

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

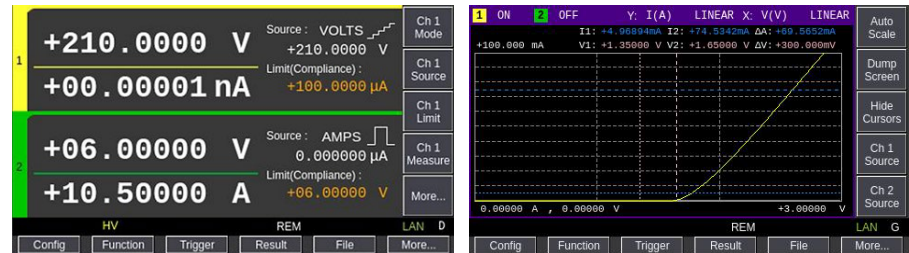
- High sourcing and measurement resolution of 10 fA/100 nV.
- Fast setting and digitizing interval 10 μ s/100 kpts/s.

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.



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

Typical applications

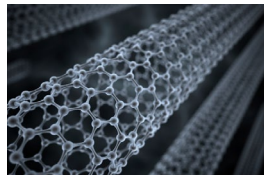
- Optical devices (laser diodes, photo diodes)
- Organic devices (OLEDs)
- Photovoltaic (solar) cells
- Nano-technology materials
- Power management devices (LDOs)
- Semiconductor devices (FETs, transistors)
- Resistors, diodes, varistors, and other component devices



Semiconductors



Green energy devices



Research and education

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 | | | | 6½ | 100 nV | 10 fA | 6½ | 100 nV | 10 fA | 10 μsec |
| B2911C | 1 | | | | | | | | | | |
| 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.



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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