

**Discontinued**

**A1520P**

**12 Channel Floating  
500 V, 15 mA Board**



## Features



- 12 independently controllable High Voltage channels
- 500 V / 15 mA output range
- Positive polarity
- Individual floating channels
- AMP Multipin connector
- 17 bit voltage setting / monitor resolution
- $\pm 1$  ppm/ $^{\circ}$ C thermal stability
- 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. A1520P** houses 12 positive HV channels; each output channel has an **independent floating ground**. The output voltage can be programmed and monitored in the range **0 ÷ +500 V** in **1 mV** steps (17 bit resolution). All output channels are provided with Remote Sensing Lines to compensate for the voltage drop over the cables.

The board is provided with both current and voltage protections. For each channel, it is also possible to set an output current limit in the 0 ÷ 15 mA range, in 250 nA steps.

The output current is monitored with 25 nA resolution. If overcurrent occurs, the relevant channel can be programmed either to turn off after a programmable trip time or to keep on providing the maximum allowed current: this particular feature allows the module to work as current generator.

A global enable/disable connector allows to disable the channels when it is not terminated on 50  $\Omega$ . The HV Ramp-Up and Ramp-Down rates may be selected independently for each channel in the 1 ÷ 50 V/s range (1 V/s step). Moreover the floating channels allow on-detector grounding, thus allowing to reduce the noise level. The board features the AMP 75-pin output connector.

Channels are delivered with **AMP75** connectors. Consult our **connectors reference page** for technical information.

## Technical Specifications

### Packaging

10TE-wide, 6U-high mechanics

### Polarity

Positive

### No. of Channels

12

### Output Voltage

0÷500 V

### Max. Output Current

15 mA

### Voltage Set / Monitor Resolution

1 mV

### Current Set Resolution

250 nA

### Current Monitor Resolution

25 nA

### SVMAX limit

0÷500 V, 1 V steps

### SVMAX limit

0÷500 V common for all the board channels

### Ramp Up/ Ramp Down rate

1÷50 Volt/sec, 1 Volt/sec step

### Temperature Monitor resolution

1° C

### Temperature range

+15 ÷ +40 °C

### Low frequency noise (f < 100 kHz)

< 20 mVpp

### High frequency noise (f < 100 kHz)

< 4 mVpp

### **Vmon vs. Vout accuracy\***

$\pm 40$  ppm

*\* Most boards can operate indifferently whether the SY1527 mainframe is supplied with 50 Hz or 60 Hz AC power supply; the A1520P series, instead, requires a factory calibration, so the User should check if the board is calibrated for operation at the right frequency (50 Hz or 60 Hz).*

### **Vset vs. Vout accuracy**

$\pm 40$  ppm

### **Imon vs. Iout accuracy**

$\pm(250 \text{ nA} + 100 \text{ ppm})$

### **Iset vs. Iout accuracy**

$\pm(1 \text{ }\mu\text{A} + 200 \text{ ppm})$

### **Thermal stability**

$\pm 3 \text{ ppm}/^\circ\text{C}$

### **Short term reproducibility**

$\pm 40$  ppm

## Ordering Options

Code	Description
WA1520XPAAAA	A1520P - SYx527 H.V. channels +500 V 15/1.5 mA floating (12 ch) (Discontinued) <span data-bbox="1369 271 1444 309">RoHS</span>

## Related Products

### **SY5527LC**



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

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### **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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