchscreen mode: Touch/Pen only/Pen and Touch/Touch(Glove)/Touch (Water)
<b>Camera</b>	Front: 2MP, 1920 x 1080 pixels, 30fps Rear: 8MP 3264 x 2448 pixels, 30 fps with LED Flash and autofocus
<b>Expansion Slots</b>	Micro SD/SDHC Memory Card: x1
<b>Interfaces</b>	USB 3.0 x1 USB 3.1 type C OTG x1 x1 (This Type C port does not support USB PD, display port, Thunderbolt) Headset x1 Port Replicator Connector x1 GPS (standard) Dual Antenna Connector (optional) x1
<b>Connectivity</b>	Bluetooth®: Version 4.2 + Classic mode/Low Energy mode, Class 1 WLAN: Intel® Dual Band Wireless-AC 8260 4G Mobile Broadband: Option (Wireless modem EM7305 with GPS)
<b>Power</b>	AC Adapter: Input 100V - 240V AC, 50Hz/60Hz, Output 16V DC, 3.75A Battery: Lithium-Ion (7.2V, 3320mAh) Operating Time: Up to 9hrs <sup>*2</sup> Hot Swap Battery: Option
<b>Security Features</b>	UEFI Secure Boot based on Intel TXE, Verified Boot Standard Android 6.0 Security features
<b>Dimensions (W x H x D)</b>	203mm x 18mm x 132mm (7.98" x 5.20" x 0.71")
<b>Weight</b>	Approx. 540g (1.21lbs)
<b>Options for Integration</b>	Selectable one from LAN or Barcode Reader with Thin Gadget case or Smartcard Reader or Magnetic Stripe Reader (When LAN or BCR is chosen, standard USB3.1 Type C will be removed) Selectable one from Thin Gadget Case or Smartcard Reader or Magnetic Stripe Reader Bridge Battery option can be chosen with Thin Gadget Case or Smartcard Reader or Magnetic Stripe Reader Dual External Antenna
<b>Ruggedisation</b>	Dust & Water resistance test: IP-65 Gravity drop resistance test: MIL STD 810G, 150cm on plywood. Test conducted in non operating condition <sup>*1</sup> Operating temperature: -10°C to +50°C {14°F to 122°F} Storage temperature: -20°C to +60°C {-4°F to 140°F} Vibration resistance test: MIL STD 810G

## FULL RUGGED



### FZ-A2

10.1" Fanless Android 6 Tablet

<b>Mobile Computing Platform / CPU</b>	Intel® Atom™ x5-Z8550 processor (1.44GHz up to 2.4GHz, 2MB Cache)
<b>Operating System</b>	Android™ 6.0
<b>Memory &amp; Storage</b>	4GB RAM (LPDDR3) 32GB eMMC
<b>Display</b>	10.1" sunlight-viewable WUXGA Active Matrix (TFT) IPS colour LCD (up to 800cd/m2 brightness) Graphic Chip: Intel® HD Graphics 400 10 finger capacitive multi-touchscreen Touchscreen mode: Touch/Pen only/Pen and Touch/Touch(Glove)/Touch (Water)
<b>Camera</b>	Front: 2MP, 1920 x 1080 pixels, 30fps Rear: 8MP 3264 x 2448 pixels, 30 fps with LED flash and autofocus
<b>Expansion Slots</b>	Micro SD/SDHC Memory Card: x1
<b>Interfaces</b>	USB 3.0 x1 USB 3.1 type C OTG x1 (This Type C port does not support USB PD, display port, Thunderbolt) HDMI out x1 Headset x1 Port Replicator Connector x1 Dual External Antenna Connector (optional) x1 Three Application buttons (A1,A2,A3), Volume control (+/-), Rotation Lock Button
<b>Connectivity</b>	Bluetooth®: Version 4.2 Classic mode/Low Energy mode, Class 1 WLAN: Intel® Dual Band Wireless-AC 8260 4G Mobile Broadband: Option (EM7305 WWAN modem with GPS)
<b>Power</b>	AC Adapter: Input 100V - 240V AC, 50Hz/60Hz, Output 16V DC, 4.06A Battery: Lithium-Ion (11.4V, 2720mAh) Operating Time: Up to 9hrs <sup>*4</sup> Hot Swap Battery: Option
<b>Security Features</b>	UEFI Secure Boot based on Intel TXE, Verified Boot Standard Android 6.0 Security features
<b>Dimensions (W x H x D)</b>	272mm x 16.4mm x 196mm (10.71" x 0.65" x 7.72")
<b>Weight</b>	Approx. 880g (1.94lbs)
<b>Options for Integration</b>	Large Gadget: (Barcode Reader or USB 2.0 Type A port) and Smartcard Reader Flat Gadget: Barcode Reader or Smartcard Reader Selectable one from Dedicated GPS and Wireless WAN (with GPS)
<b>Ruggedisation</b>	Dust & Water resistance test: IP-65 Gravity drop resistance test: MIL STD 810G, 120cm on Plywood. Test conducted in non operating condition <sup>*1</sup> Operating temperature: -10°C to +50°C {14°F to 122°F} Storage temperature: -20°C to +60°C {-4°F to 140°F} Vibration resistance test: MIL STD 810G

\*1 This performance test does not guarantee against damage or malfunction \*2 Measured with LCD brightness 150 cd/m2. Web browsing every 20 seconds through WLAN. Varies depending on the usage conditions, or when an optional device is attached. \*3 USB Type C of this model does not support USB PD, Display Port, Thunderbolt. \*4 Measured at LCD brightness: 150 cd/m2. Varies depending on the usage conditions or when an optional device is attached.



## SEMI RUGGED



### CF-54

14" HD display Win 10 notebook

<b>Mobile Computing Platform / CPU</b>	Intel® Core™ i5-6300U vPro™ Processor (2.4 GHz up to 3.0 GHz with Intel® Turbo Boost Technology, 3MB Cache)
<b>Operating System</b>	Windows 10 Pro 64-bit
<b>Memory &amp; Storage</b>	4GB DDR3L PC3L-12800(1600MHz)(16GB max.) 500GB HDD, 256GB SSD
<b>Display</b>	14" HD TFT (1366 x 768 dots) 14" FHD IPS (1920 x 1080 pixels) [touchscreen model] Touchscreen modes: Pen mode/Pen and Touch mode/Touch mode/Touch(glove) mode Graphic Chip: Intel HD Graphics 520 optional: AMD FirePro M5100 graphics
<b>Camera</b>	Webcam (Hardware Option): 2MP with digital microphone
<b>Expansion Slots</b>	SD/SDXC Memory Card: x1 RAM Module: x2, DDR3L SDRAM, one slot occupied
<b>Interfaces</b>	USB 3.0 x3 HDMI x1, Type A LAN port (RJ-45) x1 Headphones x1 Port Replicator (24-pin) x1 Optional:- VGA port x1 True Serial port x1 2 <sup>nd</sup> LAN or Rugged USB 2.0 or dedicated GPS (u-blox) or 4th USB 2.0 x1
<b>Connectivity</b>	Bluetooth®: Version 4.1 + Classic mode/Low Energy mode, Class 1 Intel Dual Band Wireless-AC 8260; slide on/off switch LAN: IEEE 802.3 10 Base-T/IEEE 802.3u 100 Base-TX/IEEE 802.3ab 1000 Base-TX 2nd LAN: IEEE 802.3 10 Base-T/IEEE 802.3u 100 Base-TX/IEEE 802.3ab 1000 Base-TX 4G Mobile Broadband: Option (Wireless modem EM7305 with GPS)
<b>Power</b>	AC Adapter: Input: 100V ~ 240V, 50Hz/60Hz; Output: 15.6V, 7.05A Battery: Lithium-Ion (6 cell, 46Wh) Operating Time:- Approx. 11hrs (Mobile Mark™ 2007, 60cd/m <sup>2</sup> ) Approx. 18hrs with 2nd Battery (6 cell, 32 Wh) *2
<b>Security Features</b>	Trusted platform module (TPM) security chip v.1.2 Fingerprint Reader (option) Smartcard Reader (option) Contactless Smartcard Reader (option)
<b>Dimensions (W x H x D)</b>	345mm x 272mm x 29.8mm (13.6" x 10.7" x 1.17")
<b>Weight</b>	Approx. 1.99kg (4.39lbs)
<b>Options for Integration (CF-54)</b>	Contactless Smart Card Reader or Fingerprint Reader, Smart Card Reader,
<b>Barcode (FZ-N1)</b>	4G Mobile Broadband (LTE, up to 100Mbps), dedicated GPS (u-blox), Bridge battery for hot swap, Dual Pass through Antenna
<b>Ruggedisation</b>	Withstands drops from a height of 76cm. 6 sided/drop on plywood. Test conducted in non operating condition. *1 MIL STD 810G certified IP51 certified Spill Resistant keyboard

## FULLY RUGGED



### FZ-N1

4.7" Slim, lightweight and angled rear barcode reader  
Handheld tablet

<b>Mobile Computing Platform / CPU</b>	Qualcomm® MSM8974AB 2.3 GHz Quad-core processor
<b>Operating System</b>	Android™ 5.1.1
<b>Memory &amp; Storage</b>	2GB RAM 16GB eMMC
<b>Display</b>	4.7" HD (1280x720 pixels), 16:9 aspect ratio 10 point multi-touch capacitive touchscreen with glove and rain mode Daylight viewable (up to 500 cd/m <sup>2</sup> ) Anti reflective and anti glare screen treatments Supports both passive pen and active pen as default
<b>Camera</b>	Rear: 8MP rear camera with bright LED light (Video: 1920 x 1080 pixels (FHD) 30 fps Still: 3264 x 2448 pixels (8MP)) Front: 5MP (Video: 1920 x 1080 pixels (FHD) 30 fps, Still: 2592 x 1944 pixels (5MP))
<b>Expansion Slots</b>	Micro SDXC card slot (max. 64GB)
<b>Interfaces</b>	micro USB 2.0 x1 (for charging and data transfer) Cradle Interface x1 Headset jack (3.5mm) x1 Gadget interface
<b>Connectivity</b>	Bluetooth®: Version 4.1 (Class 1) WLAN: IEEE802.11 a/b/g/n/ac Voice & Data: LTE, HSPA+, UMTS, EDGE, GPRS, GSM Micro SIM slots x2
<b>Power</b>	AC Adapter (USB charger and USB cable) Battery: Li-ion 3.8V, 3200 mAh (typ.), 6400 mAh (typ. Extended) User replaceable with warm swap function Operating Time:- Continuous data access time: Approx. 8hrs/16hrs (typ. extended) *3 Talk time: Approx. 24hrs/48 hrs (typ. extended) Standby time: Approx. 700hrs/1400hrs (typ. extended)
<b>Security Features</b>	FIPS140-2-level-1 compliant
<b>Dimensions (W x H x D)</b>	74mm x 156mm x 16.3mm (2.9" x 6.1" x 0.6") 31mm (1.2") – barcode reader section
<b>Weight</b>	Approx. 277g (0.61lbs)
<b>Options for Integration (CF-54)</b>	Angled rear barcode reader with aimer and light, 44 types of 1D/2D barcodes supported
<b>Barcode (FZ-N1)</b>	
<b>Ruggedisation</b>	MIL STD 810G certified, IP65/IP67 1.8m drop resistant, 6 side/drop on Concrete. 2000 drops (1000 tumbles) each from 1.0m (3.2ft) Test conducted in non operating condition. *1 Operating temperature: -10°C to +50°C (14°F to 122°F) Storage temperature: -30°C to +70°C (-22°F to 158°F)

\*1 This performance test does not guarantee against damage or malfunction \*2 Measured at LCD brightness: 60 cd/m<sup>2</sup>. Varies depending on the usage conditions, or when an optional device is attached. When Economy Mode(ECO) is enabled, the operating time becomes approximately 20% shorter than when it is disabled. \*3 Wireless LAN connection enabled; continuous access to the server while browsing; swipe every 1 second; page change every 30 seconds, communication every 30 seconds.



## BUSINESS RUGGED



### CF-SZ6

12.1" World's lightest notebook

<b>Mobile Computing Platform / CPU</b>	Intel® Core™ i5-7300U vPro™ Processor (2.6 GHz up to 3.5 GHz with Intel® Turbo Boost Technology, 3MB Cache)
<b>Operating System</b>	Windows 10 Pro 64 bit
<b>Memory &amp; Storage</b>	4GB, LPDDR3L SDRAM (no expansion slot), HDD 500GB (Serial ATA)/5400 rpm, UMA (2122MB) Video Memory 8GB, LPDDR3L SDRAM (no expansion slot), SSD 256GB, UMA (4170MB) Video Memory
<b>Display</b>	12.1" WUXGA (1920x1200) Graphic Chip: Intel HD Graphics 620 (built-in CPU)
<b>Camera</b>	Web Camera: x1 HD 1080P, including Microphone
<b>Expansion Slots</b>	SD Memory Card slot: x1 SDXC (UHS-II Compliant) RAM Module slot: None
<b>Interfaces</b>	USB 3.0 x3 LAN port (RJ-45) x1, DC-In x1 (Type-A, 2 pins) x1 HDMI x1, VGA port x1 Headset Jack (3.5mm) x1
<b>Connectivity</b>	Bluetooth®: Version 4.1 + Classic mode/Low energy mode, Class 1 Intel® Dual band Wireless-AC 8265 (a/b/g/n/ac) WWAN: Not equipped LAN: IEEE 802.3 10 Base-T/IEEE 802.3u 100 Base-TX/IEEE 802.3ab 1000 Base-TX
<b>Power</b>	AC Adapter: Input: 100V ~ 240V, 50Hz/60Hz; Output: 16V, 4.06A Battery pack: Li-ion 7.2V, 6800 mAh Operating Time:- 4GB model: Approx. 12hrs [Economy Mode (ECO) - Disable, JEITA(Ver2.0)] *2 or Approx. 8.5hrs [Economy Mode (ECO) - Disable, MobileMark®2014] *2 8GB model: Approx. 14.5hrs [Economy Mode (ECO) - Disable, JEITA(Ver2.0)] *2 or Approx. 10.5hrs [Economy Mode (ECO) - Disable, MobileMark®2014] *2
<b>Security Features</b>	Trusted platform module (TPM) [TCG V2 compliant]
<b>Dimensions (W x H x D)</b>	283.5mm x 203.8mm x 25.3mm (11.2" x 8.0" x 1.0")
<b>Weight</b>	4GB model: Approx. 0.940kg (2.07lbs) 8GB model: Approx. 0.849kg (1.87lbs)
<b>Options for Integration</b>	N/A
<b>Ruggedisation</b>	Withstands 76cm free fall test, bottom-sided/drop on plywood 5cm. Tests conducted in operating condition. *1 30cm free fall test, 26 sided/drop on plywood 5cm. Tests conducted in non-operating condition. *1 Hinge Durability test, pressurized vibration test, spot pressure test, keyboard typing test by applying 200g repeatedly to each key Storage Temperature: -20 °C to 60 °C (-4 °F to 140 °F) Operating Temperature: 5 °C to 35 °C (41 °F to 95°F)



## BUSINESS RUGGED



### CF-XZ6

12" Lightweight 2-in-1 detachable notebook

<b>Mobile Computing Platform / CPU</b>	Intel® Core™ i5-7300U vPro™ Processor (2.6 GHz up to 3.5 GHz with Intel® Turbo Boost Technology 2.0, 3MB Cache)
<b>Operating System</b>	Windows 10 Pro 64 bit
<b>Memory &amp; Storage</b>	8GB on board (LPDDR3 SDRAM) SSD: 256GB (Serial ATA)
<b>Display</b>	12" QHD (2160 x 1440 dots), Aspect ratio 3:2 Anti-Reflection 10 Finger Multi touch (Capacitive), Active Pen (Option) Graphic Chip: Intel HD Graphics 620 (built-in CPU)
<b>Camera</b>	Tablet:- Front: 2MP, 1920 x 1080 dots (Still) / 1920 x 1080 dots, 30fps (Video), Array Microphone, with IR for Windows Hello Rear: 8MP, 3200 x 2400 dots (Still) / 2048 x 1536 dots, 15fps (Video)
<b>Expansion Slots</b>	Tablet: nano SIM x 1 (option with WWAN kit) Keyboard base: SDXC card x 1 (UHS-I / UHS-II) Standard
<b>Interfaces</b>	USB 3.1 (Gen 1) Type-C™ port x1 (Tablet) Headset x 1 (Tablet) USB 3.0 port x3 (Keyboard Base) LAN port (RJ-45) x1 (Keyboard Base) VGA port x1 (Keyboard Base) HDMI x1 (Keyboard Base)
<b>Connectivity</b>	Bluetooth®: Version 4.1 + Classic mode/Low energy mode, Class 1 Intel® Dual band Wireless-AC 8265 (a/b/g/n/ac) WWAN: Sierra Wireless™ EM7305 (option) LAN: IEEE 802.3 10 Base-T/IEEE 802.3u 100 Base-TX/IEEE 802.3ab 1000 Base-TX
<b>Power</b>	AC Adapter: Input: 100V ~ 240V, 50Hz/60Hz; Output: 16V, 4.06A Battery:- Tablet: Built in battery, Li-ion 7.6 V, 3540 mAh Tablet + Keyboard Base: Battery Pack, Li-ion 7.6V, 5200 mAh Operating Time:- Tablet only: Approx. 6.5hrs *2 Tablet + Keyboard base: Approx. 14hrs *2 Hot swap battery
<b>Security Features</b>	Trusted platform module (TPM) [TCG V2 compliant]
<b>Dimensions (W x H x D)</b>	Tablet only: 286.5mm x 206.2mm x 9.5mm (11.3" x 8.12" x 0.37") Tablet + Keyboard Base: 288.5mm x 223.7mm x 22mm (11.36" x 8.81" x 0.87")
<b>Weight</b>	Tablet only: Approx. 640g (1.41lbs) Tablet + Keyboard Base: Approx. 1.18kg (2.60lbs)
<b>Options for Integration</b>	N/A
<b>Ruggedisation</b>	Withstands 76cm free fall test, bottom-sided/drop on plywood 5cm. Tests conducted in operating condition. *1 30cm free fall test, 26 sided/drop on plywood 5cm. Tests conducted in non-operating condition. *1 Hinge Durability test, pressurized vibration test, spot pressure test, keyboard typing test by applying 200g repeatedly to each key Storage Temperature: -20 °C to 60 °C (-4 °F to 140 °F) Operating Temperature: 5 °C to 35 °C (41 °F to 95°F)

\*1 This performance test does not guarantee against damage or malfunction \*2 Measured at LCD brightness: 60 cd/m2. Varies depending on the usage conditions, or when an optional device is attached. When Economy Mode (ECO) is enabled, the operating time becomes approximately 20% shorter than when it is disabled.

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. Acrobat® is a registered trademark of Adobe® Systems Incorporated. Intel, the Intel logo, Intel Core, Intel vPro, Core Inside vPro 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.