A7526DB

1 Ch 2.6 kV/500 µA Digital Controlled Power Supply Module

Features

- Single Desktop HV channel
- 0 ÷ 2.6 kV output voltage
- 500 µA maximum output current
- Available with positive or negative polarity
- SHV output connector
- Compact package: 63x36x170 mm3 (WxHxL)
- 100 mV voltage monitor resolution
- 10 nA current monitor resolution
- Digital output voltage control
- Internal memory for permanent storage of calibration and configuration
- RS485 digital control (allows to build daisy chain network of A75xxDB modules)
- Interlock logic for Module enable
- SMART HV command interface

Description

The CAEN **Mod.A7526DB** Power Supply Module is a compact desktop solution to provide stable and noiseless power supply for several kinds of detectors.

The module houses a digital controlled high voltage channel that provides a 2.6 kV maximum voltage with 100 mV monitor resolution The maximum output current is 500 µA, with 10 nA monitor resolution. It is available with either positive or negative output voltage. HV output is delivered through SHV connector.

The following channel parameters can be programmed:

- Output voltage: 0 ÷ 2.6 kV step: 100 mV
- Current limit 0 ÷ 500 µA step: 100 nA
- Voltage Ramp up/down: 1 ÷ 500 V/sec step: 1 V/sec
- TRIP parameter

Power supply control can be performed remotely, via RS485, that allows to build a daisy chain network of A75xxDB modules.

Safety features include:

- Overcurrent detection: if the channel attempts to draw a current larger than Iset, the output voltage is automatically adjusted to keep the current below Iset limit. Under this condition, the channel behaves as a current generator.
- The Module can be enabled or disabled through the interlock logic.

Technical Specifications

Packaging	Custom CarrierW=62,9 mm ; L=119 mm ; H=34,5 mm
Output Connector	SHV RADIALL R317580
COMM connector	15 Pin Male HD-Sub Connector VGA 5749768-1
Operating temperature	-35° C ÷ +75° C
Storage temperature	-55° C ÷ +85° C
Voltage Supply (Vin)	+12 V ± 10%
Output Voltage (Vout)	0 ÷ 2600 V
Output polarity	Positive/Negative
Maximum Output Current (Iout)	500µA @ ± 2600 V
VSet Resolution	100 mV
VMon Resolution	100 mV
Current Set Resolution	100 nA
Current Monitor Resolution	10 nA
Power requirement	1.5W @ 2000 V (Rload ≈ 6 MΩ)
Output Ripple	Typical 5mVpp; Maximum 10mVpp

VMon vs. VOut Accuracy

typical: ± 0.3% ± 0.2 V max: ± 0.3% ± 1 V

VSet vs. VMon Accuracy

typical: ± 0.3% ± 0.2 V max: ± 0.3% ± 1 V

IMon vs. IOut Accuracy

2% ±5 µA ±50ppm/°C with output current from 10% to 100% f.s.

Vout vs. Vset Integral Non Linearity

<±0.03% (-35° C ÷ +75° C)

Electromagnetic compatibility

Weak emission of electromagnetic impulse and RF; one- piece metal shielding with several ground connections

Uniformity of a lot

< 0.5 %

Protection

Over current short circuit, sparks and humidity

Ordering Options

Code	Description	
WA7526DNBAAA	A7526DNB -2.6kV 500µA Digital Interface HV Power Supply Module BOXED	RoHS
WA7526DPBAAA	A7526DPB +2.6kV 500µA Digital Interface HV Power Supply Module BOXED	RoHS

Related Products

A7501B

1 Ch 2100 V / 100 µA High Efficiency HV Power Supply Box

A7505B

1 Ch 1600 V / 500 µA High Efficiency HV Power Supply Box

A7512DB

1 Ch 12 kV/20 µA Digital Controlled Power Supply Module for MRPC

A7526

1 Ch 2600 V/500 µA High Efficiency HV Power Supply Module - PCB Mount

Gallery

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