DORLAND®

Intrinsically Safe Industrial
Ex NB10S Explosion-proof Laptop

Ex NB10S
15.6"
DORLAND

Ex-mark: Ex ic IIB T5 Gc
IP Grade: IP65

Product Advantages

OS Version
Win11/10 (Home/IOT/Pro)

11th Gen® Intel® Core™
i5/i7 processor

15.6-inch Large Screen
1920*1080 FHD

Dual-battery
7500+2500mAh

Abundant interfaces
You can have it all

Supports WFi6 / BT5.1
Optional 4G\5G / NFC

Ublox GPS high
accuracy positioning

Fingerprint recognition
One-key boot login

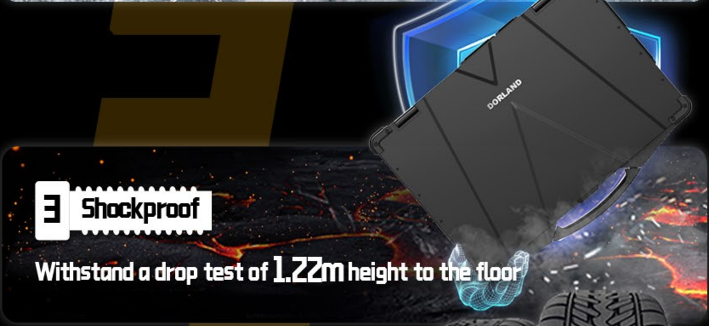
Your safety is our mission

1 Explosion protection range

Suitable for **Zone 2** of the explosive hazardous zone

2 Waterproof/Dustproof

Waterproof/Dustproof-IP65



3 Shockproof

Withstand a drop test of 1.22m height to the floor

4 Anti-rolling

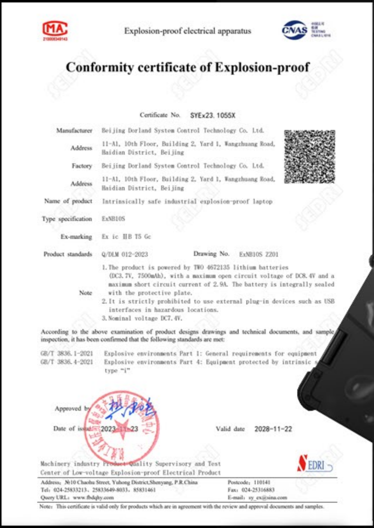
Withstand the rolling of 1.5 tons car

Certification authority

"Built for harsh

Enhanced high-strength body,8 corners are equipped with enhanced protective corners,after an improved sealing treatment of the whole machine.

Pass MIL -STD-810G certification,calmly deal with various harsh environment.



Explosion-proof electrical apparatus

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 Z201

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 s 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

Address：№10 Chaohu Street, Yuhong District,Shenyang, P.R.China Postcode：110141
Tel：024-25833213、25833649-8033、85831461 Fax：024-25316883
Query URL：www.fbdqhy.com E-mail：sy_ex@sina.com

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

60°C HT resistance

-20°C LT resistance

1.22M Anti-drop

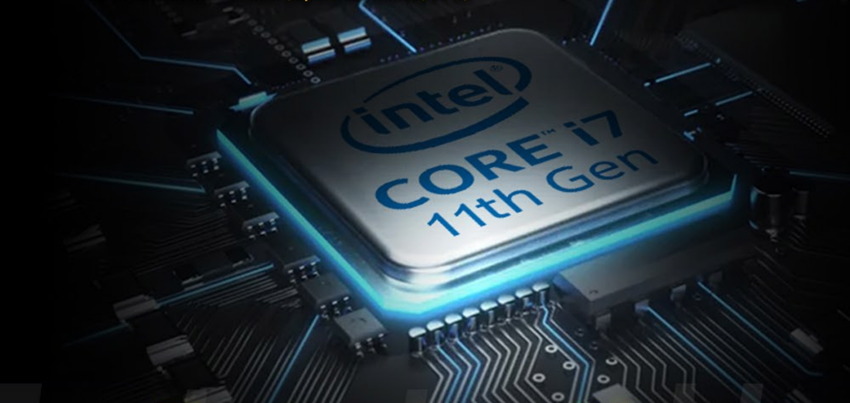
IP65 Protection

1.5T Anti-pressure

Powerful processor

- **CPU Type:** 11th Generation Intel Tiger Lake UP3-28W i5-1135G7
  Optional i7-1165G7 (base frequency 2.80 GHz, maximum frequency 4.7 GHz)
- **CPU Speed:** Processor 4 core 8 threads, processor base frequency 2.40 GHz, maximum frequency 4.20 GHz
- **GPU Type:** Gen 12 Intel® Iris® Xe Graphics, up to 96EU (GPU1.3G)

- **RAM:** 16GB DDR4L (Optional 32GB)
- **ROM:** 256GB NGFF SSD (Optional 512GB/1TB)



Fast networking

- Supports WiFi 6 wireless transmission, with high speed, high bandwidth, and low latency, achieving a fast and stable user experience.
- Supporting M.2 interface 5G/4G selection, NFC selection, and Bluetooth 5.1, it can meet your various connection needs.

WiFi 6

Optional 5G/4G

BT 5.1

Optional NFC

Dual-battery Design

- Large Battery (Pluggable)
  7500mAh/7.4V
  Endurance: 8 hours
- Small Battery (Built-in)
  2500mAh/7.4V
  Endurance: 0.5 hours

7500mAh
Large Battery
(Hot-swappable)
2500mAh
Small Battery
(Built-in)
Removable Battery

Fingerprint Identification

"Faster startup speed

The machine supports SPI fingerprint recognition.

15.6" Large Screen

- The screen size is larger than other DORLAND explosion-proof Notebooks
- 15.6 " Immersive Vision Experience
- Clear image quality, doubling work efficiency

15.6-inch Screen size	16:9 Screen ratio
1920*1080 Resolution	1000 Nit Brightness

Optional Corning Gorilla Glass

"Anti-damage & Anti-scratch

Support capacitive touch screen selection,using Corning Gorilla Glass with anti-damage and anti-scratch properties,easy to click and slide, and can respond to glove operations.

Fast heat emission

Copper tubes paired with fans, upgraded heat sinks, and core components help prevent lag even during high-intensity, long-term task operations.

Opening the Era of Digital Office

"Match a variety of intelligent management and control systems

ERP
MES
SCADA

suitable for
hazardous explosion environment

It is especially suitable for hazardous explosion environment, such as petroleum, chemical, pharmaceutical, military, oil depot, tank farm and other dangerous places with combustible and explosive gas, which is convenient for users to communicate with production and scheduling in time.

PHARMACEUTICAL

This product is widely used in scenarios such as [well monitoring and measurement], [patrol inspection of petroleum and petrochemical equipment],[secure mobility solution],[emergency escape and rescue].

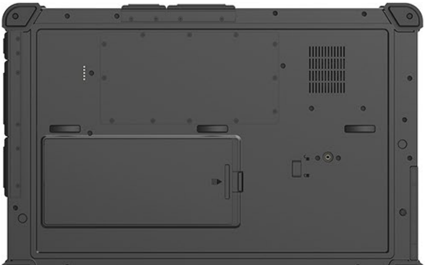
Well monitoring and measurement

Patrol inspection of petroleum and petrochemical equipment

VERIFICATION IN PROGRESS
MAINTENANCE NEEDED
Secure Mobility Solution

Emergency escape and rescue

Hex-vision images



Specification Parameter

Product Certificate

Ex-mark: Ex ic IIB T5 Gc
Certification No.: SYEx23.1055X
Protection Grade: IP65

Product Outlook

Type: 15.6-inch Full-rugged Notebook
Dimension: 397*271*37 mm
Weight: Bare metal 3.3kg
Device Color: Black
Screen size: 15.6″ 16:9
Resolution: 1920(H) × 1080(V) FHD
Brightness: 1000cd/m^2
Touch panel: Optional 10 point G+G capacitive screen, Corning Gorilla protective glass
Camera: Front Camera 2.0MP
Speaker: Built-in 8Ω/1W × 2
Mic: Internal Digit MIC × 2

Battery

Battery (Built-in)

Type: SONY IMX616-AAJH5-C
Capacitive: 1/2.7inch 5P
Endurance: 32M (6560*4928)

Battery (Pluggable)

Type: SONY IMX616-AAJH5-C
Capacitive: 1/2.7inch 5P
Endurance: 32M (6560*4928)

System Hardware Configuration

CPU Type: 11th Generation Intel Tiger Lake UP3 -28W i5-1135G7
Optional i7-1165G7 (base frequency 2.80 GHz, maximum frequency 4.7 GHz)
CPU Speed: Processor 4core 8 threads, processor base frequency 2.40 GHz, maximum frequency 4.20 GHz
GPU Type: Gen 12 Intel® Iris® Xe Graphics, up to 96EU (GPU1.3G)
RAM: 16GB DDR4L (Optional 32GB)
SSD: 256GB NGFF SSD (Optional 512GB/1TB)
HDD: Support HDD
TPM: Built-in TPM2.0 SLB9670VQ2.0
Hall switch: Hall

Software Configuration

OS Version: Windows 10 IOT

Optional: Windows 11 Pro
Windows 11 Home

Network Connections

WIFI: WIFI 802.11(a/b/g/n/ac) Frequency 2.4G+5.8G Dual frequency WIFI /intel 3165 / Max Speed 433 Mbps
Bluetooth: BT4.2 (BLE) class1 Transmission distance：10m
3G: Mini-pcie interface(USB and pcie signal compatibility)
Optional: MU709s-2 Mini PCIe(UMTS/HSPA+ 900/2100MHz),
MU709s-6 Mini PCIe(UMTS/HSPA+ 850/1900/2100 MHz)
4G: Mini-pcie interface(USB and pcie signal compatibility)
Optional: EC25-AU Mini PCIe
LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28
LTE TDD: B40
WCDMA: B1/B2/B5/B8
GSM: B2/B3/B5/B8
NFC: Optional NXP NFC 13.56MHz support ISO/IEC
14443A/14443B/15693/18092/mifare，Card reading distance：4cm
GPS: U-blox NEO-7 Support : GPS
Capture sensitivity: -160 dBm
Cool Start Time: <50second
Hot start time: <28seconds
Frequency: 0.25 Hz - 10 MHz (configurable)
Optional Beidou+GPS U-blox NE0-M8N-0

Interface

USB3.0: USB3.0*3
USB2.0: USB2.0*1
Earphone Jack: ∮3.5mm Standard earphone jack×1 host
HDMI: HDMI×1 (type-A)
SD Card: SD Card×1
SIM Card: SIM Card×1
DC Jack: DC 19V 3.42A power jack×1
Serial Port: DB9 (RS232 or RS485)×1
RJ45 Port: ×2(10/100/1000M Self-adaption)
Burglar lock hole(Right): Kensington×1
Heat dissipation air outlet(Right): Heat dissipation air outlet(Right)×1
Left extension dock: Optional×1 Passenger transfer card PCIE 4X solt or HDD
POGO PIN: POGO 5pin

Button

Fingreprint: ×1 SPI fingreprint(Power on login)
Power Button: Power×1
Reset Button: Reset ×1
P1: Used to lock or open screen×1
Keyboard: US 104 button,IP65

Indicator Light

Power: ×1 Light color is blue when boot(Blue will not too bright),
Light off when machine closed
Baterry: ×1(red and green double - color)
Light color is red when charging,
then become green when full charge,
red light flash when low - power,
it is not bright when discharge

HDD LED: ×1
Caps Lock: ×1
3G/4G: Light color is blue when 3G/4G opened ;
Light off when 3G/4G closed

Standard Accessories

Power Adaptor: 100~240V Input 19V3.42A/65W output USA standard CE approval
Optional USA standard,EU standard

Reliability

Drop Height: MIL-STD-810H 1.22m drop
Operate Temperature: -20°C to 60°C
Store Temperature: -30°C to 70°C
Humidity: 95% Non-Condensing

Standard accessories

Charger,Manual,Explosion proof certificate,etc.