

## **Kontron KBox R-101 Central Computer with EN 50155 Certification and 5G Connectivity**

*Compact and modularly scalable system for diagnostic, communication and monitoring functions with WLAN, LTE, 5G, UMTS, GSM, LPWA, Bluetooth and GNSS functionality*

Ismaning, September 20, 2022 - [Kontron](https://www.kontron.com), a leading global provider of IoT/Embedded Computing Technology (ECT), will present the KBox R-101, a new control and communication platform in Box-PC format for demanding tasks, at InnoTrans 2022 in Berlin. Kontron's new compact central computer is based on a fanless, passively cooled and IP54-compliant system solution with established and industry-approved mechanical and electronic components. The system as well as all external interfaces are specifically designed for use within railroad and public transport applications as well as harsh industrial environments and are therefore EN 50155-compliant.

The new KBox R-101 enables multiple radio modules to be operated simultaneously for WLAN, 5G/LTE, GSM, LPWA as well as GNSS and ensures, for example, the best possible radio connection by using a maximum of eight provider profiles - by automatically switching to the most suitable mobile network.

Based on the 11<sup>th</sup> Gen Intel® Core™ i7-1185GRE processor or the Intel Atom® processor x6212RE as well as a memory expansion of max. 32 GB, the new platform supports OEM manufacturers and system integrators in building high-performance and reliable system solutions.

On the front, the KBox R-101 has three M-12 x-coded Gigabit Ethernet interfaces, two serial I/Os and a USB-C interface. In addition, there are six knockouts for antenna connections (SMA, QMA) as well as seven LEDs that can be used for specific applications and a power LED.

By means of the USB-C service interface, the operator is enabled to realize a DisplayPort- and a USB 3.1-based connection as well as a power supply with up to 10W for e.g. touch panels via only one line; this facilitates debugging as well as commissioning.

Behind the IP54-protected cover on the rear of the system, there are also two USB 2.0 ports, a DisplayPort and a CFexpress interface that supports transfer rates of up to 2Gb/s, as well as two micro-SIM sockets. The wide-range power supply supports nominal voltages from 24V DC to 110V DC, furthermore it offers a hold-up time according to class S2 and a controllable ignition input.

The system is designed for operation in the extended temperature range between -40 °C and +70 °C (+85 °C for a maximum of 10 minutes) and completely foregoes moving parts.

Depending on individual requirements, the KBox R-101 can be expanded to include additional interfaces and on-board modules, which increases investment security because future performance and interface expansions are also guaranteed.

Due to the approval according to EN 50155, the compact system is certified for mobile use as a rolling stock or for wayside monitoring in railroads and public transport.

First sample devices are available by the end of 2022.

#### **About Kontron**

Kontron is a global leader in IoT/Embedded Computing Technology (ECT) and offers individual solutions in the areas of Internet of Things (IoT) and Industry 4.0 through a combined portfolio of hardware, software and services. With its standard and customized products based on highly reliable state-of-the-art technologies, Kontron provides secure and innovative applications for a wide variety of industries. As a result, customers benefit from accelerated time-to-market, lower total cost of ownership, extended product lifecycles and the best fully integrated applications. For more information, please visit: [www.kontron.com](http://www.kontron.com)

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