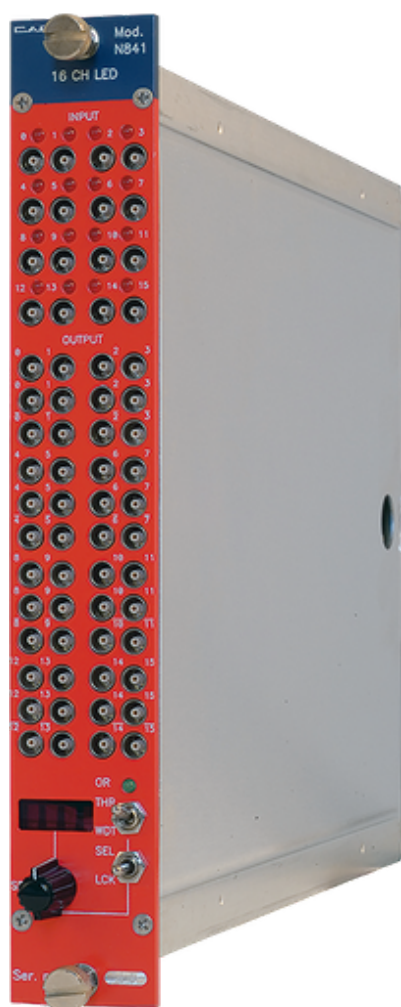
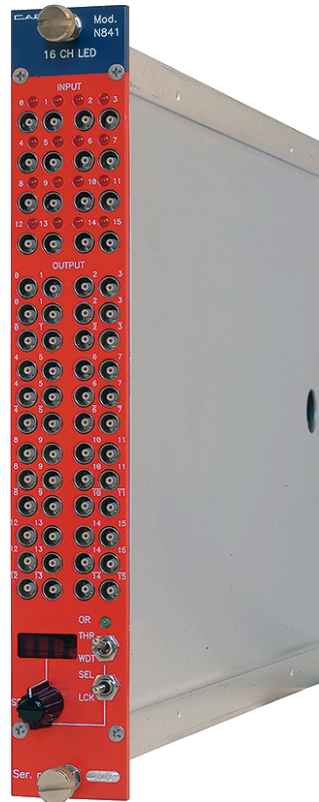


# N841

## 16 Channel Leading Edge Discriminator



## Features



- High channel density
- 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. N841** is an 16 **Channel Leading Edge Discriminator** housed in one unit wide NIM module. The module accepts 16 negative inputs and produces  $2 \times 16$  NIM outputs (NIM outputs are provided with a fan-out of two) + 16 / 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  $\Omega$  load)  $\pm 20\%$ .

## Technical Specifications

### Packaging

1U-wide NIM unit

### Threshold range

-1 mV to -255 mV (1 mV step)

### Inputs Channels

16 inputs, negative polarity, DC coupling

### Input Impedance

50  $\Omega$

### 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 logic signal, high impedance
- Min. FWHM: 15 ns

### Output Channels

32 NIM (Fan-Out of 2) + 16 / NIM (single), 50  $\Omega$  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  $\Omega$  impedance  
Max. frequency: 30 MHz; Min. FWHM: 10 ns

### $\Sigma$ Output

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

## Ordering Options

Code	Description
WN841XAAAAAA	N841 - 16 Channel Leading Edge Discriminator 50 Ohm Negative <span data-bbox="1364 250 1444 297">RoHS</span>

## Accessories

### A385



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

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## Related Products

### NIM8305



2 Slot Switching 450 W Mini Crate

### NIM8304



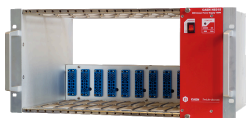
7U 12 slot smart fan unit Switching 2000 W Crate

### NV8020A



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

### NIM8302



5U 10 slot 150 W Compact Crate

### NIM8302P



5U 5 slot 150 W Portable Crate

## NIM8306



2 Slot Switching 750 W Mini Crate

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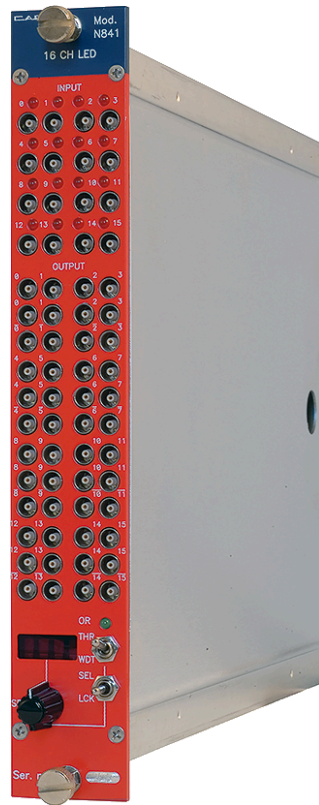
## NIM8303



5U 12 slot 300/600 W Crate

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# Gallery



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