DURABOOK

Prepared for the Unexpected

ATEX-CERTIFIED TECHNOLOGY FOR THE OIL & GAS AND UTILITY INDUSTRY

WHITEPAPER

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INTRODUCTION

Demand within the oil and gas sector is on an upward trajectory and will likely stay that way. This pressure for organisations to keep pace with emerging sector trends has pushed oil and gas companies to implement and adopt new digital strategies and technology that supports offshore technicians by providing advanced data analysis in a safe, reliable and efficient way. Durabook, being a key player in this digital revolution, has developed cutting-edge rugged ATEX-certified devices capable of operations within the most hazardous front-line environments while seamlessly processing and delivering vital information back to organisations' headquarters.

ATEX-certified rugged devices enhance safety, reliability and productivity in potentially explosive environments, which according to various marketing reports, also aligns with some of the most prominent sector trends for 2024.

DURABOOK FULLY RUGGED TABLETS

Windows 11 tablets are certified to meet the European Union's ATmosphères EXplosibles (ATEX) Zone 2/22 certification

R8-EX

U11I-EX

FACILITATING DIGITAL TRANSFORMATION

With an evolving industry shift towards digitisation, it's vital that devices deployed are also capable of supporting this digital evolution. Durabook's ATEX-certified tablets can provide all this by enabling paperless workflows, remote monitoring and real-time data analysis, but their capability goes much further.

Durable and reliable, these latest devices reduce the risk of disruption to workflows, lost productivity and the potential for customer service erosion and employee fatigue, which is why leading devices are equipped with the latest Intel® 12th generation processors to provide top-notch performance in computing-intensive tasks, and graphics capabilities, such as Intel® Iris® Xe, for enhanced graphical performances. Wireless data transmission, such as 5G/4G LTE, Intel® Wi-Fi and Bluetooth technology, means all data can be instantly synchronised and seamlessly fed back to a corporate data centre without delays, boosting productivity and efficiency. Ultra-long battery life and multiple standard and optional I/O's and peripherals, including Thunderbolt 4 technology, help field service operatives gather, track and transmit data with ease.

The latest evolution in technical capability also means that these devices also have superior functionality. In addition to enabling real-time data collection, including production reports, diagnostics and maintenance logs, are designed to facilitate communication by providing video collaboration capability in the most remote of hazardous environments. The latest models also connect to IoT sensors, allowing live monitoring of pipelines, tanks and machinery, while predictive maintenance enables the collection of equipment data and identification of potential issues that can be fixed before they escalate.

SAFEGUARDING SECURITY

Utilities are increasingly concerned with security, especially field workers accessing sensitive business and customer data on the road. However, the latest ATEX-certified rugged devices allow staff to communicate quickly, accessing and transmitting critical data safely and securely to avoid data breaches and cyber-attacks.

Digitising processes in challenging and hostile environments and shifting from manual to automated mobile processes reduces the risk of human error while allowing for enhanced data capture and identification solutions while in the field. In addition, the latest rugged devices boast exceptional storage capabilities. For example, all Durabook products are now equipped with ultra-fast PCIE NVMe SSD storage; input and output tasks with NVMe storage transfers data faster than older storage devices.

NVMe storage also communicates directly with system CPUs, providing superior speeds, boosting efficiency and productivity anywhere and at any time. In addition, ultra-long battery life and multiple add-ons, including Thunderbolt 4 technology, help field service operatives securely gather, track and transmit data with ease. The addition of Windows 11 with Secured-core technology also offers advanced protection against cyber threats.

PRODUCT SPECIFICATIONS

	 U11I-EX Tablet	 **R8-EX Tablet**
Operating System	Windows® 11 Pro 64-bit	Windows® 11 Pro 64-bit
Processor	Intel® Core™ i5-1230U (i7 optional)	Intel® Core™ i5-1230U (i7 optional) Intel® Pentium® Gold 8500
Graphics	Intel® Iris® Xe Graphics	Intel® UHD Graphics
Memory	Onboard 8GB - 32GB (LPDDR4x)	Onboard 8GB - 16GB (LPDDR4x)
Storage	256 GB NVME PCIE SSD	128 GB NVME PCIE SSD
Display	11.6” FHD (1920 x 1080) Optional with 1000 nits DynaVue® Technology	8.0” LCD (1280 × 800) With 800 nits DynaVue® Technology
Touchscreen	Multi-Touch optional with digtizer	Multi-Touch optional with digtizer
Camera	Front : 2.0 MP Optional IR camera for Windows Hello Rear : optional 11.0 MP with flash	Front : 2.0 MP Rear : optional 11.0 MP with flash
Additonal Key Buttons	5 (2 user-definable)	3 (1 user-definable)
Security	Intel® vPro™ Technology Secured-Core PC TPM 2.0 Stealth mode Optional smart card reader × 1 Optional night vision mode Optional fingerprint scanner Optional Windows Hello	Intel® vPro™ Technology TPM 2.0 Stealth mode Night vision mode
I/O Interfaces	Thunderbolt 4 x 1 USB 3.2 Gen1 (type A) × 1 or 2 Optional USB 3.2 Gen2 (type C) × 1 Optional USB 2.0 (type A) × 1 Audio in/out × 1 microSD card (microSDHC, microSDXC) × 1 RJ45 × 1 Nano SIM card × 1 Docking connector × 1 DC-In × 1 Optional smart card reader × 1	Thunderbolt 4 x 1 USB 3.2 Gen2 (type C) × 1 Optional USB 3.2 Gen1 (type A) x 1 Audio in/out × 1 microSD card (microSDXC) × 1 Nano SIM card × 1 Docking connector × 1 DC-In × 1
Wireless Connectivity	Wi-Fi 6E AX211 / Bluetooth® V5.3 Optional dedicated GPS Optional 4G LTE/ Optional 5G	Wi-Fi 6E AX211 / Bluetooth® V5.3 Optional dedicated GPS Optional GPS & 4G LTE (combo)
Media Bay / Expansion Slot	Optional serial port (RS232/422/485) or USB 3.2 (type C) or USB 2.0 or 2nd USB 3.2 Gen1 (type A) or 1D/2D barcode reader	Optional 1D/2D barcode reader
Power Adapter	AC adapter : 100-240V, 50Hz-60Hz, 65W	AC adapter : 100-240V, 50Hz-60Hz, 65W
Battery Life	10 (up to 20 hours with optional hi-cap battery)	8.5 (up to 17 hours with optional hi-cap battery)
Swappable Battery	Optional	Optional
Operating Temperature	-20°C ~ 60°C / - 4°F ~ 140°F	-20°C ~ 60°C / - 4°F ~ 140°F
Storage Temperature	-51°C ~ 71°C / -60°F ~ 160°F	-51°C ~ 71°C / -60°F ~ 160°F
Dimension	317mm (L) × 215mm (W) × 24 mm (H) 12.48” (W) × 8.46” (D) × 0.94” (H)	227 mm (L) x 150 mm (W) x 20.5 mm (H) 8.94” (W) x 5.91” (D) x 0.81” (H)
Weight	1.49 kg / 3.29 lb	0.88 kg / 1.94 lb

MITIGATING PERFORMANCE AND SAFETY RISKS

Durabook is the only rugged manufacturer to produce two fanless ATEX-certified devices, its R8-EX and U11I-EX models, equipped with Intel® Core™ CPUs and Windows 11. These two models are also manufactured in accordance with Directive 2014/34/EU, which means they are specifically designed for use in potentially explosive environments.

An explosive atmosphere (ATEX) is the mixture with air, under atmospheric conditions, of flammable substances in the form of gas, vapor or dust that can ignite and spread. Durabook's R8-EX and U11I-EX models are certified for use in an explosive atmosphere of Zone 2 and 22 areas where these dangerous substances in the air persist for a short period, keeping operatives and operations safe.
Both models also include an anti-static leather case, to prevent the build-up of static electricity, and metal brackets to provide users with the level of protection needed to work in areas with a significant risk of explosion.

This evolution in rugged technology means these devices are equipped to operate safely where standard computers can't, and they are also more reliable, with fewer repairs due to fan failure from dust particles. With fewer moving parts, there is also less risk of the hardware malfunctioning or needing replacing, which means a stronger return on investment over time.

BOOSTING ON-SITE SAFETY

Worker safety is critical, with the latest legislation requiring safe conditions of work for employees operating in hazardous areas and potentially explosive atmospheres. The latest ATEX-certified cutting-edge rugged devices are built to meet these standards head-on. This level of certification ensures that tablets can operate safely in explosive atmospheres while mitigating the risks of potential ignition from sources like lightning strikes, static electricity, and open flames.

Beyond immediate and practical safety considerations, field workers can also use these devices for equipment inspections, safety assessments and compliance checks, ensuring that sites remain safe and secure.

See more Rugged Insights for Oil and Gas Industry

ROBUST AND DURABLE CUTTING-EDGE TECHNOLOGY

Durabook understands that workers need technology that can withstand the demands of challenging environments for maximum operational efficiency. Both Durabook ATEX-certified devices carry an IP66 rating, protecting it against dust and water ingress, MIL-STD 810H certification and drop resistance of up to six feet, meaning they stand the test of time in any conditions.

They have also been tested for explosive atmosphere, humidity, and even salt fog for corrosion resistance, making them perfect for the oil and gas and utilities sector. In addition, many devices are equipped with Durabook's proprietary DynaVue® technology and high-definition multi-touch screen, offering the highest contrast ratio. This helps to eliminate internal reflections and enhance viewing clarity from different angles, even in bright sunshine or low light conditions.

Utility procurement teams face increasing pressure to adopt long-term digital strategies that enhance productivity while safeguarding operations and the bottom line. By investing in the latest innovative technology, including Durabook's ATEX-certified devices, organisations can meet these challenges head-on while tapping into the trends that will shape the industry's future.

Featuring Durabook's proprietary DynaVue® sunlight readable technology for exceptional, detailed viewing even in direct sunlight.

Coolfinity fanless thermal solution lets the fully rugged tablet operate quietly, while offering greater reliability and decreased downtime.

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ABOUT DURABOOK

Durabook is the core brand of Twinhead International Corporation in Taiwan, a world-renowned manufacturer of rugged mobile solutions. All Durabook devices are designed, manufactured and tested to the highest standards to ensure maximum quality and reliability. Committed to engineering and service excellence, Durabook products have been widely adopted by government and enterprise customers including oil and gas, utilities, field service, military, and public safety for more than a decade.

For more information on Durabook, visit www.durabook.com.

COMPANY FACTS

#1

Expertise in Customization

40+

Years of Electronics Manufacturing

80+

Countries Worldwide

SOCIAL MEDIA

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