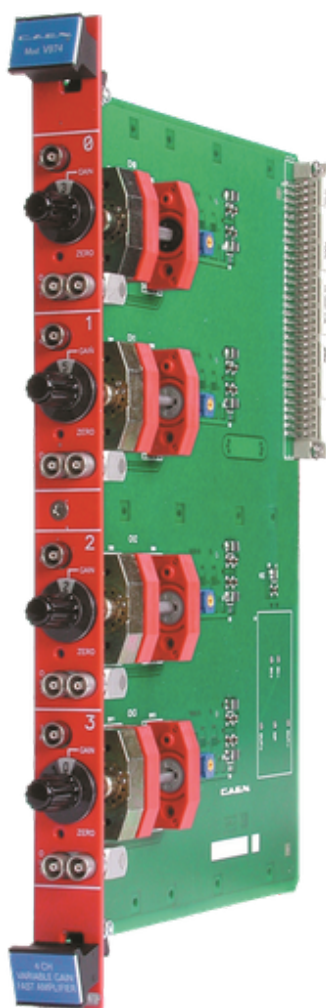
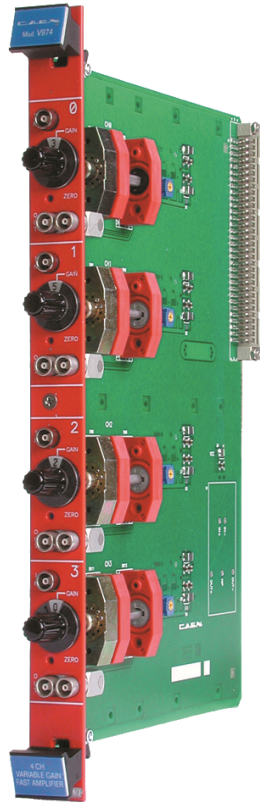


# V974

## 4 Channel Variable Gain Fast Amplifier



## Features



- Input bandwidth up to 170 MHz
- x10 adjustable gain with x1 steps
- 50  $\Omega$  Input Impedance
- $\pm 2$  V output dynamics
- Drives 50  $\Omega$  Loads
- Cascadable Channels
- Rise/fall time <3 ns with a 25 mV unipolar input amplitude
- I/O delay <3 ns

## Description

The **Mod. V974** is a 4 channel fast rise time amplifier housed in a 1-unit VME module; each channel features a voltage gain adjustable from 1 to 10 in x1 steps. Channels are non-inverting and bipolar: they amplify both positive and negative signals. Input bandwidth is 170 MHz for signals up to 50 mVpp and decreases for larger ones (up to 100 MHz @ 400 mVpp). Gain setting is performed independently for each channel via four rotary handles. Channels can be cascaded in order to obtain larger gain values. Each channel is provided with three LEMO 00 connectors, one for the input and two bridged for the output. The board features a  $\pm 2$  V output dynamics. 4 screw-trimmers (one per channel) allow the offset calibration which operates over a  $\pm 25$  mV range. The features include an output short circuit protection.

## Technical Specifications

### Packaging

1U-wide VME unit

### Voltage gain

0 ÷ 10

### Rise time

< 3 ns (unipolar input, ±25 mV max. amplitude)

### Bandwidth

- DC to 170 MHz with ±25 mV input signal
- DC to 100 MHz with ±200 mV input signal

### Output dynamic range

±2 V

### Max input amplitude

200 mV

### Offset nulling range

±25 mV (measured with 0 Ω termination on input)

### Inputs channels

4, DC coupled, 50 Ω ± 2% impedance

### Output channels

4 with Fan-Out of two, drive 50 Ω load

### Noise

< 70 μV RMS (referred to the input)

### Interchannel insulation

40 dB

### Input reflection

< 10%

### I/O Delay

< 3 ns

### Offset uniformity

- ±4 mV (typical)
- ±12 mV (maximum)

**NOTE**

Specifications measured with gain = 10

## Ordering Options

Code	Description
WV974XBAAAAA	V974B - 4 Channel Variable Gain Fast Amplifier (noJAUX) <span data-bbox="1348 250 1428 297">RoHS</span>

## Related Products

### **μ-crate**



Desktop single-slot VME64X Crate

---

### **VME8200**



9U 21Slot VME64X Enhanced Crate series

---

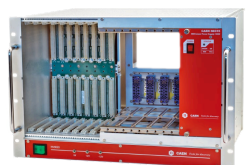
### **VME8002**



5U 9 Slot VME64 Mini Crate

---

### **NV8020A**



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

---

### **VME8004B**



2U 4 Slot VME64 Mini Crate

---

### VME8008X



4U 8 Slot VME64X Mini Crate

### VX4718



VME to USB 3.0/Ethernet/Optical Link Bridge

### VME8010



7U 21 Slot VME64 Low Cost Crate

### VME8011



7U 21 Slot VME64 Low Cost Crate

### VME8004X



2U 4 Slot VME64X Mini Crate

## VME8100



8U 21 Slot VME64/64X Enhanced Crate Series

## V4718



VME to USB 3.0/Ethernet/Optical Link Bridge

## VME8001



1U 2 Slot VME64 Mini Crate

## VX3718



VME64 to USB 2.0/Optical Link Bridge

## V3718



VME to USB 2.0 / Optical Link Bridge

## VME8008B



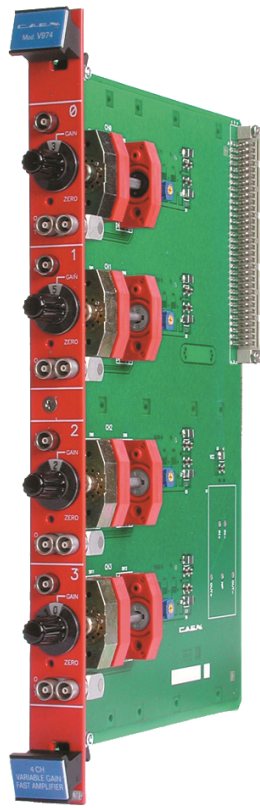
4U 8 Slot VME64 Mini Crate

---

## VME8008XB

---

## Gallery



**This document, or parts thereof, may not be reproduced in any form or by any means without written permission from Caen S.p.A. Although every effort has been made to ensure the accuracy of information presented in this catalog, Caen S.p.A reserves the right to modify its products specifications without giving any notice; for up to date information please visit [www.caen.it](http://www.caen.it) © Caen S.p.A - 2024**

**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**

