



Press release

New on the market: Grabber Card PGC-1000 by PLC2 Design GmbH

High-performance data logging

Endingen a. K., Germany, July 1st, 2021 – The PLC2 Grabber Card PGC-1000 is a high-performance PCIe card with up to 40 Gb Ethernet via a QSFP+ connector. It is ideally suited to enable high-end multi camera video data logging and replaying on mid range PCs, to avoid the need for costly very high-end multiprocessor computers. The board offers up to 24 GB of DDR4 memory which can be used for frame buffering. PGC-1000 significantly relieves CPU processing by (un-)packing image data frames on programmable hardware and passing it on by PCIe. On the fly lossless (de-)compression of image data with the L5 (De-)Compression IP from PLC2 is available for integration.

With the PGC-1000 PLC2 Design announces the first member of the product family of FPGA-based PCIe cards with multi-10 Gbps Ethernet interfaces to address the increasing demands for offloading PC-software into programmable hardware.

Typical use cases are modern validation applications in the automotive domain. Such applications (as e.g. for ADAS development) have pushed the bandwidth requirements for data acquisition, logging and storage by a factor of 5-20 over the last few years. The camera arrays provide their data through high-speed interfaces such as multi-10 Gbps Ethernet or high speed interfaces that are converted to Ethernet by measurement adapters. The data contents are driving situation scenarios and are of significant value to automotive engineers that develop control units and systems. A typical high speed data capturing system employs cameras, lower speed sensors, automotive control units, measurement adapters, a measurement and storage computer with high performance network interface cards and drivers and analysis software.

PGC-1000 and the associated software and programmable hardware environment is a reconfigurable high performance network interface card, which provides a multitude of offloading capabilities to streamline such validation systems with respect to power consumption and cost. Automotive engineers typically apply a multitude of AI / ML algorithms. Data integrity of the captured content is extremely important so that lossy compression is not an option. Lossless compression is therefore a valuable task that can be simply offloaded into PGC-1000. The card is compatible with PCIe Gen 3.0 and comes with drivers for Windows and Linux operating systems. Data can also be replayed over PGC-1000 from storage computers to provide hardware in the loop environments to automotive control units under test, with the option to decompress the data on PGC-1000. Further use cases are frame grabbing, low latency networking for financial transactions, encryption and decryption, and several more.

**Further information about the PGC-1000 and the L5 IP: <https://www.plc2.com/en/products>
Follow us on LinkedIn for the latest news: <https://www.linkedin.com/company/plc2-gmbh/>**

About PLC2 Design GmbH

PLC2 Design assists its customers and partners mainly in the areas of FPGA design, embedded software, high-speed design, signal & image processing, and continuous integration. The team of the PLC2 Design GmbH supports customers by providing innovative developments.

In addition to customer-specific project development in the embedded market, the company is increasingly looking into the development of its own products. The focus here is on the implementation of high-performance video grabbing and data logger solutions as well.

PLC2 recently moved into its second and new building that will give the great possibility to expand the company during the next few years.

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