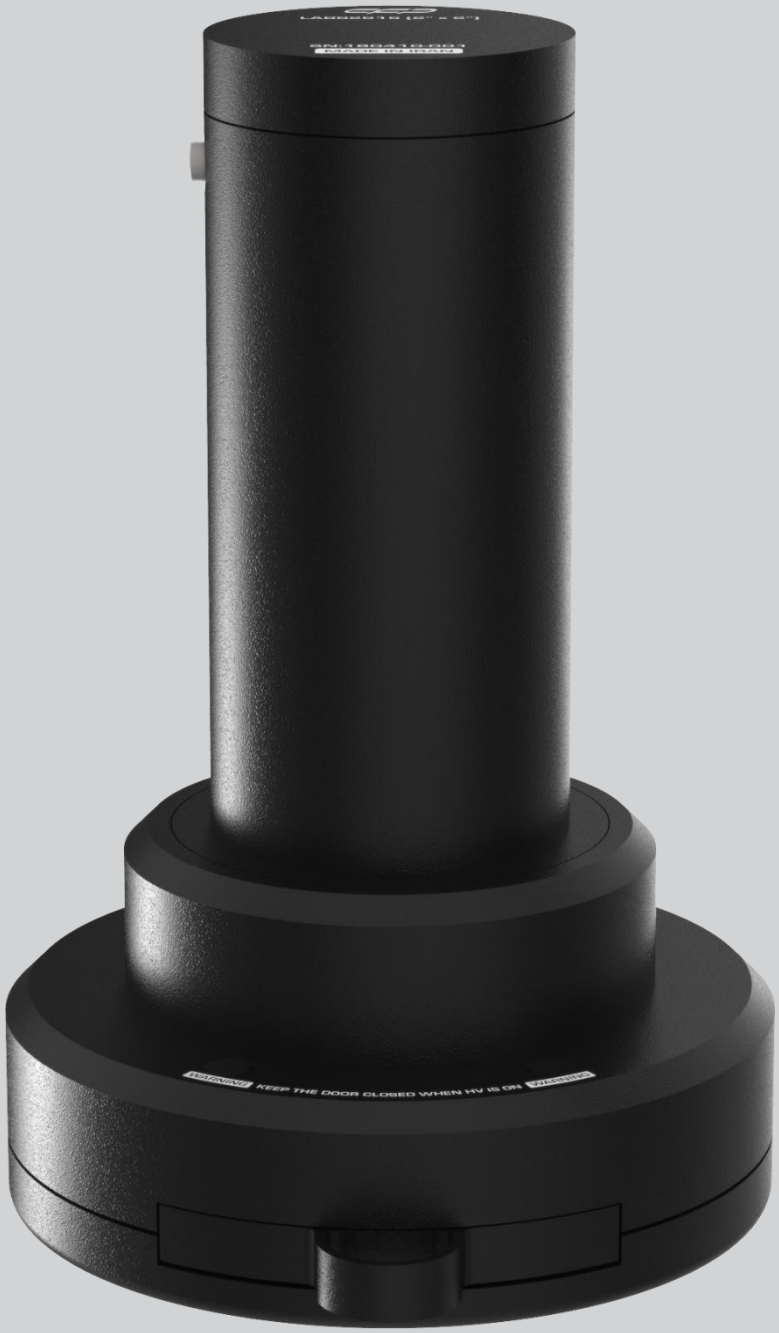
Innovator In Spectroscopy Equipment

LABS2615-2"

Windows



ALPHA AND BETA SPECTROSCOPY SYSTEM MODEL ABS2615-2"

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CATALOG

α β γ χ
SPECT
SPECTROMETER

FREE DOWNLOAD

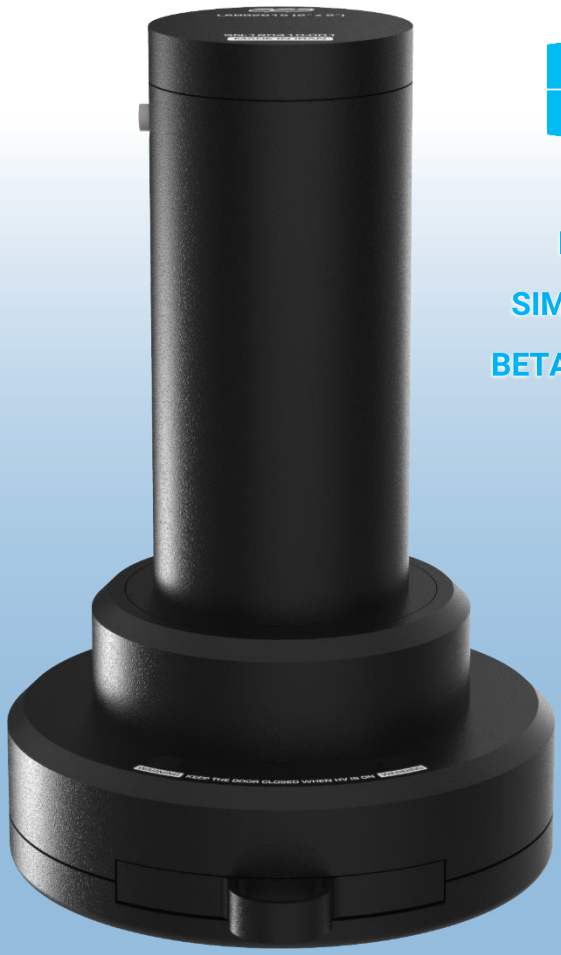
ALPHA AND BETA SPECTROSCOPY SYSTEM
MODEL LABS2615-2"

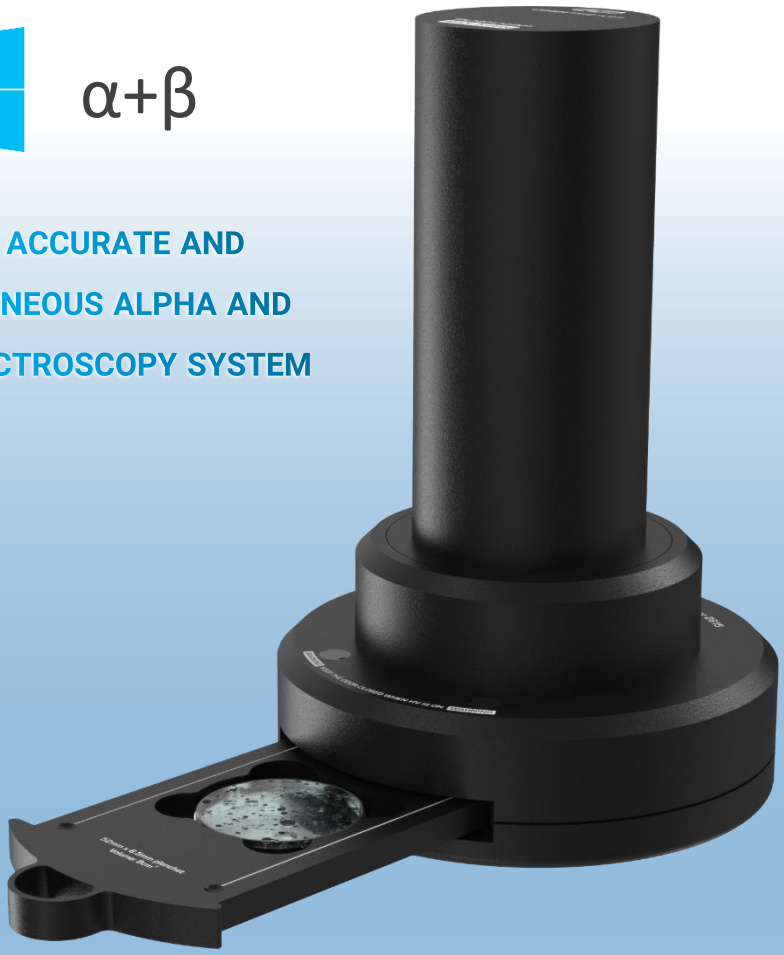
Features

- Lightweight field deployable Alpha/Beta spectrometer
- Planchet with up to 52mm diameter and 6.5mm height
- Closed measuring chamber with scintillation detector
- 2 Bank spectrum presentation (2x2048 channels)
- Supports all data extraction and reanalysis data
- Simple operation with touch sensitive display
- Simultaneous and separate measurement
- very high counting rate and dead time correction
- Time gained by multiple measurement
- High sensitivity and uniform response
- Low limits of detection and decision
- Documentation of measured values
- 4 different energy ranges ROI
- Wide temperature range
- Permanent data memory
- Interface for printer

α+β

FAST, ACCURATE AND SIMULTANEOUS ALPHA AND BETA SPECTROSCOPY SYSTEM





Description

LABS2615-2" is a portable alpha-beta activity measurement system offering both simultaneous and separate measurement of alpha and beta activities in the sample. The system can be utilized in various applications including environmental analysis such as analysis of waste water after evaporation, detection of activities in small quantities of food samples and nuclear medicine such as in vitro tests. The device is equipped with a 2" phoswich detector (ZnS(Ag) 10mg/cm^2 +0.25mm plastic scintillator (PVT)) which leads to impressively high spectrum resolution. The holder considered for the sample is a sliding drawer allows a planchet with maximum diameter 52mm and height 6.5mm. The sensitive touch screen display presents an intuitive user interface with simple and fast access to measuring procedures. Using modern digital signal processing algorithms, the usbBase can accurately distinguish between the two types of radiation and accurately measure their energies. It is easy to operate and provides quick and reliable measurement results which are presented clearly arranged on the display. The system can accurately distinguish between alpha, beta and mixed pulses. The instrument is ideally suited for nuclide-specific activity measurements in the radionuclide laboratory. The measurement electronics is a modular designed system accommodated in a desktop housing. It includes a high voltage unit with preamplifier and an ADC for the acquisition of spectra. The measurement electronics LABS2615-2" is operated via PC software. This allows very intuitive user guidance. Pulse height spectra can be depicted graphically and evaluated. Several service functions are available: background measurement, energy calibration and spectrum recording.

Specifications

Inputs/outputs
Inputs
Touch screen display, USB
Outputs
Display, USB
Controls
Power
Power push button to turn PC ON or OFF.
Display
IPS, Full color
10.1", 1280×800 pixels,
Performance
False beta to true alpha
1:20000 (In true alpha window)
False alpha to true beta
1:1100 (in true beta window)
Background Measurement (Background is measured with the light shield placed in front of the detector)
Alpha
<0.01CPS
Beta
<0.1CPS
Detector
Active Surface Area
16cm^2
Alpha detector
ZnS(Ag), Thickness: 24µm with 250µm carrier
Beta detector
PVT, 0.25mm
PMT
14-pin 10-stage PMTs
Data Acquisition and Analysis
OS
Windows 7 or higher versions
Software
CFP-DMCA software
Measurement/Spectrum
High Voltage
0-2000V, Positive, 12 Bit resolution
Energy Calibration
Linear calibration
ROI Selection
4 ROIs to select on store
Spectrum Type
2 simultaneous cumulative spectrums
ADC
Channels
12bit in 4096CH @120Mhz FRQ
Conversion time
200nsec with
8.3nsec time interval
Digital Signal Processing
12-bit and 80 MHz ADC
Software selectable coarse gain: (x1 to 150x) in 15 step
Software selectable fine gain: (0 - 2x) in 65536 step
Integration time filter for the energy calculation with software adjustable rise time in the range 0 to 0.819ms @80Mhz in 0-65536 step
Trigger threshold software adjustment (0 to 100% scale) in 1024 step
Software fine tuning of the Pole-Zero cancellation
Software gain stabilization
Pile-up rejection and Live Time correction
Baseline restorer with programmable averaging

Application

- Environmental, Food, Agricultural and industrial products monitoring
- Radionuclide laboratories
- Nuclear facilities

Environmental monitoring

Electrical and Mechanical

Power required	
AC - 220V - 50Hz	
Physical	
Dimensions	350mm x 352mm x 318mm (LxWxH)
Weight	16.800kg
Storage temperature	0°C to 50°C
Operating temperature	10°C to 45°C.

Software

DMCA software containing fast access toolbar, menu bar, and different panels including new alpha histogram, new beta histogram, 3D separation, alpha trace, beta trace and state info.

Fast access toolbar provide several functionalities usually used by user.

New alpha histogram panel represents the alpha spectrum in real-time manner.

New beta histogram panel represents the Beta spectrum in real-time manner.

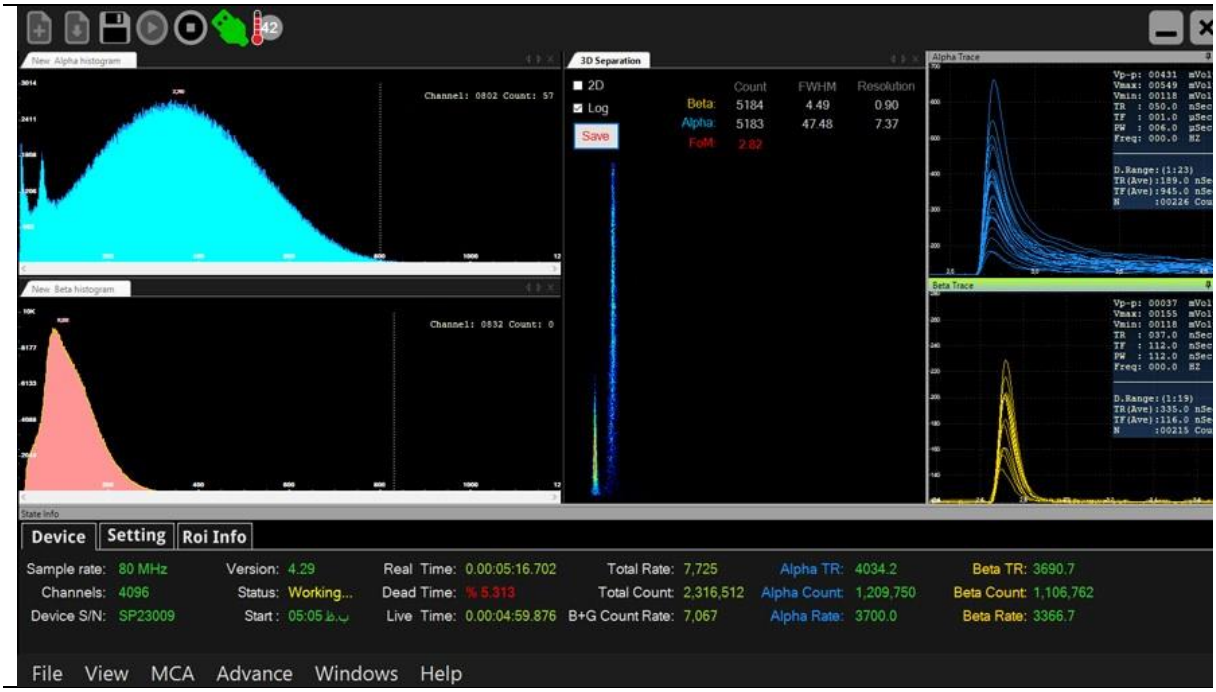
3D separation panel indicates the separated version of all pulses based on their shape in 3d dimensions.

Alpha trace panel shows the alpha pulses sensed by detector.

Beta trace panel shows the beta pulses sensed by detector.

State info panel shows some information of detector parameters along with real time measurement results.

Menu bar shows the total command needed throughout the device functioning.



Software main window

Ordering info

Standard package includes

Part #	Image	Description
LABS2615-2" main		Includes the main body of device (Detection system, linear stage, integrated display)
ACCE2615001-2"		USB to USB Cable 2 meter
ACCE2615002-2"		CD User guide (1 Pack)

Optional accessories and services

Part #	Image	Description
ACCE2615003-2"		installation
ACCE2615004-2"		Training
ACCE2615005-2"		Hard case with foam insert
ACCE2615006-2"		Plastic planchet 2"
ACCE2615007-2"		Aluminum planchet 2"

Innovator in Spectroscopy Equipment

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