

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

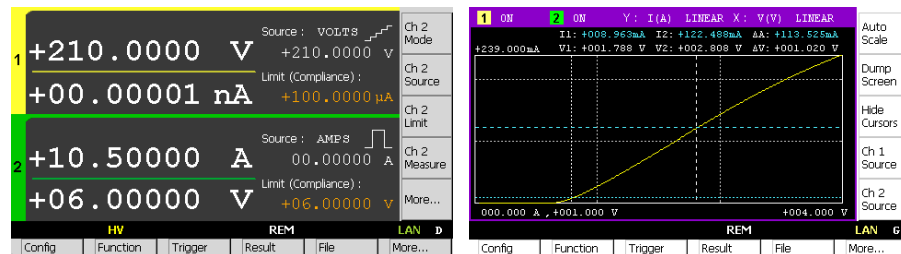
- High sourcing and measurement resolution: 10 fA/100 nV
- Fast setting/digitizing interval 10 μ s/100 kpts/s

Test time reduction

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

Test efficiency improvement

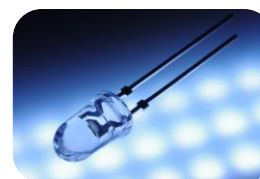
- Innovative GUI: I-V (current - voltage) measurement without PC programming
- Multiple software control options, allowing you to choose the solution that best fits your particular application



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

Typical applications

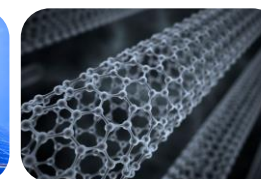
- Optical devices (laser diodes, photo diodes)
- Organic devices (OLEDs)
- Photovoltaic (solar) cells
- Nano-technology materials
- Power management devices (LDOs)
- Semiconductor devices (FETs, transistors)
- Resistors, diodes, varistors, and other component devices



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 | |
| 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 | | | | | | | | | | |
| B2911B | 1 | | | | | | | | | | |
| B2912B | 2 | | | | | | | | | | |
| | | | | | 6½ | 100 nV | 10 fA | 6½ | 100 nV | 10 fA | 10 µsec |

Options and accessories

| Model | Option | Description |
|--------------------|--------|---|
| B2901BL B2910BL | 1A7 | Calibration + Uncertainties + Guardbanding (Not Accredited) |
| B2901B B2902B | A6J | ANSI Z540 compliant calibration |
| B2911B B2912B | 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 |

B2900 precision instrument family

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



www.keysight.com/find/b2900

Software control options

| Software control option | Description |
|--------------------------------|---|
| BenchVue | Source constant voltage or current and control other Keysight instruments |
| Graphical Web Interface | Use your web browser to make basic measurements |
| Quick I/V Measurement Software | A common software solution for the entire B2900 family |
| EasyEXPERT group+ | Powerful software for detailed characterization and analysis of devices, circuits and materials |

Learn more at: www.keysight.com

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