

UCS30 USB Computer Spectrometer

The UCS30 nuclear spectrometer offers many enhancements and additional features for increased flexibility. USB connectivity provides plug and play operation with most computers running Windows 2000 or XP. Three models are available with 1024, 2048 and 4096 channels of conversion gain.

The internal preamplifier allows direct connection to scintillation detectors. The bipolar amplifier includes polarity selection and multiple shaping times when using different types of detectors with external preamplifiers. Upper and lower level discriminators may be set for rejection of unwanted signals. The high voltage supply is rated to +2048 V for use with scintillation or proportional detectors. Optional polarity selection is available for use with detectors requiring negative bias. A preamplifier power connector (± 12 V) is included for use with our model PA-1 external preamplifier. A 10 μ sec fixed conversion ADC allows high throughput with deadtime correction. Input selection for preamplifier, amplifier or ADC direct is included by computer control.

Hardware Specifications

- ▶ Bench top enclosure with USB, includes preamplifier, amplifier, detector high voltage, and up to 4096-channels depending on model
- ▶ Multichannel Analyzer with data memory, LLD and ULD



- ▶ Pulse height analysis and Multichannel Scaling modes
- ▶ Fully compatible with many scintillation detectors and various commercial tube bases
- ▶ Data Input via BNC connector with on-board relays to select internal preamplifier, shaping amplifier or direct to ADC when using external signal processing
- ▶ Preamplifier is charge sensitive for use with scintillation detectors and PMTs.
- ▶ External Preamp Power, ± 12 volts
- ▶ MCA for pulse height analysis, MCS for half-life decay or other time related studies and Mossbauer mode
- ▶ Deadtime: System dead time is computed and displayed on screen during acquisition.
- ▶ Power: AC line, 100–250 VAC, 50/60 Hz, auto-sensing internal power supply with Universal Power Cord input