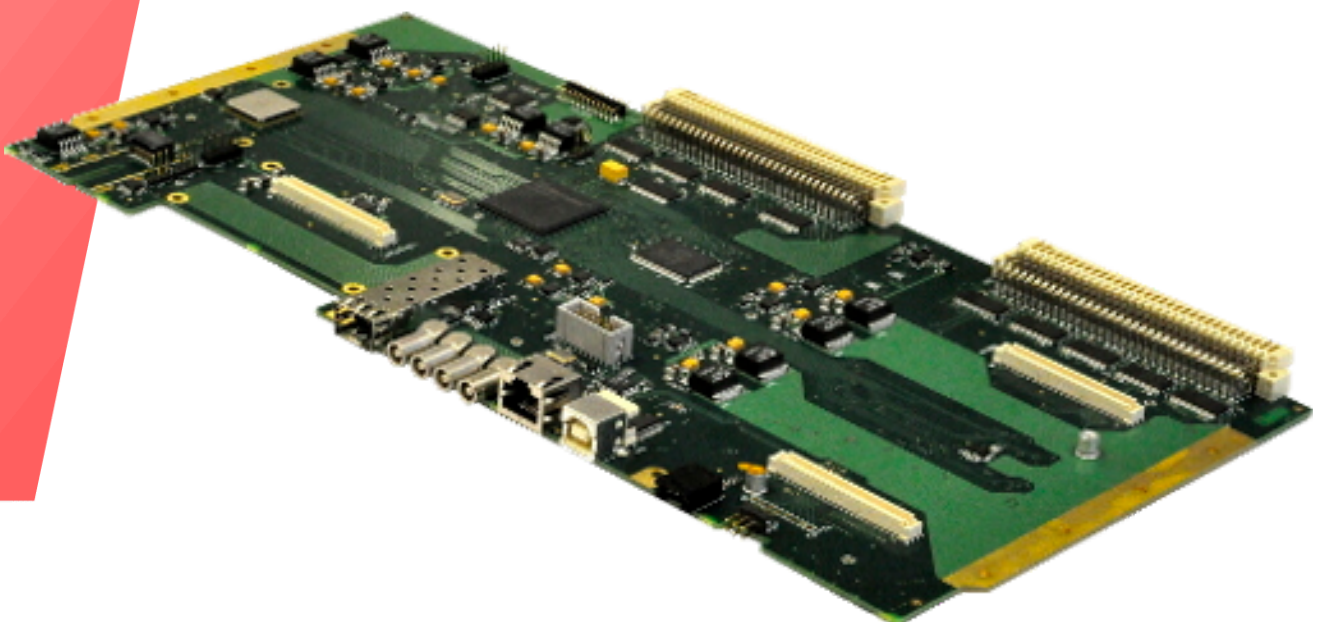
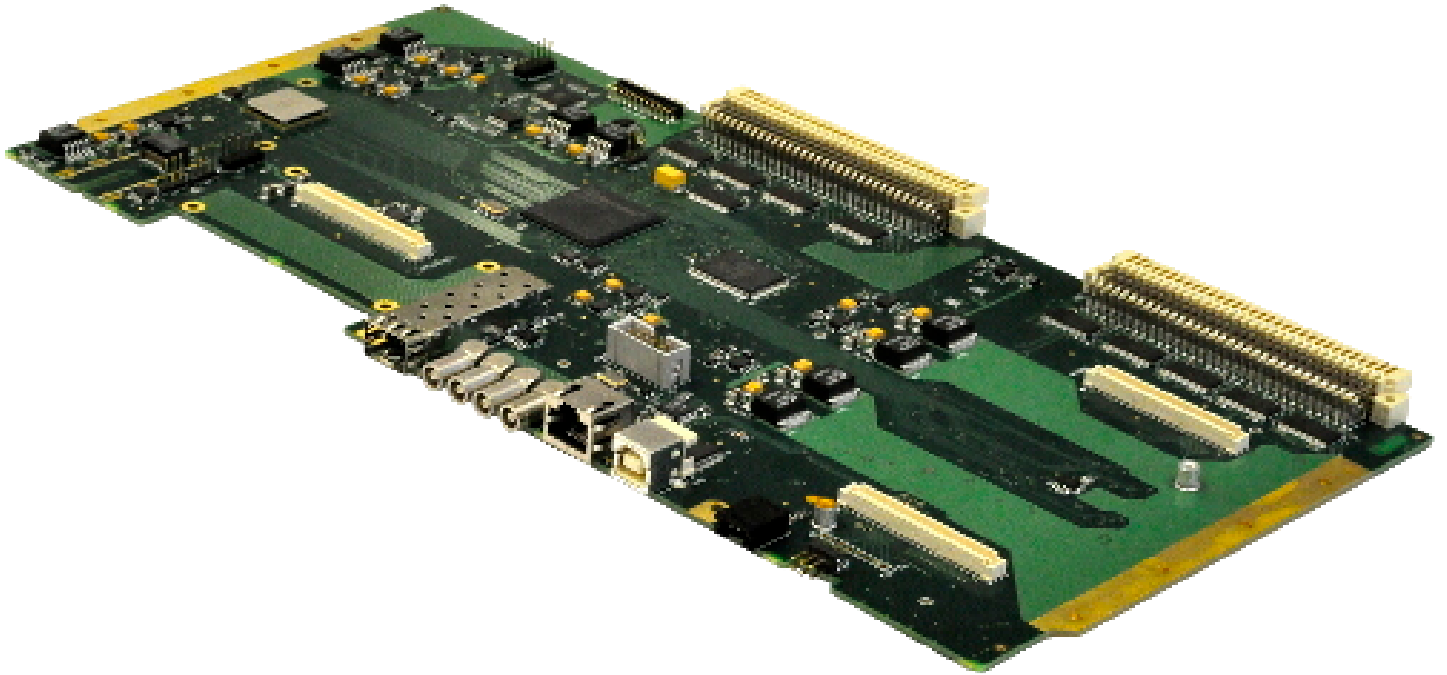


# VX1394

## Data Readout Module (VME Master - DAQ and Detector interfaces)



## Features



- VME Master
- **Description** mode
- Microsemi Igloo2 FPGA RAD Tolerant
- Linux embedded Single Board Computer Mezzanine for Slow Control

The **VX1394** is a SerDes controller for **Time-of-Flight (TOF) systems**.

The **VX1394** board features a radiation hard 4.8 Gbps SERDES ASIC, which, in connection to a rad-hard optical transceiver implements a newer generation optical links for many detector readout systems. The ASIC performs data transmission, trigger distribution and clock forwarding towards the front-end electronics in the crate.

The heart of the VX1394 board is a commercial **FPGA** from Microsemi, an Igloo2 device, qualified for working in environments with a few Krads total dose without major problems: the FPGA manages the trigger received via SERDES link and it forwards it to the Slave boards, through the VME P2 connector. Then the VX1394 reads and encodes the data from the Slave cards via VME (using the VME64x 2eSST feature) and sends the formatted events towards the DAQ via the SERDES link.

The VX1394 card also performs a **slow control function** for spying temperatures, voltages, vital parameters of the board and for monitoring physics data. Slow control links are implemented via an on-board ARM processor Ethernet link and via a 1.25 Gbps optical fiber using the Igloo2 FPGA internal serializer / deserializer (SERDES).

The board can work in a moderately hostile environment, with expected total dose of 0.13 krads in 10 years and a flux of 0.26 kHz/cm<sup>2</sup> of hadrons with energy above 20 MeV.

## Ordering Options

Code	Description
WVX1394XAAAA	VX1394 DRM2 ALICE <span data-bbox="1236 250 1316 302">RoHS</span>

## Related Products

### A4818



USB 3.0 to CONET2 Adapter

### V4718



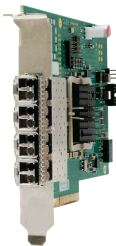
VME to USB 3.0/Ethernet/Optical Link Bridge

### V3718



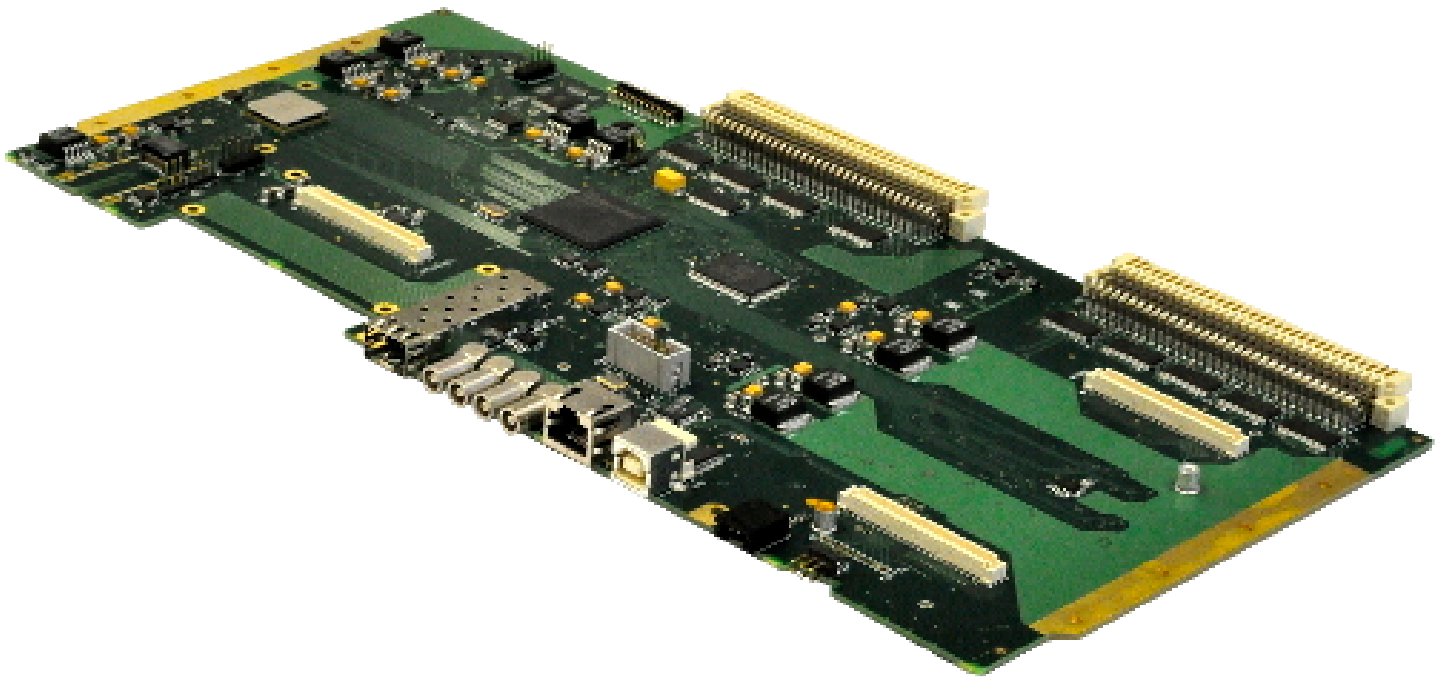
VME to USB 2.0 / Optical Link Bridge

### A5818



CONET2 Controller based on PCI Express Gen 3 interface

## Gallery



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