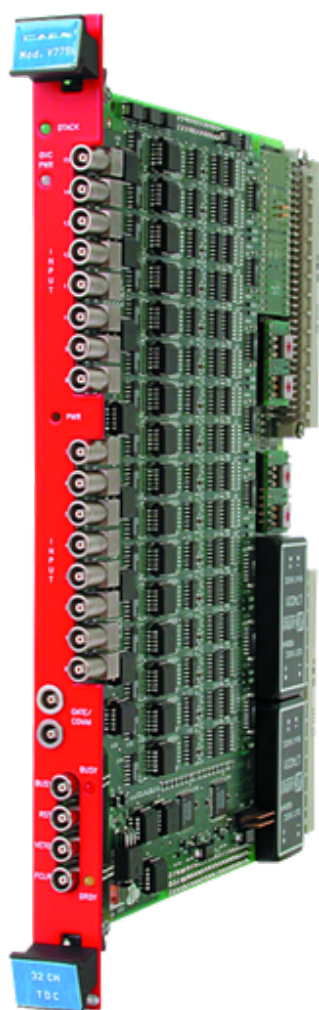
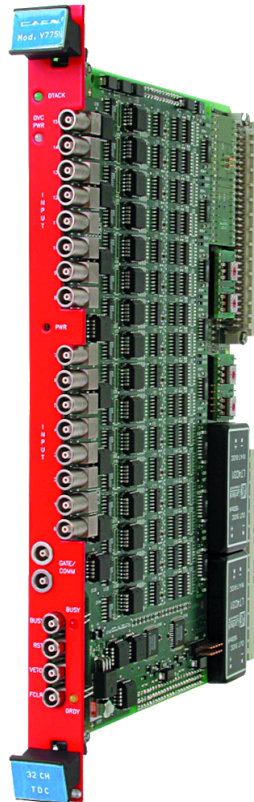


V775N

16 Channel Multievent TDC (35 ÷ 300 ps)



Features



- High channel density
- 12bit resolution
- 2.8 μ s / 16 ch conversion time
- 600 ns fast clear time
- Zero and overflow suppression for each channel
- ± 0.1 % Integral non linearity
- ± 1.5 % differential non linearity
- 32 event buffer memory
- BLT32/MBLT64/CBLT32/CBLT64 data transfer
- Multicast commands
- Libraries, Demos (C and LabView) and Software tools for Windows and Linux

Description

The CAEN **Mod. V775N** is a **1-unit wide VME 6U module housing 16 Time-to-Digital Conversion channels** on LEMO 00 connectors. The Full Scale Range can be selected via VME from 140 ns to 1.2 μ s with 8 bit resolution. The board can operate both in COMMON START and in COMMON STOP mode. Each time interval between the COM signal and the input signal is converted into a voltage level by the TAC sections. The outputs of the TAC sections are multiplexed and subsequently converted by two fast ADC modules (2.8 μ s conversion time).

The integral non linearity is $\pm 0.1\%$ of full scale range (FSR), measured from 2% to 97% of FSR; the differential non linearity is $\pm 1.5\%$ of FSR, measured from 3% to 100% of FSR. The ADCs use a sliding scale technique to reduce the differential non-linearity.

Programmable zero suppression, multievent buffer memory, trigger counter and test features complete the flexibility of the unit. The module works in A24/A32 ADDRESS mode. The data transfer occurs in D16, D32, BLT32 or MBLT64 mode. The unit supports also the Chained Block Transfer (CBLT32/CBLT64) and the Multicast commands. The boards support the live insertion that allows inserting or removing them into the crate without switching it off.

Technical Specifications

Packaging

1-unit wide 6U VME module

Inputs

16 NIM inputs, 50 Ω impedance

Full Scale Range

VME programmable from 140 to 1200 ns (if sliding Scale is used FSR is reduced from 4095 to 3840 counts)

Resolution

12 bit

LSB

VME programmable from 35 to 300 ps

RMS Noise

0.8 counts typical, 2 counts maximum

Integral non linearity

$\pm 0.1\%$ of FSR (measured from 5% to 95% of FSR=380 ns=3840 counts)

Differential non linearity

$\pm 1\%$ (measured from 5% to 95% of FSR=380 ns=3840 counts)

Interchannel Isolation

> 66 dB

Power rejection

- 0.01 count/mV (+5V)
- 0.02 count/mV (-5V) 0.005 count/mV (+12V)
- 0.001 count/mV (-12V)

Fast clear time

600 ns

Conversion time

2.8 μ s for all channels

Minimum Start/Stop delay

- Common Start mode: 14 ns
- Common Stop mode: 4 ns

Zero suppression

Threshold values programmable in: 16 ADC counts steps over the entire FSR2 ADC counts steps over 1/8 of FSR

Gate Common input

Two LEMO 00 bridged connectors, NIM signal, high impedance Common Start/Stop signal

Control inputs

- Standard NIM input signals: RST: resets PEAK sections, MEB status and control registers
- VETO: inhibits the conversion of the peaks
- FCLR: FAST CLEAR of TAC sections
- COM: Common Start/Stop signal

Control outputs

- Standard NIM output signals: DRDY: indicates the presence of data
- BUSY: board full, resetting, converting or in MEMORY TEST mode

VME interface

A24/A32 Geographical Addressing Multicast commands D16/D32, BLT21/MBLT64 ,CBLT32/CBLT64

Ordering Options

Code	Description	
WV775XNCAAAA	V775NC - 16 Channel Multievent TDC (No JAUX, No 12V DCDC, No live ins)	RoHS

Related Software

CAEN Toolbox



Multi-Functional Software Suite for the Upgrade of Front-end Boards, Bridges and Power Supplies

Related Products

VX4718



VME to USB 3.0/Ethernet/Optical Link Bridge

VME8010



7U 21 Slot VME64 Low Cost Crate

VME8002



5U 9 Slot VME64 Mini Crate

VME8008XB

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

VME8011



7U 21 Slot VME64 Low Cost Crate

VME8004X



2U 4 Slot VME64X Mini Crate

VME8100



8U 21 Slot VME64/64X Enhanced Crate Series

VME8200



9U 21Slot VME64X Enhanced Crate series

VME8004B



2U 4 Slot VME64 Mini Crate

NV8020A

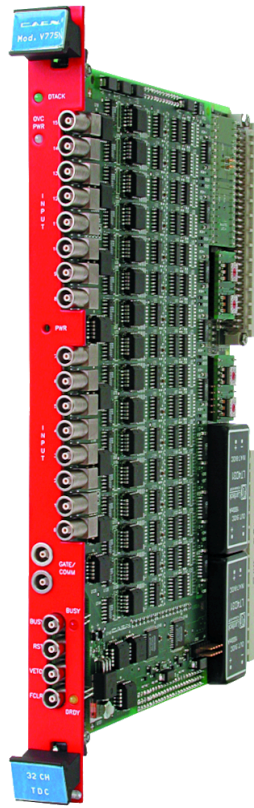


7U CRATE VME/NIM 8 slot VME64 365W, 5 slot NIM 150W

VME8008X



4U 8 Slot VME64X Mini Crate



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