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## DEVICE POWER SUPPLY MODEL 52310e SERIES

Chroma 52310e series is a programmable PXI-Express DPS (Device Power Supply) Card designed for high-accuracy and reliable output power for device test applications. Its compact size, easy level of integration, and high flexibility make the 52310e series ideal for multi-channel power supplies.

Chroma 52310e series features 8 selectable control bandwidths to ensure high speed output and stable operation; multiple current measurement ranges with 16 bits DAC and 20 bits ADC provide the highest resolution and accuracy with a sampling rate up to 600K S/ sec; programmable internal series resistance for battery simulation.

Chroma 52310e DPS series has a patented hardware sequence engine that has deterministic timing to control each DPS channel. The sequencer's on-board memory can store up to 1024 sequencer commands and 32k measurement samples per channel.

Each 52310e DPS card can be configured to load-share by connecting channels in parallel. This enables users to achieve higher output currents on the same card.

A versatile soft front panel and C/C#/ LabVIEW/LabWindows APIs are provided for rapid test development and deployment. The back connector is compatible with both PXIe and hybrid chassis slots. All of these features enable easy integration to PXIe or PXI-hybrid systems designed for a wide range of applications.

Chroma 52310e series programmable device power supplies are designed specifically for test applications that demand precision output voltage/current and tightly coupled measurement capabilities. It provides a cost-effective solution ideal for a broad range of design and production applications such as semiconductor and components manufacturing.

## MODEL 52310e SERIES

### KEY FEATURES

- 4 output channels of  $\pm 7V$ , pulse 1A (max.)
- 20-bit measurement resolution
- Low output noise
- Maximum sampling rate of 600 KS/s
- Deterministic output by Hardware Sequencer
- Programmable output resistance
- 8 selectable control bandwidths
- Master/Slave operation
- Drivers with LabVIEW/ LabWindows & C/C# API
- Soft panel GUI
- PXI Express Peripheral Module (X1 PCI Express Link)

### APPLICATIONS

- Semiconductor
- Components Manufacturing



**PXI**  
Systems Alliance

**Chroma**

## SPECIFICATIONS

Model Name	52314e-7-1
Slot	1
Output Channels	4
Source Power	7W peak (3.5W continuous) x 4
Max. Current	1A Max (Pulse mode)
Input Voltage	PXI-Express backplane power
Output Isolation	DPS card is isolated, but output channels share a common LO
Resolution	20 bits for measurement 16 bits for programming
Programmable Loop Bandwidth	8
Force Voltage Ranges	±7V
Measure Voltage Ranges	±7V
Force Current Ranges	1A(Pulse mode), 500mA, 100mA, 10mA, 1mA, 100uA, 10uA
Measure Current Ranges	1A(Pulse mode), 500mA, 100mA, 10mA, 1mA, 100uA, 10uA
Force Voltage Accuracy	0.02% reading + 0.01% range
Measure Voltage Accuracy	0.02% reading + 0.01% range
Force Current Accuracy	0.05% reading + 0.05% range(<500mA) 0.1% reading + 0.1% range(≥500mA)
Measure Current Accuracy	0.05% reading + 0.05% range(<500mA) 0.1% reading + 0.1% range(≥500mA)
Measurement Sampling Rate	600K Samples/second for both V & I
Programming Output Resistance	Up to 1 ohm (500mA range) Up to 10 ohm (100mA range)
Output Ganging	Channels must be on the same DPS card
Output Connection	5-Wire (±Force/±Sense /+Guard)
Measurement Log	32K Samples per channel
Digital In	Programmable 4 CH
Digital out	
Master/Slave Mode	Yes
Programmable Resistance	Yes
Control Interface	PXI-Express
Regulatory Compliance	CE

\* Unless otherwise noted, specifications are only valid under the following conditions : Ambient temperature 23 °C ± 5 °C; After 30 minutes warm-up period

## ORDERING INFORMATION

52310e Series: Device Power Supply

52314e-7-1: Device Power Supply

B524005: 25-pin Female D-sub Output Connector

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Search Keyword

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