



News Release

For immediate release
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New Software for Multi-channel Scaler/Photon Counter “NanoHarp 250”

A new software release is now available for the NanoHarp 250 data acquisition board for multichannel scaling/photon counting. The NanoHarp 250 is a short PCI slot card with integrated input discriminators. It is an ideal instrument for the acquisition of fluorescence/luminescence decays on the nanosecond to millisecond time scale. Other applications include Optical Time Domain Reflectometry (OTDR), Time-of-Flight mass spectrometry and range finding. By means of reconfiguration of the boards programmable logic, the software provides two different measurement modes. For high resolution measurements the “Fast Mode” provides a time bin resolution of 4 nanoseconds. In “Slow Mode” the time bin width is 32 nanoseconds. This extends the usable time span of the decay or OTDR measurement to over two seconds. In both modes up to 262144 time bins are available. The board's Multi-Stop capability allows efficient recording of long-lived fluorescence decays with correspondingly slow excitation rates. On-board histogram memory is 18-bits deep, allowing the collection of 262144 counts per bin without software intervention. Software adjustable discriminators and on-board polarity switches allow the NanoHarp 250 to be interfaced to a wide range of signal and trigger sources, including all common single photon detectors such as Photomultiplier Tubes (PMT) and Single Photon Avalanche Photodiodes (SPAD). Count rates up to 50 MHz can be processed. Histogram data is transferred efficiently by means of bus-mastering DMA. Excitation sources such as the PDL 800-B diode laser family can be triggered automatically only when a measurement is running. This avoids bleaching of fluorophores.

The new software version 3.0 now supports all recent Windows platforms from Windows 2000 to Windows 7 including the 64-bit versions. Data can be collected and visualized on-line. An improved graphical user interface with comprehensive online help guarantees a short learning curve. The new software also supports control for an extended range of monochromators, permitting the automated recording of Time-Resolved Emission Spectra (TRES). Fluorescence decay analysis is facilitated by direct transfer to the popular FluoFit software. A new programming library, including a rich set of example programs is separately available to support the development of custom software. It allows integration with existing automated instruments, e.g. under LabVIEW, Matlab, C/C++, Delphi and other programming languages.

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About PicoQuant

PicoQuant GmbH is a research and development company in the field of optoelectronics. The company was founded in 1996 and is based in the Technology Park Berlin-Adlershof, Germany. Since April 2008 Sales and Support in North America is handled by PicoQuant Photonics North America Inc. (PQPI). PicoQuant is one of the worldwide leading suppliers of pulsed diode lasers and LEDs, photon counting instrumentation, fluorescence lifetime spectrometers and time-resolved confocal microscopes. The company records a steady growth and at present employs around 50 people.

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