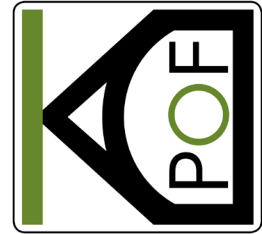


PRESS RELEASE



KDPOF Demos First 25 Gb/s Automotive-grade Optical Network

Optical Multi-Gigabit Ethernet – on the Verge of Standardization and Implementation

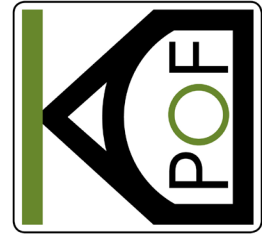
Madrid, Spain, January 13, 2020 – KDPOF – leading supplier for gigabit transceivers over POF (Plastic Optical Fiber) – will proudly display the world’s first demonstration of an automotive-grade optical transmission system with 25 gigabits per second at the Automotive Ethernet Congress from February 12 to 13, 2020 in Munich, Germany. In his presentation, “Optical Multi-Gigabit Ethernet – on the Verge of Standardization and Implementation,” on February 13 at 14:30, Carlos Pardo, CEO and Co-founder of KDPOF, will show details on the process for the new standard for multi-gigabit in automotive. It will enhance the existing 10GBASE-SR, which is the current standard by IEEE, to establish a communications channel in optical fiber at 10 Gb/s. “With technological leaps such as electrical vehicles, automated driving, and V2X interconnection rushing through, automotive applications, utilization, and safety requirements are boosting the necessary network speed tremendously,” explained Carlos Pardo. “Consequently, in-vehicle networks are on the brink of speeds from one to multiple gigabits per second.”

IEEE 802.3 Automotive Optical Multi-Gigabit Standard

With the approval of the IEEE 802.3 working group, a team of individuals affiliated with more than 15 key carmakers and components suppliers, including KDPOF, has started the standardization of an IEEE 802.3 Automotive Optical Multi-Gigabit Standard with strong support from the industry. The working group headed by Carlos Pardo (KDPOF) kicked off last summer. The first prototypes are projected by the end of 2021. The study group will evaluate the creation of an IEEE Ethernet standard for the automotive industry, with speeds starting at 2.5 Gb/s and going up to 25 or 50 Gb/s.

The key advantages of the optical solution for specific applications using multi-gigabit speeds with in-vehicle connectivity are, among others, Electromagnetic Compatibility (EMC) thanks to the inherent galvanic isolation, low weight, and low cost. Relevant use cases from different carmakers in Europe and the USA incorporate the comprehensive features and benefits of the optical network technology. Use cases include the interconnectivity of telematics control modules, redundant

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and safe backbones for autonomous driving architectures, and advanced driver assist system (ADAS) sensors.

Key leading optoelectronic, connector, and wire harness vendors worldwide are prepared and already provide a well-supplied and competitive market with all the new components needed for multi-gigabit in the car: Physical Layer (PHY), Fiber Optic Transceiver (FOT), fibers, connectors, and light sources. The technology will be scalable in order to enable even higher data rates such as 50 and 100 Gbps in the future. By combining optimization in all areas of the new standard, the right balance of complexity and cost among all parts (CMOS IC, VCSEL, PD, ferrules, sleeves, cable, in-line connection technology, optics, and lenses, etc.) can be achieved in order to deliver the lowest cost, most reliable, and highly scalable solution to the automotive market.

Words: 473

Demonstration

Automotive Ethernet Congress on February 12 to 13, 2020 in Munich, Germany

Presentation

“Optical Multi-Gigabit Ethernet – on the Verge of Standardization and Implementation” on February 13 at 14:30 by Carlos Pardo, CEO and Co-founder of KDPOF

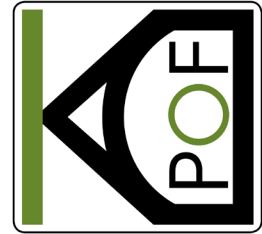
(<https://events.weka-fachmedien.de/automotive-ethernet-congress/program/>).

Further information

White Paper “Why 10GBASE-SR is not suitable for automotive: In-Vehicle Optical Multi-Gigabit Communications”

(https://www.kdpof.com/wp-content/uploads/2019/12/22-KDPOF-IEEE-multi-gigabit-optical-standard-EN_screen.pdf)

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Images



Image 1: KDPOF demos first 25 Gb/s Automotive-grade Optical Multi-Gigabit Ethernet

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Image 2: Carlos Pardo is CEO and Co-Founder of KDPOF

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About KDPOF

Fabless semiconductor supplier KDPOF provides innovative gigabit and long-reach communications over Plastic Optical Fiber (POF). Making gigabit communications over POF a reality, KDPOF technology supplies 1 Gb/s POF links for automotive, industrial, and home networks. Founded in 2010 in Madrid, Spain, KDPOF offers their technology as either ASSP or IP (Intellectual Property) to be integrated in SoCs (System-on-Chips). The adaptive and efficient system works with a wide range of optoelectronics and low-cost large core optical fibers, thus delivering carmakers low risks, costs and short time-to-market. More information is available at www.kdpof.com.

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