

scintiSPEC

UNIVERSAL MULTI-CHANNEL ANALYZER

The scintiSPEC is an universal MCA for 14-pin scintillation detector spectroscopy and counting with an USB interface for communications and power. The scintiSPEC provides power to the detector PMT and contains signal processing electronics, a Wilkinson ADC and memory. It is available in several configurations.



Original Size



FEATURES

- Mounted directly on PMT tube
- USB - plug and play
- Net working capabilities
- Multi-Input applications
- High voltage supply
- SCA mode (optional)
- Counter mode (optional)

DETECTORS

- All standard scintillation detectors with 14-pin socket
- Versions for NaI(Tl) and LaBr₃(Ce) scintillation detectors available

SPECIFICATIONS

PHYSICAL AND ELECTRICAL DIMENSIONS

Configuration:	Single input
Interface:	USB standard
Physical Size:	Ø 58 x 53 mm (Ø 2.3" x 2.1")
Power requirements:	max. 250 mA, through USB
Weight:	220 g (7.8 oz)

SPECTRUM PARAMETERS

Spectrum length:	1024 Channels
Bits per channel:	32
Operating mode:	PHA, opt. MCS
Memory:	2k Channels

PROGRAMMABLE CONTROLS

Fine Gain:	x0.5 – x2.0
Preset Mode:	Life or Real Time
Preset Time:	0.1 – 10 ⁶ sec.

SIGNAL PROCESSING

ADC:	Integrated Wilkinson, 60 MHz
Conversion range:	1024 Channels
Pulse shape:	Bipolar
Peaking time:	1 µs
Fast channel peaking:	0.1 µs
Conversion speed:	8 µs
Int.-Non-Linearity:	±0.05 % of full scale over the top of 99 % of selected range
Diff.-Non-Linearity:	±0.5 % over the top of 99 % of the range including the effects of INL
Dead time correction:	Software controlled
LLD:	4096 steps, software controlled
ULD:	16 steps, software controlled

INPUTS/OUTPUTS

PMT:	14-pin diheptal socket
Computer:	USB with cable

High Voltage

Range:	0 to +1200 V DC, 1 mA integrated into tube base, 4096 steps, software controlled
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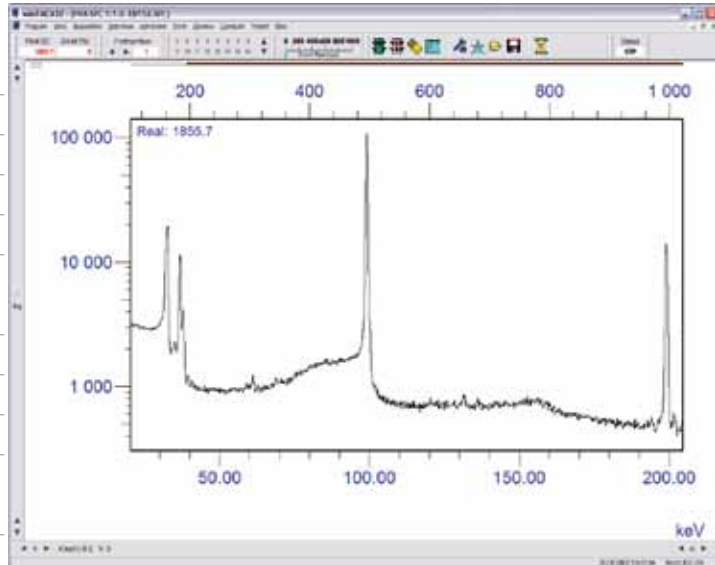
ENVIRONMENTAL

Temperature:	0 to 50 °C (32 to 122 °F)
Humidity:	Up to 80 %, non condensing

SOFTWARE

winTMCA32:	Includes basic spectroscopy software
labTMCA:	Gamma analysis software (optional)

Complete specifications available on request.



VARIANTS

Following variations of this device are available. Specifications differing for the variants are marked in the table.

*1 scintiSPEC for NaI(Tl) detectors

*2 scintiSPEC-L for LaBr₃(Ce) detectors

For situations not covered by these variants please contact our Marketing and Sales Department at the email address or phone number listed below.

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