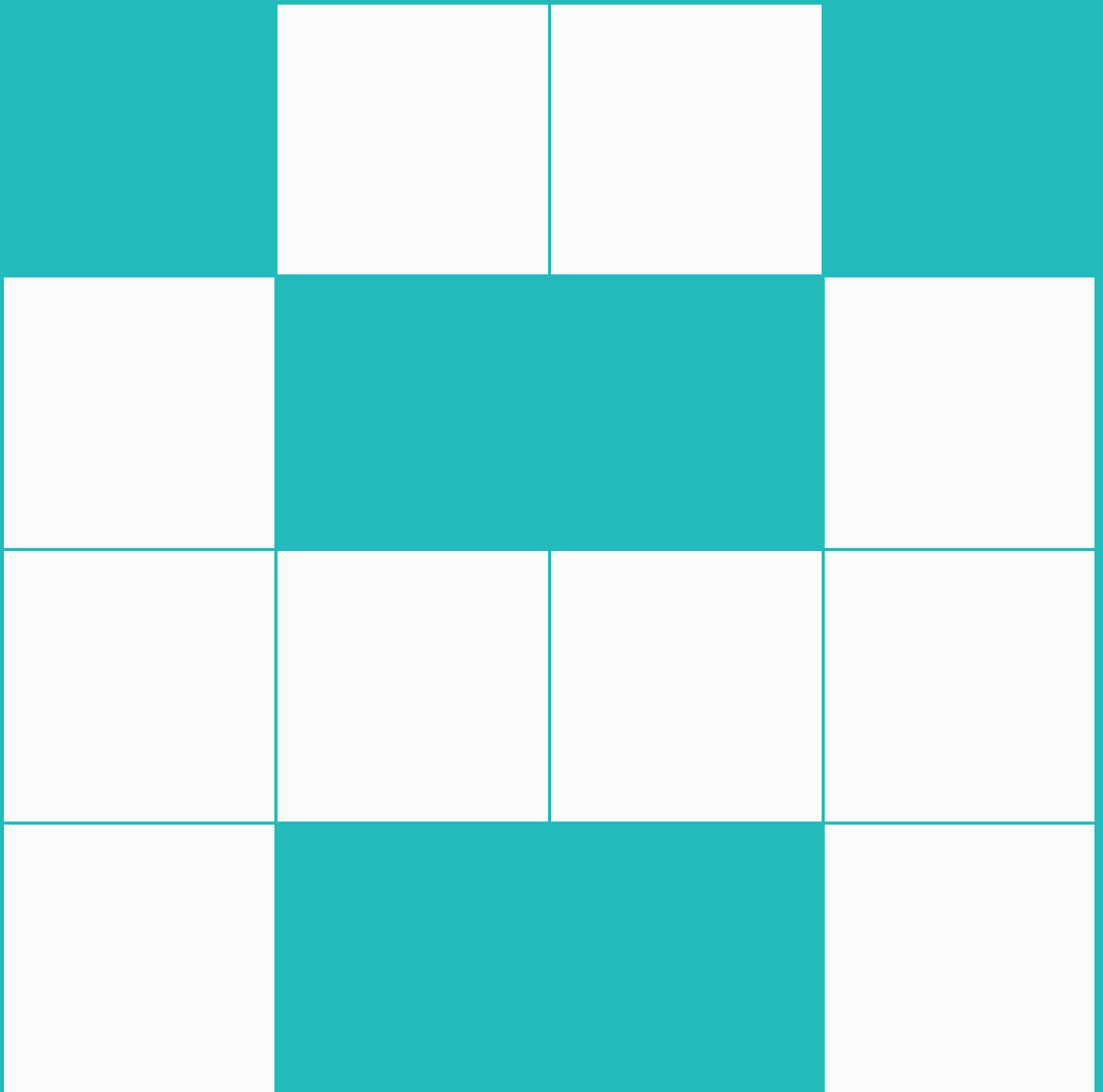


ADL-1000 Data Logger

PLC2

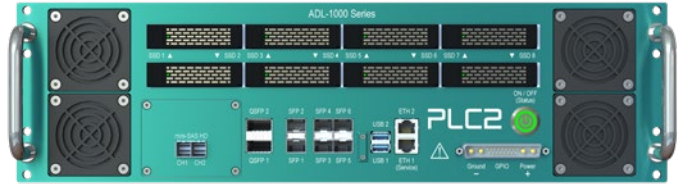
The Next Level of High-Performance Data Logging



Hardware-Accelerated Data Processing

Our ADL-1000 Data Logger is THE all-in-one star in the domain of holistic solutions for data recording and replay. Flexible and powerful FPGA-based technology combined with high-performance Ethernet and PCIe brings the data center to your edge solution. The ability to record and store data massively parallel and a best-in-class bandwidth are just two of many great specials. Furthermore, our ADL-1000 can replay data in the field or in validation farms. The flexibility of processing capabilities and the extendability round off the profile for a turnkey solution for your data-centric tasks. Ease of use through well-designed Application Programming Interfaces (APIs) and extensive cooperation with market leaders in sensors and Electronic Control Units (ECUs)

data acquisition make our solution ready for all current and future needs. Understanding the market needs, we have developed a low-power and low-latency solution using AMD's heterogeneous FPGA-based technology, supporting your next-generation projects. FPGAs are remarkably known for energy-efficient data processing and acceleration and for meeting requirements for fast and reliable data transmission via Ethernet and PCIe.



Key Features

Lossless video (de-)compression

Customer-specific data pre-processing

Trigger event driven recording

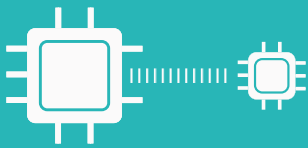
Extendable for further interfaces such as FlexRay, CAN-FD, etc.

Continuous monitoring of temperature and power

PTP (IEEE 1588, IEEE 802.1as)

Removable U.2 NVMe SSDs

Remote access, configuration, and update with REST API



FPGA-centric with GPU extension capabilities



Low power consumption



Internal bandwidth up to 80 Gbit/s



≥ 240 TB NVMe storage capacity

Certification

EMC Emission Immunity
FCC
IEC 61326-1:2020
IEC 61326-1:2021, class B, group 1
IEC 61326-1:2021, industrial locations
47 CFR Part 15, Subpart B,
ICES-003 Issue 7, class B

Product Safety
IEC 61010-1:2010,
IEC 61010-1/AMD1:2016



Benefits of the ADL-1000

01 Data recording in one box

The ADL-1000 offers a unique edge-based solution for data recording and optional replay – all in one box.

03 Ultra massive bandwidth

A massive Ethernet input/output bandwidth of > 10 GB/s enables high-speed data processing and storage.

05 Flexibility, modularity, and extensibility

By using AMD's heterogeneous technologies with FPGA-based acceleration, the ADL brings the high flexibility and modularity that the customer requires.

02 Low-power, air cooled logger

With factor 5 to 10 less power consumption compared to PC-based loggers, air-cooling is sufficient and vehicle battery power is conserved.

04 Minimal total costs from sensor to data

As an all-in-one solution, the ADL-1000 evokes the lowest costs from sensor over data processing to storage at the edge and in the cloud.

06 Robustness and high reliability

The certification in terms of product safety and environmental conditions guarantees uninterrupted usage and ensures the highest reliability for the customer.

Specifications

Input Voltage	Normative 12 VDC / 24 VDC / 48 VDC
Protections	Reverse polarity, under/over voltage, over current, over power, over temperature
Cooling Method	Air-cooled, temperature controlled, low noise
Dimensions	19" 3U, 480 x 450 x 132 mm
Ethernet Interfaces	2x QSFP28 (8x 10 Gbit/s or 2x 40 Gbit/s or 2x 100 Gbit/s Ethernet) 6x SFP+ (6x 10 Gbit/s Ethernet) 1x RJ45 (1 Gbit/s Ethernet) 1x RJ45 (1 Gbit/s Ethernet) as remote access port
Interfaces	2x USB 3.0 2x CAN (with wake-up capability) 4x GPI, 4x GPO (0-60 V open drain, 1 A)
Power Consumption	Typical range 70-200 W (depending on storage configuration) Maximum 300 W
Storage	8x U.2 NVMe (≥ 240 TB*)
Temperature	-20 to 60 °C / -4 to 140 °F
Mechanical Vibration Test	EN60068-2-64 packaging and transport, MILSTD810F
Mechanical Shock Test	EN60068-2-27 half sine wave, 11 ms, 20 G, 36,000 shocks

*8x 30 TB NVMe

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