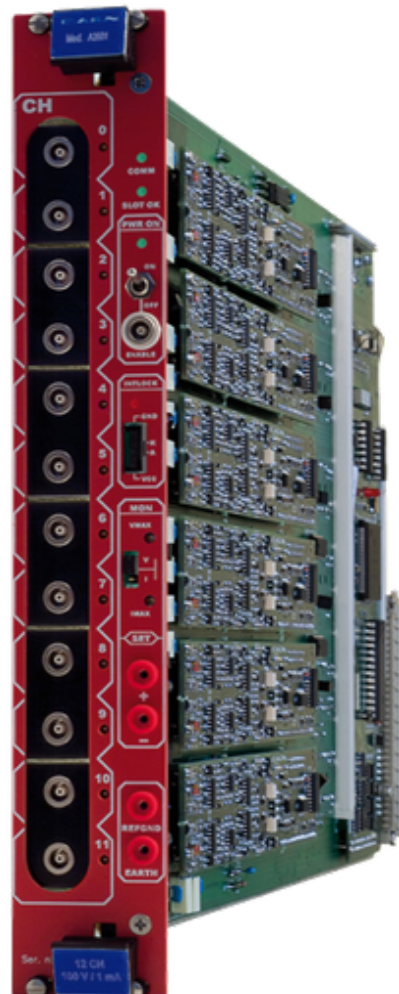
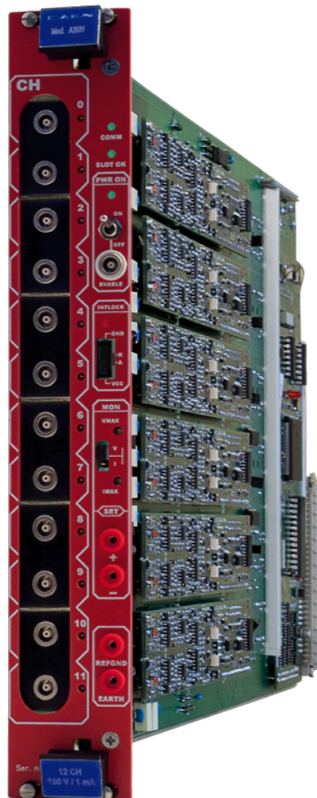


A3501

12 Channels 100 V / 1 mA Power Supply Board



Features



- EASY Subsystem Power Supply Module
- Magnetic field and radiation tolerant
- 12 100 V / 1 mA channels
- Available with positive and negative floating channels

Description

The CAEN **Mod. A3501** 100 V / 1 mA Power Supply Board is developed for operation in magnetic field and radioactive environment. One A3501 houses 12 **individual floating** 100 V / 1 mA channels. The output voltage can be set with 100 mV monitor resolution.

If the output voltage differs from the programmed value by more than 3% of voltage full scale range, the channel is signalled to be either in Overvoltage and Undervoltage condition. Moreover, for each channel, a voltage protection limit SVMAX can be fixed via software with 100 mV resolution and the output voltage can not be programmed beyond this value.

LEMO connector

LEMO type coaxial connector, 12 channels for Mod. A3501

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

The output current is monitored with 100 nA resolution; if a channel tries to draw a current larger than its programmed limit it is signalled to be in Overcurrent condition; the SY1527 system detects this state as a fault and reacts according to the setting of the TRIP parameter.

Safety features allows the module to perform as a current generator and 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 by more than 3% of voltage full scale range. 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.
Overcurrent detection	
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 channel. IMAX and VMAX values can be read out via software.

Technical Specifications

No. of Channels

12

Polarity

Individual Floating

Output Voltage

0 ÷ 100 V (connector output)

Max. Output Current

1 mA

Voltage Set/Monitor Resolution

100 mV

Current Set/Monitor Resolution

100 nA

VMAX hardware

0 ÷ 100 V

VMAX hardware accuracy

± 2% of FSR

VMAX software

0 ÷ 100 V

VMAX software resolution

100 mV

Voltage Ripple

< 30 mV pp (From 10 Hz to 20 MHz at full load)

Voltage Monitor vs. Output Voltage Accuracy

- Typical: ± 0.3% ± 0.5 V
- Maximum: ± 0.3% ± 1 V

Voltage Set vs. Output Voltage Accuracy

- Typical: ± 0.3% ± 0.5 V
- Maximum: ± 0.3% ± 1 V

Current Monitor vs. Output Current Accuracy

- Typical: $\pm 2\% \pm 1 \mu\text{A}$
- Maximum: $\pm 2\% \pm 2 \mu\text{A}$

Current Set vs. Output Current Accuracy

- Typical: $\pm 2\% \pm 1 \mu\text{A}$
- Maximum: $\pm 2\% \pm 2 \mu\text{A}$

Ordering Options

Code	Description
WE3501XAAAAA	A3501N 12CH 100V 1MA NEG
WE3501XPAAAA	A3501P 12CH 100V 1MA POS

Related Products

A3535



32 Channel 3.2 kV / 0.5 mA / 1.1 W Board

A3540



12 Channel 4 kV / 1 mA Power Supply Board

A3802

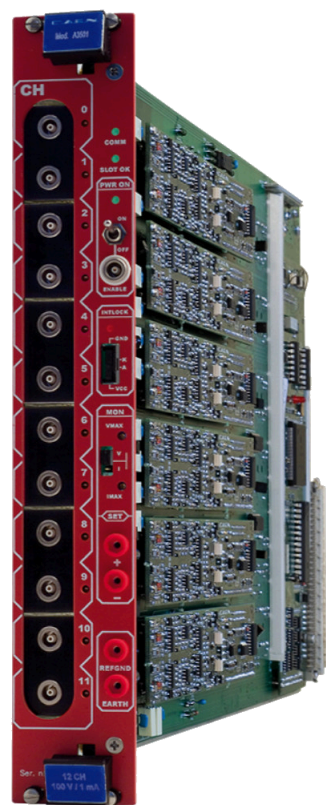


128 Channel DAC Board

A3512



6 Channel 12 kV / 1 mA Power Supply Board



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