

PRESS RELEASE

Rosenberger Presents Modular Camera Connection Solutions for Automotive Applications

Innovative connector systems enable reliable high-frequency transmission for driver assistance systems and autonomous driving

Fridolfing, Germany, July 2, 2025 - Rosenberger Hochfrequenztechnik, one of the world's leading manufacturers of connectivity solutions in high-frequency, fiber optic and high-voltage technology, is introducing its new modular camera connection solutions. Designed specifically for automotive applications such as Advanced Driver Assistance Systems (ADAS), driver monitoring and autonomous driving, these solutions offer high data transmission rates, flexible integration options and excellent EMC shielding.

High-performance coaxial interfaces

Rosenberger's new connection solutions are based on FAKRA, HFM® and RMC® coaxial interfaces, which cover frequency ranges DC up to 20 GHz. These interfaces are ideally suited to demanding automotive camera systems, such as front, rear and surround view cameras. They offer an impedance of 50 Ω and can withstand at least 10 mating cycles. Depending on the technical requirements, variants with or without tolerance compensation are available. Tolerance compensation of up to 0.5 mm in the X, Y, and Z directions, as well as a maximum tilt angle of 1.5°, is possible.

Modular design for maximum flexibility

A key feature of the camera connection solutions is the modular connector system, which allows for straightforward integration into high-density electronic environments. With customer-specific housing variants made of metal or plastic, as well as pigtail configurations, the components can be precisely tailored to individual requirements. Rosenberger also provides design recommendations and optimised SMD footprints for integration on PCBs with varying substrate thicknesses.

Space-saving solutions for interior applications

Rosenberger's customised "DirectLink" pigtails or wire-to-board solutions are particularly advantageous in driver monitoring systems, which are often installed in tight spaces, such as behind rear-view mirrors or in the headliner. Their compact design enables space-efficient integration without compromising signal quality or electromagnetic compatibility. "Even with complex interior camera systems for analyzing gaze behavior or detecting fatigue, the interfaces can be implemented seamlessly and with high transmission reliability."

Versatile applications and reliable performance

These connection solutions are designed for use in a wide range of vehicle systems, including Advanced Driver Assistance Systems (ADAS), reversing assistance, camera-based side mirrors, and interior applications. Thanks to their robust design, proven EMC shielding and high level of production automation, they are technologically reliable and cost-effective for series production in the automotive industry.

For more information, please visit: <https://www.rosenberger.com/product/camera-solutions-for-automotive-applications/>

About Rosenberger

Rosenberger, a world-renowned manufacturer of electronic components and systems, stands for cutting-edge technologies, development expertise and uncompromising quality. Headquartered in Germany, the Rosenberger

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Group is represented worldwide with sales and production sites and offers a wide range of standardised and customised connection solutions in high-frequency, high-voltage and fiber optic technologies.

Rosenberger guarantees the reliable transmission of signals, data and energy in the most demanding fields of application. Leading high-tech companies in the fields of mobile communications and telecommunications, industrial measurement technology, automotive electronics, medical and industrial electronics, data centres and aerospace rely on Rosenberger's products, which are characterised by precision and maximum reliability. The CNC machining division manufactures precision parts for various industries, including the automotive and commercial vehicle industry, shipbuilding and traditional mechanical and plant engineering.

Rosenberger has been family-owned since the company was founded in 1958 and employs around 15,000 people (m/f/d) worldwide who stand for commitment, innovative strength and quality awareness in the tradition of a family-owned company.

Further information can be found at www.rosenberger.com

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