

SPD4000X Series

Programmable Linear DC Power Supply

**SIGLENT
TECHNOLOGIES**

Every Bench. Every Engineer. Every Day.



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Basic Information



Features & Benefits



Competition Analysis



Applications





SPD4306X

15V/1.5A | 30V/6A | 30V/6A | 15V/1A

CH2&CH3 series : 60V / 6A

CH2&CH3 parallel : 30V / 12A

Total rated output power: 400W



SPD4121X

15V/1.5A | 12V/10A | 12V/10A | 15V/1.5A

CH2&CH3 series : 24V / 10A

CH2&CH3 parallel : 12V / 20A

Total rated output power: 285W



SPD4323X

6V/3.2A | 32V/3.2A | 32V/3.2A | 6V/3.2A

CH2&CH3 series: 60V / 3.2A

CH2&CH3 parallel : 32V / 6.4A

Total rated output power: 240W

Numeric keypad

Scroll select

Right/left direction button

Shortcut function buttons

Channel control buttons

Display area

Menu buttons

Power switch

Output terminals

Ground terminal

Output terminals





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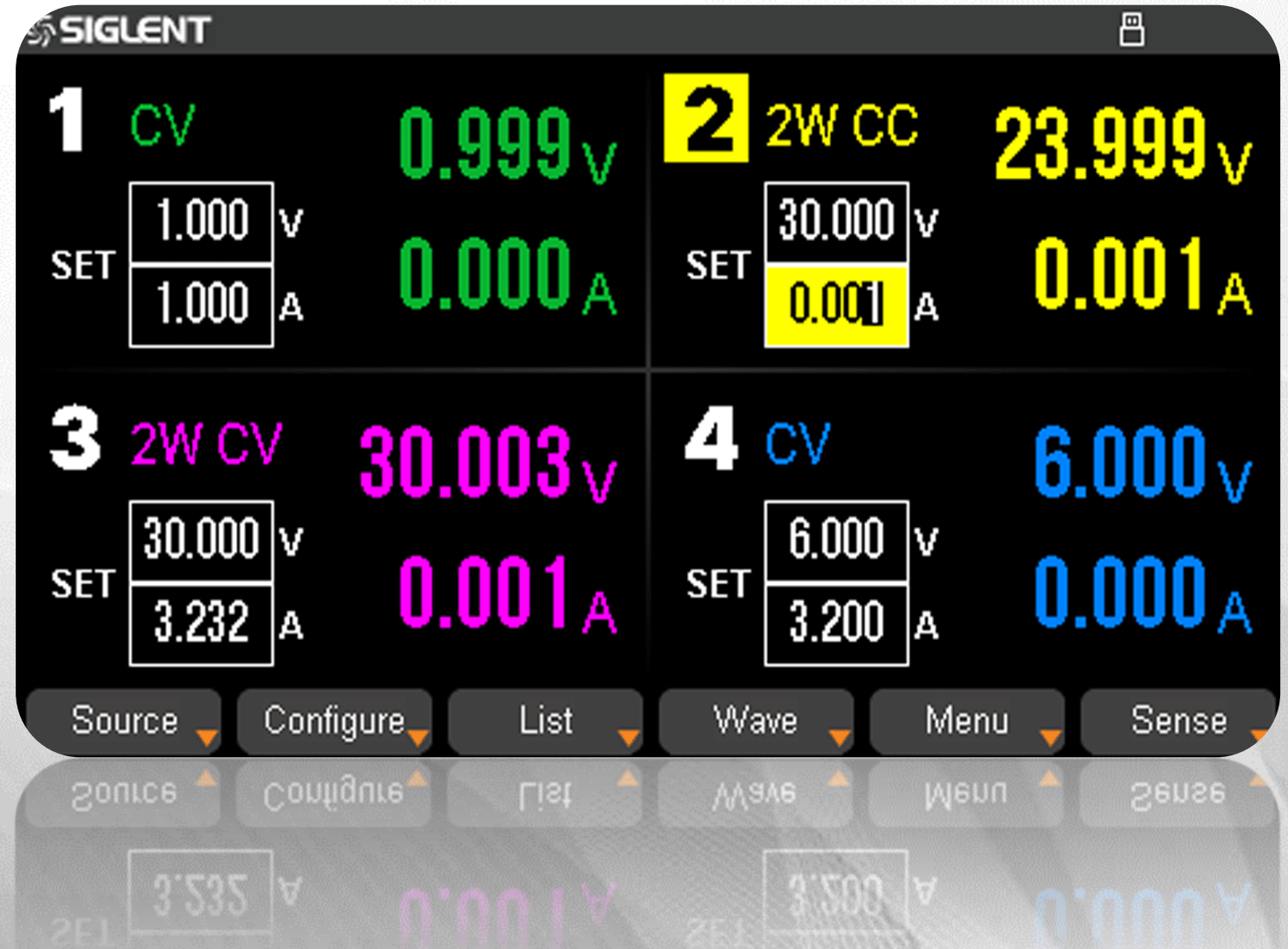
Applications



High Resolution

5-digit voltage and current display

- Setting accuracy : 1mV/1mA
- Read back accuracy: 1mV/1mA



Series/Parallel/Independent Mode

- ✓ Four channels can be output independently
- ✓ Turned on or off independently or all together
- ✓ CH2/3 can be switched in series and parallel with one key
- ✓ Better power output capability



List Operation

- ✓ Supports 50-step sequence editing, 8 groups of built-in list files
- ✓ Each list can be individually set for voltage, current, time, etc.
- ✓ Import list sequence files via USB for multi-step runs

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Output List

Step	Voltage	Current	Time	
46	15.000	1.000	4.000	▲
47	0.001	0.001	0.001	
48	32.320	3.232	9999.999	
49	2.000	2.000	8.000	
50	6.000	0.000	1.000	

Repeat Count9999

☒ Continuous

Run/Stopped

Pause

Repeat Count

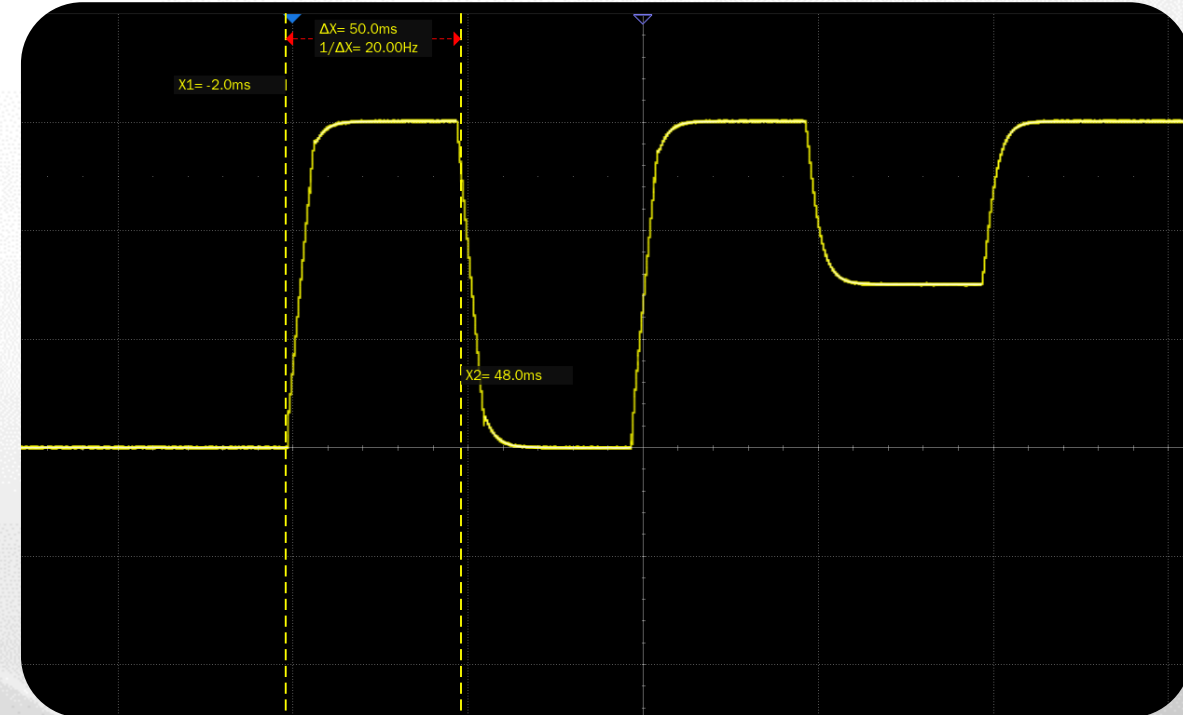
Continuous

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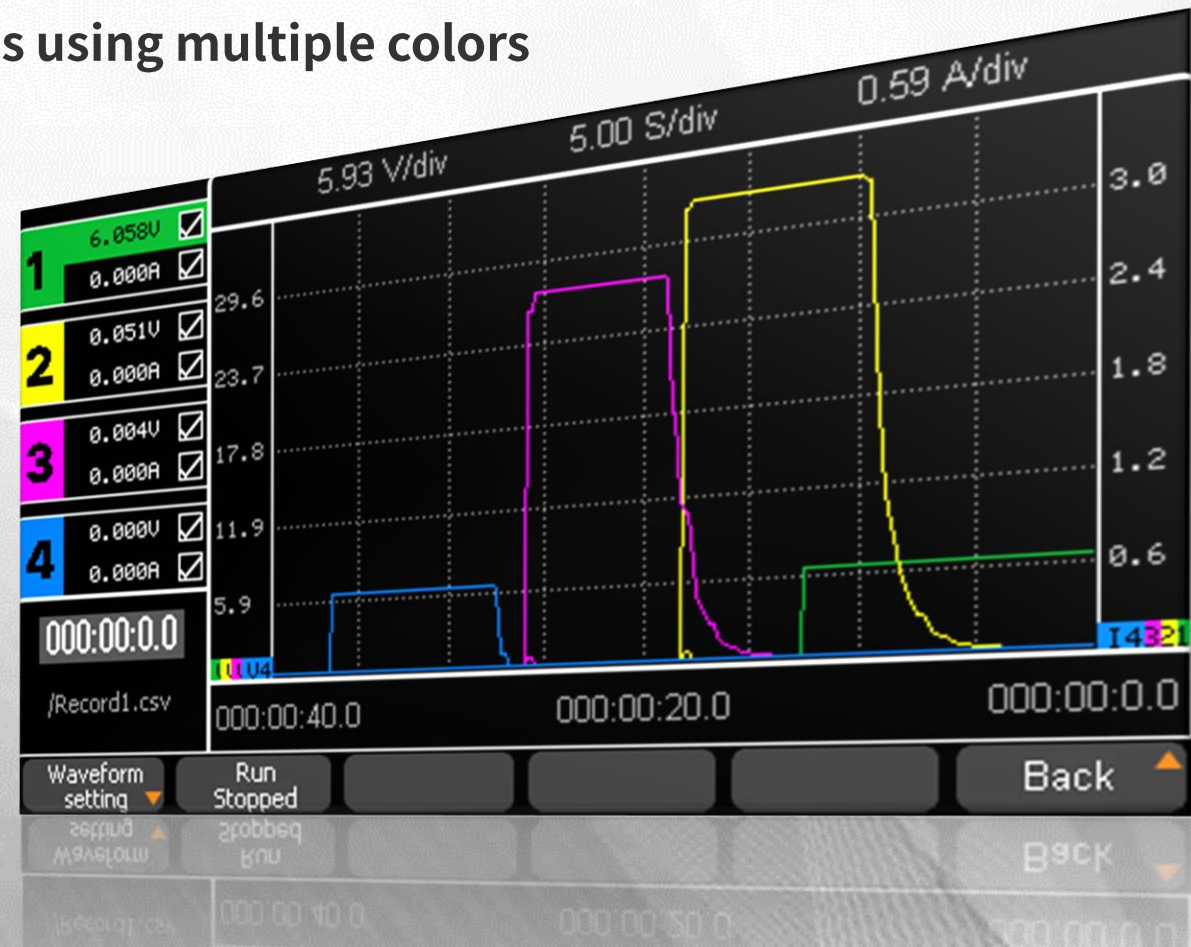
List Operation

- ✓ Time accuracy: <50 ms
- ✓ List setting resolution : 1 ms
- ✓ Meet the user's fine requirements for pulse voltage testing
- ✓ Able to change the voltage in a very short period of time, realistically simulating the working condition of the power supply system



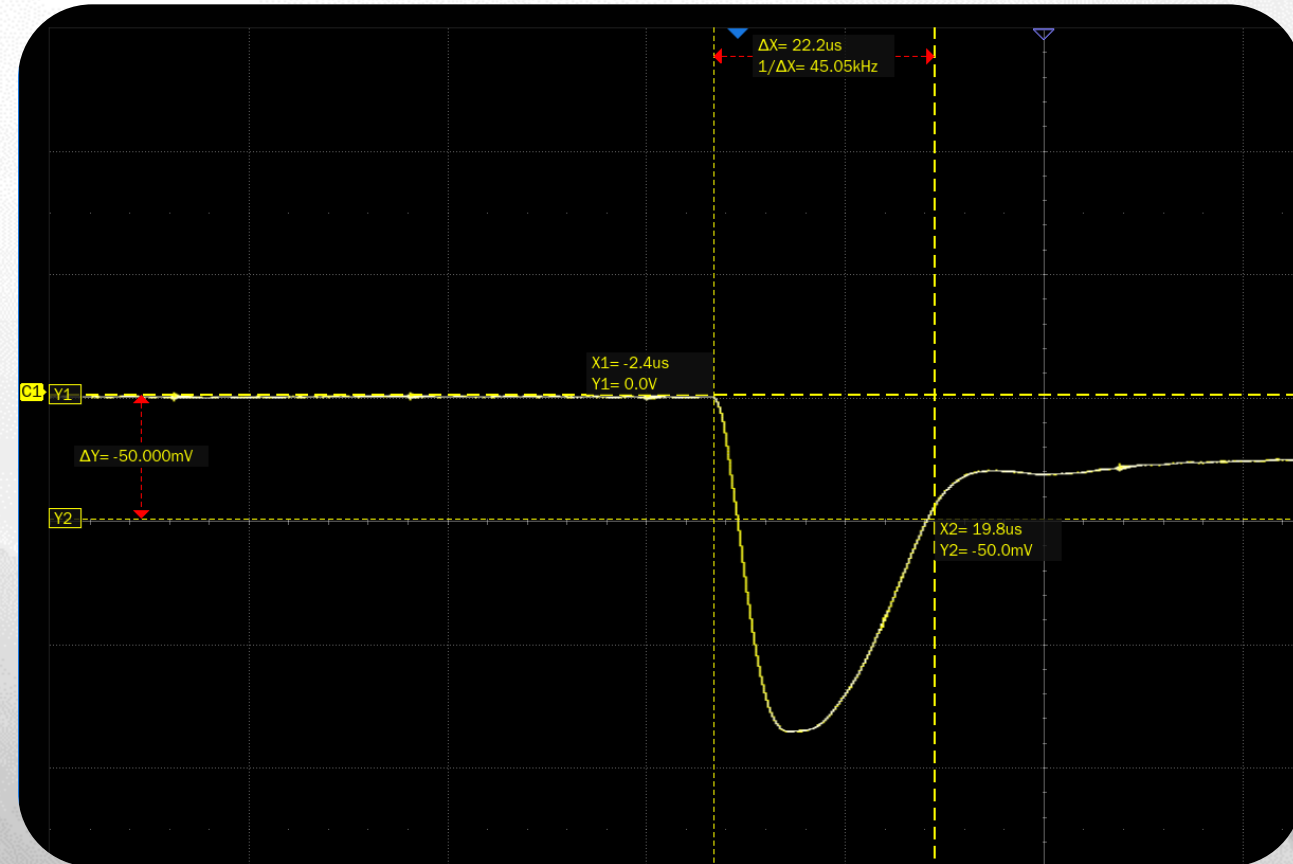
Real Time Waveform Display

- ✓ Display voltage and current waveform operation graph
- ✓ Clear display of four-channel output status using multiple colors



Fast Output Response Time

- ✓ Output response: the instantaneous change of power supply output voltage when the load current suddenly increases
- ✓ Output Response Time: the time it takes for the supply voltage to return to the set range when there is a sudden change in load current
- ✓ Output response time: $< 50\mu\text{s}$

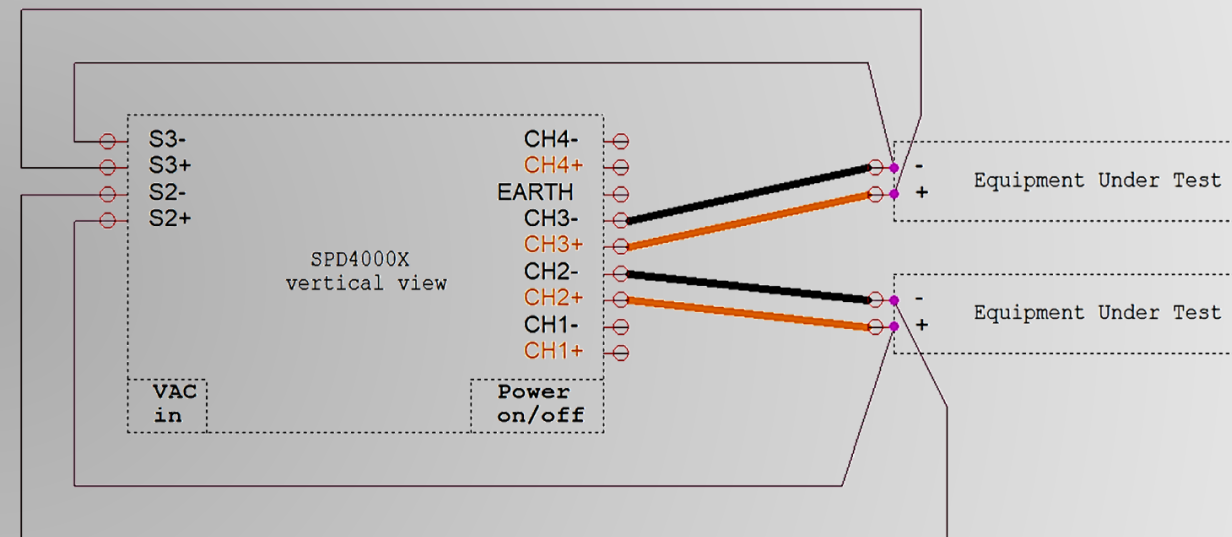


Remote Voltage Compensation Sense Function

4W sense mode can automatically compensate for the voltage drop of the positive and negative output lines, ensuring that the voltage of the remote device to be tested is equal to the set voltage of the power supply.

- Only CH2 and CH3 can activate 4W sense mode
- Not supported in series or parallel mode
- Need to use the voltage sense connector

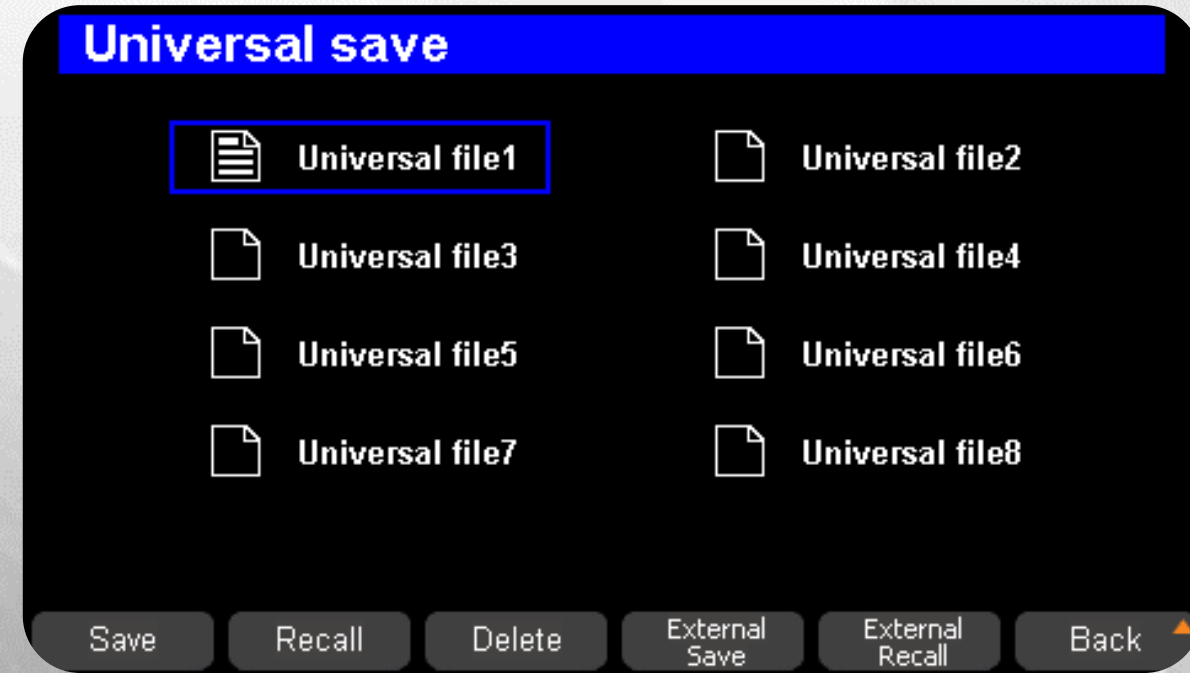
When CH2 activates 4W sense mode, it is necessary to connect the positive and negative voltage sense wires after the front panel of the machine has correctly connected the output positive and negative wires. One end of the positive voltage sense line and the negative voltage sense line are respectively connected to S2+ and S2- on the rear panel of the power supply, and the other end is correspondingly connected to the positive and negative terminals of the remote device to be tested. Similarly, CH3 also need to connect S3+ and S3-. A single equipment under test needs to connect a total of four wires.



Save/Recall Settings Parameters



- ✓ 8 sets of built-in list
- ✓ Supports saving of output voltage/current values
- ✓ Supports saving of independent/serial/parallel output settings
- ✓ Supports local storage and external USB flash drive storage
- ✓ Recall of saved files for restoration of settings
- ✓ Long press the Save/Recall key to take a screenshot



Multiple Interfaces

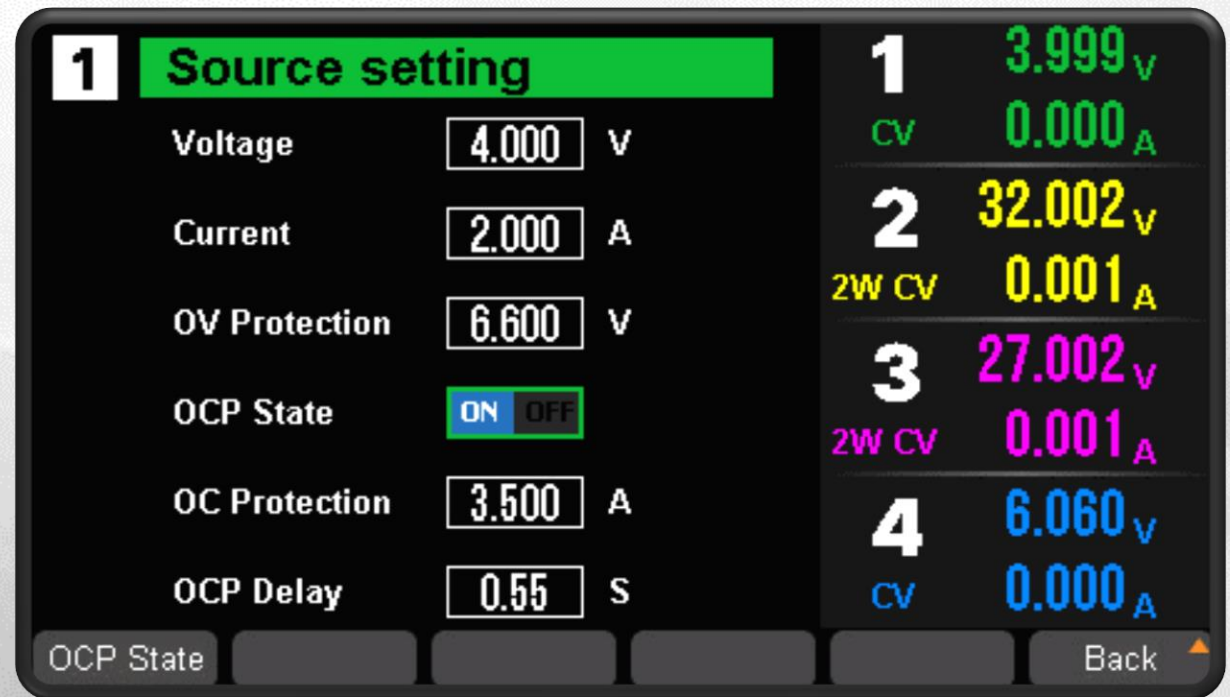
- ✓ Built-in USB, LAN standard communication interface
- ✓ Optional USB-GPIB Adapter Module
- ✓ Embedded Web Server for remote control of the power supply directly through the LAN and web page
- ✓ Remote programming via USB, LAN interface based on SCPI command set



Protection Function

The power supply will monitor the voltage and current in the circuit in real time and automatically suspend the output to protect the circuit when the current or voltage value exceeds the set value.

- Output overvoltage protection (OVP)
- Output overcurrent protection (OCP)
- Real-time monitoring of output status



Output Delay Function

- ✓ On/Off Delays
- ✓ Avoid high current at the moment of turning on the output
- ✓ Ideal for applications that require particularly precise power-up sequence times

Configure setting

	On Delays	Off Delays	Operation Mode
1	1.00 s	0.50 s	Independent
2	3.00 s	2.00 s	CH2/3 Parallel 32V/6.4A Range
3	3600.00 s	3600.00 s	CH2/3 Series 60V/3.2A Range
4	6.00 s	5.00 s	

Independent

Parallel

Series

Default delay

List Coupling

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Market Applications



						
		SPD4000X Series			SPD3000X Series	
Output channel		4			3	
programming Resolution		1mV/1mA			10mV/10mA	1mV/1mA
Rated output	CH1	6V/3.2A	15V/1.5A	15V/1.5A	32V/3.2A	
	CH2	32V/3.2A	12V/10A	30V/6A	32V/3.2A	
	CH3	32V/3.2A	12V/10A	30V/6A	2.5/3.3/5V 3.2A	
	CH4	6V/3.2A	15V/1.5A	15V/1A		
Series		60V/3.2A	24V/10A	60V/6A	60V/3.2A	
Parallel		32V/6.4A	12V/20A	30A/12A	32V/6.4A	
Output power		240W	285W	400W	220W	
programming/ readback accuracy	Voltage	± (0.03% of reading+10) mV			± (0.5% of reading+2digits)	± (0.03% of reading+10mV)
	Current	± (0.3% of reading+10) mA			± (0.5% of reading+2digits)	± (0.3% of reading+10mA)
C.V Mode	Line regulation	≤0.01%+2mV			≤0.01% +3mV	
	Load regulation					
	Ripple and noise	≤350uVrms			≤350uVrms	
C.C Mode	Line regulation	≤0.1%+3mA			≤0.2%+3mA	
	Load regulation					
	Ripple and noise	≤2mArms			≤3mArms	
Series	Line regulation	≤0.01%+5mV			≤0.01% +5mV	
	Load regulation	<100mV	<200mV	<150mV	≤300mV	
Parallel	Line regulation	0.01% +5mV			≤0.01%+3mV	
	Load regulation	0.01% +50mV				
Protection Function		OCP、OVP			OCP	
Sense Function		✓			×	
List Function		Support List coupling function. In addition to setting up a single channel, you can also perform inter-channel coupling to meet the stable and controllable power-up sequence			Only support setting the voltage/current/time of CH1 or CH2	
Save/Recall		8 groups			5 groups	
Interface Capability		USB Device, USB Host, LAN, GPIB			LAN、USB Device	
Web Control		Web Server			EasyPower	

																			
	SPD4000X					GW GPP-4323					R&S HMP4040					GW GPP-3060			
Output channel	4					4					4					3			
Output Voltage / Current CH1 CH2 CH3 CH4	6V/3.2A 32V/3.2A 32V/3.2A 6V/3.2A SPD4323X 15V/1.5A 12V/10A 12V/10A 15V/1.5A SPD4121X 15V/1.5A 30V/6A 30V/6A 15V/1A SPD4306X					32V/3A 32V/3A 5V/1A 15V/1A					32V/10A					30V/6A 30V/6A 1.8/2.5/3.3/5V , 5A			
Output power	240W/285W/400W					217W					384W					385W			
programming Resolution	1mV/1mA					1mV/0.1mA					1mV/0.2mA(<1A) 1mV/1mA(>1A)					1mV/0.1mA			
Readback Resolution	1mV/1mA					0.1mV/0.1mA					1mV/0.2mA(<1A) 1mV/1mA(>1A)					0.1mV/0.1mA			
Series	60V/3.2A SPD4323X 24V/10A SPD4121X 60V/6A SPD4306X					64V/3A					128V					60V/6A			
Parallel	32V/6.4A SPD4323X 12V/20A SPD4121X 30V/12A SPD4306X					32V/6A					40A					30V/12A			
List time accuracy	<50ms					N/A					N/A					N/A			
Protection Function	OVP/OCP					OVP/OCP/OTP/OPP					OCP/OVP/OTP					OVP/OCP/OTP/OPP/PRP			
Load mode	unsupported					supported					unsupported					supported			
Sense function	supported					unsupported					supported					supported			
Real-time waveform display	supported					supported					unsupported					supported			
List Operation	supported					supported					supported					supported			
Built-in waveforms	unsupported					supported					unsupported					supported			
Save/Recall	supported					supported					supported					supported			
Web Control	supported					supported(Software control)					supported(Software control)					supported(Software control)			
Safety sockets	unsupported					unsupported					supported					unsupported			
Timer display	supported					supported					supported					supported			
Interface Capability	USB、LAN、 GPIB(option)					USB-Host、 USB-Device、 Ext I/O、 RS232、 LAN(option)、 GPIB(option)					option: USB、 LAN、 RS-232、 GPIB					USB-Host、 USB-Device、 Ext I/O、 RS232、 LAN(option)、 GPIB(option)			
Channel isolation	Fully isolated					N/A					Fully isolated					N/A			
Displayed	4.3-inch TFT-LCD display					4.3-inch TFT-LCD display					LCD					4.3-inch TFT-LCD display			
Dimension & Weight	221(W)x133(H)x360(D)mm,8~12kg					213(W)x145(H)x312(D)mm,7.5kg					285(W)×136 (H)×405(D),12.8kg					213(W)x145(H)x362(D)mm,10kg			

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Basic Information



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Competition Analysis



Applications

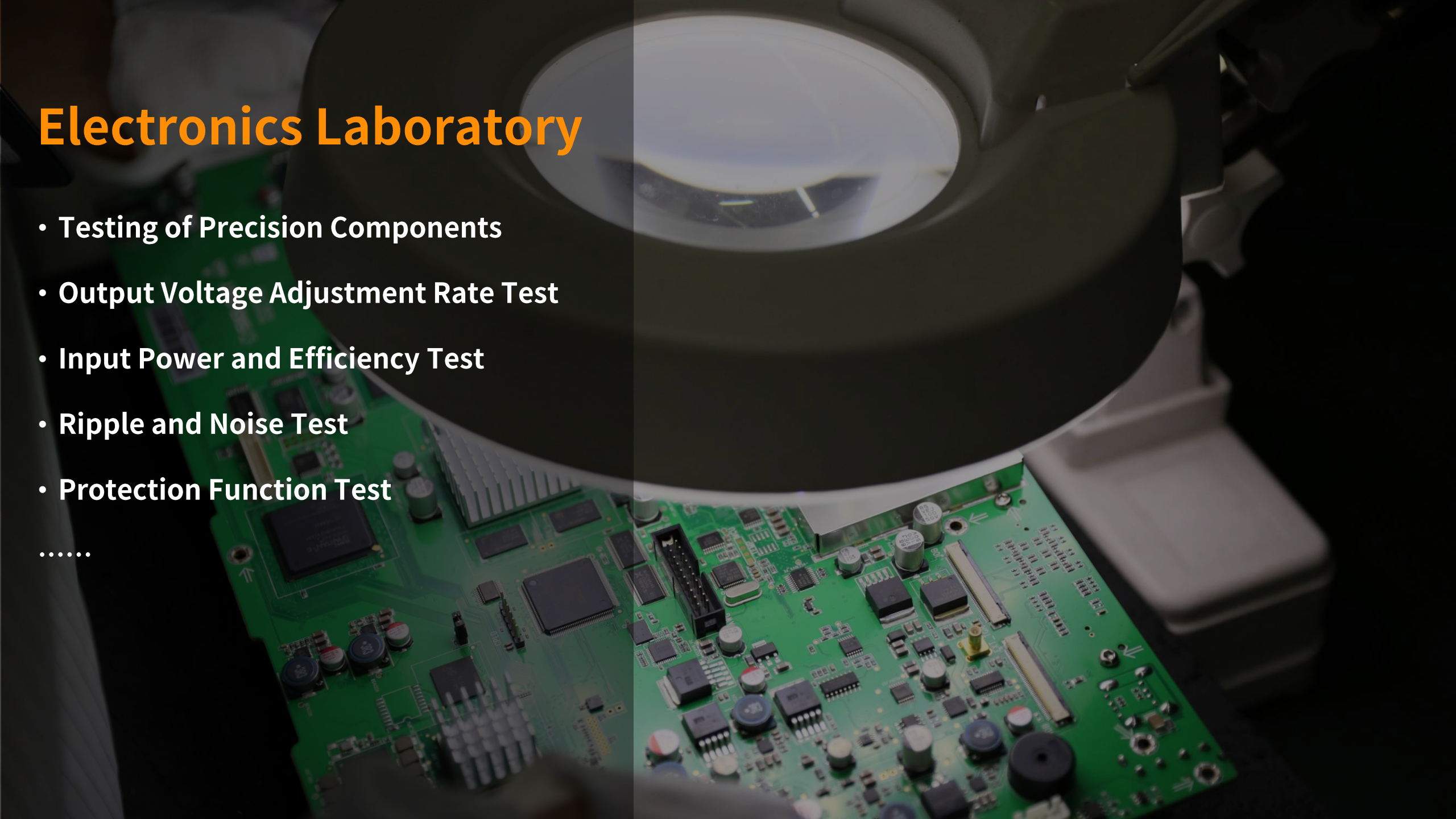


Manufacturing Industry

- Accurate Supply of Voltage and Current
- Security Test
- Test of Motor Locked Rotor
- Simulation of Wind Turbine Test
- Automotive Low-Voltage Electronics Test
- Headlight Dimming Motor Test
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Electronics Laboratory



- Testing of Precision Components
- Output Voltage Adjustment Rate Test
- Input Power and Efficiency Test
- Ripple and Noise Test
- Protection Function Test

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New Energy Industry

- Voltage Pulse Test
- Remote Control Test
- Conversion Efficiency Test

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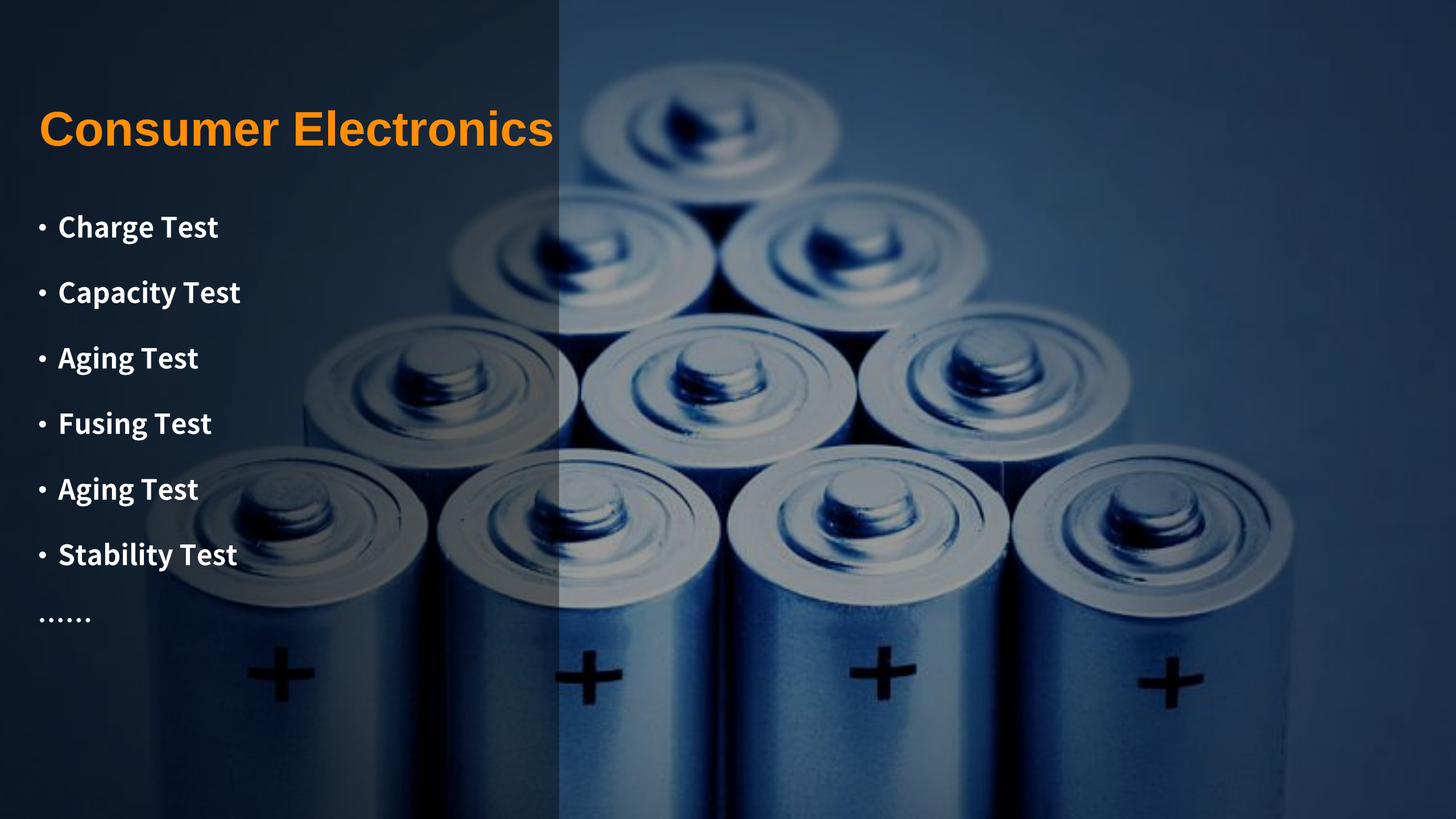
Wireless Communications

- Amplifier Test
- Connectivity Test
- Troubleshooting and Equipment Test
- Protection Features Reduce Damage
to Equipment

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Consumer Electronics



- Charge Test
 - Capacity Test
 - Aging Test
 - Fusing Test
 - Aging Test
 - Stability Test
-

Ordering Information



Models	Description
SPD4323X	4 channels programmable linear DC power supply, 32V/3.2A, 240W
SPD4121X	4 channels programmable linear DC power supply, 12V/10A, 285W
SPD4306X	4 channels programmable linear DC power supply, 30V/6A, 400W

Standard Accessories	
USB cable	1
QuickStart	1
Calibration certificate	1
Power cord	1
3A output test cord	4

Thank You

Industry leader in the field of general electronic test and measurement instruments



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