



ORDELA MODEL 1410N DAS

ORDELA MODEL 1410N PSPC DATA ACQUISITION SYSTEM

DESCRIPTION

The ORDELA Model 1410N PSPC Data Acquisition System (DAS) is designed to interface with the Model 1410N position decoding electronics. The Model 1410N PSPC DAS is capable of acquiring neutron events from up to 624 preamplifiers (pixels) simultaneously at a rate of 2×10^5 events/second/pixel. The DAS is controlled by a type P5 personal computer. Events from the PSPC are stored in a buffer memory and displayed without interruption of the acquisition process.

The DAS software provides a simple user interface to configure, control, and process all essential counter operations such as acquire, stop, clear, time slicing, data storage, and display. Discriminators settings are programmed and remotely adjusted using the DAS software. As an option, the DAS may also be networked (via Ethernet or similar) to a remote computer system for data transfer and PSPC control.

DATA ACQUISITION MODES

INTEGRAL The acquire time (total time of integration) is maintained at the preamp boards and displayed at the PC along with the total counts. The minimum accuracy of the display time interval is 1ms. A "speed indicator" graphically displays the maximum count rate (in cps) that the system is processing. The graphic "speed indicator" is log scale and ranges from a minimum of 1 to a maximum of 1×10^5 cps.

TIME-SLICE The system may be preset to process a number of consecutive acquire time intervals in "histograms" at the preamp boards (or possibly at the PC depending on the time-slice interval). This process is initiated by a user from the PC, a command from the GPIB, or by an external "trigger" event. The resulting "scan" of histograms are saved in a file and displayed after all the time-slices have been acquired. The acquire time and sequential histogram number are kept with each histogram. The time-slice "cycle" may be repeated several times and the resulting scan may be saved in separate sequentially numbered scan files or all summed to a single scan file.

With the trigger option enabled, the system waits for a trigger event from the PC I/O to begin a pre-defined time-slice acquisition process. The time-slice process may be interrupted at any time by a STOP command from the user or the GPIB.

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.

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