

Rugged Computing Tablet

W109U



Portable Carry

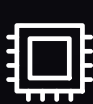
- Handheld, Standing, Shoulder Carry



Win11



WiFi6E



CPU



GPS



Camera



Fingerprint
Unlock



NFC



Interface
ODM



ID
ODM



1D/2D
ODM

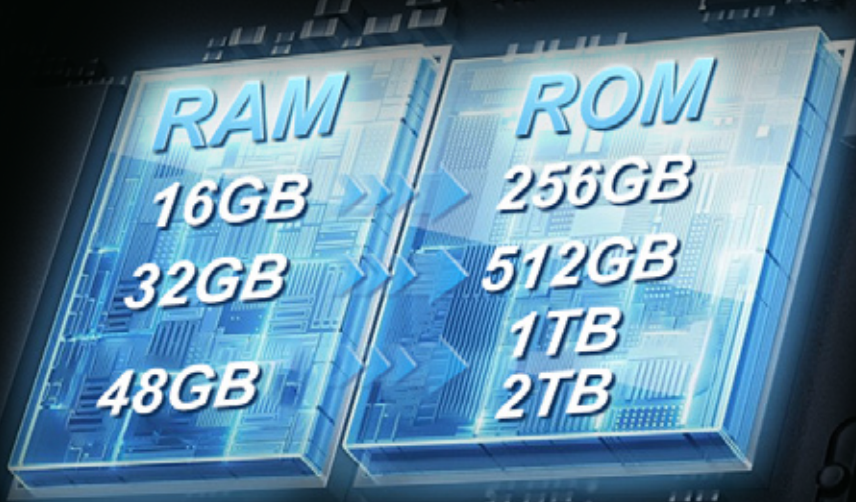


5G net
ODM



Storage

- Maximum support RAM48GB
ROM 2TB



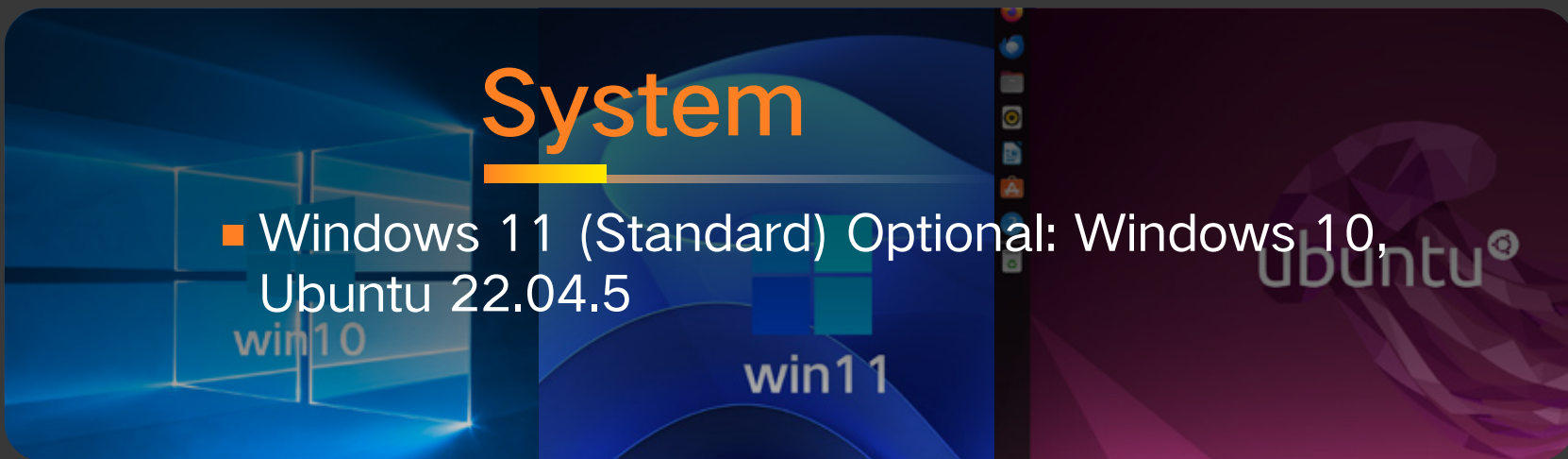
Fingerprint Unlock

- Fingerprint recognition with millisecond-level response times,
ensuring the security of corporate data



System

- Windows 11 (Standard) Optional: Windows 10,
Ubuntu 22.04.5



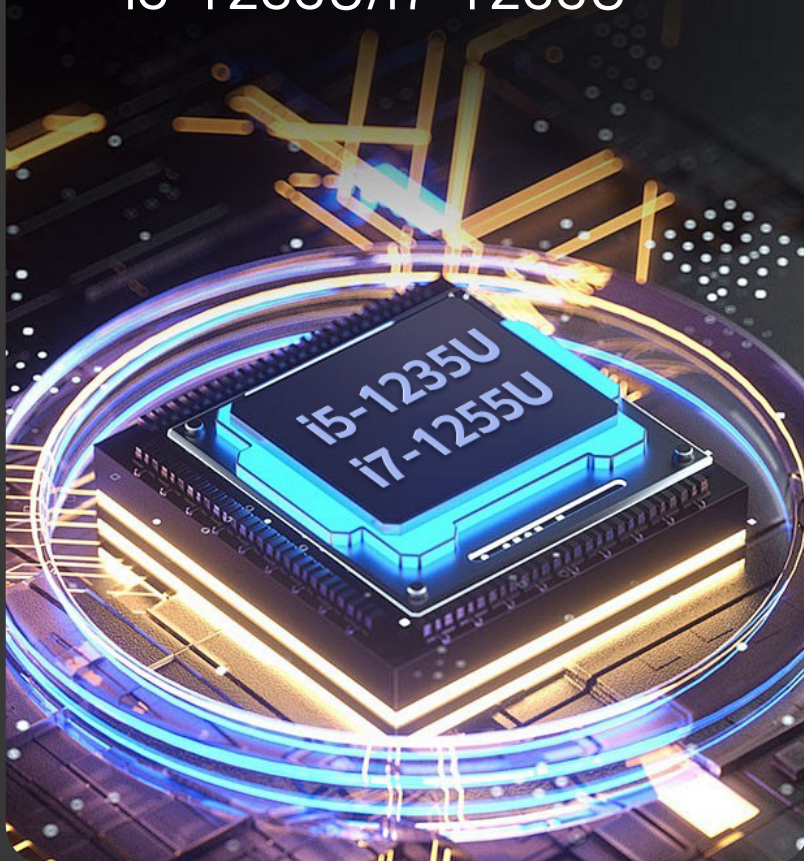
Battery Life

- Dual Battery System: 8300mAh
Removable + 300mAh Built-in
(8600mAh Total)



Configuration

- 10-core 12-thread
i5-1235U/i7-1255U



Heat dissipation

- Stealth Ice Wings, Multi-
dimensional Heat
Dissipation Design



Product form

Size /weight	Bare dimensions：307.5*211.1*27.7mm/1611 g (with handle 1785g)；In packaging：409*240*60mm/2690g
Box specifications	Quantity: 5pcs/carton；Dimension：43*32*26 cm；Gross Weight：14.0kg
Wall hole pitch / screw	258.5x177.5mm/ M4.5*4.5mm
Color	Black , color customizable
Screen size	10.95 inch , 16:10
Resolution	IPS 1920*1200
Screen brightness	550 cd/m² Optional 10.1-inch display: 1000 cd/m² or 2000 cd/m²
Tp touch screen	10-point touch G+FF Corning Gorilla Glass, hardness 7H
Main battery	11.4V 8300mAh high-voltage lithium battery, removable, supports hot-swapping,Battery life ≥8 hours (1080P + 50% brightness)
auxiliary battery	11.4V 300mAh high-voltage lithium battery, non-removable,Battery life ≥15 minutes (1080P + 50% brightness)
camera	Front camera: 8MP fixed focus Rear camera: 12MP auto focus, customisable to 16MP
Buttons	Power button*1 , Volume keys*2 (Vol+ , Vol-) Custom keys*2 (P key, F key)

Data collection

1D/2D scanner (Customized)	(N4680) : 0.3M Pixels+Code 39 5mil 65~150mm+Red light Read code system : 2D：PDF417, QR Code, Micro QR, Data Matrix 1D：Code 128, EAN-13, EAN-8, Code 39, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, ITF-6, ITF-14, ISBN, ISSN, Code 93, UC-C/EAN-128, GS1 Databar, Matrix 2 of 5, Code 11, Industrial 2 of 5, Standard 2 of 5, AIM128, Plessey, MSI-Plessey
NFC (Customized)	Supports 13.56 MHz protocols including 14443A/14443B/15693
Fingerprint (Customized)	1: Ordinary industrial fingerprint 2: Fingerprint certified by the Ministry of Public Security 3: FBI certified fingerprint
Fingerprint Login (Standard)	SPI interface

Other

Adapter	19V/3.42A , DC interface adapter
Optional accessories	Battery charging dock；Car charger

Explosion-proof information

Explosion-proof version (optional)	EX Class II Petrochemical Explosion-Proof, KA Class I Mining Safety Explosion-Proof, MA Class I Coal Mine Safety Explosion-Proof
------------------------------------	--

Product reliability

Drop height	Meets the requirements of (GJB 150.18A-2009, GJB 150.1A-2009) and (MIL-STD-810H) for the 1.22-meter drop test
Working temperature	-20℃~60℃ (Custom-30℃~60℃)
Storage temperature	-30℃~70℃ (Custom-40℃~70℃)
Humidity	Humidity: 95% Non-Condensing
Certificates	IP67, CE, RoHS, FCC, MIL-STD-810, Explo-sion-Proof Cert. (Class II, Group C)

Hardware configuration

Speaker, microphone	(speaker 2W/4Ω)*2 , MIC*1
CPU	10-core 12-thread i5-1235U 1.3 – 4.4GHz 10-core 12-thread i7-1255U 1.7 – 4.7GHz
RAM/ROM	Std: i5-16+256 / i7-32+512 (Removable); Max: 48GB+2TB
TPM	Built-in TPM security chip
Gravity sensing	OK

System

System	OS::Win11 Opt: Win10, Ubuntu 22.04.5 LTS
--------	---

Wireless connection

WIFI	WIFI 802.11 (a/b/g/n/ac/ax) WIFI6E, Customisable WIFI7
Bluetooth	BT 5.3 (BLE) class1 transmit distance:10m
3G/4G (Customised)	LTE-FDD : B1/2/3/4/5/7/8/12/13/14/18/19/20/25/26/28/66/71 LTE-TDD：B38/39/40/41 WCDMA：B1/2/4/5/6/8/19
5G (Customized)	Region:EMEA,Australia,Japan,Korea 5G SA&NSA: N1/N3/N5/N7/N8/N20/N28/N38/N40/N41/N71/N77/N78/N79 LTE-FDD:B1/B3/B5/B7/B8/B18/B19/B20/B28/B32 LTE-TDD:B34/B38/B39/B40/B41/B42 WCDMA:B1/B5/B8 Region:China 5G SA&NSA: N1/N28/N41/N78/N79 LTE-FDD:B1/B3/B5/B8/B28 LTE-TDD:B34/B38/B39/B40/B41 WCDMA:B1/B8 Region: North America 5G NR : N2/N5/N7/N12/N13/N14/N25/N38/N41/N48/N66/N71/N77/N78 LTE-FDD:B2/B4/B5/B7/B12/B13/B14/B17/B25/B26/B66/B71 LTE-TDD:B38/B41/B42/B43/B48 WCDMA:B2/B4/B5
Positioning	GPS, Beidou, Galileo, GLONASS , Optional Single-System BeiDou Positioning

Ports

Type -C	Type-C*1 USB 3.0, data transfer only
Type -A	*1 , Type-A USB.3.0
Type -A	*1 , Type-A USB.2.0
DB9	*1, RS232 (optional 232/422/485 protocol)
Earphone Jack	*1 , 3.5mm Standard Earpiece jack
TF Card	*1 , Maximum support 256GB expansion
SIM Card	*1 , Nano-SIM card slot
micro HDMI	*1
DC jack	*1 , 19V/3.42A 5.5mm 2.1mm
POGO pin	*1 ,12Pin USB+Charge
RJ45 jack	*1 , 100/1000M
keyhole	*1 , keyhole
Stylus	*1 , Stylus
Extension	Pre-wired Aviator Ports: Power In, USB 2.0, COM
Integration capability	High Extensibility: Modular Design: Capable of integrating custom client modules. Customizable I/O: Supports tailored functional interfaces. Pre-wired Mainboard: Reserved internal signals and connectors (SATA, PCIe, 3x USB 2.0).

Product Highlights

01



Powerful processor

i5-1235U/
i7-1255U

Equipped with Intel® Core™ i7-1255U/i5-1255U processors featuring multi-core and multi-threading capabilities, it perfectly accommodates the demanding computational requirements of ruggedised devices in complex operational environments. It effortlessly handles professional-grade software such as engineering surveying applications, CAD drafting software, data acquisition systems, and real-time communication tools. The processor efficiently allocates multi-core resources to prevent computational gaps during multitasking, ensuring seamless, lag-free field data processing, drawing annotation, and intelligent operations. It delivers a stable environment through computational adaptation, environmental compatibility, and efficiency enhancements, eliminating stuttering and safeguarding operational continuity.

02



Dual-Battery Hot-Swap

8300+300mAh 11.4V
Dual Battery ≥8h
Endurance

The W109U features a dual-battery hot-swap design: the main 8300mAh and secondary 300mAh 11.4V batteries work together for ≥ 8 hours of runtime. During swaps, the secondary battery keeps the system powered, so the main battery can be removed without shutdown, restart or task interruption. Field personnel carry spare batteries and complete main battery swaps in seconds while the system keeps running and data stays intact. The dual-battery architecture is validated for industrial conditions including high vibration and -20 ° C to 60 ° C temperatures. An optional charging dock enables centralized charging for all-day power.

03



Industrial Full Interface

RJ45+USB3.0+HDMI+
RS232 Full
Configuration

The W109U features gigabit RJ45 Ethernet, USB3.0, HDMI and RS232, interfacing with 90% of industrial control equipment and network environments without docking stations. Gigabit Ethernet connects directly to PLCs, switches and servers. USB3.0 transfers data with external storage and debugging devices. HDMI outputs large-screen monitoring for instant presentation. RS232 links legacy instruments and sensors, with optional 232/422/485 protocols. The combination of a 10.95-inch display, full interfaces and Windows 11 makes the W109U a mobile industrial control terminal and field debugging workstation, connecting the entire site with one device.

04



Triple-Proof Harsh Conditions No Fear

IP67 1.22m Drop
-20 ° C~60 ° C

IP67 dust-tight and waterproof, MIL-STD-810H certified for 1.22m drops. The -20 ° C to +60 ° C wide temperature range ensures reliable startup in freezing winters and scorching summers, with -30 ° C low-temperature customization for extreme cold. The 10.95-inch chassis weighs 1611g bare and 1785g with handle, ergonomically designed for fatigue-free handheld sessions. DDR5 memory and removable SSD are industrially reinforced against data loss on impact. Certified to 3C, CE and energy-saving standards, the rugged chassis protects desktop-class computing power.

Interface



Usage Scenarios



Accessories

