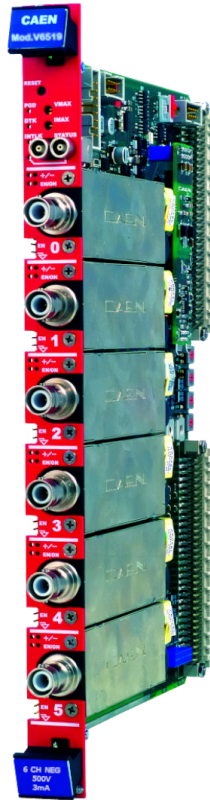


V6519

6 Channel 500 V/3 mA VME HV Power Supply Module



Features



- 6 independent channels in 1 unit wide VME 6U module
- 500 V / 3 mA output range
- Available with positive, negative or mixed polarity
- SHV coaxial output connectors
- Common floating return
- Low Ripple
- Under/Overtoltage alert, overcurrent and max. voltage protection
- 50 nA Current monitor resolution (with x10 Imon-Zoom: 5 nA)
- Interlock logic for board enable
- Individual channel enable
- Optional DC Input Power Equalizer
- Module control via software Tools

Description

The CAEN **Mod.V6519** is a **1-unit wide VME 6U module** housing **6 High Voltage** Power Supply Channels **500 V, 3 mA**. The board is available with either positive or negative output polarity; mixed version with 3 positive and 3 negative channels is also available. The channels share a **common floating return**, which allows on-detector grounding reducing the noise level. HV outputs are delivered through SHV connectors.

SHV connector

Single width (1U wide), 6 channels for Mod. V6519

Consult our **connectors reference page** for technical information.

The HV output RAMP-UP and RAMP-DOWN rates may be selected independently for each channel in the 1÷100 V/s range with 1 V/s steps. The module features 50 nA Iset/Imon resolution. Features include Imon Zoom, increasing resolution to 5 nA. The modules fit into both VME/VME64 standard and V430 crates. Functional parameters can be programmed and monitored via VMEbus.

A complete set of free software Tools is available to control this unit: **GECO2020** with user friendly GUI and **CAEN HV Wrapper library** for custom SW development. **OPC Server** also supported.

Safety features allows the module to perform as a current generator and includes:

Channels	can be enabled or disabled through the Global Interlock logic. Channels individually enabled via front panel jumpers (passive or active mode available).
Overvoltage and Undervoltage	warning when the output voltage differs from the programmed value.
Overcurrent detection	when a channel attempts to exceed the programmed current limit, it signalled to be in “overcurrent” and enter in a TRIP status. The output voltage is varied to keep the current below the programmed limit for a programmable TRIP time, then the channel is switched off. If TRIP is set to “constant current mode”, the channel behaves like a current generator.
Hardware VMAX and IMAX	Maximum output voltage and maximum current value can be fixed, via front panel potentiometer, at the same common value for all the board channels. IMAX and VMAX values can be read out via software.

Available Options:

- **A6580 DC Input Power Equalizer**

Technical Specifications

Package

1-unit wide VME 6U module

No. of Channels

6 (Common floating return)

Output Voltage

0÷500 V

Polarity

Positive / Negative depending on purchased version

Max. Output Current

3 mA, Max. 300 μ A with Imon x10 Zoom

Voltage Set Resolution

10 mV

Voltage Monitor Resolution

10 mV

Current Set Resolution

50 nA

Current Monitor Resolution

50 nA (5 nA with Imon x10 Zoom)

VMAX hardware

0÷500 V settable for each channel. Absolute maximum HV level that the channel is allowed to reach, independently from the preset value Vset. Output voltage cannot exceed the preset value Vmax.

VMAX hardware accuracy

\pm 2% of FSR

VMAX software

0÷500 V settable for each channel

VMAX software resolution

10 mV

Ramp Up/Down

1÷100 Volt/s, 1 Volt/s step

Trip

Max. time an "overcurrent" is allowed to last (seconds). A channel in "overcurrent" works as a current generator; output voltage varies in order to keep the output current lower than the programmed value. "Overcurrent" lasting more than set value (1 to 9999) causes the channel to "trip". Output voltage will drop to zero either at the Ramp-down rate or at the fastest available rate, depending on Power Down setting; in both cases the channel is put in the OFF state. If trip= INFINITE, "overcurrent" lasts indefinitely.

Voltage Ripple

- 10 ÷ 1000 Hz: <3 mVpp typical; < 5 mVpp maximum
- 1 ÷ 20000 kHz: <2 mVpp typical; < 5 mVpp maximum

Vmon vs. Vout Accuracy

- Typical: $\pm 0.05\%$ of read value ± 0.5 V
- Max: $\pm 0.1\%$ of read value ± 1.5 V

Vset vs. Vout Accuracy

- Typical: $\pm 0.05\%$ of read value ± 0.5 V
- Max: $\pm 0.1\%$ of read value ± 1.5 V

Imon vs. Iout Accuracy

- Typical: $\pm 2\%$ of read value ± 1 μ A
- Max: $\pm 2\%$ of read value ± 5 μ A

Iset vs. Imon Accuracy

- Typical: $\pm 2\%$ of read value ± 1 μ A
- Max: $\pm 2\%$ of read value ± 5 μ A

Ordering Options

Code	Description	
WV6519MAAAAA	V6519M - 6 Channel VME Programmable High Voltage Power Supply (3 ch -500 V 3 mA, 3 ch +500 V 3 mA)	RoHS
WV6519XAAAAA	V6519N - 6 Channel VME Programmable High Voltage Power Supply (-500 V 3 mA)	RoHS
WV6519XPAAAA	V6519P - 6 Channel VME Programmable High Voltage Power Supply (+500 V 3 mA)	RoHS

Accessories

HV CABLES



High Voltage Cable Assemblies

A148x

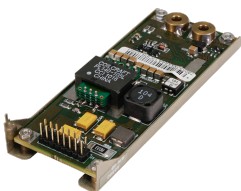


Inhibit - Kill Signal BNC Adapter for HV Power Supply Modules

A1484

Inhibit - Kill Signal BNC Adapter for HV Power Supply Modules

A6580



DC Power Input Equalizer for V65XX Family

A1483

Inhibit - Kill Signal BNC Adapter for HV Power Supply Modules

Related Software

GECO2020



General Control Software for CAEN HV Power Supplies

OPC Server



OPC Server for CAEN Power Supplies

CAEN Toolbox



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

Related Software Libraries

CAEN HV Wrapper Library



Library for CAEN Power Supply Control

Related Products

VME8008B



4U 8 Slot VME64 Mini Crate

VME8011



7U 21 Slot VME64 Low Cost Crate

VME8100



8U 21 Slot VME64/64X Enhanced Crate Series

VME8200



9U 21 Slot VME64X Enhanced Crate series

VME8008X



4U 8 Slot VME64X Mini Crate

NV8020A



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

VME8004A



2U 4 Slot VME64 Mini Crate

VME8010



7U 21 Slot VME64 Low Cost Crate

VME8004



2U 4 Slot VME64 Mini Crate

V4718



VME to USB 3.0/Ethernet/Optical Link Bridge

VME8001



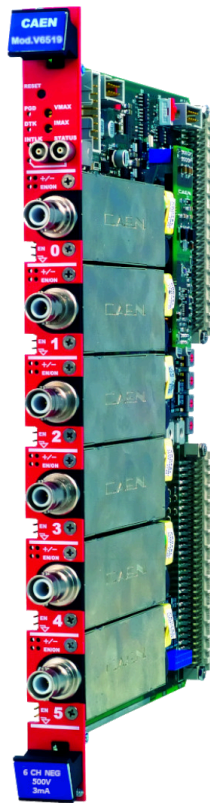
1U 2 Slot VME64 Mini Crate

V3718



VME to USB 2.0 / Optical Link Bridge

Gallery



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