N957

8k Multi-Channel Analyzer

Features

- 1 input Multichannel Analyzer
- Fully computer controlled MCA
- 8K ADC, fast conversion time with linearization enhancement circuit
- PHA acquisition mode
- Suitable for HPGe, Nai(Tl), CdTe and other detector technologies
- USB 2.0 communication interface
- Libraries, Demos (C and LabView) and Software tools for Windows and Linux

Description

The **Mod. N957** is a 8k **Multi-Channel** (MCA) with USB port, housed in a 1-unit wide standard NIM module. The multichannel analyzer performs the essential function of collecting the data and producing output, in the form of converted value of input peaks. The managed input pulses are those produced by a standard spectroscopy amplifier: Gaussian, semi-Gaussian or square waves, unipolar (positive) or bipolar, in a range from 0 to 10 V, with a rise time greater than 0.1 µs. The trigger can be made "on signal" (Auto Gate mode) or "external" (External Gate mode). In the first case a discriminator, with a settable threshold, enables the conversion. In the second case, an external gate is fed to the module, via front panel GATE In connector. The input channel has one peak amplitude stretcher, the output of which is digitised by a 13 bit fast (0.8 µs) ADC featuring a sliding scale technique, to improve the differential non-linearity. Converted waveforms are stored into a 64 KSamples buffer memory. The unit hosts an USB2.0 port (also compatible with USB 1.1), which permits a simple control and data-acquisition via PC.
Libraries for Windows and Linux will be provided as well. Future firmware upgrade is possible via USB.

Technical Specifications

Packaging

One unit NIM mechanics

No. of ADC channels

1

Resolution

13 bit (8192 channels - 8064 valid if sliding scale enabled)

ADC Conversion time

0.8 µs

Dead Time

4.8 µs

LSB

1.22 mV

Gate

Signal must occur prior to and must extend for at least 0.2-µs after the peak (in External Gate mode)

Differential Non-Linearity

< 1%
from 5% to 95% of input FSR (500 mV ÷ 9.5 V)

Integral Non-Linearity

< 0.065%
from 5% to 95% of input FSR (500 mV ÷ 9.5 V)

Gain Instability

<+150 ppm/°C

USB port

Compatible with USB 1.1 and USB 2.0;
3m maximum cable length (longer distance can be achieved with commercial off-the-shelf products)

Maximum transfer rate

30 Mbyte/s (USB 2.0 Bulk Transaction Protocol);
75 Kbytes/s (USB1.1)

I/O signals

NIM/TTL; selected via internal switch

Discriminator Threshold

Software programmable, 0 mV ÷ 500 mV range, 100 steps

Ordering Options

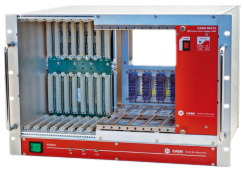
Code	Description	
WN957XAAAAAA	N957 - 8k Multi-Channel Analyzer	RoHS

Related Products

NIM8306

2 Slot Switching 750 W Mini Crate

NV8020A



7U CRATE VME/NIM 8 slot VME64 365W, 5 slot NIM 150W

NIM8303

5U 12 slot 300/600 W Crate

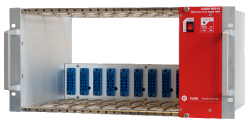
NIM8304

7U 12 slot smart fan unit Switching 2000 W Crate

NIM8305

2 Slot Switching 450 W Mini Crate

NIM8302



5U 10 slot 150 W Compact Crate

Gallery

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