Leoni offers active 400 G solutions with low power consumption for sustainable data centers

* Longer transmission links with Active Copper Cables
* First Active Optical Cables with silicon photonics technology

Friesoythe, 27 January 2020 – Leoni, a global provider of energy and data management solutions in the automotive sector and other industries, produces sustainable 400 Gbit/s connections for data centers. With low power consumption and high performance the active cable solutions meet the challenges of growing data rates due to megatrends like ‘Big Data’, 5G, IoT and artificial intelligence. Leoni will present first Active Optical Cables (AOCs) with silicon photonics chip at the DesignCon 2020 and will demonstrate the excellent transmission characteristics of its 400 G Active Copper Cables (ACCs) live at booth #1049.

5G and ‘Big Data’ – transmission bandwidth requirements for cables are growing with digitalisation. Active copper and fiber cables from Leoni are prepared and transmit safely 400 Gbit/s and more. Leoni’s ACCs and AOCs for QSFP-DD and OSFP interfaces convince with maximum transmission distances and low energy consumption. They confirm to IEEE, MSA and SFF standards. Besides Point-to-Point-interconnects, Leoni also disposes QSFP-DD or OSFP to 4xQSFP28 breakout versions in its range of products.

ACC: Low power consumption with higher performance

Thanks to an integrated repeater chip, Leoni’s ‘NEXT copper generation’ transmits data over up to 7 m consuming power of less than 2 W per end. Despite the extended transmission distance, the active copper cable keeps its high performance and makes 400 G data transmission the standard. Especially hyperscalers benefit from the compact, flexible and heat resistant cable solution as its extended performance and energy savings pay off more with many kilometres of cables installed. Due to low energy consumption and higher performance, costs can be saved and environment is less impacted.

AOC: New silicon photonics in use

The active fiber optic cable solution with silicon photonics chip and QSFP-DD form factor from Leoni transmits 400 G over up to 100 m consuming less than 12 W of power per end. For the first time Leoni offers silicon photonics technology with AOCs, too.

Our used silicon photonics technology is characterised by a monolithic chip. Monolithic means that nano-electrical and nano-photonical structures are integrated in one chip. Thus, maximum integration with minimum power consumption is ensured. Within the cable, the QSFP-DD plug design is connected to the innovative chip, which is coupled to proprietary single mode fibers.

Leoni will soon present first AOCs with silicon photonics for OSFP interfaces, too.

☞ *Related illustration material can be downloaded next to this release at* [*https://www.leoni.com/en/press/releases/details/active-400g-solutions-for-data-centers/*](https://www.leoni.com/en/press/releases/details/active-400g-solutions-for-data-centers/)

About the Leoni Group

Leoni is a global provider of products, solutions and services for energy and data management in the automotive sector and other industries. The value chain encompasses wires, optical fibers, standardised cables, special cables and assembled systems as well as intelligent products and smart services. As an innovation partner and solutions provider, Leoni supports its customers with pronounced development and systems expertise. The market-listed group of companies employs about 93,000 people in 32 countries and generated consolidated sales of EUR 5.1 billion in 2018.

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Contact for trade press Contact for economic press

Birte Wendeln Sven Schmidt

Marketing BU Telecommunication Systems Corporate Public & Media Relations

LEONI Special Cables GmbH LEONI AG

Phone +49 4491 291-173 Phone +49 911 2023-467

Fax +49 4491 291-5173 Fax +49 911 2023-10467

E-mail [birte.wendeln@leoni.com](mailto:birte.wendeln@leoni.com) E-mail [presse@leoni.com](mailto:presse@leoni.com)