

A1538D

12 Channel 1.5 kV/10 mA (12W) Common Floating Return Board



Features



- 12 independently controllable High Voltage channels
- Output voltage: 0 ÷ 1500 V
- Maximum output current: 10 mA
- 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 A1538D 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 ÷ 1500 V**, with **50 mV** monitor resolution. The maximum output current is 10 mA, with 10 mA monitor resolution.

Independently programmable for each channel:

Output voltage:	0 ÷ 1500 V	Step: 50 V
Current limit (Iset):	0 ÷ 10 mA	Step: 200 nA
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.

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

Polarity

Negative or Positive

Output Voltage

0÷1.5 kV

Max. Output Current

10 mA

No. of Channels

12 (Common Floating Return)

Maximum Output Power

12 W per channel (software safety limit)

Voltage Set / Monitor Resolution

50 mV

Current Set/Monitor Resolution

200 nA

VMAX hardware

0÷1.5 kV common for all the board channels

VMAX hardware accuracy

± 2% of FSR

VMAX software

0÷1.5 kV settable for each channel

VMAX software resolution

1 V

Ramp Up/Down

1÷500 Volt/sec, 1 Volt/sec step

Voltage Ripple

20 ÷ 1000 Hz:

<23 mVpp (typ); <30 mVpp (max)

1 ÷ 20000 kHz:

<15 mVpp (typ); <20 mVpp (max)

Voltage Monitor vs. Output Voltage Accuracy *

- typical: $\pm 0.3\% \pm 0.2 \text{ V}$
- max: $\pm 0.3\% \pm 1 \text{ V}$

* During operation in Overcurrent or when VMAX Hardware is reached (and/or exceeded), VMON values have to be assumed as "indication"; possible monitor drifts are caused by the different regulation mode.

Voltage Set vs. Voltage Monitor Accuracy

- typical: $\pm 0.3\% \pm 0.2 \text{ V}$
- max: $\pm 0.3\% \pm 1 \text{ V}$

Current Monitor vs. Output Current Accuracy

- typical: $\pm 2\% \pm 3 \mu\text{A}$
- max: $\pm 2\% \pm 15 \mu\text{A}$

Current Set vs. Current Monitor Accuracy

- typical: $\pm 3\% \pm 3 \mu\text{A}$
- max: $\pm 3\% \pm 15 \mu\text{A}$

Power Consumption

240 W @ full power

Ordering Options

Code	Description	
WA1538DXAAAA	A1538DN - SYx527 negative H.V. -1.5 KV 10 mA 12W -SHV Connector common floating (12 ch)	RoHS
WA1538DXPAAA	A1538DP - SYx527 positive H.V. +1.5 KV 10 mA 12W -SHV Connector common floating (12 ch)	RoHS

Accessories

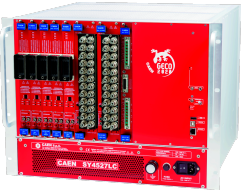
HV CABLES



High Voltage Cable Assemblies

Related Products

SY4527LC



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

SY4527



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

SY5527



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

SY5527LC



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

Gallery



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