

## **CAEN PLU Library**

**A C Library for  
DT5495 and V2495  
boards**

**CAEN**

**PLU**



- CAEN PLU library is available for Windows® and Linux® OS.
- Working with this library, commonly requires the driver for the used communication link and the **CAENComm library** to be installed.
- The drivers for the supported direct communication interfaces are free downloadable on CAEN website at the **DT5495** and **V2495** web pages.
- Installation instructions can be found in the User Manual of the board. In case of communication by means of CAEN Bridges (**V2718**, **V1718**, **A3818**, **A2818**), the relevant drivers and documentation are available on the Bridge web page.
- Python binding available at [pypi.org/project/caen-libs](https://pypi.org/project/caen-libs) (Open Source project and examples available at [github.com/caenspa/py-caen-libs](https://github.com/caenspa/py-caen-libs))

## Description

**CAEN PLU library** (also referred to as **PLULib**) has been developed to support the **V2495** and **DT5495** CAEN programmable logic units.

This library specifically provides a set of functions to interface these boards through the direct USB and Ethernet communication interfaces, but also the VMEbus connection by using CAEN Bridges (**V1718**, **V2718**, **V3718** and **V4718**), controllers (**A2818**, **A3818**), and **A4818** adapter is supported.

The PLULib supports the following communication channels:

- PC → USB2 → **V2495/DT5495**
- PC → ETH → **DT5495**
- PC → ETH → **V4718** → **V2495**
- PC → PCI/PCIe (**A2818/A3818**) → CONET → **V2718 / V3718 / V4718** → VME → **V2495**
- PC → USB2 → **V1718/V3718** → VME → **V2495**
- PC → USB3 → **V4718** → VME → **V2495**
- PC → USB3 → **A4818** → CONET → **V2718/V3718/V4718** → VME → **V2495**

“CONET” (Chainable Optical NETWORK) indicates the CAEN proprietary protocol for communication on Optical Link. The core functions of the CAEN PLU library manage the connection with the target board, as well as the write and read to registers, while dedicated functions handle multiple boards management by USB link, provide to initialize and program the gate-and-delay generators, permit to write and read the FLASH memory of the target board FPGAs for the firmware management, retrieve the board and status information.

The **CAEN PLULib package** includes a simple test demo. The executable file, **CAEN\_PLULib\_TEST.exe**, is in the bin folder, while the test folder contains the source C files and the Visual Studio project. This is not intended as a readout software, as the user cannot do any operation on the target board, but the demo test permits to automatically check the library functions good working.

## Related Software Libraries

### CAENComm Library



Interface library for CAEN Data Acquisition Modules

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## Related Products

### V4718



VME to USB 3.0/Ethernet/Optical Link Bridge

### A5818



CONET2 Controller based on PCI Express Gen 3 interface

### DT5495



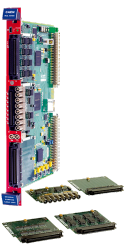
Programmable Logic Unit

### V3718



VME to USB 2.0 / Optical Link Bridge

### V2495



Programmable Logic Unit PLUS

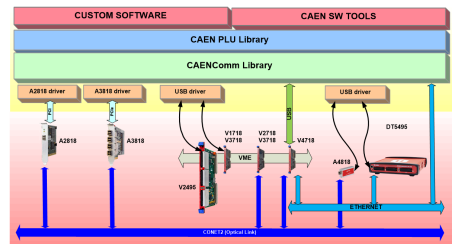
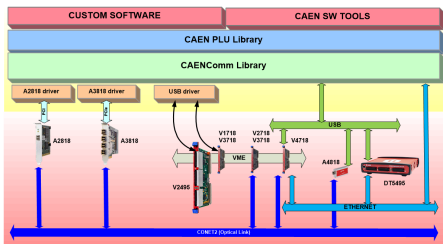
**VX3718**



VME64 to USB 2.0/Optical Link Bridge

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# CAEN PLU



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