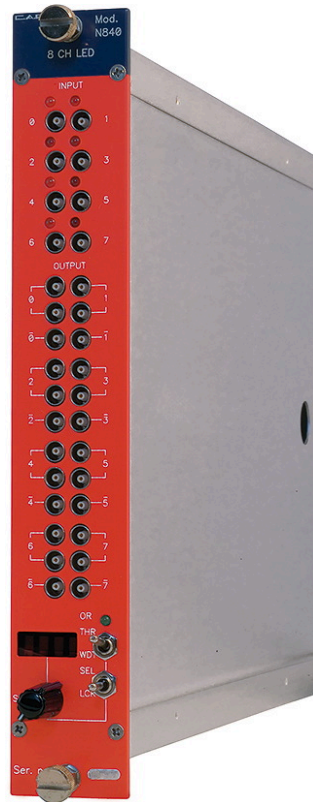


N840

8 Channel Leading Edge Discriminator



Features



- Individually programmable thresholds
- Selectable Updating/Non Updating mode
- Programmable output width
- TEST and VETO inputs
- OR and Current sum outputs
- 4 digit led display

Description

The CAEN **Mod. N840** is an 8 Channel **Leading Edge Discriminator** housed in one unit wide NIM module. The module accepts 8 negative inputs and produces 2x8 NIM outputs (NIM outputs are provided with a fan-out of two)+ 8 /NIM outputs (negated) on front panel LEMO 00 connectors.

The pulse forming stage of the discriminator produces an output pulse whose width is adjustable in a range from 5 ns to 40 ns. Each channel can work both in Updating and Non-Updating mode according to on-board jumpers position. The discriminator thresholds are individually settable in a range from -1 mV to -255 mV (1 mV step), via an 8-bit DAC. The minimum detectable signal is -5 mV. The back panel houses VETO and TEST inputs, the OR output and the *Current Sum* output, which generates a current proportional to the input multiplicity, i. e. to the number of channels over threshold, at a rate of -1.0 mA per hit (-50 mV per hit into a 50 Ω load) $\pm 20\%$.

Technical Specifications

Packaging

1U-wide NIM unit

Threshold range

1 mV to -255 mV (1 mV step)

Inputs Channels

8 inputs, negative polarity, DC coupling

Input Impedance

50 Ω

Reflections

<4% for input pulses with a 2 ns rise time

Interchannel Isolation

>44 dB

Max Input voltage

-5 V

Min. detectable signal

-5 mV

Max input frequency

110 MHz (Updating mode); 80 MHz (Non Updating mode)

Double Pulse Resolution

7 ns (Updating mode), 12 ns (Non Updating mode)

Test Input

NIM signal; High impedance; Min. FWHM: 12 ns; Max. frequency: 40 MHz

Veto Input

NIM signal; High impedance; Min. FWHM: 15 ns

Output channels

16 NIM (Fan-Out of 2) + 8 / NIM (single), 50 Ω Impedance

Output Width

Out: 5 ÷ 40 ns / Out: 6 ÷ 41 ns

Output Rise / Fall Time

Out: < 1.2 ns; / Out: < 2.5 ns

Input/output delay

9 ns

Test Input/output delay

11 ns

Or Output

NIM signal; 50 Ω impedance
Max. frequency: 30 MHz; Min. FWHM: 10 ns

Σ Output

-1 mA \pm 20% per hit; high impedance
Max. frequency: 30 MHz; Min. FWHM: 15 ns

Ordering Options

Code	Description	
WN840XAAAAAA	N840 - 8 Channel Leading Edge Discriminator 50 Ohm Negative	RoHS

Accessories

A385



Adapter 2.54mm 34-pin female to 16x LEMO 00 female (or MCX male) – 50 cm / 1 m

Related Products

NIM8304



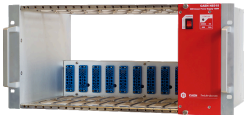
7U 12 slot smart fan unit Switching 2000 W Crate

NIM8303



5U 12 slot 300/600 W Crate

NIM8302



5U 10 slot 150 W Compact Crate

NIM8305



2 Slot Switching 450 W Mini Crate

NIM8302P



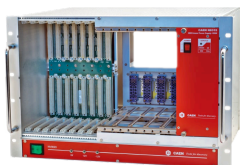
5U 5 slot 150 W Portable Crate

NIM8306

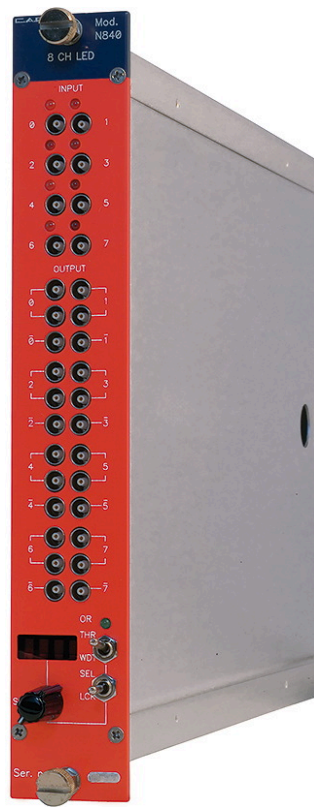


2 Slot Switching 750 W Mini Crate

NV8020A



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



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CAEN S.p.A.

Via Vetraia 11
55049 - Viareggio
Italy

Phone +39.0584.388.398

Fax +39.0584.388.959

info@caen.it

www.caen.it

CAEN GmbH

Brunnenweg 9
64331 Weiterstadt, Germany

Phone +49 (0)212.254.4077

Mobile +49 (0)151.16.548.484

info@caen-de.com

www.caen-de.com

CAEN Technologies, Inc.

1 Edgewater Street - Suite 101
Staten Island, NY 10305
USA

Phone +1.718.981.0401

Fax +1.718.556.9185

info@caentechnologies.com

www.caentechnologies.com

CAENspa India Private Limited

B205, BLDG42, B Wing,
Azad Nagar Sangam CHS,
Mhada Layout, Azad Nagar, Andheri West
Mumbai, Maharashtra 400053, India

info@caen-india.in

www.caen-india.in

