



ORDELA MODEL DAS-100

HIGH SPEED DATA ACQUISITION SYSTEM

DESCRIPTION

The ORDELA Model DAS-100 is the data acquisition component of the ORDELA high count-rate, position-sensitive proportional counter (PSPC) system. The DAS-100 is based upon high-speed digital data processing system and is controlled by a personal computer running ORDELA AIM310.2 Server software on a Windows/NT platform. Events from the detector output are stored in a buffer memory and displayed during normal integral acquisition process. The High Speed DAS is capable of acquiring x- and y- coordinates data from the ORDELA PSPC Fast Data Interface (FDI) at a rate of 100ns/event (10 MHz).

In addition to the standard acquisition and counting modes (integral and time-slicing) this system is also capable of operating in an Energy Analysis Mode. In this optional mode, all neutron events are time-stamped as they are stored in buffer memory. In Energy Analysis Mode, the acquisition time is only limited by the amount of buffer memory available at the host PC.

The DAS also manages all essential counter operations such as acquire, stop, clear, time slicing, data storage, and display. All data acquiring operations provided by the DAS software are transparently available to a remote computer acting as the instrument control computer. The instrument designers/programmers are able to access the detector by sending and receiving all data and commands over a secure (or securable) electronic connection to the detector computer using an industry standard protocol (GPIB, TCP/IP etc.). This provides the instrument designer total flexibility in choosing computer hardware, operating system, and instrument software, while simultaneously allowing for future upgrades of the detector computer and software (including a change of platform and/or operating system) with minimal or no disruption on the instrument side. Thus, the detector can be treated as a true component of the overall instrument system. The DAS software, AIM310.2 Server makes the detector appear as simply another computer with which one exchanges files and commands. Data files may be transferred to a host computer via the Ethernet interface without interruption of the counting process. The AIM 310.2 Server makes acquired data available to external processes running on the same computer. Included with the DAS-100 is histogram display software that displays the current histogram memory and refreshes the display at a user definable interval.

The DAS-100 system includes a host PC running Microsoft Windows NT, all hardware, cables and software necessary to perform the described functions.

WARRANTY

ORDELA, Inc. warrants its products to be free from defects in materials and workmanship for 12 months after shipment. No other warranty is included. Specifically, no warranty of merchantability or fitness for a particular purpose is implied. ORDELA's liability under this warranty is limited to repairing or replacing the product at ORDELA's option. This warranty is void if the product is operated improperly, disassembled, or modified other than in the ORDELA laboratory.