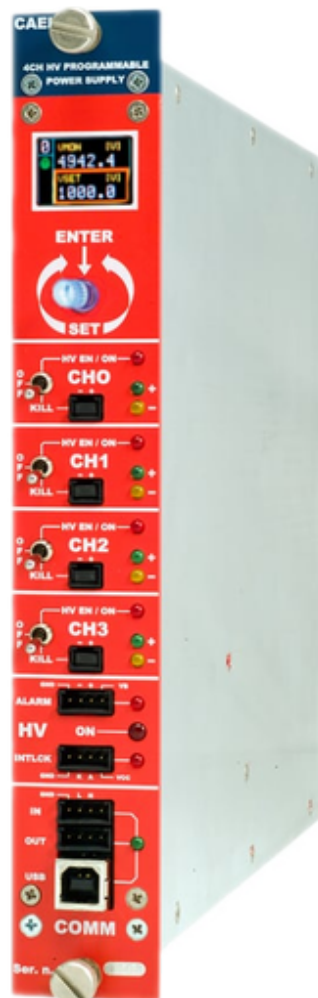


# N408

## 24 Channel Majority Logic Unit



## Features



- 24 DC-coupled Std. NIM inputs
- 50 MHz maximum input frequency
- Majority level settable via front panel trimmer
- Auxiliary input for adder function
- Normal and complementary NIM outputs with adjustable width (40 to 350 ns)
- Normal and complementary linear outputs
- Retriggerable or non retriggerable operating mode selectable through internal jumper

## Description

The **Mod. N408** is a one unit wide NIM module which performs the function of a logic adder on 24 independent input NIM signals. Each true input signal gives a contribution of 50 mV on an internal analog adding section.

Its output (Linear Out) is available externally, both normal and inverted. The same output is also fed to the input of a discriminator whose threshold is set via front panel trimmer and test point. In this way the threshold value sets the desired majority level. The discriminator output (NIM Out) is available both in normal and in complementary logic on two front panel connectors. The output width can be set, via front panel trimmer, in the range from 40 to 350 ns.

An auxiliary linear input, positive or negative, is available on the front panel and its voltage is algebraically added to the linear sum of the internal analog adder.

## Technical Specifications

### Packaging

One unit wide NIM module

### Connectors

- 24, "INPUTS". LEMO 00 type. Input connectors 1 to 24.
- 1, "AUX IN". LEMO 00 type. Auxiliary input connector.
- 1, "NIM OUT". LEMO 00 type. Normal logic output signal connector.
- 1, "NIM /OUT". LEMO 00 type. Complementary logic output signal connector.
- 1, "LINEAR OUT". LEMO 00 type. Normal linear output signal connector.
- 1, "LINEAR /OUT". LEMO 00 type. Complementary linear output signal connector

### Trimmers

- 1, "WDT". Screwdriver trimmer. Width adjustment of normal and complementary logic outputs.
- 1, "THR". Screwdriver trimmer with corresponding test point. This trimmer allows the user to set the voltage value corresponding to the majority level to be set.

### Jumpers

1, "NR/R". A two-position jumper dedicated to the selection of non retriggerable ("NR" position) or retriggerable ("R" position) logic outputs.

### Majority inputs ("INPUTS" connectors)

- DC-coupled. 50  $\Omega$  impedance.
- Logical 1 = -800 mV  $\pm$ 50 mV. Logical 0 = 0 mV  $\pm$ 50 mV.
- Minimum width: 10 ns.
- Maximum frequency: 50 MHz.
- Reflection coefficient: <20% for inputs of 2 ns risetime

### AUXILIARY input ("AUX IN" connector)

- DC-coupled, 50  $\Omega$  impedance.
- Linear analog signal within  $\pm$ 1.2 V.
- Minimum width: 15 ns.
- Maximum frequency: 50 MHz.
- Reflection coefficient: <20% for inputs of 2 ns risetime

### Double pulse resolution

15 ns

### Minimum majority overlap

8.5 ns

### nan

nan

# Gallery



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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**

