

## **DORLAND Industrial Intrinsically Safe Notebook Ex NB09S (AI High version)**

Developed by Beijing Dorland System Control Tech Co., LTD., the industrial intrinsically safe & solid Notebook Ex NB09S adopted advanced technology with intrinsically safe circuit, 14" 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, 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.:** CCRI 20.2233X

**OS:** Windows 11 Home, Optional: Windows 11 Pro, Windows 10 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

**Screen:** 14-inch FHD 16:9, Resolution: 1920\*1080

**RAM:** 32GB DDR5

**ROM:** 256GB SSD

**Cameras:** 5.0MP front

**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:** 363.2\*287.4\*42.1mm

**Weight:** 4205g (bare machine)

**Battery Capacitive:** Built-in Polymer Lithium-ion Battery, Non-removable 2500mAh/7.4V

Removable Polymer Lithium-ion Battery, Hot-swappable 7500mAh/7.4V

**Battery life:** 9.5 hours (default: 50% volume, default: 200 lumens, 720P HD video)

**Fingerprint:** ×1 SPI fingerprint

**Battery Quad-charging Dock (Optional)**

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Product Certificates	
<b>Ex-mark</b>	Ex ic IIB T5 Gc
<b>Certification No.</b>	CCRI 20.2233X
<b>IP Grade</b>	IP65
Product Outlook	
<b>Dimensions</b>	363.2*287.4*42.1mm
<b>Weight</b>	4205g (bare machine)
Hardware Configuration	
<b>CPU</b>	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
<b>GPU</b>	iGfx/dGfx (Intel Xe LPG Graphics)
<b>Memory</b>	<b>RAM:</b> 32GB DDR5 <b>ROM:</b> 256GB SSD
<b>SSD</b>	Optional: 1*SSD (Expansion Slot)
<b>TPM</b>	Built in TPM2.0
<b>Hall</b>	Hall
Operating System	
<b>Operating System</b>	Windows 11 Home Optional: Windows 11 Pro, Windows 10 IOT
Specification parameters	
<b>Display</b>	Type: FHD Size: 14-inch 16:9 Resolution: 1920*1080 Brightness: 1000cd/m²
<b>Touch Pannel</b>	Optional 10-Point Capacitive Screen, G+G, Corning Gorilla Glass; Hardness above 7H; Scratch-resistant; Supports glove touch
<b>Camera</b>	<b>Front</b> 5.0MP
<b>Buttons</b>	Power Button *1 P Key *1 (one-click screen off/on) RF *1 (toggle switch, enable/disable wireless functions)
<b>Speaker</b>	Built in 4Ω/3W *2
<b>Microphone</b>	Internal MIC *1
<b>Battery (Built in)</b>	Built-in Polymer Lithium-ion Battery, Non-removable 2500mAh/7.4V 1.5hrs (Default 50% volume, 200 lumens brightness, playing 1080P HD video)
<b>Battery (Hot-swappable)</b>	Removable Polymer Lithium-ion Battery, Hot-swappable 7500mAh/7.4V 8hrs (Playing 1080P HD video, Conditions: System in balance mode, 30% brightness, 320 lumens, 30% volume (70 dB at 10cm), WiFi and Bluetooth turned off.)
Network Connections	
<b>WIFI</b>	Wi-Fi 6 802.11a,b,d,e,g,h,i,k,n,r,u,v,w,ac,ax

<b>Bluetooth</b>	BT5.1 (BLE) class 1; Transmission Distance: 10m
<b>2G/3G/4G</b>	4G Optional M.2 European Standard LTE-FDD: B1/3/5/7/8/20/28 LTE-TDD: B38/40/41
<b>5G</b>	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
<b>GPS</b>	Supports single GPS or single glonass, default GPS
<b>NFC</b>	Optional, NXP300
<b>Fingerprint</b>	Built in, x1 SPI Fingerprint (Power-On Login)
<b>Keyboard</b>	US Layout Keyboard with Backlight
<b>Interfaces</b>	
<b>I/O Interfaces</b>	USB3.2 *1, USB3.0 *1, USB2.0 *1
	TYPE-C, Supports Thunderbolt 4
	φ 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 (USB 2.0), Supports Gigabit Protocol
	RS232 *1, 9 fully functional lines
	DC19V/3.78A φ 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 interface *1 for custom modules.
<b>Indicator Light</b>	
<b>Camera Indicator Light</b>	x1 Constant white light when active, light off when inactive.
<b>Power Indicator Light</b>	x1 Constant blue light when power on, light off when off.
<b>Battery Indicator Light</b>	x1 (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 100-240VAC0.5A50/60Hz 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 distance: 1.2m	
	Humidity: 95% Non-Condensing	
Accessories		
Accessories	C19V/3.78A Adapter (Standard)	
	Removable Battery (Optional)	
	Battery Quad-charging Dock (Optional)	

 170021131268		 中国认可 检测 TESTING CNAS L0738
 <b>CCRIC</b>		
<b>CONFORMITY CERTIFICATE OF EXPLOSION-PROOF</b>		
Certificate No.: CCRI 20.2233X		
Company:	Beijing Dorland System Control Tech Co.,Ltd.	
Address:	Room 807, Yingu Plaza, North 4th Ring West Road, Haidian District, Beijing 100080,P.R. China.	
Name of Product:	Industrial Intrinsically Safe & Solid Notebook	
Type of Product:	Ex NB09S	
Marking:	Ex ic II B T5 Gc	
Technical Documents:	Q/DLM 005-2020	
Drawing No.:	Ex NB09S BZ01	
Note(s):	<ol style="list-style-type: none"><li>1. Power supply by two separated rechargeable lithium-ion batteries with protective circuits. Rated voltage:7.4VDC/7000mAh, 7.4VDC/2500mAh;</li><li>2.The suffix "X" of the certificate means that it is forbidden to use external power supply and all kinds of external interfaces when using in hazardous places. It should be use at steady placement when working.</li></ol>	
By verifying the drawings and technical documents and checking samples,the product complies with the following standards currently valid in P.R.China: GB 3836.1-2010, GB 3836.4-2010		
Date of Issue:	6.18.2020	
Valid till:	6.17.2025	
Authorize:	  	
<b>China Coal Research Institute Testing Center</b>		
(The test center of the national safety production of mining equipment and mining oil in Beijing)		
Note: This certificate is only valid for the products that are in accord with samples tested and verified. Center Add: No.5 Qingniangou Road,Hepingli,Beijing,100013 Tel/fax: 010-89268018 The query url of Explosion-proof Certificate: <a href="http://www.ccrict.com.cn/Home">http://www.ccrict.com.cn/Home</a>		