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KONTRON HARDWARE - RELIABLE EVEN IN AN EMERGENCY

Kontron 19" industrial PC as the heart of
Telematix telephony gateways

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There is no such thing as absolute safety - which is why emergency facilities in the Gotthard Base Tunnel must also ensure that train passengers exit the 57-kilometer-long tube unharmed in the event of an incident. This is a task for the Swiss company Telematix AG, based in Berne, which specializes in communication solutions for the transport sector, infrastructure operators and blue-light organizations. The company has also equipped the world's second longest tunnel under the Swiss mountains with a solution that ensures the safety of passengers and train traffic.



// Kontron 19" industrial PC as the heart of Telematix telephony gateways

The reliable and durable heart of Telematix' communication systems are the KISS 19" industrial PCs from Kontron. They are part of the NIS-R product platform, Telematix' all-IP operating telecommunications system for mission-critical communication. The system is especially designed to meet the needs of railroad and other infrastructure operators and emergency call centers, in order to provide optimum support to users in both everyday and critical situations. The architecture meets the high demands on safety and availability that are placed on communication systems in these areas. Thanks to the modular NIS system design, this solution scales from local systems to nationwide communication solutions and can thus be flexibly adapted to the respective customer needs.

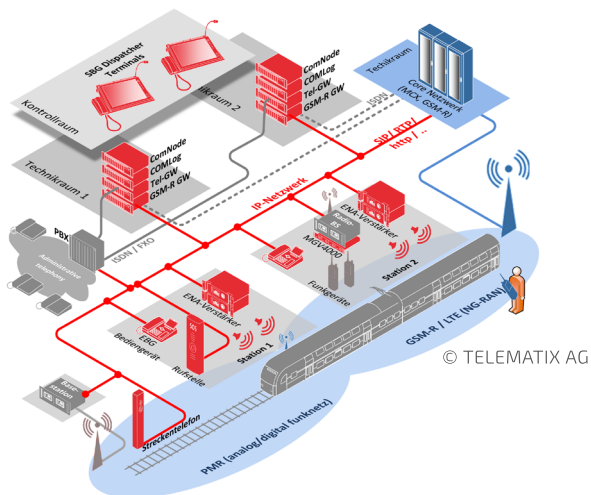
COMMUNICATION SOLUTIONS FOR WELL-KNOWN CUSTOMERS

Well-known customers in the transportation sector which use Telematix' SXR node with Kontron's KISS IPC include companies such as the Swiss Federal Roads Office (ASTRA), which has been equipped with emergency call systems; the TCL Metro of Lyon, with control center, emergency call and public address systems; the S-Bahn Hamburg, with a control center and emergency call solution; and the 170 stations of the BLS Lötschbergbahn, the second largest railroad operator in Switzerland, with public address systems (PA systems). Telematix' customers appreciate the technical know-how for the business processes in their respective market segment and the fact that the comprehensive communication solution can be easily integrated into an existing environment or extended there.

RELIABLE TELEPHONY GATEWAYS FOR COMPANY TELECOMMUNICATIONS AND EMERGENCY CALL SYSTEMS

The industrial Kontron KISS 19" IPC in Telematix' SXR node serves as the hardware platform on which the software solutions for emergency call systems and public address systems are based. The SXR-Node is used to integrate software solutions into existing communication networks, be it standard fixed-line telephony, ISDN, mobile radio or others. It is therefore a Session Border Controller (SBC) acting as a telephony gateway, which can also be used as an application server and call session controller with media functions.

Especially for smaller systems the operating telecommunication software can be operated directly on the KISS server. Furthermore, the applications can be installed on the server as dispatcher systems for control centers and 'PASys' for public address systems.



// The communication system is especially designed to meet the needs of railroad operators, infrastructure managers and emergency call centers and fulfills the high requirements for security and availability

Common to all applications is that they fulfill a vital or critical function, be it for mainline railroads, public transport or on the streets. This means that the functions must be available at all times. The hardware must therefore guarantee that the software will not fail. This was the reason why Telematix chose Kontron's KISS Rackmount systems.

On the recommendation of employees who already knew the robustness of Kontron products, Telematix tested the KISS 19" IPC from Kontron in 2015. As the hardware from Kontron fulfilled all requirements, it has since been used by Telematix; naturally integrated into its own range of products with its own logo and design. Kontron also scored points with its production in Europe. Normally the KISS 2U version is used, in case of lack of space the KISS 2U Short version is also installed.

Marc Roth, member of the management board of Telematix AG: „Availability and reliability are the top priorities for our solutions, which guarantee operational communication in traffic. All components must be designed for this. This also applies to the heart on which the software runs, the server. Kontron has been convincing us with the KISS 19" system for many years now, also in terms of component longevity“.



// The industrial KISS Rackmount Systems are suitable for applications with increased temperature conditions

INDUSTRIAL SUITABILITY AS SELECTION CRITERION

Kontron's industrial-grade KISS Rackmount systems were developed specifically for harsh and demanding environmental conditions and are therefore particularly suitable for applications with increased temperature requirements and high mechanical stress. Their resistance to extreme temperatures or even shock and vibration, combined with their high performance and extensive storage capabilities, make them ideal for mission-critical applications in transportation and traffic systems.

Efficient cooling concepts, maintenance-free and customer-specific adaptable design as well as high graphics performance predestine the KISS 19" systems for continuous and long-term use. The optional use of removable drives and various expansion cards as well as different height units in 1U, 2U and 4U and short versions allow for maximum individualization and flexibility even with limited space available.

The decisive factor in Telematix' decision in favor of the Kontron KISS industrial PCs was and still is their industrial-suited specifications. These are necessary if the system is to function smoothly even under harsh environmental conditions and in long-term continuous operation. Without train operation, which pushes the warm air outside and drags cold air behind, temperatures in the Gotthard tunnel, for example, can reach up to 50 degrees Celsius. Public address and emergency call systems must also function perfectly under these conditions.



// The dispatcher supports communication with GSM-R, analog and digital radio networks, enabling communication with a wide range of transmission technologies via a single device

LONGEVITY ALLOWS UP TO FIFTEEN YEARS WARRANTY

Longevity is also an important argument for Telematix, as the emergency and public address systems are designed for a life cycle of at least 10 to 20 years; Telematix itself guarantees 15 years. Over this period, the company must be able to replace the hardware without having to make changes to the overall system. This means that neither the functions nor the size must change. Kontron can assure this and thus offer Telematix' customers the expected investment protection.



AT A GLANCE

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▶ More Information
<https://www.kontron.com/products/systems/rack-mount-systems>

About Kontron – Member of the S&T Group

Kontron is a global leader in IoT/Embedded Computing Technology (ECT). As a part of technology group S&T, Kontron offers a combined portfolio of secure hardware, middleware and services for Internet of Things (IoT) and Industry 4.0 applications. With its standard products and tailor-made solutions based on highly reliable state-of-the-art embedded technologies, Kontron provides secure and innovative applications for a variety of industries. As a result, customers benefit from accelerated time-to-market, reduced total cost of ownership, product longevity and the best fully integrated applications overall.

For more information, please visit: www.kontron.com

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From modular components to market-ready systems, Intel and the 400+ global member companies of the Intel® Internet of Things Solutions Alliance provide scalable, interoperable solutions that accelerate deployment of intelligent devices and end-to-end analytics. Close collaboration with Intel and each other enables Alliance members to innovate with the latest IoT technologies, helping developers deliver first-in-market solutions.

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