

ZEUS

DPP Digital Pulse Processor

for ultra-fast detection systems



ZEUS is a digital pulse processor for high rate and throughput applications.

Input

Input signal: Pulsed reset (positive or negative polarity) or continuous reset charge preamplifier typical outputs

Dynamic: selectable by jumper (typ: +/- 5V).

Coarse gain selectable from x0.5 to x1000. Fine gain tuning available for each coarse setting.

Input impedance: high or 50 Ohm.

Connectors: signals for inhibiting the acquisition during the reset of preamplifier. Logical inputs for elemental mapping synchronization.

Maximum input rate: 2Mcps.

Output

Output info: Input Count Rate, Output Count rate, dead time, live time.

Output signals: Real time trigger.

Spectrum: Up to 16384 (16k) channels.

Performance: ICR 1Mcps: dead time 10%, ICR 2Mcps: dead time 30%.

Filtering

Peaking times: software selectable from 100ns to 60 μ s. Flat top selectable by software from 50ns to 30us.

Optimal Filtering: optional module for calculating optimal filter on the basis of environmental conditions.

Automatic Adaptive Filtering Mode: the system automatically selects the best filter in real time during the measurement.

General

Pileup rejection system: with or without recovery of pile-upped events, software selectable.

Diagnostic info: ADC trace, baseline distribution, baseline history.

Oscilloscope functionality: the system reconstructs the analog waveforms at the output of preamplifier, pre-filtering and complete filtering on PC.

Others: Dead time correction, channel number selectable from 256 to 16.384, 16 ROIs selectable for fast data acquisition (SCA functionality, TTL output) or 16 digital auxiliary lines.

High speed USB2 compatible

Do you need custom design for your application?

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