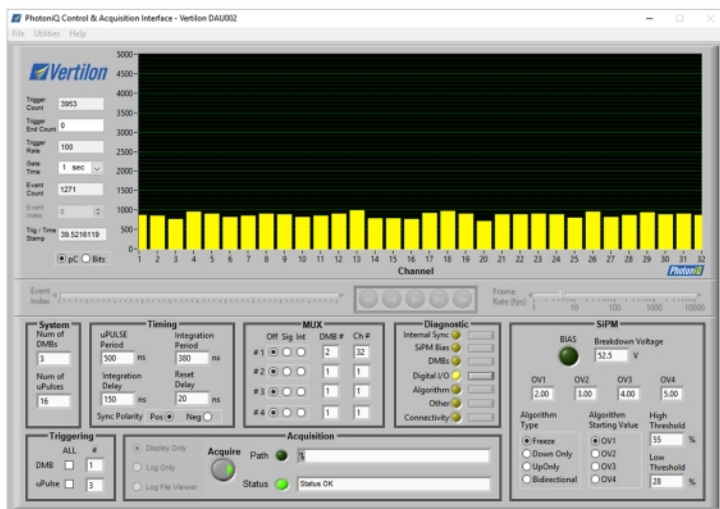


Description

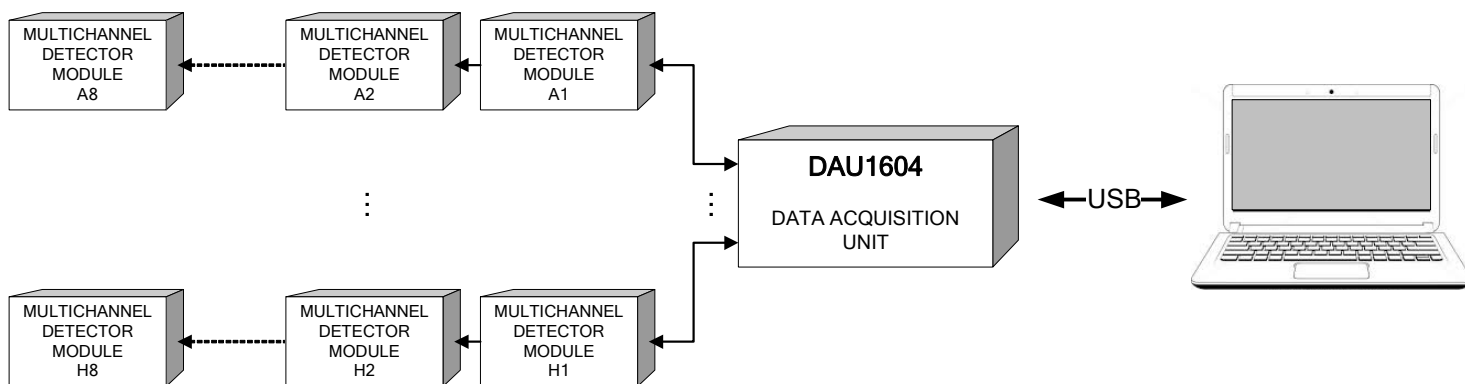
- High Speed Digital Data Acquisition System
- Optimized for Charge & Timing from SiPMs & PMTs
- Acquisition from over 1000 Data Channels
- USB Interface to Computer
- Configurable by a Graphical User Interface
- Real-Time Display and Logging
- Log File Playback



Applications

- X-ray Inspection Systems
- Muon Tomography Imaging
- Non-Destructive Testing & Analysis
- PET Imaging Systems
- Fast Neutron Counting / Integration
- High Energy Physics Experiments

Typical System Configuration

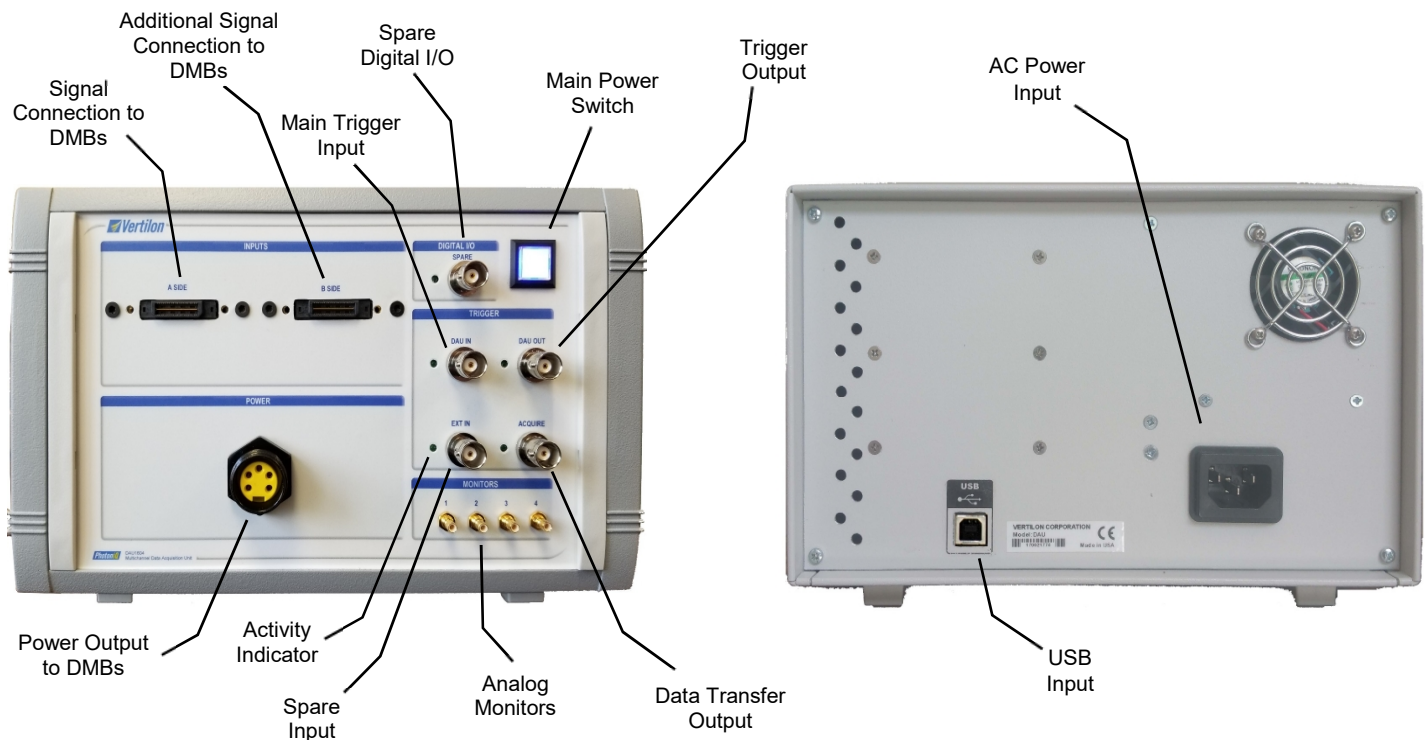


Description

The Vertilon Model DAU1604 is a special purpose digital data acquisition system designed for use with large numbers of SiPMs and photomultiplier tubes. The unit connects to remotely located detector module boards (DMBs) that are specifically designed by Vertilon for the customer's application. A typical configuration example for the DAU1604 consists of several detector module boards, each containing dozens of SiPMs in a specific arrangement. By serially connecting the DMBs with short, specialized data cables, systems with hundreds or even thousands of channels can be built. The DMBs contain the signal processing hardware for the SiPM channels and often include preamplifiers, integrators, discriminators, delaying circuits, time-to-digital converters, digitizers, and high-speed data buffering. Control of the detector module boards is done through the DAU1604 by way of its graphical user interface. Additionally, all data from the DMBs passes through a high-speed data cable to the DAU1604 where it is processed for display and logging on the attached computer.

Vertilon customizes the DAU1604 to meet the user's specific requirements. This includes the DAU1604 front panel configuration as well as the features and functionality of its graphical user interface. The detector module boards are designed to interface with the DAU1604's standard control and data transfer protocols. Vertilon works closely with the customer to define the system level specifications, power constraints, and mechanical requirements for the DMBs. The DMBs are then designed and developed by Vertilon utilizing our proven library of signal processing modules, circuit functions, and firmware from our standard products for SiPMs and PMTs. Vertilon handles all development including circuit and software design, DMB assembly, and system testing. The result is a fully operational application specific DAQ system developed in the most cost effective and timely manner.

Front & Rear Views



Vertilon Corporation has made every attempt to ensure that the information in this document is accurate and complete. Vertilon assumes no liability for errors or for any incidental, consequential, indirect, or special damages including, without limitation, loss of use, loss or alteration of data, delays, lost profits, or savings, arising from the use of this document or the product which it accompanies. Vertilon reserves the right to change this product without prior notice. No responsibility is assumed by Vertilon for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under the patent and proprietary information rights of Vertilon Corporation.