B2900C/CL Precision Source/Measure Unit (SMU)

B2900C/CL series graphical SMU addresses precision measurement challenges and enhances test efficiency across a wide range of applications, from lab to manufacturing, delivering best-in-class cost performance

Broad application with a single instrument

- Wide application coverage with integrated 4-quadrant source/measure capabilities up to 210 V, 3 A DC/10.5 A pulsed.
- Flexible output waveform by pulse, sweep, and list sweep function

Capturing true characteristics with superior high-speed digitizing and high-resolution

- High sourcing and measurement resolution of 10 fA/100 nV.
- Fast setting and digitizing interval 10 µs/100 kpts/s.

Test time reduction

- Fastest sweep measurement available in a benchtop SMU.
- Reduced execution time of repeated test commands through the program memory.

Test efficiency improvement

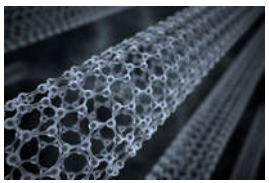
- Innovative GUI for I-V (current-voltage) measurement without PC programming
- Multiple software control options to fit your specific application needs.



Semiconductors

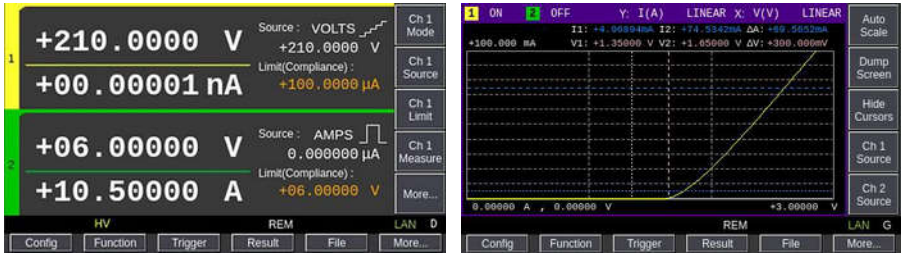


Green energy devices



Research and education





The Innovative GUI significantly enhances the usability and productivity of bench-top tests, debugging, and characterizations.

Typical applications

- Optical devices (laser diodes, photo diodes)
- Organic devices (OLEDs)
- Photovoltaic (solar) cells
- Nano-technology materials
- Power management devices (LDOs)
- Semiconductor devices (FETs, transistors)
- Resistors, diodes, varistors, and other component devices

Multiple choice of a cost-effective solution for your needs

Model	No. of channel	Max output			Source			Measurement			Minimum digitizing interval
					Max digits	Min. resolution		Max digits	Min. resolution		
		Voltage	Current (DC)	Current (Pulse)		Voltage	Current		Voltage	Current	
B2901CL	1	21 V	1.515 A	N/A	5½	1 µV	10 pA	6½	100 nV	1 pA	200 µsec
B2910CL	1	210 V	1.515 A	N/A	5½	1 µV	100 fA	6½	100 nV	10 fA	50 µsec
B2901C	1	210 V	3.03 A	10.5 A	5½	1 µV	1 pA	6½	100 nV	100 fA	20 µsec
B2902C	2										
B2911C	1				6½	100 nV	10 fA	6½	100 nV	10 fA	10 µsec
B2912C	2										

Options and accessories

Model	Option	Description
B2901CL B2910CL B2901C B2902C B2911C B2912C	1A7	Calibration + Uncertainties + Guardbanding (Not Accredited)
	A6J	ANSI Z540 compliant calibration
	UK6	Commercial calibration certificate with test data
N1297A		Banana – Triaxial adaptor for 2-wire connection
N1297B		Banana – Triaxial adaptor for 4-wire connection
N1294A	031	GPIO-BNC Trigger adapter
	032	Digital I/O Trigger Cable for Multiple Unit Control
N1295A		Device/component test fixture

Software control options

Software control option	Description
Pathwave BenchVue	Source constant voltage or current and control other Keysight instruments
Graphical Web Interface	Use your web browser to make basic measurements
PathWave IV Curve Software	Easy-to-use GUI software for IV measurement without programming
EasyEXPERT group+	Powerful software for detailed characterization and analysis of devices, circuits and materials

B2900 precision instrument family

The B2900 family includes products that perform both precision sourcing and precision measurement.



B2960C Low-Noise Power Source



B2900C/CL Precision Source/Measure Unit



B2980C Femto / Picoammeter & Electrometers

www.keysight.com/find/b2900

Keysight enables innovators to push the boundaries of engineering by quickly solving design, emulation, and test challenges to create the best product experiences. Start your innovation journey at www.keysight.com.

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Published in USA, June 1, 2025, 3125-1142.EN

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