LiRISE® – E2E IoT with AI

Robust, secure and AI-capable

LIEBHERR

Components
IoT solutions

LiRISE®

Shaping progress digitally and securely

While technological progress is accelerating, complexity is increasing: cybercrime and new cybersecurity legislation are constantly increasing the demands on IoT solutions. Maintenance over the entire life cycle and secure over-the-air updates are essential today. Without a robust security infrastructure, there is a risk of failures, security gaps and high follow-up costs.

With LiRISE® you are on the safe side. The complete IoT solution combines powerful edge AI gateways, cloud connectivity and an integrated security infrastructure. This provides you with a complete, ready-to-use solution that reduces complexity and enables easy migration and the development of new applications. Even under extreme conditions such as strong vibrations, dense dust or high temperature fluctuations, the Edge AI gateways ensure reliable operation.

The potential applications are diverse: in industry, LiRISE® forms the basis for smart AI factories with automated processes. In agriculture, LiRISE® supports smart farming applications and autonomous machine operation. In public spaces, the solution enables digital signage, secure information and kiosk systems.

For you, this means less effort, more security and future-proof IoT solutions that free up resources for your core business.

Content

3 LiRISE® at a glance

4 Everything from a single source

9 Areas of application

10 All advantages at a glance

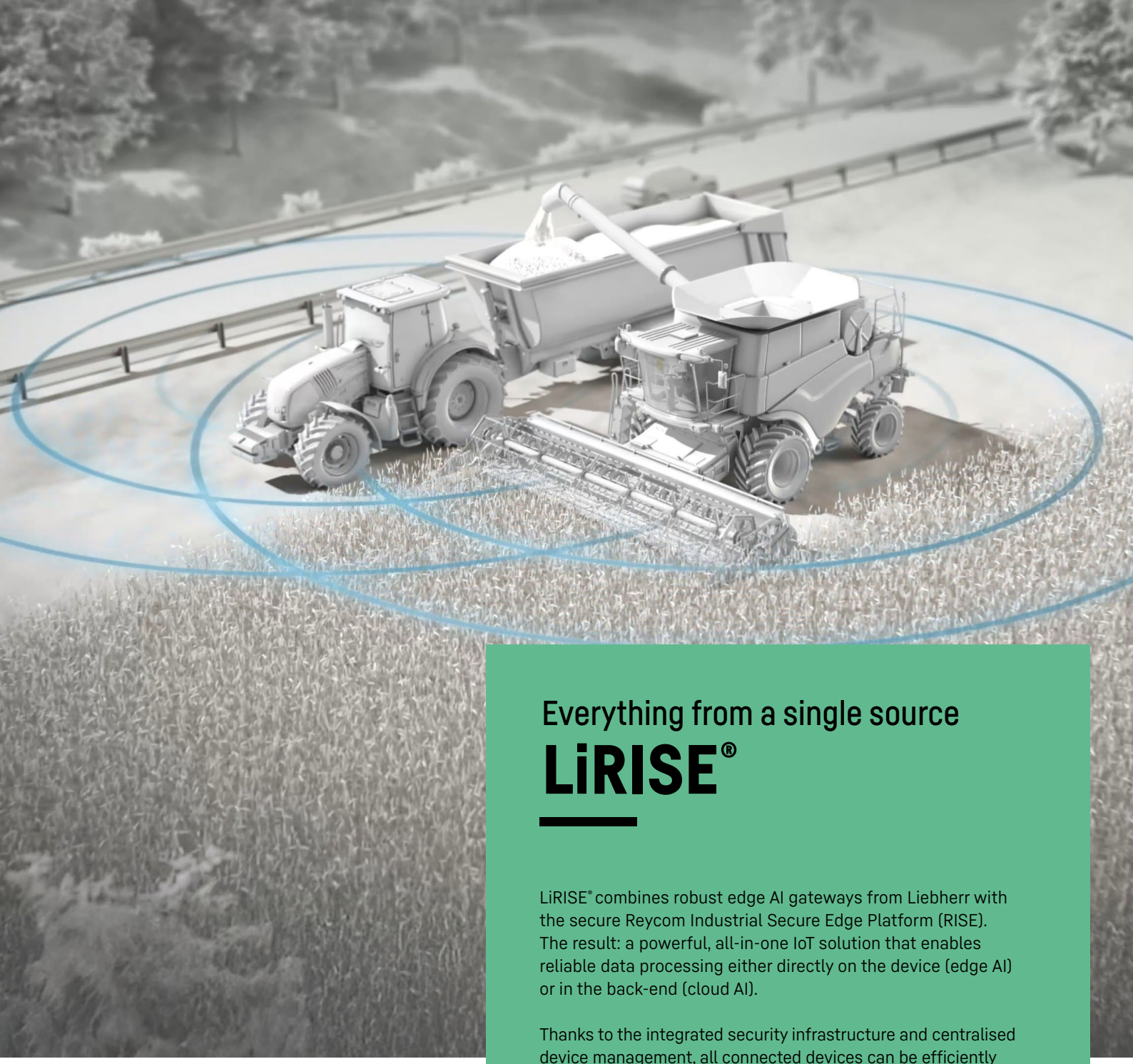
LiRISE®

At a glance

With LiRISE®, you get a comprehensive, all-in-one IoT solution that future-proofs and secures your systems, makes you ready for CRA, and paves the way for AI-supported applications – robust, powerful and from a single source. It includes Edge AI Gateways, cloud connectivity, and comprehensive security and maintenance services throughout the entire life cycle.

One solution – countless possibilities

- Edge AI Gateways
- Edge AI
- Cloud AI
- Security
- Connectivity
- Operating system



Everything from a single source

LiRISE®

LiRISE® combines robust edge AI gateways from Liebherr with the secure Reycom Industrial Secure Edge Platform (RISE). The result: a powerful, all-in-one IoT solution that enables reliable data processing either directly on the device (edge AI) or in the back-end (cloud AI).

Thanks to the integrated security infrastructure and centralised device management, all connected devices can be efficiently monitored and controlled. This enables companies to organise their digital processes in a secure, scalable and resource-saving manner – from data collection to intelligent analysis.

Your benefits at a glance

- Less complexity, more efficiency
- More resources for your core business
- Quickly ready for use and utilisation
- Simple migration and flexible development of customised applications
- Robust and reliable, even in extreme operating conditions

LEG⁴IT Edge AI Gateway

Powered by Qualcomm Dragonwing

Powerful **AI GPU** & fast **CPU**

10+ years* OS & security support

360° connectivity 5G, Wi-Fi 6E, Bluetooth® technology and more

Robust against extreme operating conditions

NFC

5G

Plug-and-play **Accessories**

Multi-OS Windows 11 IoT & Red Hat

100 % recycled aluminium

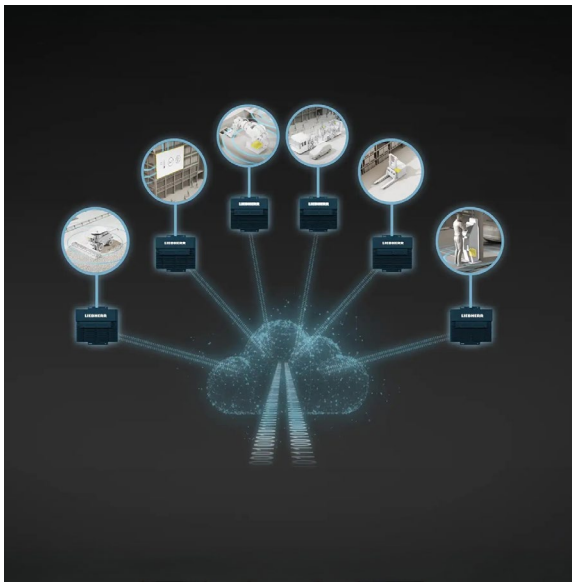
LEARN MORE →

Qualcomm branded products are products of Qualcomm Technologies, Inc. and/or its subsidiaries.
*Refer to the Product Longevity Program page for the latest information.

Cloud AI

LiRISE® seamlessly connects machines and systems to the cloud. This plug-and-play IoT solution is fully prepared for the Microsoft Azure Cloud and its AI functions.

The intuitive back-end enables you to create digital twins of your devices and implement predictive maintenance to proactively monitor processes. This enables efficient data use, informed decision-making and increased operational reliability.



Connectivity

The LiRISE® Edge AI gateways provide reliable and consistent connectivity, including 5G and WiFi.

By working with one of the world's leading tele-communications providers, you benefit from high data transmission rates and global coverage.

The gateways are also prepared for integration with the Microsoft Azure Cloud, enabling your devices to be quickly and easily incorporated into your digital infrastructure.

Edge AI

The integrated edge computing infrastructure is designed for use with data-intensive applications. It can process large amounts of data in real time while executing AI models locally on the gateway.

Updates and monitoring run continuously in the background. This ensures that the operating system, security, edge AI and applications remain up-to-date throughout their entire life cycle. This reduces risks and avoids downtime.

At the same time, time-to-market is significantly reduced: new applications or functions can be developed, tested and rolled out in a very short space of time, with no additional work required by your team.

Operating System

Supporting various operating systems, including Windows IoT and Red Hat, enables the quick development of applications, the easy migration of existing solutions and the efficient implementation of new projects.

LiRISE® combines the strenghts of Windows and Linux Red Hat, offering access to the latest functions of both worlds. OS maintenance of up to 15 years also ensures long-term stability and security.

Windows 11 IoT Enterprise ensures that devices are ready for use from day one, with all important functions are available immediately. The combination of up to ten years of long-term maintenance and support creates a reliable foundation for productive IoT applications.

Flexible, secure and future-proof: a platform that supports your IoT solutions in the long term.

Security

In an increasingly networked world, protection against cyber-attacks is paramount. LiRISE® ensures security throughout the entire product life cycle:

- Secure by design: Security is firmly embedded in the hardware and software right from the outset.
- Long-term support: OS updates for up to 15 years ensure stability and reliability.
- Over-the-air updates: Devices are kept up-to-date and protected against new threats at all times.
- Active device management: Transparent control and efficient management of all end devices.
- Permanent security monitoring: Continuous monitoring for maximum security.

This means that your systems are protected against cyber threats, both now and in the future, and that your applications will be ready for CRA in the long term.

White paper: Product Security in the European Union

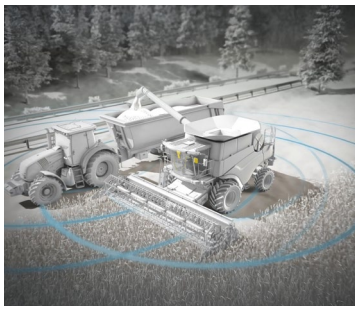
Would you like to know which new EU regulations will affect product cybersecurity in the future?

This free white paper provides a concise overview of the most important EU product security regulations, including the Cyber Resilience Act (CRA), the Machinery Regulation (MVO) and the RED Delegated Act (RED-DA).

DOWNLOAD NOW →

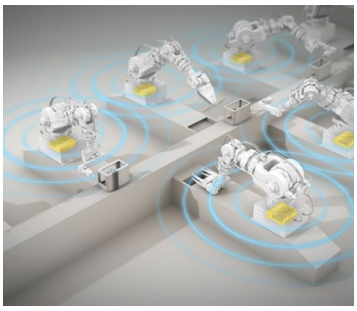
Versatile in use

One solution for your application



Smart farming

The robust edge AI gateways support predictive maintenance, remote diagnostics and AI, as well as supporting image processing. Consequently, agricultural machinery can be operated efficiently, reliably and proactively.

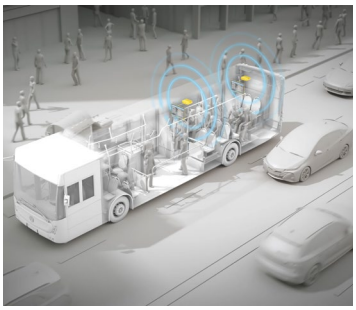


Smart AI factory

The performance of the edge AI gateways enables data processing directly on site, providing stable, uninterrupted connectivity. This means that production processes run reliably and efficiently, making them future-proof.

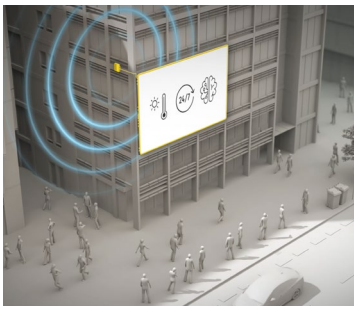
Autonomous and teleoperation

The integrated AI engine enables sensor data to be processed in real time. This enables machines to be reliably controlled and monitored, while ensuring that the entire end-to-end communication remains secure and efficient.



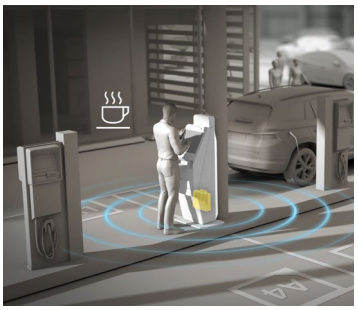
Information in transport vehicles

LiRISE® facilitates the operation of information systems in public transport and at bus stops. Support for OTA updates ensures the reliable transmission of messages to the desired locations, even in challenging urban environments.



Digital signage

Edge AI gateways provide a robust and secure foundation for digital signage in outdoor areas. Content can be updated easily via over-the-air (OTA) updates using the overall managed solution.



Kiosk terminals

Edge AI gateways provide a robust, secure and reliable platform for kiosk terminals. With the help of OTA updates and the overall managed solution, they enable stable, low-maintenance operation of digital B2C systems.

LiRISE®

All advantages at a glance

Future-proof
You are already prepared today with upcoming cybersecurity requirements such as the Cyber Resilience Act (CRA).

Robust construction
Developed for demanding operating conditions – from extreme temperature fluctuations and vibrations to dense dust.

Holistic solution
From hardware to cloud services – everything from a single source and perfectly harmonised.

Highly scalable
Flexible and customisable to meet growing requirements. Different system configurations can be accommodated.

Reduce complexity
Security, maintenance and update tasks are taken over, allowing you to focus your resources on your core business.

Strong partners
Benefit from the combined expertise of Liebherr and Reycom, and from our partnerships with leading technology companies such as Microsoft, NVIDIA and Qualcomm.

AI-capable platform
Powerful processors enable the execution of cloud-based AI applications directly on site.

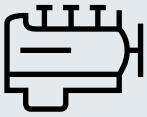
Ready for immediate use
Windows IoT and Red Hat facilitate the development and migration of applications, creating immediate added value for your customers.

Liebherr Components

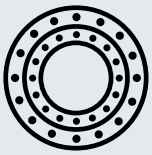
From A to Z – the components division of the Liebherr Group offers a broad range of solutions in the area of mechanical, hydraulic, electric and electronic drive system and control technology. The efficient components and systems are produced at a total of ten production sites around the world to the highest standards of quality. Central contact persons for all product lines are available to our customers at Liebherr-Components AG and the regional sales and distribution branches.

Liebherr is your partner for joint success: from the product idea to development, manufacture and commissioning right through to customer service solutions like remanufacturing.

components.liebherr.com

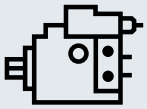

Engines

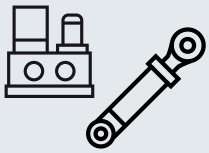
Fuel injection systems

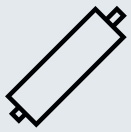

Slewing bearings

Gearboxes

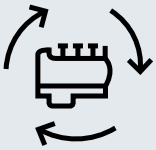
Winches

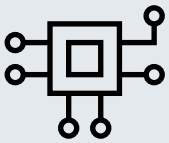

Hydraulic pumps and motors


Hydraulic cylinders and power packs

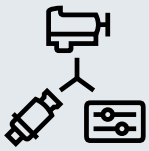

Piston accumulators

Electric machines


Remanufacturing


Industrial electronics

Electrical drive and control technology


Drive systems

Aerospace electronics

Fibre composite

LIEBHERR

Liebherr-Components AG · Brown Boveri Strasse 7 · 5400 Baden, Switzerland
+41 56 296 43 00 · components@liebherr.com www.liebherr.com

Subject to change
LED-EL-LIRISE-BR031_01_04-03.26_en