

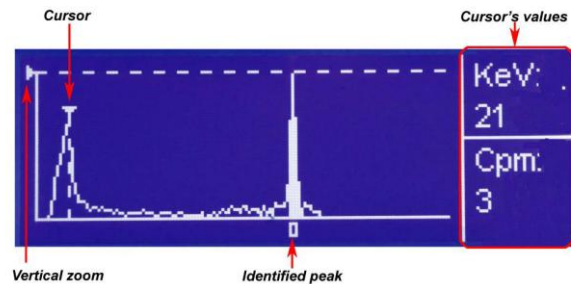
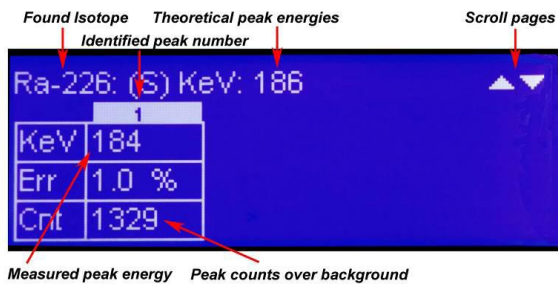
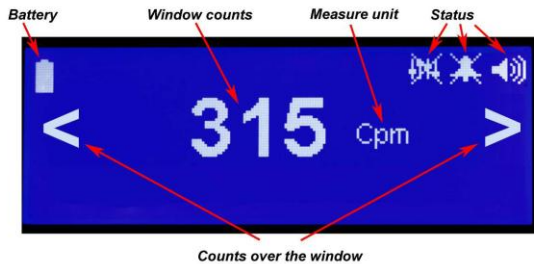
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| <b>l'acn</b> S.r.l.<br>Via XXV Aprile 9/13<br>20023 Cerro Maggiore-MI<br>Tel. 0331 420303 | Spectra <b>GAMMA III</b> | Rev. 00 | Del 07-01-14 |
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# Portable Multichannel Analyzer Spectra**GAMMA III**

## - DATA SHEET -



- 1024 channel Multi Channel Analyzer
- 192 x 64 pixel graphic display backlit
- 16-key functional keyboard
- DB9 connector for detector signal and low voltage supply
- MHV high voltage connector for detection probe
- USB connector for PC interface and battery charge
- Relay controlled remote alarm output
- Audio headphones output jack
- 1 RS232/RS485 serial port
- 1 USB port
- Detector : NaI(Tl) 1.25in x 1.25in PMT (other solid state probes available upon request)
- Charger: by USB connector, via PC USB port or by electrical network adaptor (included)
- Manuals: English user guide included.



### Introduction

Spectra**GAMMA III** is a portable 1024-channel multichannel analyzer unit. It can be used either in stand-alone mode or connected to a notebook PC. Spectra**GAMMA III** is an extremely flexible and powerful tool, suitable for different kind of use, ranging from on site environmental radioactivity to laboratory spectroscopy and individual or group radiation protection.

Spectra**GAMMA III** can mount either NaI(Tl) or solid state probes of different sizes, in order to give to users a most appropriate choice, according to their needs.

The internal memory can to store thousands of measures and tenths of acquired spectra.

The Li-Ion batteries, with virtually no self-discharge, allow the instrument to be always ready when needed, even after a long time of not working.

Full graphic display and stand-alone spectrum analysis with isotope identification.

Info are grouped by type, for an easier understanding.

The possibility of managing more than one detector make it a valid instrument both for laboratory and on-field purposes.

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|---|-------------------------|----------------------|
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### General Description

**SpectraGAMMA II** is a radiation spectrum analyzer able to manage up to 7 different kind of phototube detectors altogether, including the possibility to generate an internal HV between 300 V and 1000 V.

The analog input signal is sent to a front-end Stretcher, a mini-board designed to sample and hold the PMT signal and to generate a trigger signal towards the mother-board.

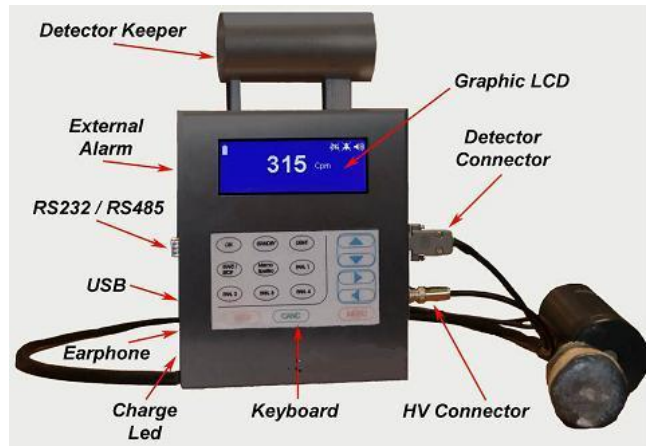
A 10 bit ADC samples the input signal with a maximum rate of about 50 KHz which is then stored after application of efficiency equalization (user configured, detector dependent).

The device is powered by internal Li-Ion batteries (rechargeable by USB supply connector), allowing several hours of continuous measurements.

The internal RAM can store up to 20 energy spectra, which can be downloaded to a PC by a RS232/RS485 or USB connection.

Two different alarm levels can be set for a local acoustic alarm (internal speaker or headphones) and for a remote alarm by a relay activation.

Energy windows can be set to filter a specific radiation type, for isotope searching.



### Technical Specifications<sup>(\*)</sup>

|                    |  |
|--------------------|--|
| DETECTOR:          | Nal (TI) 1.25" x 1.25" PMT (other solid state probes available upon request)   |
| CHANNEL:           | 1024   |
| ENERGY RANGE:      | from 20 KeV to 3 MeV   |
| DISPLAY:           | 192 x 64 pixel graphic display backlit   |
| ISOTOPE SELECTION: | <sup>99m</sup> Tc <sup>99</sup> Mo <sup>111</sup> In <sup>131</sup> I <sup>123</sup> I <sup>18</sup> F <sup>201</sup> Tl <sup>137</sup> Cs <sup>133</sup> Ba <sup>57</sup> Co<br><b>Until 32 user defined isotopes</b> |
| FINISH:            | powder coat  |
| AUDIO GENERATION:  | for warning and alarm to internal speaker or external headphones   |
| REMOTE ALARM:      | n. 1 relay activation  |
| INTERNAL BATTERY:  | Li-Ion   |
| CHARGER:           | by USB connector, via PC USB port or by electrical network adaptor   |
| MANUAL:            | English/Italian user guide   |
| PORT:              | n. 1 RS232/RS485<br>n. 1 USB   |

### OPTIONAL

- Software: windows based MCA acquisition and analysis programs.
- Notebook PC.
- Other solid state probes.

\* Specifications may be subject to change without notice