

SPD1000X Series Programmable DC Power Supply



Data Sheet-2018.07

SPD1168X SPD1305X

Product Overview

SPD1000X Programmable Linear DC Power Supply has a 2.8 inch TFT-LCD display, features remote computer control capability, and real time wave display, to deliver high performance and ease-of-use.

The SPD1168X features a high precision programmable output capable of delivering up to 16 V, the SPD1305X features a high precision programmable output capable of delivering up to 30 V and also includes a 4-wire sense function for more accurate voltage sourcing, especially for long leads or high resistance connections. There are additional output short and overload protect functions to assist in production and development applications.

Main Features

- ✓ Single path high-precision programmable voltage output:
 - SPD1168X: 16 V/8 A, total power up to 128 W
 - SPD1305X: 30 V/5 A, total power up to 150 W
- ✓ Stable, reliable, Low ripple and noise: $\leq 350 \mu\text{Vrms}/3 \text{ mVpp}$; $< 2 \text{ mArms}$
- ✓ Fast transient response time: $< 50 \mu\text{s}$
- ✓ 5 digit Voltage, 4 digit Current Display, Minimum Resolution: 1 mV/1 mA
- ✓ Supports front panel timing output functions
- ✓ 2.8 inch true color TFT- LCD 240 *320 display
- ✓ 2 types of output modes: Two-wire output mode, 4-wire compensation output mode, Maximum compensation voltage 1V.
- ✓ 100/120/220/230 V compatible design to meet the needs of different power grids
- ✓ Intelligent temperature-controlled fan reduces noise
- ✓ Clear graphical interface, with the waveform display function
- ✓ Internal 5 groups of system parameter save/recall
- ✓ Includes PC software: Easypower, supports SCPI, LabView driver



Design Features

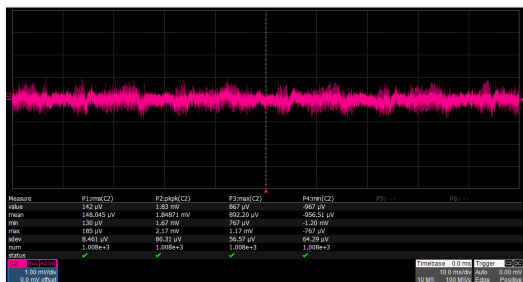
High-resolution and high-precision output

The SPD1000X power supply features a high measurement resolution of 1mV/1mA. This ensures accurate output even with very small changes in voltage or current. This is impossible for a low resolution power supply.

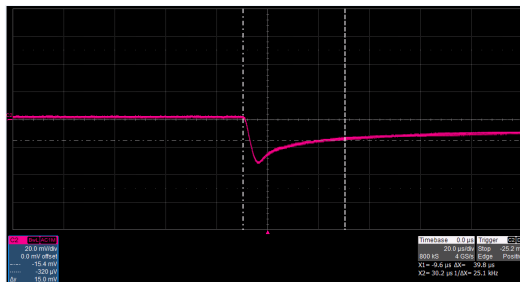
4-wire SENSE compensation mode function

In the 4-wire SENSE compensation output mode: By using a separate measurement circuit, the supply can more accurately compensate for any voltage drops due to high resistance connections or long cables. Maximum compensation voltage is 1V.

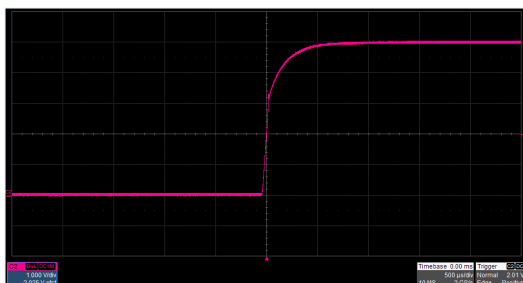
Low ripple and noise



Fast transient response time



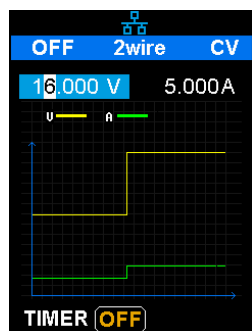
Low voltage overshoot



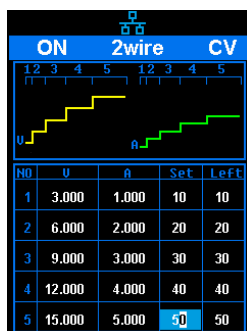
0.01% Load Regulation & 0.2% Line Regulation



Panel displays the timing output



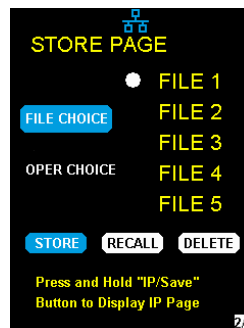
Panel timing output



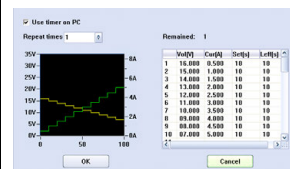
Real time wave display

Save/Recall setting parameters

SPD1000X programmable power supply can save or recall 5 groups of setting parameters in internal storage. You can easily recall the settings you need.



Internal Storage



PC Timer

Specifications

All the specifications are guaranteed when the instrument has been working for more than 30 minutes under the specified operating temperature. Unless otherwise noted, the specifications are applicable to all the channels of the specified model.

Model		SPD1168X	SPD1305X
DC Output (0 °C to 40 °C)		Output Voltage: 0 to 16 V Output Current: 0 to 8 A	Output Voltage: 0 to 30 V Output Current: 0 to 5 A
Max Output Power		128W	150W
Display		2.8 inch true color TFT-LCD 5 digit voltage/4 digit current	
Resolution		1mV/1mA	
Program Accuracy (25 ± 5 °C)		Voltage: ±(0.03% of reading+10 mV)	
		Current: ±(0.3% of reading+10 mA)	
Readback Accuracy (25 ± 5 °C)		Voltage: ±(0.03% of reading+10 mV)	
		Current: ±(0.3% of reading+10 mA)	
Temperature Coefficient per °C (Output Percentage + Offset)		Voltage: ±(0.01% of reading+3 mV)	
		Current: ±(0.01% of reading+3 mA)	
Constant Voltage Mode	Load Regulation	≤ 0.01% + 2 mV	
	Ripple & Noise	≤ 350 uVrms/3 mVpp (20 Hz to 20 MHz)	
	Recovery Time	< 50 μs (50% load change, minimum load 0.5 A)	
Constant Current Mode	Line Regulation	≤ 0.2% + 3 mA	
	Load Regulation	≤ 0.2% + 3 mA	
	Ripple & Noise	≤ 2 mArms	
Locking Key		Yes	
Memory Save/Recall		5 Sets	
Power Source		AC 100 /120/220/230 V ± 10% 50/60Hz	
Standard Configuration Interface		USB Device, LAN	
Insulation		Case to Terminal ≥ 20 MΩ (DC 500 V) Case to AC line ≥ 30 MΩ (DC 500 V)	
Operating Environment		Outdoor Usage: Elevation: ≤2000 m Environment Temperature 0 to 40 °C Relative Humidity ≤ 80% Installation Level: II Pollution Level: 2	
Storage Environment		Environment Temperature: -10 to 70 °C Relative Humidity ≤ 70%	
Dimension		154.6 (W) × 144.5 (H) × 280(D) mm	
Weight		≈5.5kg	

Ordering information

Product information	Product No
Single path independent output, min resolution 1 mV/1 mA, USB Device & LAN, 2.8 inch LCD display	SPD1168X, SPD1305X
Standard Accessories	
USB Cable -1	
Quick Start -1	
Power cord -1	
Output Test Cord -2 Sets	

Warranty

Three-year warranty, excluding accessories.

About SIGLENT

SIGLENT is an international high-tech company, concentrating on R&D, sales, production and services of test & measurement instruments.

SIGLENT began to research and develop the Digital Oscilloscope independently in 2002. After a decade of development products have included digital oscilloscopes, isolated handheld oscilloscopes, function/arbitrary waveform generators, digital multimeters, DC power supplies, spectrum analyzers, and other general purpose test instrumentation. Since SIGLENT's first oscilloscope, the ADS 7000 series produced in 2005, SIGLENT has maintained the highest annual growth rate and has been the fastest developing DSO manufacturer over the past 10 years. Nowadays, SIGLENT Technologies is the leading manufacturer of oscilloscopes by shipments in China.

Distributor:

Welectron.

Haid-und-Neu-Str. 7
76131 Karlsruhe, Germany
Phone: +49 721 909819-90
Email: info@welectron.com
Web: www.welectron.com

Headquarters:

SIGLENT TECHNOLOGIES CO., LTD.
Blog No.4 & No.5, Antongda Industrial Zone,
3rd Liuxian Road, Bao'an District,
Shenzhen, 518101, China.
Phone: +86 755 3661 5186
Fax: +86 755 3359 1582
Email: sales@siglent.com
Web: www.siglent.com

USA:

SIGLENT Technologies America, Inc
6557 Cochran Rd Solon, Ohio 44139
Phone: 440-398-5800
Toll Free: 877-515-5551
Fax: 440-399-1211
Email: info@siglent.com
Web: www.siglentamerica.com

Europe:

SIGLENT TECHNOLOGIES EUROPE GmbH
Liebigstraße 2-20, Gebäude 14
22113 Hamburg, Germany
Phone: +49 819-95946
Fax: +49 819-95947
Email: info-eu@siglent.com
Web: www.siglenteu.com

Follow us on
Facebook: SiglentTech

