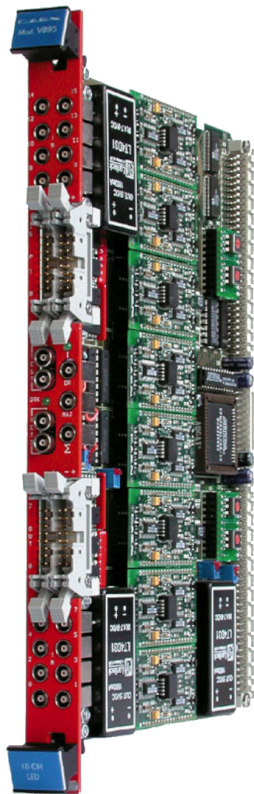


# V895

## 16 Channel Leading Edge Discriminator



## Features



- Thresholds individually programmable via VME
- ECL outputs with fan-out of two
- Selectable Updating/Non Updating mode
- Programmable output width
- Global VETO and TEST inputs
- Mask register for individual channel enable/disable
- OR, CURRENT SUM and MAJORITY outputs
- Libraries (C and LabView) and Software tools for Windows and Linux

## Description

The CAEN **Mod. V895** is a **1-unit wide VME module housing a 16 channel leading edge discriminator**. The module accepts 16 negative (positive on request) inputs and produces 16 differential ECL outputs with a fan-out of two on four front panel flat cable connectors. Maximum input frequency is 140 MHz. The pulse forming stage of the discriminator produces an output pulse whose width is adjustable in a range from 5 to 40 ns via VME. 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 VME through an 8-bit DAC. The minimum detectable signal is -5 mV.

Each channel can be turned on or off via VME by using a mask register. A Current Sum output 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). A MAJORITY output connector provides a NIM signal if the number of input channels over threshold exceeds the MAJORITY programmed value. Several V895 boards can be connected in a daisy chain via the Current Sum output: in this case, by switching the majority logic to External, it is possible to obtain a Majority signal when the number of active channels in the chained modules exceeds a global Majority level. The logic OR of discriminator outputs is available on a front panel NIM signal.

## Technical Specifications

### Packaging

6U-high, 1U-wide VME unit

### Threshold range

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

### Inputs Channels

16 inputs, negative polarity, DC coupling

### Inputs impedance

50  $\Omega$

### Reflections

<4% for input pulses of 2 ns rise time

### Input Range

-5 mV ÷ -5 V

### Input Offset

±5 mV

### Double Pulse Resolution

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

### Test Input

- NIM logic signal
- High impedance
- Min. FWHM: 5 ns
- Max. frequency: 60 MHz

### Veto Input

- NIM logic signal
- High impedance
- Min. FWHM: 15 ns

### Outputs

16 ECL outputs with a fan-out of two

### Outputs Impedance

110  $\Omega$

### Output Width

5±1 ns to 40±5 ns FWHM

### Output Rise/Fall Time

<3 ns

### Input/Output Delay

15.5 ± 1.5 ns

### Crosstalk

<47 dB

### Majority Output

- NIM logic signal
- 50 Ω impedance

### Or Output

- NIM logic signal
- 50 Ω impedance
- Max. frequency: 50 MHz

### Σ Output

- -1 mA ± 20% per hit
- high impedance
- Max. frequency: 25 MHz

## Ordering Options

Code	Description	
WV895XBAAAAA	V895B - 16 Channel Leading Edge Discriminator (No Jaux)	RoHS

## Accessories

### A954



Cable assembly 2.54mm 34 pin female to two 2.54mm 16 pin female - 50 cm

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### 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

### VME8008XB

### VX3718



VME64 to USB 2.0/Optical Link Bridge

### VME8001



1U 2 Slot VME64 Mini Crate

### V3718



VME to USB 2.0 / Optical Link Bridge

### VME8008B



4U 8 Slot VME64 Mini Crate

## V4718



VME to USB 3.0/Ethernet/Optical Link Bridge

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## VME8004X



2U 4 Slot VME64X Mini Crate

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## VME8011



7U 21 Slot VME64 Low Cost Crate

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## VME8100



8U 21 Slot VME64/64X Enhanced Crate Series

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## VME8010



7U 21 Slot VME64 Low Cost Crate

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## VX4718



VME to USB 3.0/Ethernet/Optical Link Bridge

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## VME8004B



2U 4 Slot VME64 Mini Crate

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## NV8020A



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

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## VME8008X



4U 8 Slot VME64X Mini Crate

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## VME8200



9U 21Slot VME64X Enhanced Crate series

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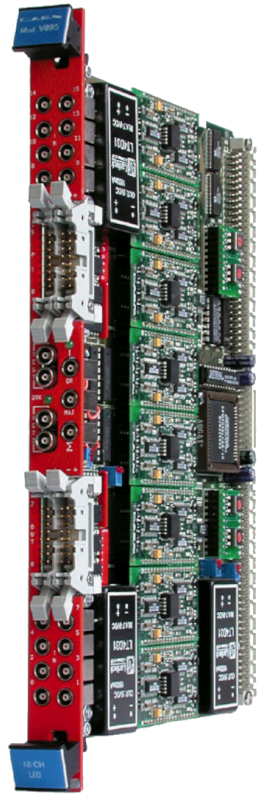
## VME8002



5U 9 Slot VME64 Mini Crate

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## Gallery



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