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BUSINESS



# COMPUTER PRODUCTS BY PANASONIC

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**TOUGHBOOK**

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## FULLY RUGGED



### CF-33

12" 2-in-1 fully rugged detachable notebook  
(Also available in Tablet only version)

<b>Mobile Computing Platform / CPU</b>	Intel® Core™ i5-7300U vPro™ Processor (i7 vPro also available) (2.6GHz up to 3.5GHz with Intel® Turbo Boost Technology, 3MB Intel® Smart Cache)
<b>Operating System</b>	Windows 10 Pro
<b>Memory &amp; Storage</b>	8GB (option: 16GB) 256GB SSD (option: 512GB)
<b>Display</b>	12" QHD 2160 x 1440, Aspect ratio 3:2 Daylight viewable (up to 1200 cd/m <sup>2</sup> ) Anti-Reflection 10 finger capacitive multi-touchscreen Touchscreen mode: Touch, Pen, Water, Glove Graphic Chip: Intel® HD Graphics 620
<b>Camera</b>	Tablet:- Front: 2MP, 1920 x 1080, Dual Microphone, with IR for Windows Hello Rear: 8MP, 1920 x 1080 (video)/ 3200 x 2400 (still), with LED flash, autofocus
<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) HDMI x2 (x1 Tablet, x1 Keyboard Base) Dual Pass Through Antenna x2 (x1 Tablet, x1 Keyboard Base) LAN port (RJ-45) 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, Class 1 WLAN: Intel® Dual band Wireless-AC 8265 WWAN: Option (4G LTE, HSPA+, UMTS) LAN: 10/100/1000 Gigabit Ethernet
<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 (Standard)/10.8V 4120 mAh x2 (Large) Operating Time:- Tablet only: Approx. 11hrs (Standard)/22hrs (Large) Tablet + Keyboard Base: Approx. 10hrs(Standard)/20hrs(Large)
<b>Security Chip</b>	Trusted platform module (TPM) [TCG V2.0 compliant]
<b>Dimensions (W x H x D)</b>	Tablet only: 308.0mm x 243.6mm x 21.6mm Tablet + Keyboard Base: 313.0mm x 288.4mm x 46.1mm
<b>Weight</b>	Tablet only: Approx. 1.53kg Tablet + Keyboard Base: Approx. 2.76kg
<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 dedicated GPS(u blox NEO-M8N) and WWAN
<b>Ruggedisation</b>	MIL-STD-810G certified Dust & Water resistance test: IP65*1 Gravity drop resistance test: 120cm (Tablet + Keyboard base)*1 Operating temperature: -10°C to +50°C Storage temperature: -20°C to +60°C
<b>Warranty</b>	Standard warranty 3 years (Option) Extended warranty / Accidental Warranty

## FULLY RUGGED



### CF-20

10.1" 2-in-1 fully rugged detachable notebook

<b>Mobile Computing Platform / CPU</b>	Intel® Core™ i5-7Y57 vPro™ processor (1.2GHz up to 3.3GHz with Intel® Turbo Boost Technology, 4MB Intel® Smart Cache)
<b>Operating System</b>	Windows 10 Pro
<b>Memory &amp; Storage</b>	8GB (option: 16GB) 256GB SSD (option: 128GB/512GB)
<b>Display</b>	10.1" WUXGA 1920 x 1200, Aspect ratio 16:9 Daylight viewable (up to 800 cd/m <sup>2</sup> ) Anti-Reflection, Anti-Glare 10 finger capacitive multi-touchscreen Touchscreen mode: Touch, Pen, Water, Glove Graphic Chip: Intel® HD Graphics 615
<b>Camera</b>	Tablet:- Front: 2MP, 1920 x 1080, Dual Microphone, with IR for Windows Hello Rear: 8MP, 3200 x 2400 with LED flash, autofocus
<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) nano SIM x1 (Tablet) (Option) 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, Class 1 WLAN: Intel® Dual Band Wireless-AC 8260 WWAN: Option (4G LTE, HSPA+, UMTS) LAN: 10/100/1000 Gigabit Ethernet
<b>Power</b>	AC Adapter: Input: 100V-240V AC, 50Hz/60Hz; Output: 16 VDC, 4.06A Battery: Li-ion 11.4V, 2600mAh Operating Time: 8.5hrs*3 17 hours utilising 2 batteries in Tablet and Keyboard Base
<b>Security Chip</b>	Trusted Platform Module (TPM) [TCG V2.0 compliant]
<b>Dimensions (W x H x D)</b>	Tablet only: 272mm x 196mm x 16.4mm Tablet + Keyboard Base: 272mm x 233mm x 33.5mm
<b>Weight</b>	Tablet: Approx. 950g Tablet + Keyboard Base: Approx. 1.89kg
<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 dedicated GPS(u blox NEO-M8N) or WWAN
<b>Ruggedisation</b>	MIL-STD-810G certified Dust & Water resistance test: IP65*1 Gravity drop resistance test: 90cm (Tablet + Keyboard base)*1, 120cm (Tablet)*1 Operating temperature: -10°C to +50°C Storage temperature: -20°C to +60°C
<b>Warranty</b>	Standard warranty 3 years (Option) Extended warranty / Accidental Warranty



## FULLY RUGGED



### FZ-M1

7" Pocket size, Fanless Tablet

<b>Mobile Computing Platform / CPU</b>	Intel® Core™ i5-7Y57 vPro™ processor (1.2GHz up to 3.3GHz with Intel® Turbo Boost Technology, 4MB Intel® Smart Cache)
<b>Operating System</b>	Windows 10 Pro
<b>Memory &amp; Storage</b>	4GB (option: 8GB) 128GB SSD (option: 256GB)
<b>Display</b>	7" WXGA 1280 x 800, Aspect ratio 16:10 Daylight viewable (up to 700 cd/m2) 10 finger capacitive multi-touchscreen Touchscreen mode: Touch, Pen, Water, Glove Graphic Chip: Intel® HD Graphics 615
<b>Camera</b>	Front: 2MP 1920 x 1080 Rear: 8MP 3200 x 2400 with LED Flash
<b>Expansion Slots</b>	micro SDXC Card: x1
<b>Interfaces</b>	USB 3.0 x1 Headset x1 Port Replicator Connector x1 Dual Antenna Connector x1 (option) micro SIM x1 (option)
<b>Connectivity</b>	Bluetooth®: Version 4.2, Class 1 WLAN: Intel® Dual Band Wireless-AC 8265 WWAN: 4G LTE, HSPA+, UMTS
<b>Power</b>	AC Adapter: Input 100V-240V AC, 50Hz/60Hz, Output 16V DC, 3.75A Battery: Lithium-Ion 7.2V, 3220mAh (Standard)/ 7100mAh(Large) Operating Time: Up to 9hrs (Standard)/16hrs (Large) [MobileMark®2014]* <sup>2</sup> Hot Swap Battery: Option
<b>Security Chip</b>	Trusted platform module (TPM) [TCG V2.0 compliant]
<b>Dimensions (W x H x D)</b>	203mm x 132mm x 18mm
<b>Weight</b>	Approx. 540g
<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 (NFC), 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), Intel® RealSense* <sup>3</sup> , Thermal by FLIR* <sup>3</sup> Dedicated GPS U blox NEO M8N
<b>Ruggedisation</b>	MIL-STD-810G certified Dust & Water resistance test: IP65* <sup>1</sup> Gravity drop resistance test: 150cm* <sup>1</sup> Operating temperature: -10°C to +50°C Storage temperature: -20°C to +60°C
<b>Warranty</b>	Standard warranty 3 years (Option) Extended warranty / Accidental Warranty

## FULLY RUGGED



### FZ-G1

10.1" Lightweight, Full HD Tablet

<b>Mobile Computing Platform / CPU</b>	Intel® Core™ i5-7300U vPro™ Processor (i7 vPro also available) (2.6GHz up to 3.5GHz with Intel® Turbo Boost Technology, 3MB Intel® Smart cache)
<b>Operating System</b>	Windows 10 pro
<b>Memory &amp; Storage</b>	8GB 256GB SSD (option: 512GB/1TB)
<b>Display</b>	10.1" WUXGA 1920 x 1200, Aspect Ratio 16:10 Daylight viewable (up to 800 cd/m2) 10 finger capacitive multi-touchscreen and Digitizer. Touchscreen mode: Touch, Pen, Water, Glove Graphic Chip: Intel® HD Graphics 620
<b>Camera</b>	Front: 2MP 1920 x 1080 Rear: 8MP 1280 x 720 (video)/ 3264 x 2448 (still) with autofocus and LED flash
<b>Expansion Slots</b>	micro SDXC card x1 (option)
<b>Interfaces</b>	USB 3.0 x1 HDMI x1 Headset x1 Port Replicator Connector x1 Dual Antenna Connector x1 nano SIM x1 (option)
<b>Connectivity</b>	Bluetooth®: Version 4.2, Class 1 WLAN: Intel® Dual Band Wireless-AC 8265 WWAN: 4G LTE, HSPA+, UMTS SIM card x1 (option)
<b>Power</b>	AC Adapter: Input 100V-240V AC, 50Hz/60Hz, Output 16V DC, 4.06A Battery: Lithium-Ion 11.1V, 4200mAh (Standard)/10.8V, 9300mAh(Large) Operating Time: Up to 11hrs (Standard)/22hrs(Large) [MobileMark®2014]* <sup>2</sup> Hot Swap Battery: Option
<b>Security Chip</b>	Trusted platform module (TPM) [TCG V2.0 compliant]
<b>Dimensions (W x H x D)</b>	270mm x 188mm x 19mm
<b>Weight</b>	Approx. 1.1kg
<b>Options for Integration</b>	Selectable one 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 dedicated GPS U blox NEO M8N or Thermal by FLIR* <sup>3</sup>
<b>Ruggedisation</b>	MIL-STD-810G certified Dust & Water resistance test: IP65* <sup>1</sup> Gravity drop resistance test: 120cm* <sup>1</sup> Operating temperature: -10°C to +50°C Storage temperature: -20°C to +60°C
<b>Warranty</b>	Standard warranty 3 years (Option) Extended warranty / Accidental Warranty

\*1 Tested by an independent third party following MIL-STD-810G and IEC 60529, Sections 13.4, 13.6.2, 14.2.5 and 14.3 \*2 Varies depending on the usage conditions or when an optional/ external device is attached. \*3 This application must not be used for trade, or tasks that depend on precision, since temperatures/ dimensions displayed are indicative only. FZ-M1mk3, FZ-G1mk5





## SEMI RUGGED



### FZ-55

14" HD display Win 10 notebook  
(Available in HD, FHD Non Touch, FHD Touch)

Mobile Computing Platform / CPU	Intel® Core™ i5-8365U vPro™ Processor (i7 vPro also available) (1.6GHz up to 4.1GHz with Intel® Turbo Boost Technology, 6MB Cache)
Operating System	Windows 10 Pro
Memory & Storage	8GB RAM (64GB Max.) 256GB SSD (option: 512GB/1TB)
Display	14" HD TFT 1366 x 768 14" Full-HD TFT 1920 x 1080 14" Full-HD Touch TFT 1920 x 1080, Capacitive 10 finger touch screen Graphic Chip: Intel UHD Graphics 620 optional: AMD Radeon Pro WX in TOUGHBOOK Universal Bay
Camera	2 MP 1920 x 1080 with IR / privacy shutter (Windows Hello compliant), with Microphone
Expansion Slots	micro SDXC card: x1 Universal Bay**: Discrete GPU (AMD Radeon ProWX), Smart Card Reader, DVD Multi Drive, Blu Ray Drive Front Expansion Slot***: 2 <sup>nd</sup> Battery, Finger Print Reader, RFID Reader, Smart Card Reader, 2 <sup>nd</sup> SSD (Option: 256GB, 512GB, 1TB)*** Rear Expansion Slot**: VGA + True Serial + 4 <sup>th</sup> USB 3.0, VGA + True Serial + 2 <sup>nd</sup> GLAN, VGA + True Serial + Rugged USB 2.0  **Selectable one Exclusive option, pre configured or accessory ***Selectable one Exclusive option, accessory
Interfaces	USB 3.1 x2 USB 3.1 type C PD x1 DC-In x1 HDMI x1, VGA port x1 Headset Jack x1 Port replicator x1 Optional: Dual Path Through Connector x1 nano SIM x1 (option)
Connectivity	Bluetooth®: Version 5.0 WLAN: Intel® Dual band Wireless-AC 9560 WWAN: 4G LTE, HSPA+, UMTS LAN: 10/100/1000 Gigabit Ethernet (2 <sup>nd</sup> GLAN optional)
Power	AC Adapter: Input: 100V - 240V AC, 50Hz/ 60Hz, Output: 15.6V DC, 7.05A Battery pack: Li-ion 10.8V, 6500 mAh Battery Life HD: Approx. 20hrs, Approx. 40hrs with 2 <sup>nd</sup> battery [MobileMark®2014] <sup>*2</sup> Battery Life Full-HD/Touch: Approx. 19hrs, Approx. 38hrs with 2 <sup>nd</sup> battery [MobileMark®2014] <sup>*2</sup> Hot Swap Battery: Optional
Security Chip	Trusted platform module (TPM) [TCG V2.0 compliant]
Dimensions (W x H x D)	345mm x 272mm x 32.8mm
Weight	HD: Approx. 2.08kg Full-HD: Approx. 2.13kg Full-HD Touch: Approx. 2.22kg
Ruggedisation	MIL-STD-810H certified Dust & Water resistance test: IP53 <sup>*1</sup> Gravity drop resistance test: 91cm Storage Temperature: -20°C to +60°C Operating Temperature: -10°C to +50°C
Warranty	Standard warranty 3 years (Option) Extended warranty / Accidental Warranty

## BUSINESS RUGGED



### CF-SV8

12.1" Lightweight notebook

Mobile Computing Platform / CPU	Intel® Core™ i5-8365U vPro™ Processor (1.6GHz up to 4.1GHz with Intel® Turbo Boost Technology, 6MB Cache)
Operating System	Windows 10 Pro
Memory & Storage	8GB RAM 256GB SSD
Display	12.1" WUXGA 1920 x 1200 Graphic Chip: Intel UHD Graphics 620
Camera	Web Camera: x1 2MP 1920 x 1080, with Microphone (Windows Hello compliant)
Expansion Slots	micro SDXC card: x1 (UHS-I/UHS-II Compliant)
Interfaces	USB 3.1 x1 Type C PD, Thunderbolt USD 3.0 x3 Type A DC-In x1 LAN port (RJ-45) x1, HDMI x1, VGA port x1 Headset Jack (3.5mm) x1 CTIA standard
Connectivity	Bluetooth®: Version 5.0 WLAN: Intel® Dual band Wireless-AC 9560 WWAN: Not equipped LAN: 10/100/1000 Gigabit Ethernet
Power	AC Adapter: Input: 100V-240V, 50Hz/60Hz; Output: 15.6V, 7.05A Battery pack: Li-ion 7.2V, 5900 mAh Operating Time: Approx. 10.5hrs, Approx. 15.5hrs with large battery* [MobileMark®2014] <sup>*2</sup> Charging Time: Approx. 3hrs  *Option, accessory
Security Chip	Trusted platform module (TPM) [TCG V2.0 compliant]
Dimensions (W x H x D)	283.5mm x 203.8mm x 24.5mm
Weight	Approx. 0.919kg
Ruggedisation	Withstands 76cm drop test, bottom drop on plywood <sup>*3</sup> 100kgf pressurized vibration test <sup>*3</sup> , keyboard typing test <sup>*3</sup> Storage Temperature: -20°C to +60°C Operating Temperature: 5°C to +35°C
Warranty	Standard warranty 4 years

\*1 Tested by an independent third party following MIL-STD-810G, MIL-STD810H and IEC 60529 \*2 Varies depending on the usage conditions, or when an optional device is attached. \*3 This performance does not guarantee against damage or malfunction. Tested at Panasonic factory. FZ-55mk1, CF-SV8mk2



## FULLY RUGGED



### FZ-N1

4.7" Slim, lightweight and angled rear barcode reader Handheld

<b>Mobile Computing Platform / CPU</b>	Qualcomm® SDM660-2 64-bit 2.2 GHz ×4 + 1.8 GHz ×4 Octa Core processor
<b>Operating System</b>	Android™ 8.1
<b>Memory &amp; Storage</b>	3GB RAM 32GB eMMC
<b>Display</b>	4.7" HD 1280 x 720, Aspect ratio 16:9 Daylight viewable (up to 500 cd/m2) Anti-Reflection, Anti-Glare 10 point multi-touch capacitive touchscreen Touchscreen mode: Touch, Pen, Water, Glove Supports both passive pen and active pen as default
<b>Camera</b>	Front: 5MP 1920 x 1080 (video)/ 2592 x 1944 (still) Rear: 8MP 1920 x 1080 (video)/ 3264 x 2448 (still) with bright LED light
<b>Expansion Slots</b>	micro SDXC card: x1
<b>Interfaces</b>	micro USB 2.0 x1 (for charging and data transfer) Cradle Interface x1 Headset jack (3.5mm) x1 Gadget interface nano SIM x2
<b>Connectivity</b>	Bluetooth®: Version 5.0, Class 1 WLAN: IEEE802.11 a/b/g/n/ac/d/h/i/r/v/w WWAN: 3G, 4G LTE, HSPA+, UMTS
<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:- On User Profile: Approx. 12hrs/19hrs (typ. extended) *3 Talk time: Approx. 27hrs/44 hrs (typ. extended) Standby time: Approx. 700hrs/1400hrs (typ. extended)
<b>Security Chip</b>	ARM® TrustZone®
<b>Dimensions (W x H x D)</b>	74mm x 156mm x 16.3mm 31mm – barcode reader section
<b>Weight</b>	Approx. 274g
<b>Barcode*4</b>	Angled rear barcode reader with aimer and light, 44 types of 1D/2D barcodes supported
<b>Ruggedisation</b>	MIL-STD-810G certified Dust & Water resistance test: IP65/IP68*1 (submersible in water up to 1.5m for 30mins) Gravity drop resistance test: 210cm*1 Tumble resistance: 2,000 drop (1,000 tumbles) at 1.0m*1 Raised bezel for LCD impact protection Operating temperature: -20°C to +50°C Storage temperature: -30°C to +70°C
<b>Warranty</b>	Standard warranty 3 years (Option) Extended warranty / Accidental Warranty

## FULLY RUGGED



### FZ-T1

5" Slim and lightweight Handheld with Data and Voice

<b>Mobile Computing Platform / CPU</b>	Qualcomm® MSM8909 1.1GHz Quad-core processor
<b>Operating System</b>	Android™ 8.1
<b>Memory &amp; Storage</b>	2GB RAM 16GB eMMC
<b>Display</b>	5" HD 1280 x 720, Aspect ratio 16:9 Daylight viewable (up to 420 cd/m2) 10 point multi-touch capacitive touchscreen Touchscreen mode: Touch, Pen, Water, Glove Supports passive pen (option)
<b>Camera</b>	Rear: 8MP 1280 x 720 (video)/ 3264 x 2448 (still) with LED light
<b>Expansion Slots</b>	micro SDXC card: x1
<b>Interfaces</b>	micro USB 2.0 x1 (for charging and data transfer) Cradle Interface x1 Headset jack: x1 GPS: GPS/GLONASS CEP50 (±2 to 4m) NFC: Supports Type A,B,FeliCa,ISO15693 Gadget Interface nano SIM x1
<b>Connectivity</b>	Bluetooth®: Version 4.2, Class 1 WLAN: Qualcomm® WCN3660B (IEEE802.11 a/b/g/n) WWAN: 3G, 4G LTE, HSPA+, UMTS
<b>Power</b>	AC Adapter (USB charger and USB cable) Battery: Li-ion 3.8V, 3200 mAh (typ.) User replaceable with warm swap function Operating Time:- On User Profile: Approx. 12hrs*2 Talk time: Approx. 16hrs*3
<b>Security Chip</b>	ARM® TrustZone®
<b>Dimensions (W x H x D)</b>	75 x 154mm x 13.1mm 17.6mm – barcode reader section
<b>Weight</b>	Approx. 230g
<b>Barcode</b>	Barcode reader with aimer and light, 44 types of 1D/2D barcodes supported
<b>Ruggedisation</b>	MIL STD 810G certified Dust & Water resistance test: IP66/IP68*1 Gravity drop resistance test: 150cm*1 Tumble resistance: 1,000 drops (500 tumbles) at 1.0m*1 Operating temperature: -10°C to +50°C Storage temperature: -30°C to +70°C
<b>Warranty</b>	Standard warranty 3 years

\*1 Tested by an independent third party following MIL-STD-810G, MIL-STD810H and IEC 60529 \*2 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. \*4 DO NOT STARE INTO BARCODE READER'S BEAM. CLASS 2 LASER PRODUCT. FZ-N1mk2, FZ-T1mk1



## FULLY RUGGED



### FZ-L1

7" Lightweight tablet

<b>Mobile Computing Platform / CPU</b>	Qualcomm® MSM8909 1.1GHz Quad-core processor
<b>Operating System</b>	Android™ 8.1
<b>Memory &amp; Storage</b>	2GB RAM 16GB eMMC
<b>Display</b>	7" HD 1280 x 720, Aspect ratio 16:9 Daylight viewable (up to 350cd/m2) 10 point multi-touch capacitive touchscreen Touchscreen mode: Touch, Pen, Water, Glove Supports passive pen (option)
<b>Camera</b>	Rear: 8MP 1280 x 720 (video)/ 3264 x 2448 (still) with LED light
<b>Expansion Slots</b>	micro SDXC card: x1
<b>Interfaces</b>	micro USB 2.0: x1 (for charging and data transfer) Cradle interface: x1 Headset jack: x1 GPS: GPS/GLONASS CEP50 (±2 to 4 m) NFC: Supports Type A,B,FeliCa,ISO15693 Gadget Interface nano SIM x1
<b>Connectivity</b>	Bluetooth®: Version 4.2, Class 1 WLAN: Qualcomm® WCN3660B (a/b/g/n/d/h/i/r) WWAN: 3G, 4G LTE, HSPA+, UMTS
<b>Power</b>	AC Adapter (USB charger and USB cable) Battery: Li-ion 3.8V, 3200 mAh User replaceable with warm swap function Operating Time:- On User Profile: Approx. 9hrs*2
<b>Security Features</b>	ARM® TrustZone®
<b>Dimensions (W x H x D)</b>	193mm x 131mm x 13mm 30mm – barcode reader section
<b>Weight</b>	Approx. 440g Approx. with BCR 470g
<b>Options for Integration</b>	(option) 44 types of 1D/2D barcodes supported*4
<b>Ruggedisation</b>	MIL STD 810G certified Dust & Water resistance test: IP65/67*1 Gravity drop resistance test:150cm*1 Operating temperature: -10°C to +50°C Storage temperature: -30°C to +70°C
<b>Warranty</b>	Standard warranty 3 years

## FULLY RUGGED



### FZ-A3

10.1" Fully adaptable tablet

<b>Mobile Computing Platform / CPU</b>	Qualcomm® SDM660 Octa-core processor 2.2Ghz x4 + 1.8GHz x4
<b>Operating System</b>	Android™ 9.0
<b>Memory &amp; Storage</b>	4GB RAM 64GB eMMC
<b>Display</b>	10.1" WUXGA 1920 x 1200 Aspect ratio 16:10 Daylight viewable (up to 800 cd/m2) Anti-Reflection 10 finger capacitive multi-touchscreen Touchscreen mode: Touch, Pen, Water, Glove
<b>Camera</b>	Front: 5MP, 1920 x 1080, 30fps(video) Rear: 8MP 1920 x 1080, 30fps(video)/ 3264 x 2448 (still) with autofocus and LED flash
<b>Expansion Slots</b>	micro SDXC card: x1
<b>Interfaces</b>	USB 3.0 type c OTG, BC1.2: x1 USB 2.0 type A Host only: x1 Headset jack: x1 GPS: GPS/GLONASS/Gallileo/Beidou/QZSS CEP50 (±2 to 4m) NFC: Supports Type A,B,FeliCa,ISO15693 nano SIM: x1 (option) Port Replicator: x1 Dual External Antenna Connector: x1 (option)
<b>Connectivity</b>	Bluetooth®: Version 5.0, Class 1 WLAN: Qualcomm® WCN3990 (IEEE802.11 a/b/g/n/ac/d/h/i/r/k/v/w with MIMO) WWAN: 3G, 4G LTE, HSPA+, UMTS
<b>Power</b>	AC Adapter: Input 100V-240V AC, 50Hz/60Hz, Output 16V DC, 4.06A Battery: Lithium-Ion 3.8V, 3200mAhx2, 5580mAhx2 (typ. Extended) Operating Time: Up to 9hrs/15hrs (typ. extended)*2 Option: User replaceable with hot swap function with limitation
<b>Security Features</b>	ARM® TrustZone®
<b>Dimensions (W x H x D)</b>	272mm x 196mm x 16.4mm
<b>Weight</b>	Approx. 885g
<b>Options for Integration</b>	Gadget Port #1: Barcode Reader*4 or 2nd USB Gadget Port #2: Smartcard Reader
<b>Ruggedisation</b>	MIL-STD-810H certified Dust & Water resistance test: IP65*1 Gravity drop resistance test: 150cm*1 Operating temperature: -20°C to +50°C Storage temperature: -30°C to +70°C
<b>Warranty</b>	Standard warranty 3 years (Option) Extended warranty / Accidental Warranty

\*1 Tested by an independent third party following MIL-STD-810G, MIL-STD-810H and IEC 60529, Sections 13.4, 13.6.2, 14.2.5 and 14.3 \*2 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 DO NOT STARE INTO BARCODE READER'S BEAM. CLASS 2 LASER PRODUCT. FZ-L1mk1, FZ-A3mk1