DURABOOK
Prepared for the Unexpected

DURABOOK U11I-EX INTRODUCTION

DURABOOK MARKETING DIVISION

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UNIQUE SELLING PROPOSITION

- ATEX Zone 2/22 certified
- COOLFINITY™ fanless design
- IP 66 and 6’ drop
- MIL-STD-810H

Stronger Beyond Rugged

Revolutionary Computing Power

Unrivalled Viewing Quality

NEXT-GEN Connectivity

- 12th Intel® Core™ CPUs
- Thunderbolt™ 4
- NVMe SSD storage
- Long-lasting battery life and hot-swappable battery

- 11.6” FHD with DynaVue® technology and up to 1000 nits
- 4 touch modes, optional with digitizer

- 4G LTE/5G solution
- WI-FI 6E
- Bluetooth® V5.3

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TARGETS & APPLICATIONS

Applications

- Data collection
- Assets Management
- Diagnostic and Maintenance
- Field Services
- Laboratory

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U11I-EX FEATURES HIGHLIGHT

MOST POWERFUL FANLESS FULLY RUGGED FOR HAZARDOUS ENVIRONMENTS

STANDARD 3 YEAR WARRANTY

- 12th Gen. Intel® Core processors with vPro™.
- 11.6” FHD (1920 x1080) 1000 nits touch sunlight readable display.
- ATEX Zone 2/22 certified.
- COOLFINITY™ fanless thermal design.
- LPDDR4x memory up to 32GB.
- Battery Charging Protection technology.
- Secure-Core PC and Windows Hello face-authentication camera (optional).

MIL-STD 810H | IP66 CERTIFIED | 6 ft drop | ATEX | COOLFINITY™ | DynaVue

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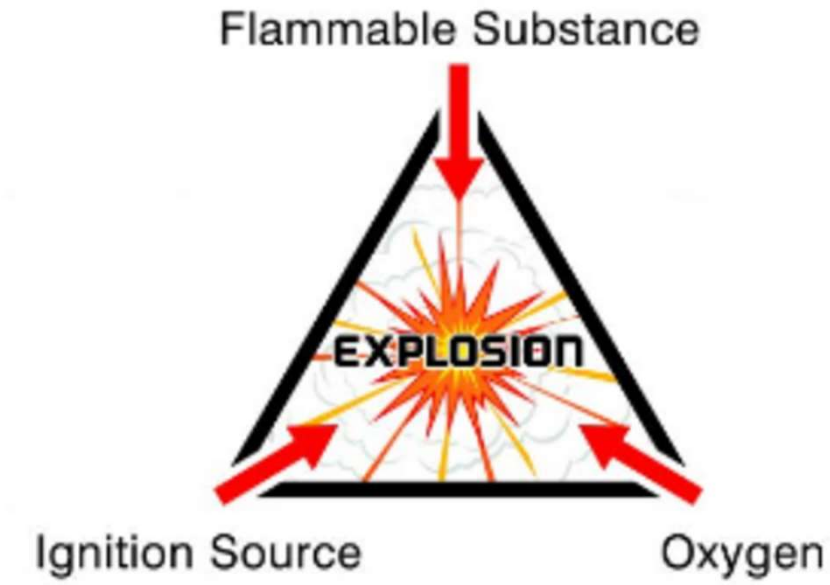
WHAT IS AN EXPLOSIVE ATMOSPHERE?



An explosive atmosphere or (ATEX) is the mixture with air, under atmospheric conditions, of flammable substances in the form of gas, vapor or dust in which, after ignition, combustion spreads to the entire unburned mixture.

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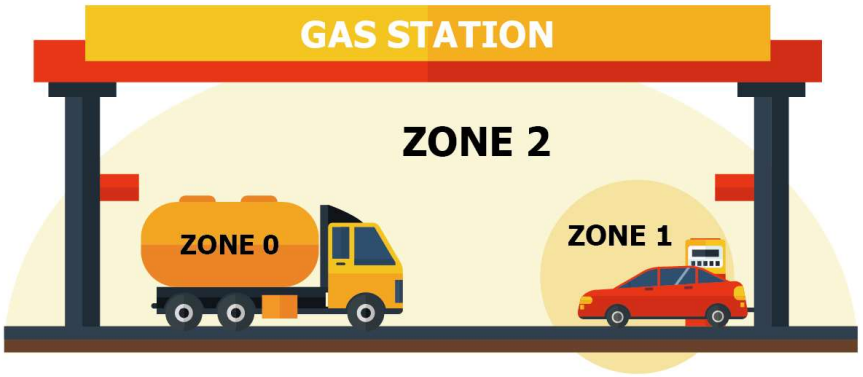
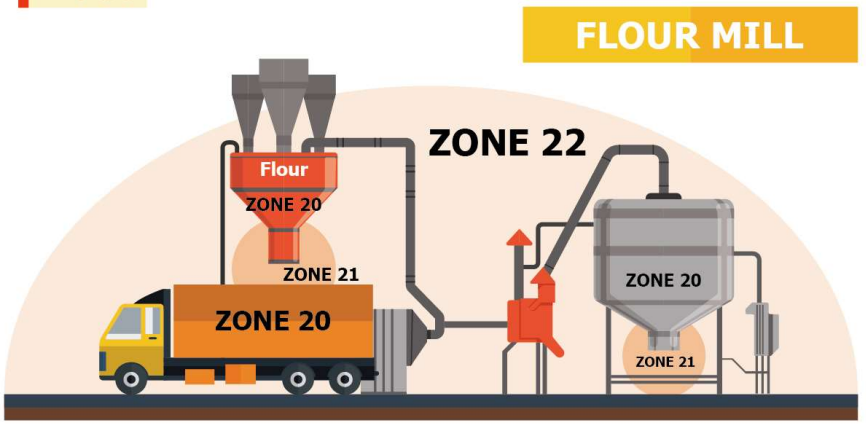
INTRODUCING THE U11I-EX

Durabook has intensified the U11I-EX to comply with the ATEX 114 "equipment" directive 2014/34/EU.
The U11I-EX can be used in an explosive atmosphere of Zone 2 and 22 areas where dangerous substances in the form of gas, vapor, mist or a cloud of combustible dust in the air persist for a short period.

Gas



Dust



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HAZARDOUS AREA CLASSIFICATION

Risk level	America NEC	Europe IEC	Japan JIS	Taiwan CNS
High	Class 1 Div 1	Zone 0/20	Level 0	Zone 0/20
Medium		Zone 1/21	Level 1	Zone 1/21
Low	Class 1 Div 2	Zone 2/22	Level 2	Zone 2/22

Zone 0/20 is present continuously or for long periods or frequently.

Zone 1/21 is likely to occur in normal operation occasionally.

Zone 2/22 is not likely to occur in normal operation, and if it does occur, will persist for a short period only.

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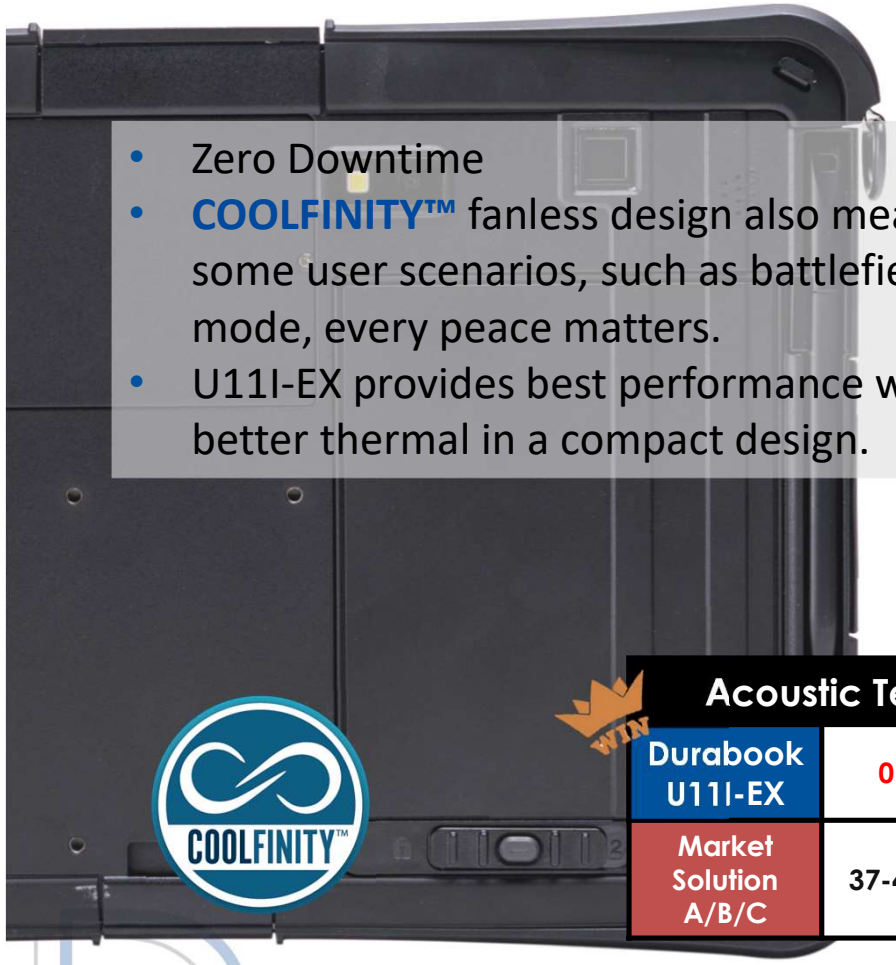
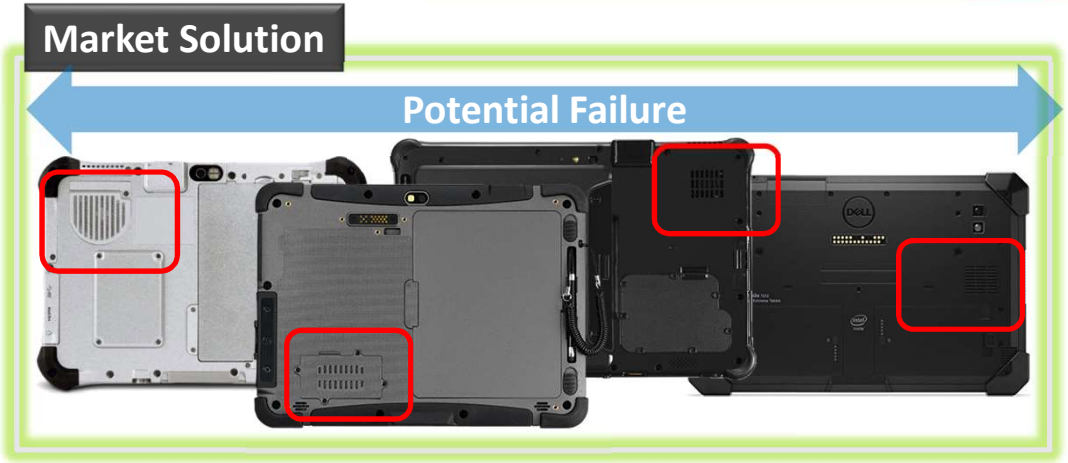
COOLFINITY™ FANLESS DESIGN

FOR THE MOST CHALLENGING ENVIRONMENTS



- Zero Downtime
- **COOLFINITY™** fanless design also means **free-of-noise**. In some user scenarios, such as battlefield, hospital and stealth mode, every peace matters.
- U11I-EX provides best performance with better thermal in a compact design.

Acoustic Test	
Durabook U11I-EX	0 dBA
Market Solution A/B/C	37-40 dBA



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BENEFITS OF COOLFINITY™

FANLESS THERMAL SOLUTION FOR HAZARDOUS ENVIRONMENTS

RELIABLE. SECURE. POWERFUL.

1. The **COOLFINITY™** not only gives no chances for gas, vapors or dust to get inside the device, it can also **prevent any deposit or friction from causing the ignition**.
2. Fan failure is one of most common reasons that lead to system overheat, especially in desert areas where fan failure rate is even higher. With the **COOLFINITY™**, we ensure a **more reliable performance** under a long period of operating time and no maintenance need on the fan.
3. The **COOLFINITY™** can **lower power consumption and weight**, which is crucial for power efficiency and portability.

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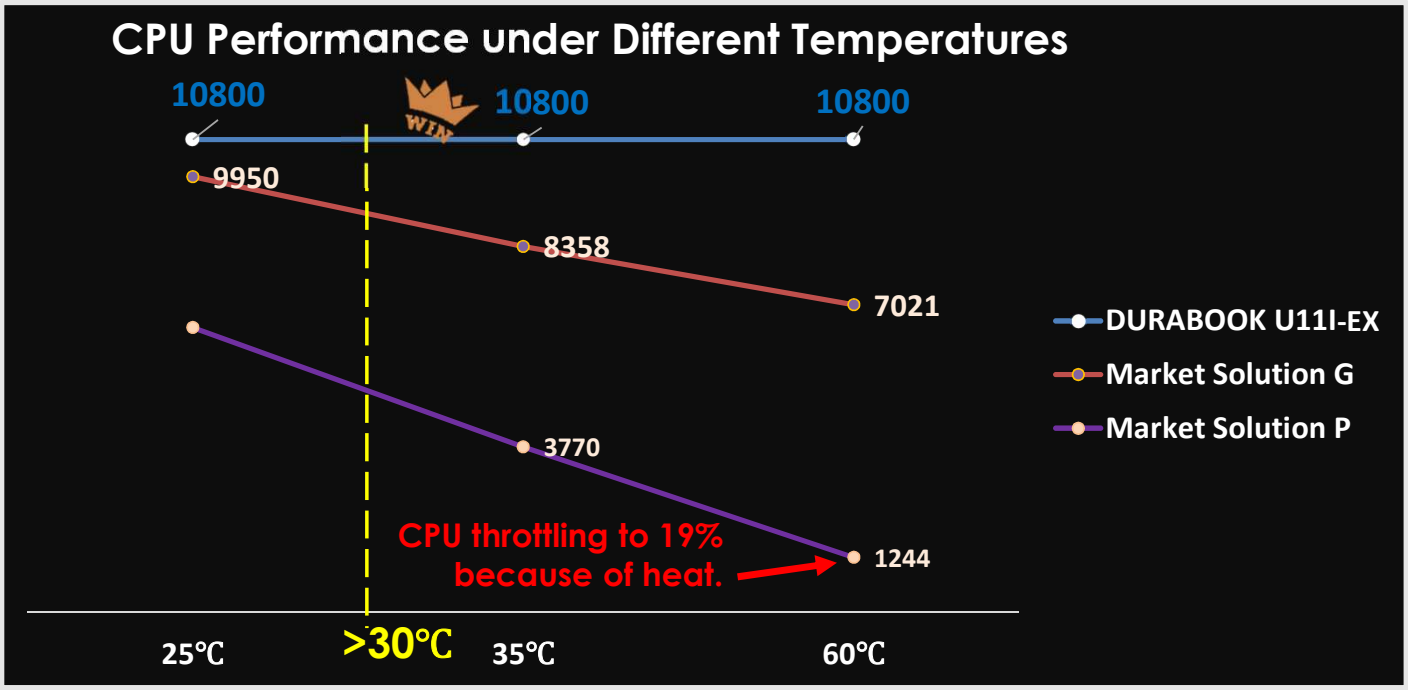
COOLFINITY™ THERMAL PERFORMANCE

The 12th Intel® UP4-Series processor is the best solution for mobile tablet platforms. The low power consumption design, powered by its better thermal management, guarantees stable system performance under harsh environments.
There is no CPU-throttling when the temperature goes higher.



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MORE RUGGED THAN EVER

MIL-STD-810H CERTIFIED

- With excellent design know-how, the U11I-EX is able to withstand harsher environmental challenges than ever.

- U11I-EX is MIL-STD 810H and IP66 certified (6’ drop, shock, vibration, rain, dust, altitude, freeze/thaw, high/low temperature, temperature shock, humidity, **explosive atmosphere**, **salt fog**)

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DROP RESISTANCE

BUILT TO LAST IN EVERY APPLICATIONS

ARMED VEHICLE

~4.5 ft height

6 ft drop

LOGISTICS

~5 ft height

DURABOOK U11I-EX

- ✓ 26 drops
- ✓ 6 ft (~183cm)
- ✓ All drops performed on one unit, operating.

FIRE TRUCK

~4 ft height

HEAVY MACHINE

~6 ft height

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COMPUTING POWER

12TH GENERATION ALDER LAKE CPU

The 12th Generation Intel Alder Lake is up to **225%** quicker than the 10th Generation.

	Intel® Core i7-1250U (12 Gen)	Intel® Core i5-1230U (12 Gen)	Intel® Core i7-10510Y (10 Gen)	Intel® Core i5-10210Y (10 Gen)
Turbo Speed	Up to 4.7 GHz	Up to 4.4 GHz	Up to 4.5 GHz	Up to 4.0 GHz
# of Core	2P+8E -Cored	2P+8E-Cored	4 -Cored	4 -Cored
TDP	9 W	9 W	7 W	7 W
Cache	12 MB	12 MB	8 MB	6 MB
CPU Mark	11,000	9,448	6,000	4,500

Source: Tested by PassMark

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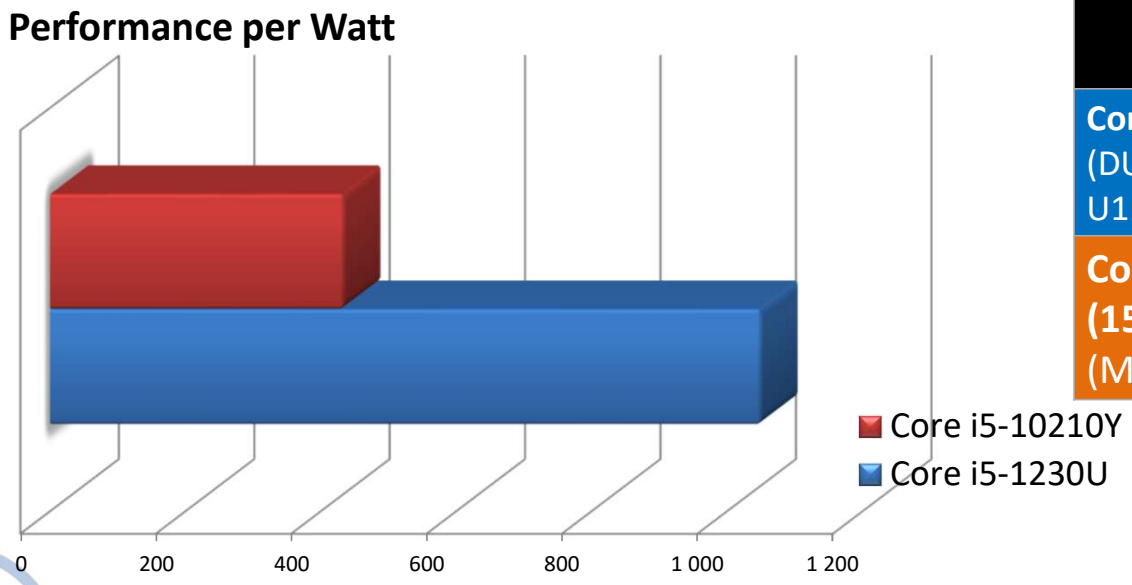
CPU PERFORMANCE

12TH GENERATION ALDER LAKE CPU

The 12th Intel® UP4-Series CPU only takes **9W** power consumption compared to 15W.
The performance per watt is **276%** better than other brands.

DURABOOK 12th gen U-Series CPU is unbeaten solution for 11” mobile tablets.



Processor	CPU Performance	Performance per Watt
Core i5-1230U (9W) (DURABOOK U11I-EX)	9,448	**1,049**
Core i5-10310U (15W) (Market Solution)	6,500	433

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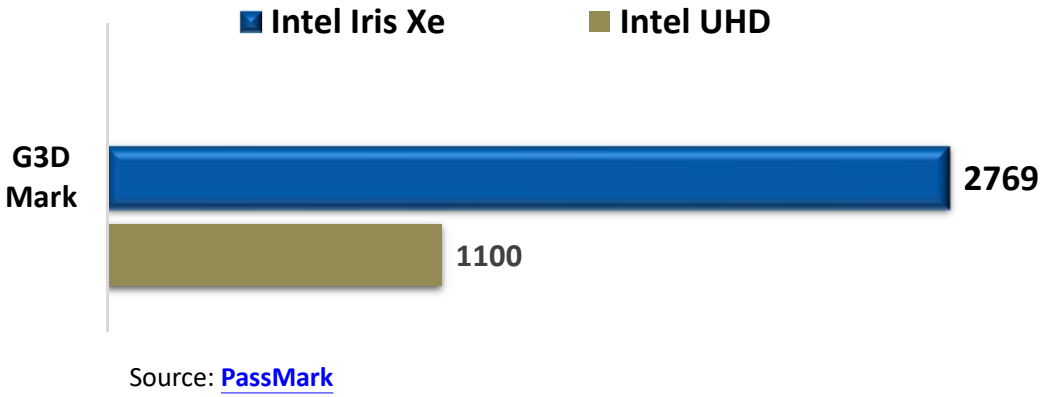
GRAPHIC PERFORMANCE

INTEL® IRIS XE GRAPHICS

- The U11I-EX comes with Intel® Iris Xe Graphics clocked 150 MHz higher than UHD results in **2.5x** faster 3D effective speed - *Better Than Enough* in daily usage.



Source: PassMark

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VIEW EVERY DETAIL

THE NEW GENERATION OF DYNAVUE TECHNOLOGY

- Default with 11.6” FHD (1920x1080) display
- Optional with 1000 nits DynaVue® sunlight readable display and digitizer
- The new DynaVue® light-filtering technology provides a high contrast ratio (CR) to eliminate reflection and deliver the best clarity.

High Brightness + **Light Filtering Technology** = **DynaVue®**

1000 nits + ANTI-REFLECTIVE = **Increased Clarity & Wider Viewing Angle**

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TOUCH IN AND OUT

4 TOUCH MODE AND OPTIONAL WITH DIGITIZER SOLUTION

- ✓ 4 touch modes: glove, stylus, water & finger mode.

Slim & light for seamless input

Stylus

U11I-EX comes with a slim stylus as standard, a more precise alternative to your fingertips. It allows you to easily control and navigate your tablet. A stylus can provide increased accuracy and deliver more pristine linework than that of your fingertip.

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MAXIMUM CONNECTIVITY

INTEL® WI-FI 6E AX211

- With ultra high-speed data transmitting capability, all the information are instantly synchronized and fed back to the data center.
- Intel® **Wi-Fi 6E AX211** with max. speed of 9.6Gbps is **5x** faster than AC 9260 with max. speed only 1.73Gbps.
- Bluetooth® V5.3 bandwidth is **1.5x** greater than v5.0, which is capable connecting multiple devices at once.

Brand	Wireless Lan	Bluetooth	Emission Speed	Effective Range
Durabook U11I-EX New	**6E AX211**	**V5.3**	**3.0 MB/s**	**Max 300 meters**
Market Solution P	AX201	V5.1	2.0 MB/s	Max 240 meters
Durabook U11I	AC9260	V5.0	2.0MB/s	Max 240 meters

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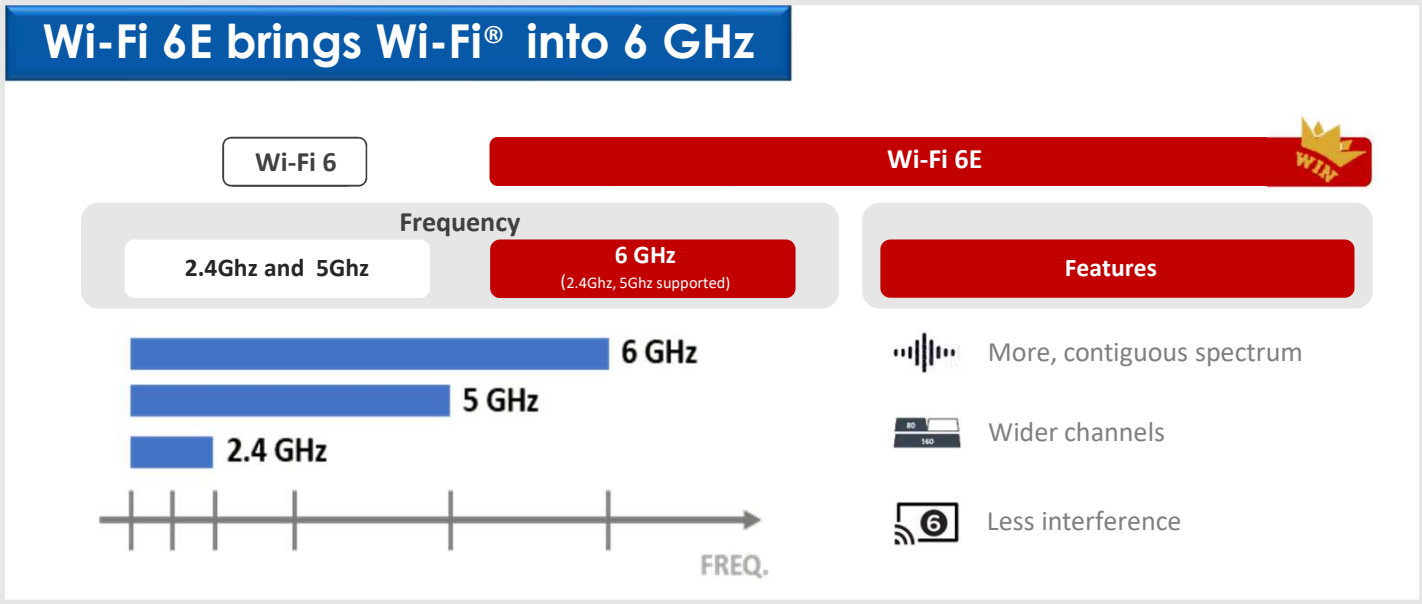
WI-FI 6E NEXT GENETATION CONNECTIVITY

Wi-Fi 6 refers to the **sixth-generation** wireless network technology.

The transmission rate of Wi-Fi 6 is **872.7x** that of Wi-Fi 1. Except for rate, the Wi-Fi 6 rely on three technological innovations: **faster, safer** and **more power saving**.



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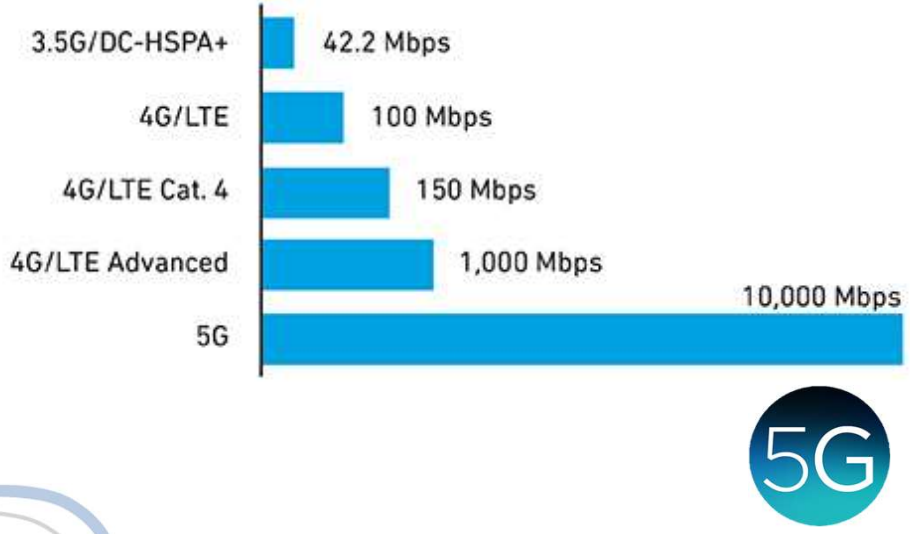
SEAMLESS CONNECTIVITY

- Advanced wireless capabilities include cellular options of 4G LTE or 5G.
- 5G mobile connectivity offers ultrafast data transfer speed over previous generations of mobile networks, which is **100x** fast than 4G LTE. Providing always-on high-speed connectivity for workers in the field with improved productivity anytime, anywhere.

Downlink Speeds by Technical Generation



GOVERNMENT SECTOR

- U11I-EX designed with **u-blox NEO M9N module** to provide high GPS accuracy.
- **And more**, featured by **RF Tri-pass-through** (WIFI, WWAN, GPS), in-field professionals can connect to the remote database in real time.

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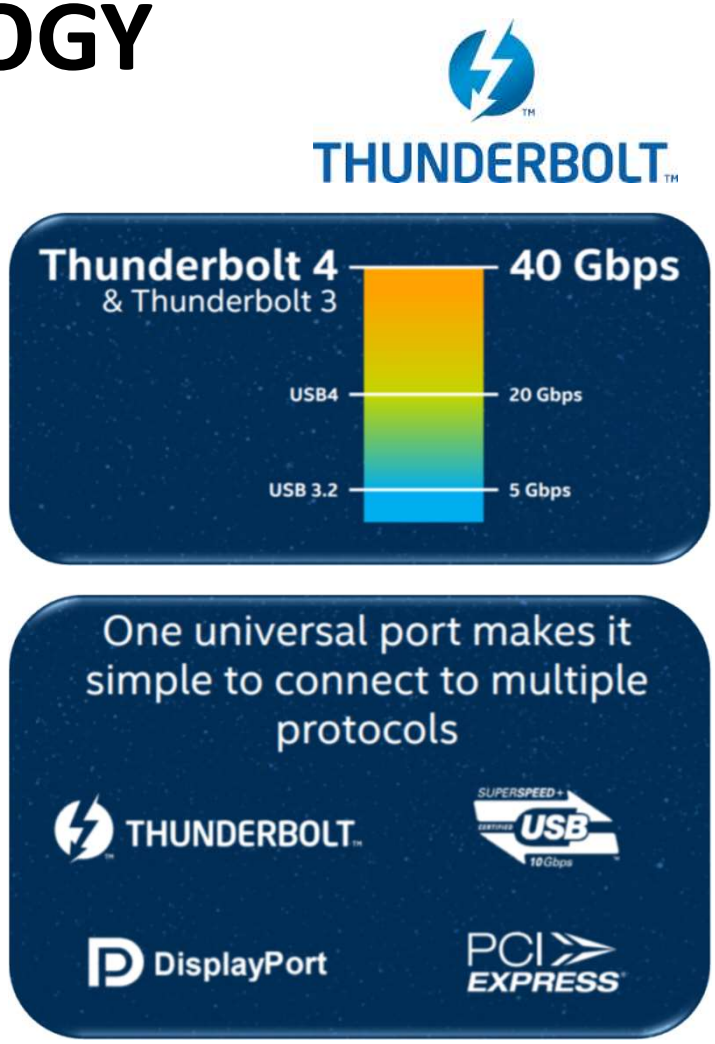
THUNDERBOLT™ 4 TECHNOLOGY

UNIVERSAL CABLE CONNECTIVITY

Thunderbolt 4 is the latest version of Intel's Thunderbolt line.
Thunderbolt 4 is more powerful and makes connecting the modern workspace more flexible and simpler than ever.

- Delivers 40Gb/s of bandwidth
- One port supports multiple protocols
  - USB 4
  - DisplayPort
  - PCIe
- Support up to **2x** 4K external displays
- It is backwards compatible with Thunderbolt 3 & USB-C
- Maximum flexibility for docking station
- **Bi-directional power**
  - Power share + power delivery (PD)



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SPEAK ALL LANGUAGES

EXPANDABLE AND CONFIGURABLE I/O OPTIONS

*optional

- * Barcode Scanner
- * RS-232 Legacy Device
- * USB 3.2 Type C Device Expansion
- * USB 3.2 Type A Device Expansion
- * USB 2.0 Type A Device Expansion

- * Smartcard Data Access Security
- * Fingerprint Data Access Security
- Thunderbolt 4
- RJ-45 for Data Transfer/ Server
- USB 3.2 Type A Device Expansion
- 4G LTE/5G Connection
- Micro SD Quick data exchange

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MARKET LEADER FOR POWER SUPPLY

The U11I-EX is the market leader on power supply with up to **20 hours** per single battery. Additionally, the U11I-EX supports up to 5 mins swap-time for field professionals with no downtime for battery swaps.

Battery Life

WIN

Up to 20 hrs
U11I-EX Hi-Cap Battery

Up to 12 hrs
Market Solution D&G

9.5 hrs
Market Solution Z

Durabook U11I-EX Hi-Cap Battery

20 HOURS

With an optional 9,600 mAh **Hi-Cap battery**, field workers can work all-day long without changing battery in hazardous and explosive environments.

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NON-STOP MOBILITY

EASY BATTERY SWAPPABLE CAPABILITIES

ONE, TWO and GO!

Work never interrupted with the friendly mechanical design for easy battery swappable capabilities and full protection that minimize the working downtime.

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BATTERY CHARGING PROTECTION

To reduce battery aging, Durabook has developed four battery charging modes with enhanced charging algorithms for our customers to choose from.

4 Battery modes:

- **Regular Mode**
  In this mode the battery will be fully charged.
- **Optimized Battery Charging (OBC)**
  Battery charging will stop at 80% to reduce battery aging.
- **Temperature Control Mode (TCM)**
  To extend the lifetime of the battery, charging is enhanced based on DURABOOK intelligent algorithm and battery temperature.
- **DURA² Charging (D2C)**
  To maximize battery performance and lifespan, charging is enhanced based on DURABOOK intelligent algorithm and battery temperature. Battery charging will stop at 80%.

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IMPROVED SECURITY WITH WINDOWS HELLO

UTILIZE THE POWER OF BIOMETRICS-BASED TECHNOLOGY

U11I-EX supports Windows Hello face authentication. The new U11I-EX is equipped with a near infrared (IR) camera with facial recognition capability to authenticate and unlock Windows devices. Near infrared camera provides consistent image sensing capability in various ambient light environments, enabling users to login to windows securely.

Windows Hello

Face Authentication

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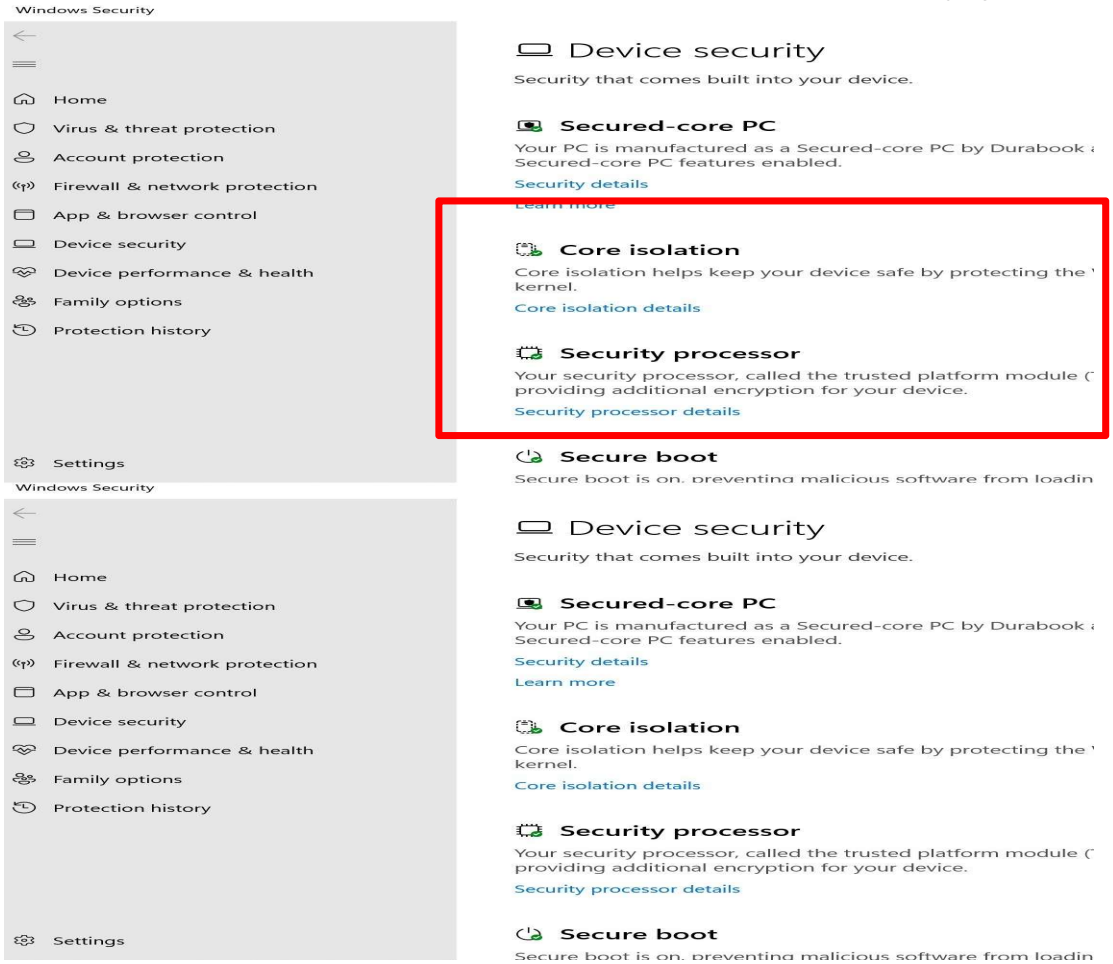
ELEVATE PROTECTION WITH SECURED-CORE PC

SUPPORTING WINDOWS HELLO

*Secured-core PC is project base

- **Multifactor Authentication (MFA)**
  - Capacitive Fingerprint Reader
  - Camera for Windows Hello facial recognition

- **Sniff out any tampering bootups**
  - TPM2.0 prevents tampering or malicious attacks.



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U11I-EX Anatomy

ATEX anti-static leather case

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U11I-EX Anatomy

1. Top bracket
2. Left/Right brackets
3. Bottom brackets
4. Battery bracket

Before entering the ATEX area, please install all the explosion-proof brackets and anti-static leather case. You can remove the anti-static leather case and explosion-proof brackets only after leaving the ATEX area.

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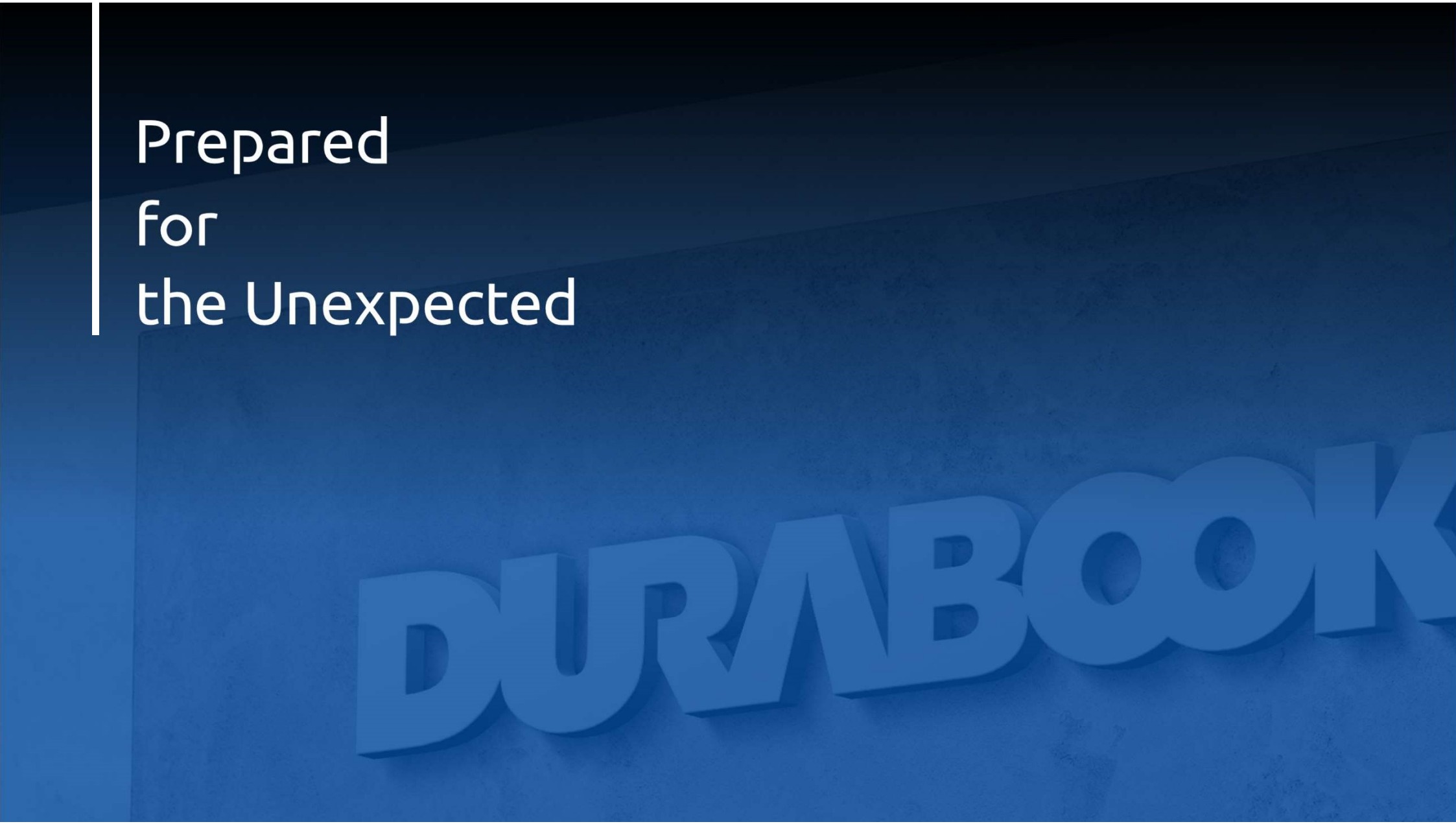
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