

# PZ2120A and PZ2121A Precision Source/Measure Unit

Precision SMU Modules for PZ2100A SMU Mainframe

**High-Speed SMU Enabling Superior Dynamic/Pulsed Measurements with a Narrow Pulse Down to 10  $\mu$ s at a Fast-Sampling Rate of up to 15 MSa/s for a Wide Range of Emerging Applications**

## Key features

- Narrow pulse down to 10  $\mu$ s pulse width
- Fast Digitizer Mode with 15 MSa/s sampling rate
- Wide output range up to 60 V/3.5 A DC/10.5 A pulse
- Wide dynamic range for dynamic measurement with seamless current measurement ranging
- Fast transient with 3.5 V/ $\mu$ s slew rate at maximum



## Typical applications

- Optical devices (laser diodes, photodiodes, LEDs, etc.)
- Vertical cavity surface emitting laser (VCSEL) sensors/modules
- Integrated circuit (IC) design verification tests/function tests (RF PA/FEM, analog ICs, RFICs, MMICs, etc.)

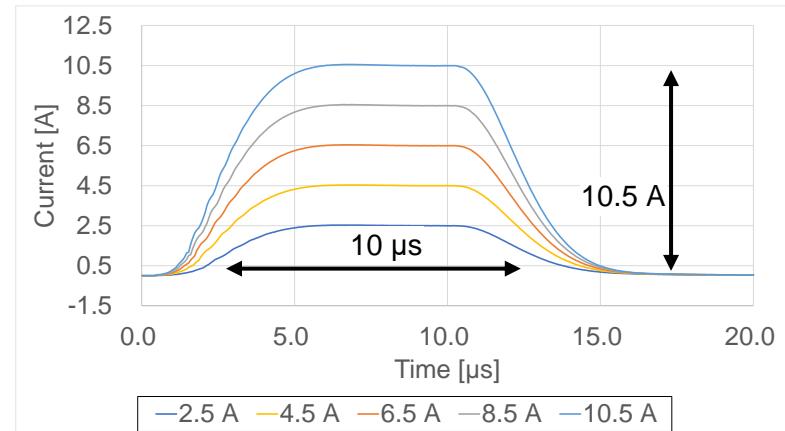


Figure 1. 10  $\mu$ s Current Pulse Output measured with Digitizer Mode at 15 MSa/s

More Information: [www.keysight.com/find/pz2121a](http://www.keysight.com/find/pz2121a)

## Key specifications and characteristics

	PZ2120A	PZ2121A
Number of channels	1	
Number of slots	1	
Output range	Max. voltage Max. current (DC) Max. current (Pulse)	60 V 3.5 A 10.5 A
Resolution	Min. voltage Min. current	6 $\mu$ V 100 fA
Current measurement noise RMS(1 PLC)	400 fArms	
Voltage source noise	RMS (20 MHz) RMS (200 MHz)	< 3.5 mVrms < 6 mVrms
Min. pulse width	50 $\mu$ s	10 $\mu$ s
Max. slew rate	3.5 V/ $\mu$ s	
Digitizer mode	Yes	
Max. sampling rate	1 MSa/s	15 MSa/s
Auto measurement ranging	Yes	
Seamless current measurement ranging	Yes	

## 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.

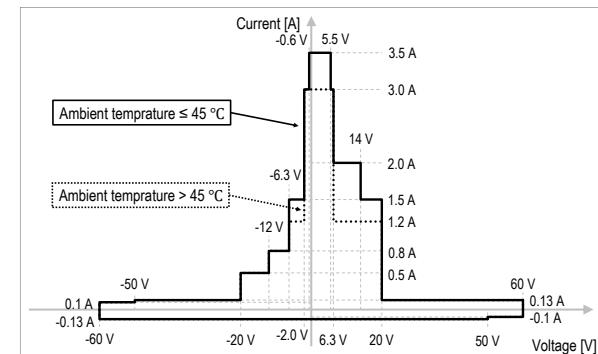
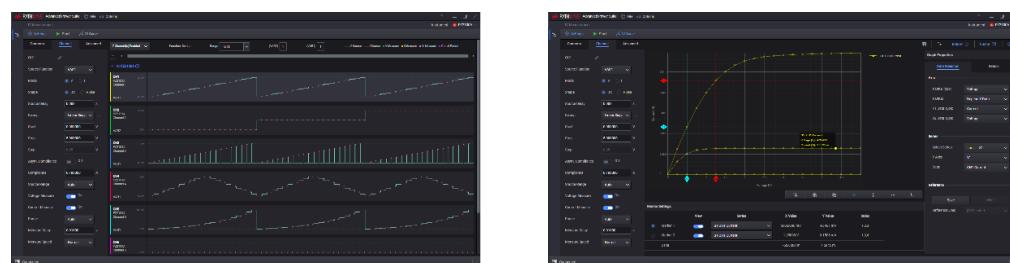


Figure 2. DC voltage and current output capability

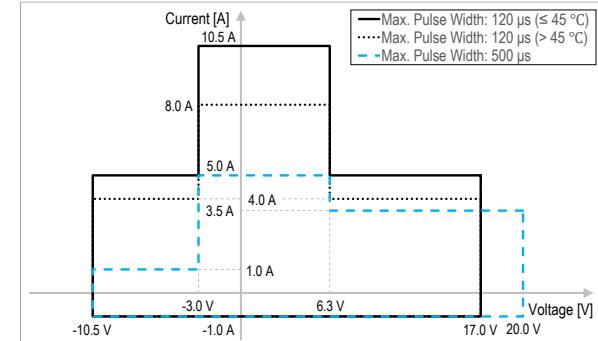


Figure 3. Pulsed voltage and current output capability

## PZ2100 High Channel Density Precision SMU Solution



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).