

Specification

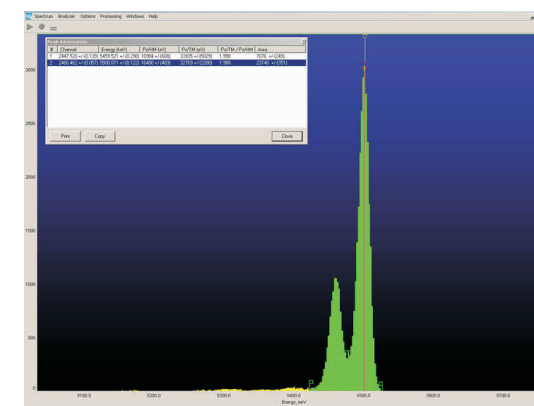
Parameter	Value
Registration energy range, keV	up to 10000
Shaping time constants, us	1
Integral nonlinearity, %	< 0.04
Maximum value of High Voltage, V	+150
Operation temperature range, °C	+5...+35
Temperature instability, %/C	< 0.01
Time of continuous operation, hour	> 24
Overall dimensions, mm	300x221x68
Weight, kg	2.8
Consumed power, Wt	< 10
Supply voltage, V	+/-12 +/-24
Energy resolution for 450 mm ² square open detector, keV	20

The Alpha Spectrometer is easy to use because of LCD display, intuitive interface and 3 control buttons on the front panel.

Adjust settings of High Voltage, discriminator and pulse generator will be saved in memory even after switching off the device.

Integrated High Voltage power supply supports fine HV adjusting within 0 to +150 V DC. In order to avoid premature HV rise on the detector while pressure is inappropriate Alpha Spectrometer contains internal inhibit.

Due to analog and digital output Alpha Spectrometer can be used with analog electronics and as a standalone device when applied to external PC with software.



LCD display (1 channel):

- Button functions menu (main menu)
- HV measurement and detector current menu
- HV setting and control menu
- Pressure measurement in chamber and threshold setting menu
- Vacuum valve control menu
- Count rate Indication and binding threshold setting menu
- Discrimination threshold for lower levels setting menu
- Generator control menu
- Operation mode menu
- Menu of the section readiness for the measurements

1, 2, 8 and 12 channel Alpha Spectrometers are available



ALPHA SPECTROMETER

Alpha Spectrometer is intended for the amplification, analogue filtration of the electric pulses coming from alpha radiation detectors. It is functionally complete device integrated in double-wide NIM module and consists of vacuum chamber from stainless steel, power supply, preamplifier, pulse generator, discriminator, counter and LCD display. Vacuum chamber allows to put in the majority types of detectors, including Ion Implanted Silicon Alpha Particle Detectors with high resolution and up to 1200 mm² square. Sample holder inside vacuum chamber allows to adjust the distance between sample and the detector from 4 to 48 mm with 4 mm step.

Features (1 channel and other)

- Double-wide NIM module
- LCD status display
- Device management with control buttons on the front panel or from an external PC software
- Vacuum gauge with pressure display on the indicator
- Detector current meter from 1 nA to 10 µA
- High Voltage inhibit in case of vacuum breaking
- Reverse bias on the sample holder
- Integrated Multichannel Analyzer
- Calibration pulser
- Vacuum chamber from stainless steel
- Fits up to 50 mm (2 inches) diameter samples
- Possibility to use alpha detectors up to 1200 mm²
- Adjustable sample-detector distance from 4 to 48 mm (with 4 mm step)
- Analog and digital output

Baltic Scientific Instruments
Ganibu Dambis 26
Riga, LV - 1005
Latvia

Phone: (+371) 67383947
Fax: (+371) 67382620
Email: detectors@bsi.lv
www.bsi.lv