

Product Datasheet - Technical Specifications



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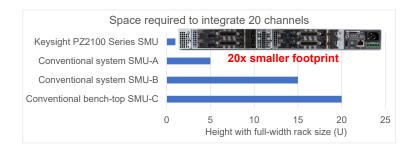
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PZ2100A Precision Source/Measure Unit Mainframe, 4 slots, 1U

Precision SMU mainframe that uncompromisingly and densely integrates a maximum of 20 SMU channels into a valuable 1U of rack space with flexible module options at their best performance

Scalable up to 20 ch, 20x higher density than conventional SMU

The PZ2100A integrates up to 20 SMU channels into valuable 1U-height, full-width rack space, and unlike conventional SMUs, it doesn't require any cooling spacers when stacked.



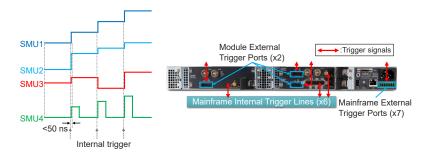
5 SMU module options, flexibly configurable and upgradable

The PZ2100A has 4 slots and flexibly integrates 5 SMU module options. It allows any mixed module configuration, which enables you to configure and upgrade your test system flexibly according to your application requirement.



Single-box solution simplifies synchronization with multiple SMUs at <50 ns accuracy

Its 6 internal trigger lines enable synchronization among the channels at less than 50 ns accuracy without any cabling. The external trigger ports allow its operation to synchronize with any external equipment flexibly and accurately.



User-friendly graphical user interface, collectively managing 20 channels at max. accelerates test prototyping, debugging, and troubleshooting

The user-friendly GUI provides two view modes, collectively managing 20 channels at maximum. It enables you to select an appropriate view for your purpose to set and review the status of all the channels in a single interface



Key specifications

| SMU Type | Mainframe | High Resolution | High-Speed | | High Density | | |
|--------------------------|------------|---|--------------|--------------|--------------|---------------|--|
| Model number | PZ2100A | PZ2110A | PZ2120A | PZ2121A | PZ2130A | PZ2131A | |
| Ch/Slot | N/A | 1 Ch/2 Slot | 1 Ch/1 Slot | | 5 Ch/1 Slot | | |
| DC Output range | N/A | 210 V/315 mA | 60 V/3.5 A | | 30 V/500 mA | | |
| Resolution | N/A | 10 fA | 100 fA | | 100 pA | 10 pA | |
| Pulse capability | N/A | 315 mA/20 µs | 10.5 A/50 μs | 10.5 A/10 µs | N/A | 500 mA/100 μs | |
| Digitizer mode | N/A | Yes | Yes | | No | Yes | |
| Digitizing sampling rate | N/A | 1.25 MSa/s | 1 MSa/s | 15 MSa/s | 250 kSa/s | 500 kSa/s | |
| View mode | Meter view | Meter view (Single-channel, 2-channel, 4-channel, Slot summary, Channel summary), Menu view | | | | | |
| Interface | GPIB, USB, | LAN | | | | | |

Typical applications

- Optical devices (laser diodes, photodiodes, LEDs, etc.)
- Optoelectronic components (ITLA, CDM, ICR, IC-TROSA, etc.)
- Vertical cavity surface emitting laser (VCSEL) sensors/modules
- Silicon photonics
- Integrated circuit (IC) design verification tests/function tests (RF PA/FEM, analog ICs, RFICs, MMICs, etc.)
- Quantum computing (superconducting, trapped ions, silicon-based, etc.)
- Semiconductor devices (FETs, diodes, transistors, etc.)
- Passive component devices (resistors, varistors, capacitors, etc.)

PathWave IV Curve software

PathWave IV Curve software enables the PZ2100A series SMU solution to accelerate research, development, and design verification by executing synchronous current-voltage (IV) measurements on up to 20 channel SMUs in a mainframe, immediately reviewing test results on graphs and tables and efficiently generating reports without programming.







PZ2100 High Channel Density Precision SMU Solution

