

AG561H

12 Channel 6 kV/20 μ A Common Ground Board



Features

- 12 independently controllable High Voltage channels
- Output Voltage: 6000 V
- Output current: 20 μ A
- Available with Negative / Positive / Mixed Polarity
- SHV connectors
- Floating Type: Common Ground
- Low ripple
- Under/over-voltage alert, overcurrent and max. voltage protection
- Interlock logic for unit enable
- Software Tool for easy channel management

Description

The CAEN Mod AG561H is a single width board (5 TE wide) that houses 12 independent high voltage channels. The channels share a Common Ground, with all output returns hardwired to the chassis/crate ground. The board is available with positive, negative or mixed 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 μ A, with 20 μ A monitor resolution.

Independently programmable for each channel:

Output voltage:	0 ÷ 6000 V	Step: 100 V
Current limit (Iset):	0 ÷ 20 μ A	Step: 500 pA
V Ramp up/down:	1 ÷ 500 V/s	Step: 1 V/sec
TRIP parameter	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.
- **Remote Enable/Disable** Front panel independent contacts available for all channels.

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 Ground)

Output Voltage

0÷6 kV

Polarity

Positive, Negative or Mixed depending on purchased version

Max. Output Current

20 μ 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: < 5 mVpp (typ); < 10 mVpp (max)
- 1 ÷ 20000 kHz: <3 mVpp (typ); < 5 mVpp (max)

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	
WAG561HDMAAA	AG561HDM - SYx527 H.V. 6 ch channels +6 KV 20 μ A + 6 ch channels -6 KV 20 μ A - SHV - 50pA res.	RoHS
WAG561HDNAAA	AG561HDN - SYx527 H.V. channels -6 KV 20 μ A SHV (12 ch) - 50pA res.	RoHS
WAG561HDPAAA	AG561HDP - SYx527 H.V. channels +6 KV 20 μ A SHV (12 ch) - 50pA res.	RoHS

Accessories

HV CABLES



High Voltage Cable Assemblies

Related Products

SY5527LC



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

SY5527



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

SY4527



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

SY4527LC



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

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