

DURABOOK

Prepared for the Unexpected

DURABOOK R8-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

- 8" HD LCD with DynaVue® Technology and up to 800 nits
- 4 Touch Modes

**Stronger
Beyond
Rugged**

**Revolutionary
Computing
Power**

**Unrivalled
Viewing
Quality**

**Long-lasting
Power &
Functionality**



- 12th Intel® Core Processor
 - Intel® Xe Graphics
 - Wi-Fi 6E AX211
 - Thunderbolt™ 4
 - Compact and Lightweight
-
- Long-Lasting Battery Life and Swappable Battery
 - Battery Charging Protection

TARGETS & APPLICATIONS

Applications

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



OIL AND GAS



CHEMICAL



PHARMACEUTICALS



LABORATORY





R8-EX FEATURES HIGHLIGHT

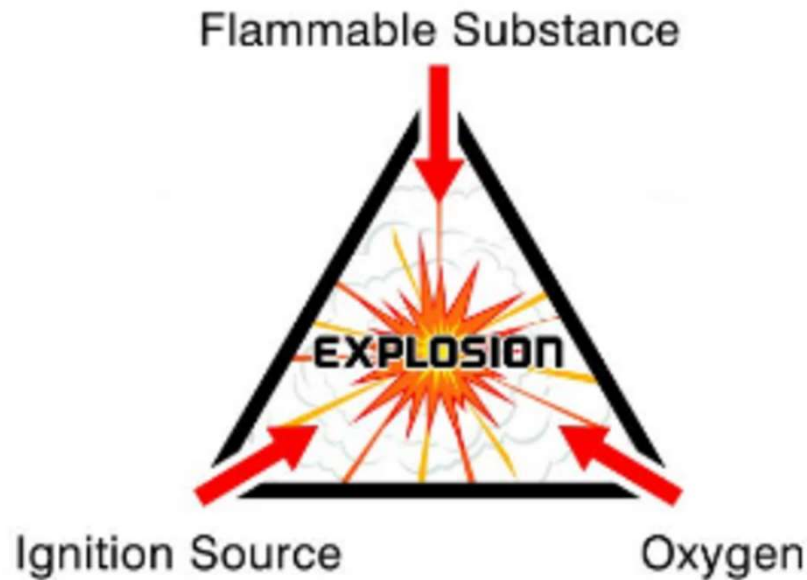
THE WORLD'S ONLY FANLESS 8" FULLY RUGGED TABLET



- **12th** Gen. Intel® processors - **450% - 800%** faster than competitor devices running on Intel® Atom® CPUs.
- **8" LCD** (1280 x 800) 800 nits sunlight readable display with optional digitizer support.
- **ATEX Zone 2/22** certified.
- **COOLFINITY™** fanless design with zero downtime.
- **Battery Charging Protection** Technology.
- Standby Mode with swappable battery design (optional).



WHAT IS AN **EXPLOSIVE ATMOSPHERE?**



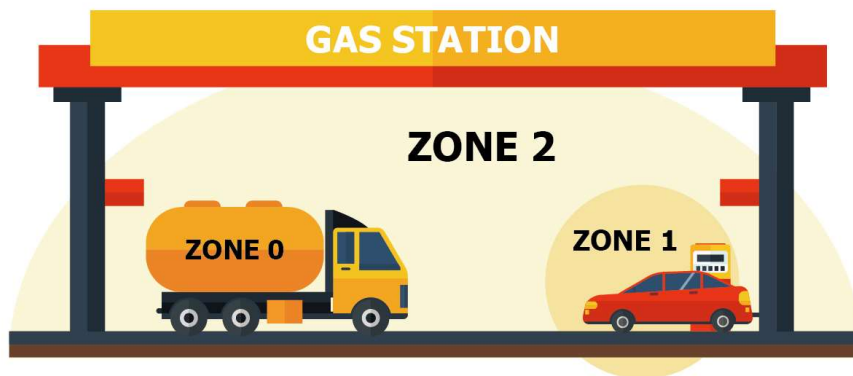
An explosive atmosphere or (ATEX) is the mixture with air, under atmospheric conditions, of flammable substances in the form of gas, vapor or dust in which, after ignition, combustion spreads to the entire unburned mixture.

INTRODUCING THE R8-EX

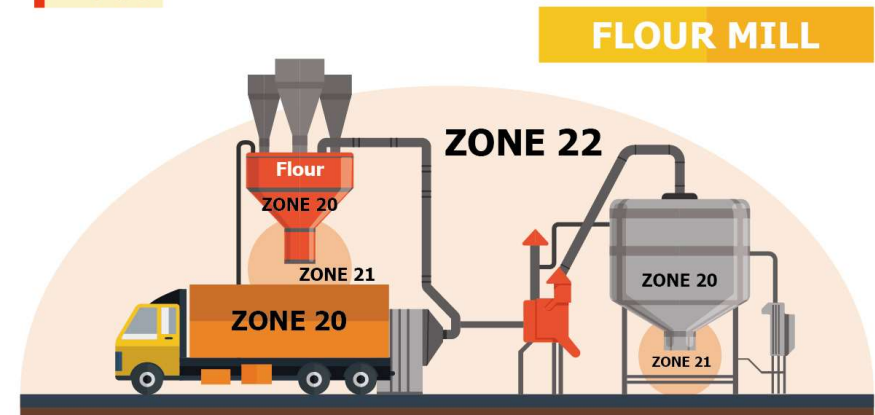
Durabook has intensified the R8-EX to comply with the ATEX 114 "equipment" directive 2014/34/EU.

The R8-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



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.

COOLFINITY™ FANLESS DESIGN

FOR THE MOST CHALLENGING ENVIRONMENTS

- Zero Downtime
- Fan failure is one of most common reasons lead to system overheat, and therefore damaging other components. Especially in desert environment, the fan failure rate is becoming higher.
- **COOLFINITY™** fanless design also means **free-of-noise**. In some user scenarios, such as battlefield, hospital and stealth mode, every peace matters.
- R8-EX provides best performance with better thermal in a compact design.

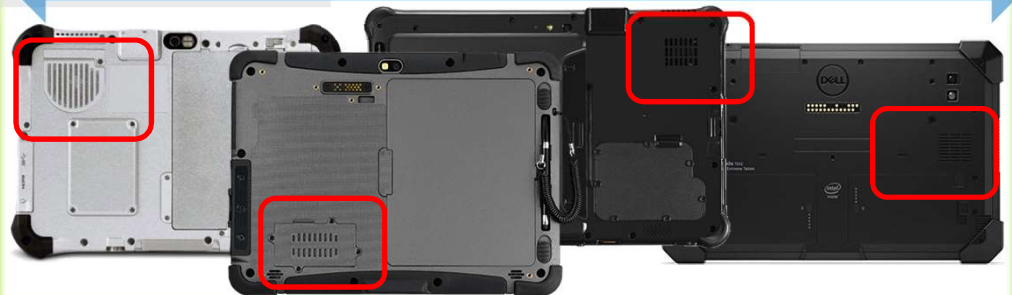


Acoustic Test	
Durabook R8-EX	0 dBA
Market Solution A/B/C	37-40 dBA



Market Solution

Potential Failure



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.



MORE RUGGED THAN EVER

MIL-STD-810H CERTIFIED, 6 FEET DROP AND IP 66

- With excellent design know-how, the R8-EX is able to withstand harsher environmental challenges than ever.
- R8-EX is MIL-STD 810H certified (6' Drop, Shock, Vibration, Rain, Dust, Altitude, Freeze/Thaw, High/Low Temperature, Temperature Shock, Humidity)



DROP RESISTANCE

BUILT TO LAST IN EVERY APPLICATIONS

WAREHOUSE



~4.5 ft height

FIRE TRUCK



~4 ft height



DURABOOK R8-EX

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

LOGISTICS



~5 ft height

HEAVY MACHINE



~6 ft height

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COMPACT-SIZED YET FANLESS

EXTREME POWER, ULTRA COMPACT

At just 20.5 mm (0.81") thin and weighing only 0.88 kg (1.94 lb), the R8-EX brings a light new edge to the fully-rugged class of small size tablets.

- Palm Size: **227 mm x 150 mm**
(8.94" x 5.91")
- Thin & Slim: **20.5 mm (0.81")**
thickness
- Lightweight: **0.88 kg (1.94 lb)**



20.5 mm (0.81")



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REVOLUTIONARY COMPUTING POWER

12TH GENERATION INTEL® CPU

- R8-EX is the world's only 8" tablet solution equipped with the latest Intel **12th Alder Lake** CPU. Processor's options are from Pentium Gold to Core i7 U-series.
- R8-EX basic solution - Pentium® Gold 8500 up to **450%** faster than Intel® Atom® CPUs.
- R8-EX advanced solution – Core™ i7-1250U up to **800%** faster than Intel® Atom® CPUs.

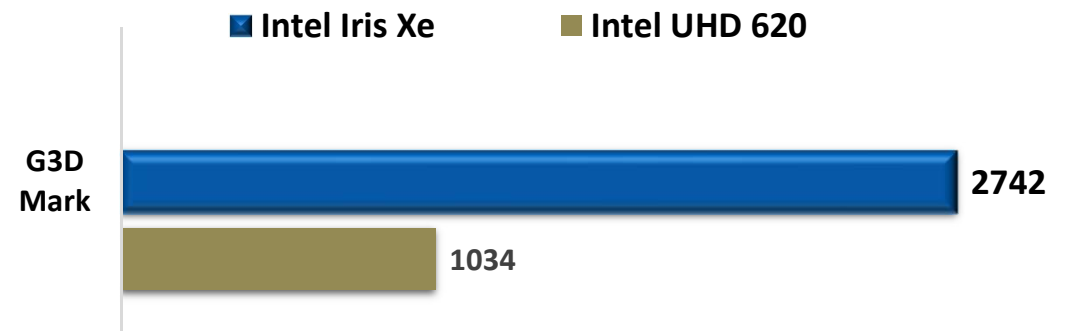


	Intel® Atom x7-Z8750	Intel® Pentium Gold 8500 Alder Lake	Intel® Core i5-1230U Alder Lake	Intel® Core i7-1250U Alder Lake
Turbo Speed	Up to 2.56 GHz	Up to 4.2 GHz	Up to 4.0 GHz	Up to 4.8 GHz
# of Physical Cores	4	1P+4E	2P+8E	2P+8E
Cache	2MB	8MB	12MB	12MB
CPU Mark	1,373	6,180	9,160	10,937

GRAPHIC PERFORMANCE

INTEL® IRIS XE GRAPHICS

- The R8-EX comes with Intel® Iris Xe Graphics clocked 150 MHz higher than UHD 620 results in **2.65x** faster 3D effective speed - *Better Than Enough* in daily usages.



Source: [PassMark](#)



**Dyna
Vue**

VIEW EVERY DETAIL

THE NEW GENERATION OF DYNAVUE® TECHNOLOGY

Default with 8.0" LCD (1280x800) display
with 800 nits DynaVue® sunlight readable display.
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



ANTI-REFLECTIVE



DynaVue®

**Dyna
Vue**

Increased Clarity &
Wider Viewing Angle

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TOUCH IN AND OUT

4 TOUCH MODE AND OPTIONAL DIGITIZER SOLUTION



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



Slim & light for seamless input




New Stylus

R8-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.

SEAMLESS CONNECTIVITY

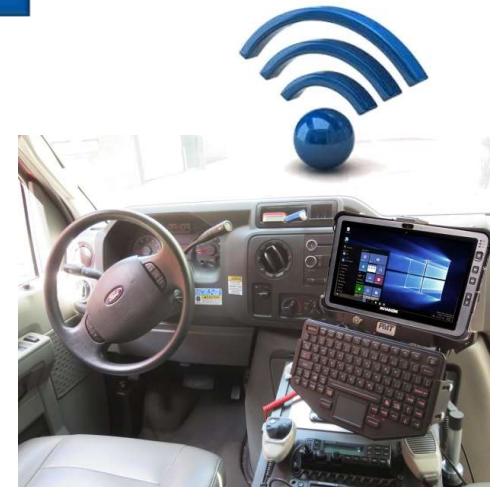
- Intel Wi-Fi 6E AX 211 with max. speed of 9.6Gbps is **10 times** faster than AC 8265 with max. speed only 867Mbps.
- Bluetooth V5.3 bandwidth is **8x** greater than V4.2, which is capable connecting “multiple devices” at once.

DURABOOK R8-EX	Market Solution A	Market Solution B
AX 211	AX 200	AC 8265
V5.3	V5.2	V4.2

	Emission Speed	Effective Range
 Bluetooth® 5.3	3.0 MB/s	Max 300 meters
Bluetooth V4.2	1.5MB/s	Max 100 meters

GOVERNMENT SECTOR

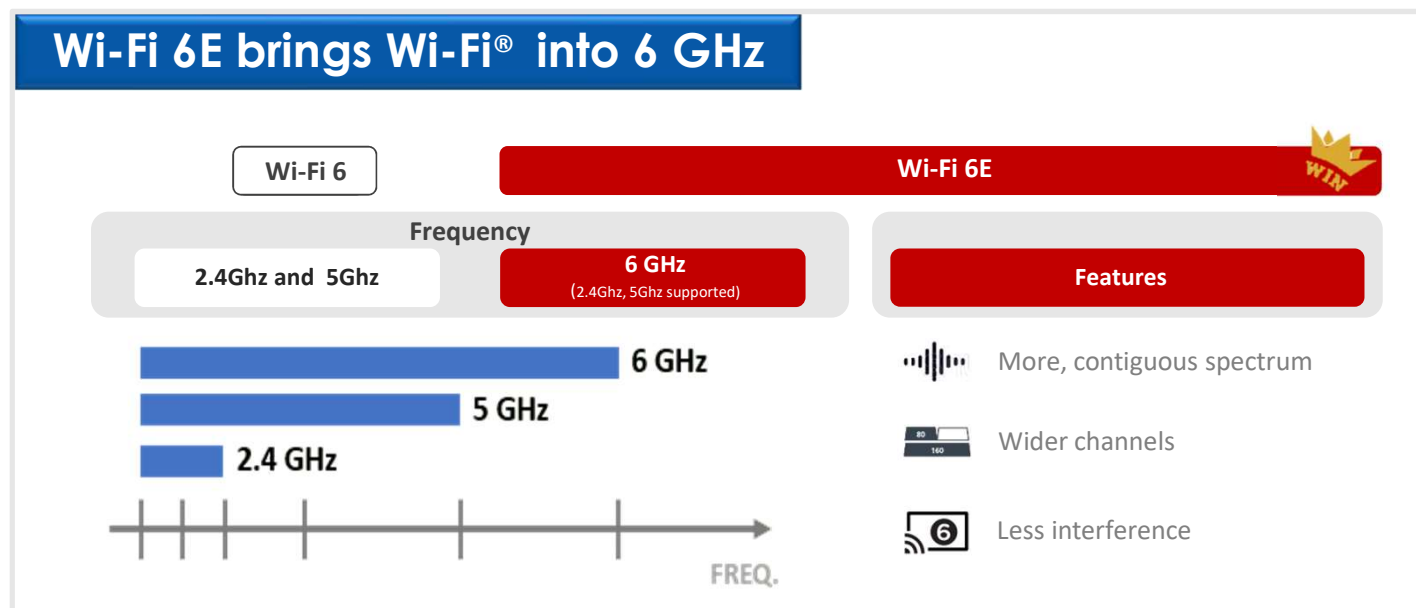
R8-EX is designed with **RF Tri-pass-through** (WI-FI, WWAN, GPS), so in-field professionals stay connected with the centralized database in real time.



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**.



THUNDERBOLT™ 4 TECHNOLOGY

UNIVERSAL CABLE CONNECTIVITY

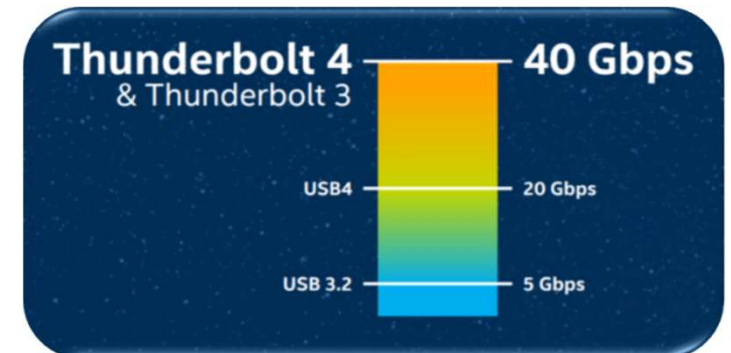


THUNDERBOLT™

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)



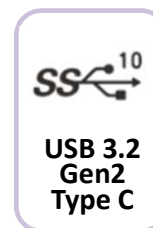
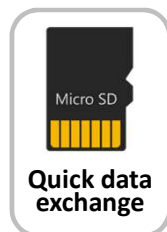
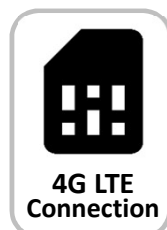
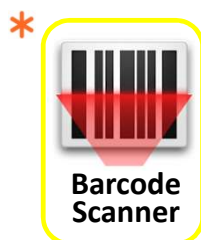
One universal port makes it simple to connect to multiple protocols



SPEAK ALL LANGUAGES

EXPANDABLE AND CONFIGURABLE I/O OPTIONS

* optional



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MARKET LEADER FOR POWER SUPPLY

The R8-EX is the market leader in battery performance with up to **17 hours** per single battery. In addition, the R8-EX is designed which allows the tablet to enter an efficient power saving state while stay awake and connected with limited background activities when screen is dimmed.

Battery Life

Up to 17 hrs

R8-EX Hi-Cap Battery

R8-EX Standard

Up to 8.5 hrs

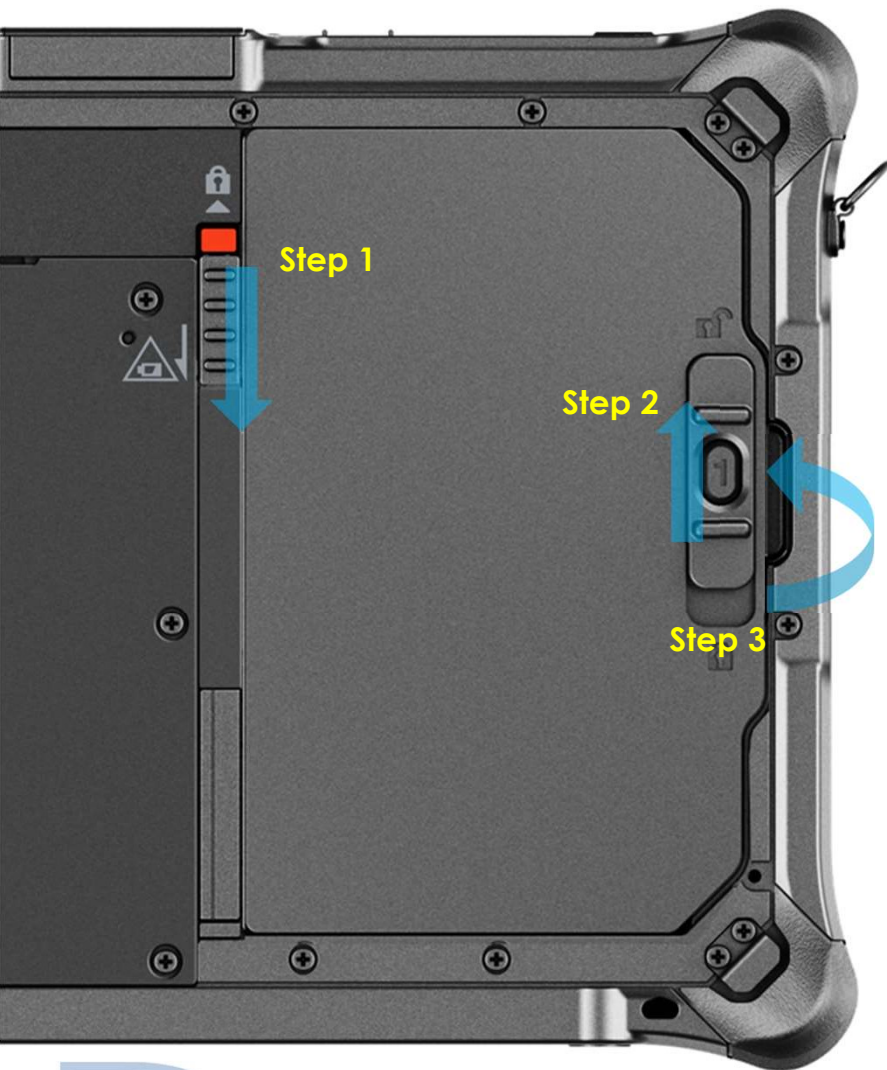
Market

Up to 6-10 hrs

Durabook R8-EX Hi-Cap Battery



With optional 7,200 mAh **Hi-Cap battery**, field workers can work all-day long without changing battery in hazardous and explosive environments.



NON-STOP MOBILITY

EASY BATTERY SWAPPABLE CAPABILITIES

ONE, TWO, THREE and GO!

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



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%.



R8-EX Anatomy

ATEX anti-static leather case



R8-EX Anatomy



- 1 Top bracket
- 2 Right bracket
- 3 Bottom bracket
- 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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the Unexpected

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