



## RADIATION ALERT®

# URSA-II

UNIVERSAL RADIATION SPECTRUM ANALYZER

**Versatile, Flexible, Portable, Compatible, Adaptable, Multipurpose, Low-cost...**

*URSA-II has everything you would expect in a full-featured MCA and has been greatly improved over the original URSA by taking into account requests and comments from our current customers. It can be used with practically any radiation detector you currently have or want to purchase and can extract any data your detector can supply!*

### Specific applications include:

Bulk Sample Analysis, Air Sample Analysis, Wipe Sample Analysis, Thyroid Assay, Environmental Monitoring, Compliance Monitoring, Nuclear Medicine, Identification of Unknown Nuclides, Remote Monitoring, Health Physics, Homeland Defense, Portal Monitoring, Education

*The all-new, fully quantitative, Windows™-based URSA-II software package has been designed for ease of use in a 32-bit Windows™ environment. Software includes "MCace-II" software to run the URSA-II using a Pocket PC (Jornada, iPAQ, etc.) running WindowsCE. Can be installed on as many computers as you like, with no restrictions and free updates.*

### Software Includes:

- Full-featured library editor. Standard libraries include all 497 isotopes listed in the "Kocher Tables."
- Multi-channel scaling mode, peak search and identify, quantification based on ROIs, library, or peak search.
- Dual-channel emulator allows use with gas proportional or phoswich detectors as a "gross alpha/beta" counter-scaler.
- Sophisticated multiple alarm functions are based on the overall count rate, individual ROIs, exceeding a specific rate or an increase in rate over a specific time interval. Alarms can trigger external devices.
- Provisions are included for acquiring and saving spectra repeatedly and continuously while unattended. Spectra can be saved and reloaded as "live" for re-analysis or additional data accumulation, or loaded as a background spectrum. Saved spectra can be superimposed on the "active" spectrum for comparison. Spectrum format is easily accessible by your spreadsheet program. All reports can be previewed, printed, or saved as text or rich text files.
- "ASCII" mode allows control of and data collection from the URSA-II with user's own software or hardware.



### Minimum System Requirements:

Windows 95™ or higher. Connects to controlling computer using a standard RS232 serial port, or USB using RS232-to-USB adapter. Supports both high and normal data rates using USB, although all computers may not be capable of handling the dataflow.

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## **Specifications:**

4096-channels, can also be configured for 256, 512, 1024, or 2048 channels. Internal bias voltage supply provides positive high voltage from 0 to 2000V at up to 0.5mA. Adjustable shaping time, 0.25 to 10  $\mu$ s. Achieve wide gain range from x1 to x250 by utilizing coarse and fine gain controls.

### **Detector Types:**

The URSA-II has been demonstrated to work with the following types of detectors: Sodium Iodide (NaI(Tl)), including thin-crystal low-energy types, Cesium Iodide (CsI(Tl)), including thin-crystal low-energy types, Bismuth Germanium Oxalate (BGO), Plastic Scintillators, including thick plastic scintillators for field beta spectroscopy, Cadmium Zinc Telluride (CZT), BF3 neutron detectors, He3 neutron detectors, Liquid Plastic Scintillation detectors, Gas Proportional, Geiger-Mueller (G-M), Zinc Sulfide alpha detectors, and Phoswich detectors.

### **Detector Connections:**

Two detector inputs. One standard series "C" connector for detectors where the signal is joined with the high voltage supply. The other is for detectors having separate connections for high voltage (SHV connector) and signal (BNC connector). Active detector input is selected via software, and can be negative, positive, or pre-shaped (positive) signal.

### **External Connections:**

External connector provides +5V, +12V, and -12V for external preamplifiers if needed and two logic signals for notifying external devices of alarm conditions.

### **Switches:**

Power On/Off, and Fast/Slow charging rates. (Internal switch located in the battery compartment suppresses battery-charging circuitry when non-rechargeable batteries are being used.)

### **LEDs Indicators:**

On/Off, External power availability, and fast charge activation

### **Power:**

External 110V or 220V to 12VDC power supply delivering 1.25 mA continuous current (please specify), six "AA" NiMH rechargeable batteries (included) with internal recharging, or six standard alkaline "AA" batteries. External 12VDC power jack allows instrument to plug into vehicle. "Fast Charge" of NiMH batteries can also be selected.

### **Size:**

6.186 long x 3.558 wide x 1.718 deep.

### **Weight:**

13.8 oz. without batteries.

Specifications subject to change.