Dorland
System Control
Tech Co., Ltd.

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DORLAND Industrial Intrinsically Safe Notebook Ex NB10S (AI high version)

Developed by Dorland System Control Tech Co., LTD., the industrial intrinsically safe & solid Notebook Ex NB10S adopted advanced technology with intrinsically safe circuit, 15.6” screen, and 5.0 Megapixel (Front Camera). Its waterproof and dustproof performance can meet the IP65 standards.

In addition, the Notebook supports fingerprint identification, WIFI and Bluetooth, built-in GPS, compass and other functions suitable for outdoor construction and pipeline inspection. It can also cooperate with OA office system, checking positioning system and data acquisition system etc. Especially it is used in dangerous environment of the explosion, such as petroleum, chemical, pharmaceutical, oil depot, tank farm as well as the dangerous sites with combustible and explosive gas. It is convenient for users to dispatch communicate timely.

IP Grade： IP65
Ex-marking： Ex ic IIB T5 Gc
Certificate No.: SYEx23.1055X

OS: Windows 11 Home, Optional: Windows 11 Pro, Windows 11 IOT
CPU:
14th generation, ® Intel Core™ Ultra 7 processor 155H with 16 cores and 22 threads, up to 4.80 GHz, integrated 24 MB SmartCache, TDP 28W
Optional: ® Intel Core™ Ultra 5 processor 125H 14 cores and 18 threads, up to 4.50 GHz, integrated 18 MB SmartCache, TDP 28W
Screen: 15.6-inch FHD 16:9 Resolution: 1920*1080
RAM: 32GB DDR5, Optional: 16GB DDR5
ROM: 256GB SSD

Front Cameras: 5.0MP
WIFI: Wi-Fi 6 802.11a,b,d,e,g,h,i,k,n,r,u,v,w,ac,ax
Bluetooth: BT5.1 (BLE) class1 Transmission distance: 10 m
GPS: Supports single GPS or single glonass, default GPS

Dimension: 407*305.8*45.5mm
Battery: Removable Polymer Lithium-ion Battery, Hot-swappable 7500mAh / 3.7V
Battery life: 9.5 hours (default: 50% volume, default: 200 lumens, 720P HD video)
Fingerprint: Built in, *1 SPI Fingerprint (Power-On Login)
Battery Quad-charging dock（Optional）

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Product Certificates	
Details	Ex ic IIB T5 Gc
Ex-mark	SYEx23.1055X
Certificate No.	IP65
Product Outlook	
Dimensions	407*305.8*45.5mm
Weight	3.53kg
Hardware Configuration	
CPU	14th generation, ® Intel Core™ Ultra 7 processor 155H with 16 cores and 22 threads, up to 4.80 GHz, integrated 24 MB SmartCache, TDP 28W Optional: ® Intel Core™ Ultra 5 processor 125H 14 cores and 18 threads, up to 4.50 GHz, integrated 18 MB SmartCache, TDP 28W
GPU	iGfx/dGfx (Intel Xe LPG Graphics)
Memory	RAM 32GB DDR5, Optional: 16GB DDR5 ROM: 256GB SSD
SSD	Optional: 1*SSD (Expansion Slot)
TPM	Built in TPM2.0
Hall	Hall
Operating System	
Operating System	Windows 11 Home Optional: Windows 11 Pro Windows 11 IOT
Specification parameters	
Display	Type: FHD Size: 15.6-inch 16:9 Resolution: 1920*1080 Brightness: 1000cd/㎡
Touch Pannel	Optional 10-Point Capacitive Screen, G+G, Corning Gorilla Glass; Hardness above 7H; Scratch-resistant; Supports glove touch
Camera	Front 5.0MP
Buttons	Power Button *1 P Key *1 (one-click screen off/on) RF *1 (toggle switch, enable/disable wireless functions)
Speaker	Built in 4Ω/3W *2
Microphone	Internal MIC *1
Battery (Hot-swappable)	Removable Polymer Lithium-ion Battery, Hot-swappable 7500mAh/3.7V 9.5hrs (Playing 1080P HD video, Conditions: System in balance mode, 320 lumens, 70 dB at 10cm, WiFi and Bluetooth turned off.)
Network Connections	
WIFI	Wi-Fi 6 802.11a,b,d,e,g,h,i,k,n,r,u,v,w,ac,ax

Bluetooth	BT5.1 (BLE) class 1 Transmission Distance: 10m
2G/3G/4G	4G (Optional M.2 European standard) LTE-FDD: B1/3/5/7/8/20/28 LTE-TDD: B38/40/41
5G	5G Optional M.2 5G NR NSA n1/2/3/5/7/8/12/13/14/18/20/25/26/28/29/30/38/40/41/48/66/70/71/75/76/77/78/79/ SA n1/2/3/5/7/8/12/13/14/18/20/25/26/28/29/30/38/40/41/48/66/70/71/75/76/77/78/79 LTE LTE-FDD B1/2/3/4/5/7/8/12/13/14/17/18/19/20/25/26/28/29/30/32/66/71 LTE-TDD B34/38/39/40/41/42/43/48 LAA B46 UMTS WCDMA B1/2/4/5/8/19
GPS	Supports single GPS or single glonass, default GPS
NFC	Optional, NXP300
Fingerprint	Built in, ×1 SPI Fingerprint (Power-On Login)
Keyboard	US Layout Keyboard with Backlight
Interfaces	
I/O Interfaces	USB3.2 *1, USB3.0 *1, USB2.0 *1
	TYPE-C, Supports Thunderbolt 4
	∮ 3.5mm Standard Earphone Jack *1
	HDMI 2.0a mini x1
	SIM *1
	TF *1
	RJ45*1 10M/100M/1000M adaptive RJ45*1 10M/100M/1000M adaptive, Supports Gigabit Protocol
	RS232 *1, 9 fully functional lines
	DC19V/3.78A ∮ 5.5mm Power port *1
	12PIN Pogo Pin (USB & charging) *1
	Anti-theft Lock Slot *1
	Right-side Cooling Vent *1
	Left-side expansion slot, optional M.2-2280 PCIe interface *1, supports SSD; Optional: M.2, E-KEY, PCIE interface *1 for custom modules.
Indicator Light	
Camera Indicator Light	×1 Constant white light when active, light off when inactive.
Power Indicator Light	×1 Constant blue light when power on, light off when off.

Battery Indicator Light	×1 (Dual-color red/green) Red when charging, green when fully charged, blinking red for low battery, light off during discharge.
Caps Lock Key	×1 Red light on indicates caps lock on, off indicates caps lock off.
Airplane Mode Indicator Light	×1 Red light on indicates airplane mode on, off indicates airplane mode off.
Adapter	
Adapter	DC input 100-240V AC 0.5A 50/60Hz DC19V/3.78A 71.82W American Standard Optional: European Standard
Rugged Features	
Rugged Features	Working temperature: -20 °C to 60 °C
	Storage temperature: -30 °C to 70 °C
	Anti drop height: 1.2m
	Humidity: 95% Non-Condensing
Accessories	
Accessories	Adapter (Standard) 
	Removable Battery (Optional) 
	Battery Quad-charging dock（Optional）

CMA 210008349143

Explosion-proof electrical apparatus

CNAS 中国认可 检测 TESTING CNAS L1016

Conformity certificate of Explosion-proof

Certificate No. SYEx23.1055X

Manufacturer	Beijing Dorland System Control Technology Co. Ltd.
Address	11-A1, 10th Floor, Building 2, Yard 1, Wangzhuang Road, Haidian District, Beijing
Factory	Beijing Dorland System Control Technology Co. Ltd.
Address	11-A1, 10th Floor, Building 2, Yard 1, Wangzhuang Road, Haidian District, Beijing
Name of product	Intrinsically safe industrial explosion-proof laptop
Type specification	ExNB10S
Ex-marking	Ex ic IIB T5 Gc
Product standards	Q/DLM 012-2023 Drawing No. ExNB10S ZZ01
Note	1. The product is powered by TWO 4672135 lithium batteries (DC3.7V, 7500mAh), with a maximum open circuit voltage of DC8.4V and a maximum short circuit current of 2.9A. The battery is integrally sealed with the protective plate. 2. It is strictly prohibited to use external plug-in devices such as USB interfaces in hazardous locations. 3. Nominal voltage DC7.4V.

According to the above examination of product designs drawings and technical documents, and sample inspection, it has been confirmed that the following standards are met:

GB/T 3836.1-2021	Explosive environments Part 1: General requirements for equipment
GB/T 3836.4-2021	Explosive environments Part 4: Equipment protected by intrinsic safety type "i"

Approved by

Date of issue 2023-11-23 Valid date 2028-11-22

Machinery industry Product Quality Supervisory and Test Center of Low-voltage Explosion-proof Electrical Product

SEDRI

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Note: This certificate is valid only for products which are in agreement with the review and approval documents and samples.