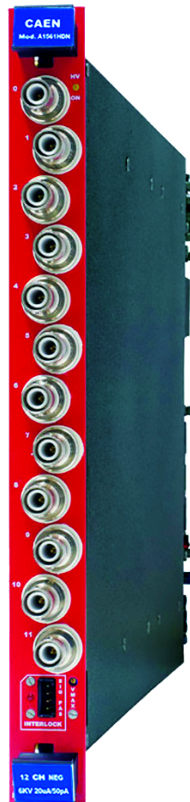


# A1561H

## 12 Channel 6 kV/20 $\mu$ A Common Floating Return Board



## Features



- 12 independently controllable High Voltage channels
- Output voltage: 0 ÷ 6000 V
- Maximum output current: 20  $\mu$ A
- Available with Negative / Positive Polarity
- SHV connectors
- **Floating Type:** Common Floating Return
- Low ripple
- Under/over-voltage alert, overcurrent and max. voltage protection
- Interlock logic for unit enable
- Software Tools for easy channel management

## Description

The CAEN Mod A1561H is a single width board (5 TE wide) that houses 12 independent high voltage channels.

The channels share a Common Floating Return, which is insulated from the chassis/crate ground. This feature may help to minimize problems of ground-loops. The board is available with positive or negative output polarity Channels are delivered with SHV connectors. Consult our **connectors reference page** for technical information.

The output voltage range is **0 ÷ 6000 V**, with **10 mV** monitor resolution. The maximum output current is 20  $\mu$ A, with 20  $\mu$ A monitor resolution.

Independently programmable for each channel:

<b>Output voltage:</b>	0 ÷ 6000 V	Step: 100 V
<b>Current limit (Iset):</b>	0 ÷ 20 $\mu$ A	Step: 500 pA
<b>V Ramp up/down:</b>	1 ÷ 500 V/s	Step: 1 V/sec
<b>TRIP parameter</b>	0 ÷ 999.9 s; 1000 s = Infinite	Step: 0.1 s

Safety features includes:

- **Channels:** can be enabled or disabled through the Global Interlock logic.
- **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** Maximum output voltage can be set, via front panel potentiometer, at the same common value for all the board channels. VMAX value can be read out via software.

CAEN provides a complete software range to control, monitor and configure its Power Supply products.

- **GECO2020 General Control Software**
- **CAEN HV Wrapper Library,**
- **HiVoCS web tool**
- **OPC Server for CAEN Power Supplies**
- **EPICS Service**

These tools, which support the most used operating systems, spread from low level libraries (**CAEN HV Wrapper Library**), to be used as a source for customer designed software, to the WEB interface (**HIVOCS**) available on each mainframe, up to the all-inclusive Control Software (**GECO2020**) with user friendly graphical interfaces, to meet any application need.

Advanced control via OPC Server (**CAEN OPC Server**) and EPICS (**EPICS IOC**) is supported, to easily include CAEN power supplies within existing setups featuring such standards. **All CAEN Control Software are available for free download.**

## Technical Specifications

### No. of Channels

12 (Common Floating Return)

### Output Voltage

0÷6 kV

### Polarity

Positive, Negative or Mixed depending on purchased version

### Max. Output Current

20  $\mu$ A

### Voltage Set Resolution

100 mV

### Voltage Monitor Resolution

10 mV

### Current Set Resolution

500 pA

### Current Monitor Resolution

50 pA

### VMAX hardware

0÷6 kV common for all the board channels

### VMAX hardware accuracy

$\pm$  2% of FSR

### VMAX software

0÷6 kV settable for each channel

### VMAX software resolution

1 V

### Ramp Up/Down

1÷500 Volt/sec, 1 Volt/sec step

### Voltage Ripple

- 10 ÷ 1000 Hz: Typ < 5 mVpp; Max < 10 mVpp
- 1 ÷ 20000 kHz: Typ < 3 mVpp; Max < 5 mVpp

### **Voltage Monitor vs. Output Voltage Accuracy**

$\pm 0.02\% \pm 1.2 \text{ V}$

### **Voltage Set vs. Voltage Monitor Accuracy**

$\pm 0.02\% \pm 1.2 \text{ V}$

### **Current Monitor vs. Output Current Accuracy**

$\pm 0.2\% \pm 40 \text{ nA}$

### **Current Set vs. Current Monitor Accuracy**

$\pm 0.2\% \pm 40 \text{ nA}$

## Ordering Options

Code	Description	
WA1561HDMAAA	A1561HDM - SYx527 H.V. 6 ch channels +6 KV 20 $\mu$ A + 6 ch channels -6 KV 20 $\mu$ A - SHV - 50pA res.	RoHS
WA1561HDNAAA	A1561HDN - SYx527 H.V. channels -6 KV 20 $\mu$ A SHV (12 ch) - 50pA res.	RoHS
WA1561HDPAAA	A1561HDP - SYx527 H.V. channels +6 KV 20 $\mu$ A SHV (12 ch) - 50pA res.	RoHS

## Accessories

### HV CABLES



High Voltage Cable Assemblies

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## Related Products

### **SY5527**



Universal Multichannel Power Supply System / 19"wide, 4U-high (6 slot)

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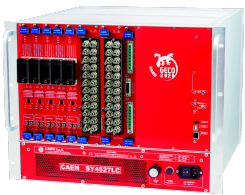
### **SY4527**



Universal Multichannel Power Supply System / 19"wide, 8U-high (16 slot)

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### **SY4527LC**



Universal Multichannel Power Supply System Low Cost / 19"wide, 8U-high (10 slot)

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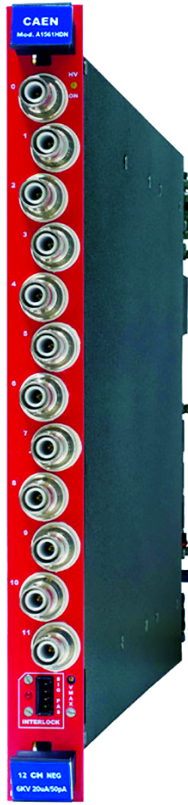
### **SY5527LC**



Universal Multichannel Power Supply System Low Cost / 19"wide, 4U-high (4 slot)

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## Gallery



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