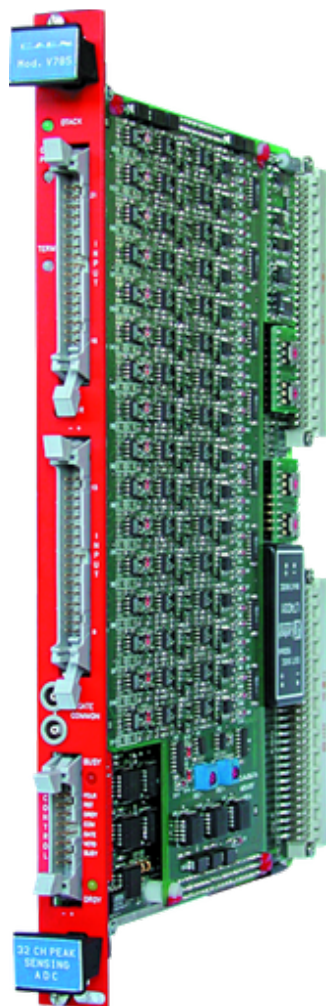
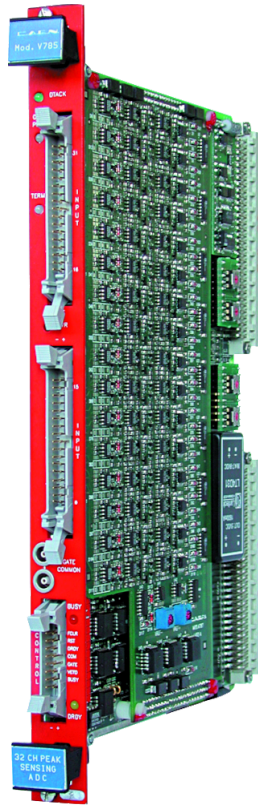


V785

32 Channel Multievent Peak Sensing ADC



Features



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

Description

The **Mod. V785** is a 1-unit wide VME 6U module housing 32 **Peak Sensing Analog-to-Digital Conversion** channels. Each channel is able to detect and convert the peak value of the positive analog signals (with >50 ns risetime) fed to the relevant connectors. Input voltage range is $0 \div 4$ V.

The outputs of the PEAK sections are multiplexed and subsequently converted by two fast 12-bit ADCs (5.7 μ s for all channels). The integral non linearity is ± 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 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.

A 16 ch. flat cable to LEMO input adapter (Mod. **A385**) is available for the Mod. V785 (one 32 ch. V785 requires two A385 boards). The board supports 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

32 channels, 1 k Ω impedance, positive polarity, DC coupling

Resolution

12 bit

Full Scale Range

4 V, optionally 8 V (if Sliding Scale is used FSR is reduced from 4095 to 3840 counts)

Min. Detectable signal

10 mV

Min. Input rise time

50 ns

RMS Noise

0.8 counts typical, 2 counts maximum

Integral non linearity

0.1% of FSR (=3840 counts) from 2% to 97% of FSR measured with > 100 ns rise time input signals

Differential non linearity

$\pm 1.5\%$ from 3% to 100% of FSR (= 3840 counts) measured with 1 μ s rise time input signals

Interchannel Isolation

> 70 dB for > 200 ns rise time input signals

Power rejection

0.007 count/mV (+5V); 0.02 count/mV (+12V); 0.003 count/mV (-12V)

Max. Gate width

1 ms

Temperature Stability

Offset: 0.12 counts/ $^{\circ}$ C Gain: 25 ppm / $^{\circ}$ C

Fast clear time

600 ns

Conversion time

5.7 μ s for all channels

Zero suppression

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

GATE input

NIM signal, high impedance

Control inputs

Active-high, differential ECL

- GATE: temporal window for peak detection (ECL/NIM).
- RST: resets PEAK sections, MEB status and control registers.
- VETO: inhibits the conversion of the peaks.
- FCLR: FAST CLEAR of PEAK sections and conversion.

Control outputs

V785: active-high, differential ECL

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

VME interface

- A24/A32 Geographical Addressing Multicast commands
- D16/D32, BLT32/MBLT64, CBLT32/CBLT64

Display

- DTACK: green LED; lights up at each VME access.
- BUSY: red LED; alight during conversion, reset or Memory Test mode or as the MEB is full.
- DRDY: yellow LED; alight as there is one event in the MEB.
- TERM: orange/green/red LED; alight according to line terminations status.
- OVC/PWR: green/orange
- LED; green at board insertion; if orange, it indicates that there is an over-current status

Ordering Options

Code	Description	
WV785XACAAA	V785AC - 32 Channel Peak Sensing ADC (4V, No JAUX, No 12V DCDC, live ins)	RoHS
WV785XADAAA	V785AD - 32 Channel Peak Sensing ADC (4V, No JAUX, 12V DCDC, No live ins)	RoHS
WV785XAGAAA	V785AG - 32 Channel Peak Sensing ADC (8V, No JAUX, No 12V DCDC, live ins)	RoHS
WV785XAHAAA	V785AH - 32 Channel Peak Sensing ADC (8V, No JAUX, 12V DCDC, No live ins)	RoHS

Accessories

A385



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

Related Products

VME8008XB

V3718



VME to USB 2.0 / Optical Link Bridge

VX3718



VME64 to USB 2.0/Optical Link Bridge

VME8001



1U 2 Slot VME64 Mini Crate

VME8008B



4U 8 Slot VME64 Mini Crate

V4718



VME to USB 3.0/Ethernet/Optical Link Bridge

VME8004X



2U 4 Slot VME64X Mini Crate

VME8011



7U 21 Slot VME64 Low Cost Crate

VME8100



8U 21 Slot VME64/64X Enhanced Crate Series

VX4718



VME to USB 3.0/Ethernet/Optical Link Bridge

VME8010



7U 21 Slot VME64 Low Cost Crate

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

VME8200



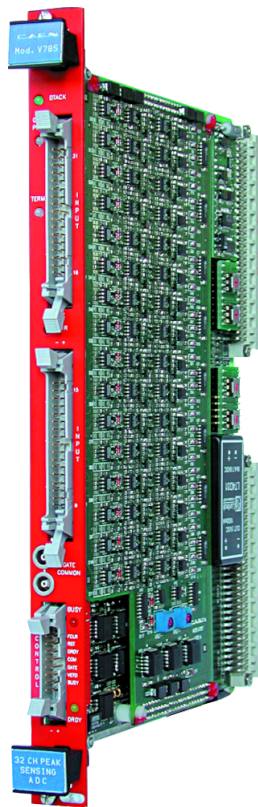
9U 21Slot VME64X Enhanced Crate series

VME8002



5U 9 Slot VME64 Mini Crate

Gallery



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