

# B2900B/BL Precision Source/Measure Unit (SMU)

B2900B/BL series Graphical SMU solves precision measurement challenges and improve test efficiency from lab to manufacturing for a wide range of applications at the best-in-class cost performance

## Broad application by a single instrument

- Wide application coverage by 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

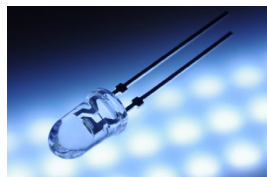
- High sourcing and measurement resolution: 10 fA/100 nV
- Fast setting/digitizing interval 10  $\mu$ s/100 kpts/s

## Test time reduction

- Fastest sweep measurement available in a benchtop SMU
- Reducing execution time of repeated test commands by programming memory

## Test efficiency improvement

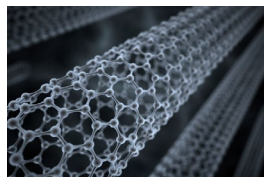
- Innovative GUI: I-V (current - voltage) measurement without PC programming
- Multiple software control options, allowing you to choose the solution that best fits your particular application



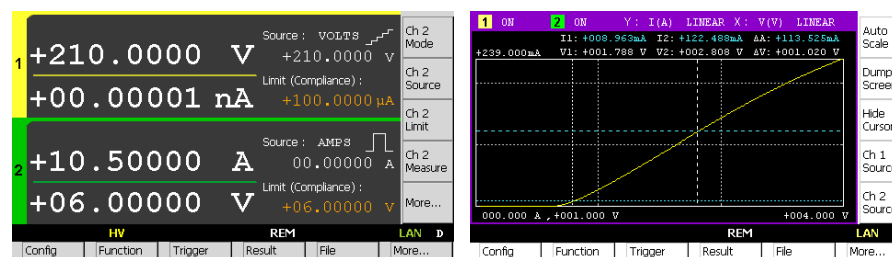
Semiconductors



Green energy devices



Research and education



The Innovative GUI improves usability and productivity of bench-top tests, debug and characterizations dramatically.

## 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	
B2901BL	1	21 V	1.515 A	N/A	5½	1 µV	10 pA	6½	100 nV	1 pA	200 µsec
B2910BL	1	210 V	1.515 A	N/A	5½	1 µV	100 fA	6½	100 nV	10 fA	50 µsec
B2901B	1	210 V	3.03 A	10.5 A	5½	1 µV	1 pA	6½	100 nV	100 fA	20 µsec
B2902B	2				6½	100 nV	10 fA	6½	100 nV	10 fA	10 µsec
B2911B	1										
B2912B	2										

## Options and accessories

Model	Option	Description
B2901BL B2910BL B2901B B2902B	1A7	Calibration + Uncertainties + Guardbanding (Not Accredited)
B2911B B2912B	A6J	ANSI Z540 compliant calibration
N1297A N1297B	UK6	Commercial calibration certificate with test data
N1294A	031	Banana – Triaxial adaptor for 2-wire connection
N1295A	032	Banana – Triaxial adaptor for 4-wire connection
		GPIO-BNC Trigger adapter
		Digital I/O Trigger Cable for Multiple Unit Control
		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 contains products that perform both precision sourcing and precision measurement.



[www.keysight.com/find/b2900](http://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](http://www.keysight.com).

This information is subject to change without notice. © Keysight Technologies, 2020 – 2023, Published in USA, April 12, 2023, 3120-1487.EN