

KDPOF and Keysight Present a Joint Demo of Automotive Ethernet Transmission over Corning ClearCurve® Multimode Fiber at IEEE SA Ethernet & IP @ Automotive Technology Day

First Optical Automotive Ethernet Transmitter Test Demo Displays Proof of Concept for Multi-gigabit Data Connectivity

Madrid (Spain) November 3, 2022 – KDPOF (leading supplier for gigabit connectivity over fiber optics) joins forces with Keysight Technologies (leading technology company for advanced design and validation solutions) to advance optical multi-gigabit automotive Ethernet technology. At the IEEE SA Ethernet & IP @ Automotive Technology Day from November 9 to 10, 2022 in Yokohama, Japan, the two technology pioneers will present the first proof of concept demo for the optical automotive ethernet transmitter test including the Corning ClearCurve® multi-mode fibers.

"Together with our partner Keysight, we are proud to have the optical fiber, cable, and connectors available today that meet challenging automotive requirements, such as temperature, vibration, aging, dust, and other harsh environment attributes," stated Carlos Pardo, CEO and Co-founder of KDPOF. "Automotive grade fiber easily delivers 50 Gb/s PAM4 measurements at a link length of 40 m with at least 4 inline connectors." Multiple tight bends, twists, and knots add little to no additional signal loss. All of these can leave a significant test margin vs link budget of 8 dB. Optical test equipment is available today and the test solution is under development to align with the IEEE 802.3cz standard.

P802.3cz Multi-gigabit Automotive Ethernet Standard Passed to IEEE-SA Ballot Phase

KDPOF welcomes the new stage in the P802.3cz standard moving into IEEE-SA ballot phase. The P802.3cz amendment defines an optional start-up procedure that enables the time from power_on=FALSE to a state capable of transmitting



and receiving valid data to be less than 100 ms and support data rates of 2.5, 5, 10, 25, and 50 Gb/s at the MAC/PLS service interface. Other important characteristics include the Energy Efficient Ethernet optimized for automotive applications, support in automotive environments, and up to 4 inline connectors for at least 40 m on at least one type of automotive optical cabling. Also, the performance characteristics of an automotive link segment and an optical PHY to support 50 Gb/s point-to-point operations over this link segment support up to 2-line connectors for 40 m on at least one type of automotive optical cabling.

KDPOF and Keysight will present the first proof of concept demo for optical automotive ethernet transmitter test at stands 1, 2, and 25 at IEEE SA Ethernet & IP @ Automotive Technology Day from November 9 to 10, 2022 in Yokohama, Japan.

Words: 422

More information

IEEE SA Ethernet & IP @ Automotive Technology Day: https://standards.ieee.org/events/automotive/

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Images



Image 1: KDPOF provides the first optical 1000BASE-RH small form-factor module "EVB9351-SFP" for automotive Ethernet

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Image 2: Carlos Pardo is CEO and Cofounder of KDPOF

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About Keysight Technologies

Keysight delivers advanced design and validation solutions that help accelerate innovation to connect and secure the world. Keysight's dedication to speed and precision extends to software-driven insights and analytics that bring tomorrow's technology products to market faster across the development lifecycle, in design simulation, prototype validation, automated software testing, manufacturing analysis, and network performance optimization and visibility in enterprise, service provider and cloud environments. Customers span the worldwide communications and industrial ecosystems, aerospace, and defense, automotive, energy, semiconductor, and general electronics markets. Keysight generated revenues of \$4.9B in fiscal year 2021. For more information about Keysight Technologies (NYSE: KEYS), visit https://www.keysight.com

About KDPOF

Fabless semiconductor supplier KDPOF provides innovative high-speed optical networking for harsh environments. KDPOF made gigabit communications overstep-index plastic optical fiber (SI-POF) a reality for automotive. Founded in 2010 in Madrid, Spain, KDPOF offers its cost-effective technology as a fully qualified automotive-grade ASSP. KDPOF's technology makes use of innovative digital adaptive algorithms to maximize the receiver's sensitivity. This supports high-yield and reliable optoelectronics production in low-cost bulk CMOS deep submicron nodes, delivering carmakers low risk, low cost, and short time-to-market. More information is available at https://www.kdpof.com

KDPOF Knowledge Development for POF, S.L. Ronda de Poniente 14, 2ª Planta 28760 Tres Cantos, Spain E pr@kdpof.com T +34 918043387

Media Contact:

Mandy Ahlendorf ahlendorf communication E ma@ahlendorf-communication.com T +49 89 41109402