Model GSpec SA - Gamma Spectroscopy System

(1K MCA with High Voltage Supply & Spectroscopy Amplifier)





GSpec SA is a 1K Multichannel Analyzer with HV Supply and Spectroscopy Amplifier. It is a mains operated instrument for NaI(TI) detector based spectroscopy.

GSpec SA along with NaI(TI) detector of Customer's choice and Preamplifier (NETS-0M) form a complete Spectroscopy System. The whole setup has a resolution of around 7%. It is suitable for applications where low resolution of nuclides is acceptable.

GSpec SA is ideally suited for Nuclear Spectroscopy experiments carried out at Universities, Environmental Survey Labs and Health Physics Units of Nuclear Power Plants and Chemical Control Labs.

GSpec contains 1024 channel 48 MHz Wilkinson ADC with Silab Microcontroller for USB interface with PC for spectrum acquisition and data processing.

Data acquisition software is loaded on PC / Laptop and provides spectrum acquisition and display, spectrum analysis software for energy calibration, ROI selection, area calculation, peak search, peak information, spectrum smoothing and spectrum data storage on PC hard disk. High voltage supply necessary to operate scintillation detector is software programmable from 0 to 1200 volts in 256 steps. Spectroscopy amplifier gain is settable through PC

Specifications



High Voltage Power Supply:

0 to +1200 V dc, 0.5 mA

256 steps software programmable

Ripple < 30 mv

Spectroscopy Amplifier:

1 μ sec semi Gaussian shaping with internal PZ adjustment

Gain Setting settable through PC

Output: 0 to 6 V unipolar semi Gaussian, connected internally to ADC input

ADC:

1K Channel Willkinson type

48 MHz clock frequency

Conversion time - 20 µ sec for FS input

ADC control through Silab F340 micro controller via USB interface

USB cable length upto 5 meters

Differential Non Linearity less than 2 %

Power Supply:

Mains Operated 230V AC / 50 Hz

Data Acquisition and Processing Software:

Acquisition and display of Gamma Spectrum

Energy Calibration

ROI selection, Area Calculation,

Peak search and peak information

Spectrum Stabilization & Smoothening of spectrum

Data Storage on PC hard disk

Mechanical:

Dimensions: 225 mm x 200 mm x 70 mm Comptec Box

Weight: Approximately 500 gms

Optional:

NaI(TI) Detector

Lead Shield suitable for detector

Due to continuous R&D, specifications are likely to change without notice

For further details contact:

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