

AG538D

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



Features



- 12 independently controllable High Voltage channels
- Output Voltage: 1500 V
- Output current: 10 mA
- Available with Negative / Positive 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 AG538D 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 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

No. of Channels

12 (Common Ground)

Output Voltage

0÷1.5 kV

Polarity

Negative or Positive

Max. Output Current

10 mA

Voltage Set Resolution

50 mV

Voltage Monitor Resolution

50 mV

Current Set Resolution

200 nA

Current 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: $\pm 0.3\% \pm 1 \text{ V}$

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

Maximum output power

12 W per channel (software safety limit)

Ordering Options

Code	Description	
WAG538DXAAAA	AG538DN - SYx527 negative H.V. -1.5 KV 10 mA 12W -SHV Connector common ground (12 ch)	RoHS
WAG538DXPAAA	AG538DP - SYx527 positive H.V. +1.5 KV 10 mA 12W -SHV Connector common ground (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



This document, or parts thereof, may not be reproduced in any form or by any means without written permission from Caen S.p.A. Although every effort has been made to ensure the accuracy of information presented in this catalog, Caen S.p.A reserves the right to modify its products specifications without giving any notice; for up to date information please visit www.caen.it © Caen S.p.A - 2024

CAEN S.p.A.

Via Vetraia 11
55049 - Viareggio
Italy

Phone +39.0584.388.398

Fax +39.0584.388.959

info@caen.it

www.caen.it

CAEN GmbH

Brunnenweg 9
64331 Weiterstadt, Germany

Phone +49 (0)212.254.4077

Mobile +49 (0)151.16.548.484

info@caen-de.com

www.caen-de.com

CAEN Technologies, Inc.

1 Edgewater Street - Suite 101
Staten Island, NY 10305
USA

Phone +1.718.981.0401

Fax +1.718.556.9185

info@caentechnologies.com

www.caentechnologies.com

CAENspa India Private Limited

B205, BLDG42, B Wing,
Azad Nagar Sangam CHS,
Mhada Layout, Azad Nagar, Andheri West
Mumbai, Maharashtra 400053, India

info@caen-india.in

www.caen-india.in

