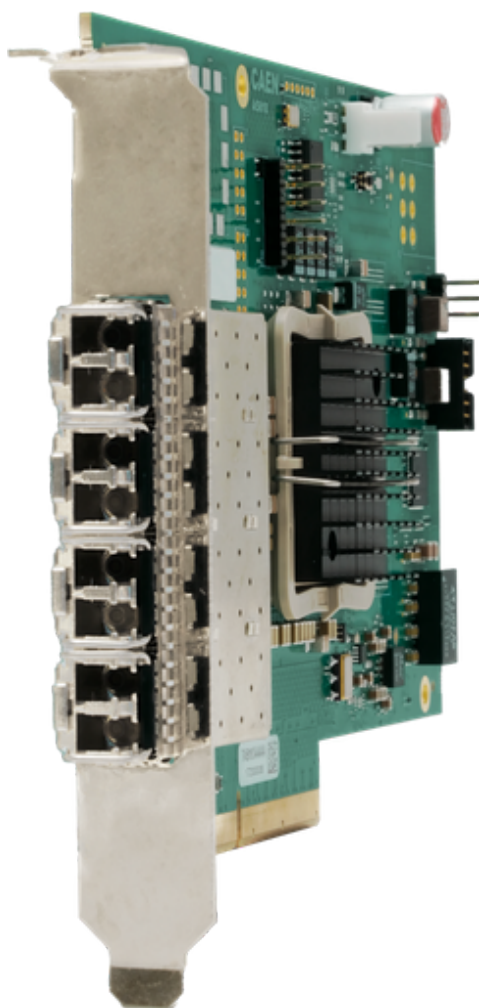
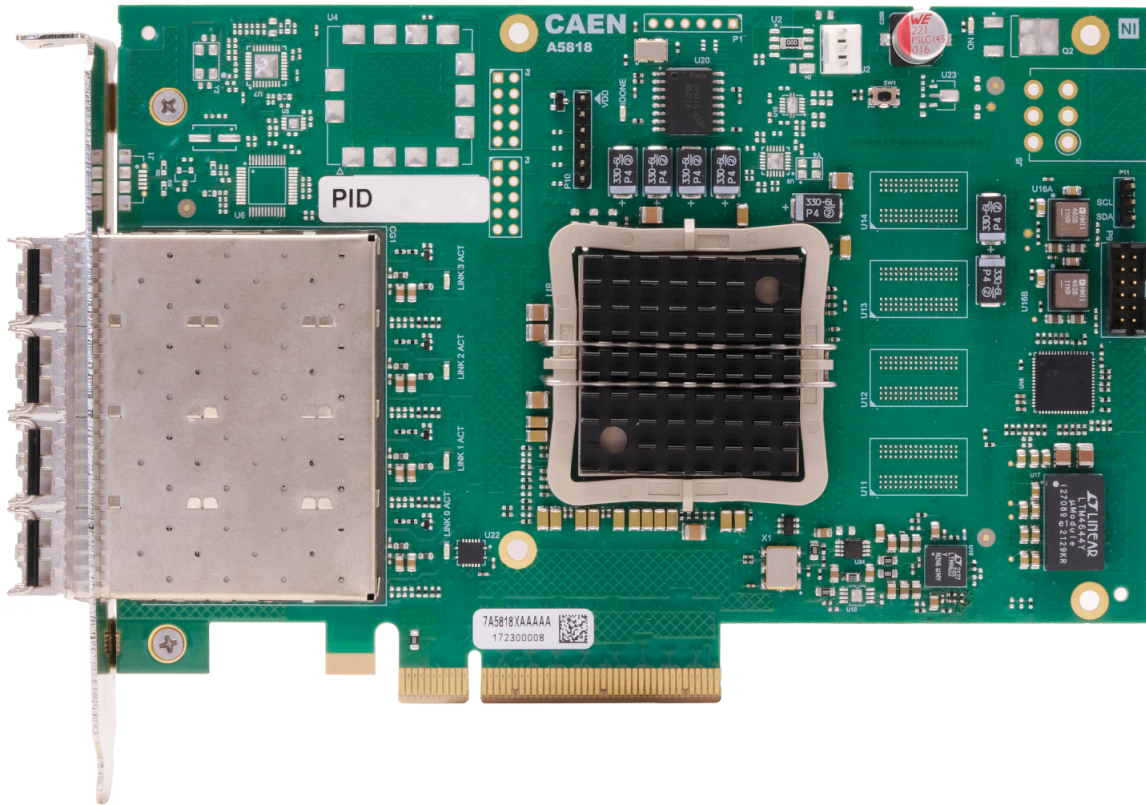


A5818

CONET2 Controller based on PCI Express Gen 3 interface



Features



- PCI Express Gen 3 x8
- 4 Optical Links available
- **CONET2** CAEN Proprietary Optical Link Compatible
- Up to 32 CAEN CONET2-compliant Optical slave cards (CAEN VME Bridges or Digitizers) controlled by a single A5818
- Up to 80 MB/s transfer rate per single link by the optical link
- Interrupt VME protocol supported
- Drivers for Linux and Windows OS
- Supported by CAEN libraries (**CAENDigitizer**, **CAENComm**, **CAENVMELib**)

Description

The CAEN Mod. **A5818** is a **PCI Express Gen 3 x8 CONET Controller** card that can plug into **x8** or **x16 PCI Express slots**, which allows the User to control up to **4 CONET2** independent networks (each network can be made of up to 8 **CONET 2** slaves).

CONET2 is an optical link-based network with Daisy chain capabilities. Through the **CONET2** it is possible to handle the VMEbus through the CAEN VMEbus Optical Link Bridges (such as the **V3718**, **VX3718** or **V4718**, **VX4718**) or to control directly CAEN modules with built-in optical link (such as standard CAEN digitizers).

The communication path uses optical fiber cables as physical transmission line (**AI2700** – Optical Fiber Series).

Technical Specifications

ARCHITECTURE

X8 PCI Express, half-length, specification v3.0 compliant

SLOT COMPATIBILITY

X8 and x16 PCI Express

SUPPORTED OPTICAL FIBERS

50/125 μm OM2 and OM3 (back-compliant with 62.5/125 μm OM1)

CHANNEL BANDWIDTH

1.25 Gb/s

DATA TRANSFER RATE

Up to 80 MB/s per link (CONET2 CAEN proprietary protocol)

NUM. OF BOARDS / LINK

Up to 8 boards can be controlled by a single CONET2 link thanks to Daisy-Chain capability

NUM. OF OPTICAL LINKS

4

POWER RAILS

+12 V from PCIe

OPERATING SYSTEMS SUPPORTED

Linux Windows®

OPERATING TEMPERATURE*

0°-40° Relative Humidity (non-condensing) 10 - 90 % (*) The FPGA temperature can be readout on Linux OS with the cat /proc/a5818n_control command where n is the A5818 board number (0 for the first one, and so on).

Ordering Options

Code	Description
WA5818XAAAAA	A5818 - PCI Express CONET Controller - 4 Links RoHS

Accessories

AI2700



Optical Fiber Series

Related Software

CAEN Toolbox



Multi-Functional Software Suite for the Upgrade of Front-end Boards, Bridges and Power Supplies

CAENVMELib Library



Interface library for CAEN VME Bridges

Related Software Libraries

CAENComm Library



Interface library for CAEN Data Acquisition Modules

CAENDigitizer Library



Library of functions for CAEN Digitizers high level management

Related Products

V3718



VME to USB 2.0 / Optical Link Bridge

VX4718



VME to USB 3.0/Ethernet/Optical Link Bridge

VX3718

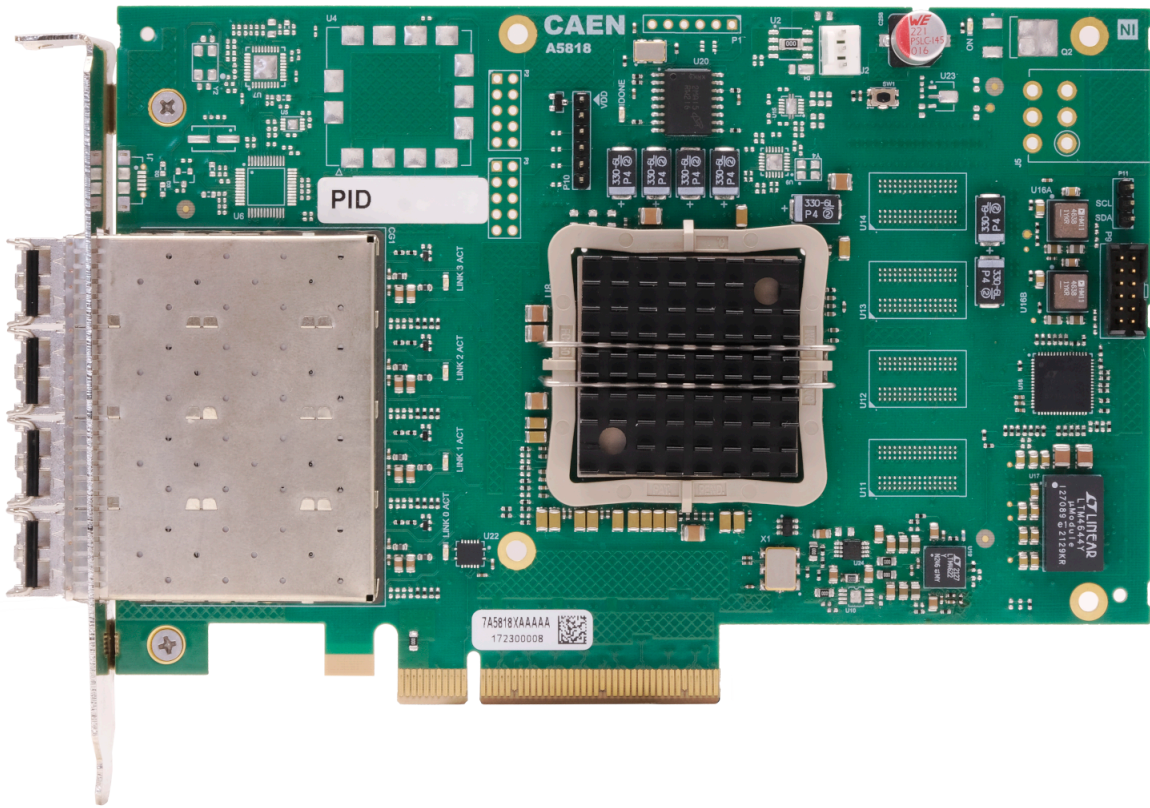


VME64 to USB 2.0/Optical Link Bridge

V4718



VME to USB 3.0/Ethernet/Optical Link Bridge



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