

## Product Datasheet - Technical Specifications



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# PZ2130A and PZ2131A 5-ch Precision Source/Measure Unit

Precision SMU Modules for PZ2100A SMU Mainframe

**High Channel Density SMU Having 5 ch/Module and Saving Space at a Low Cost per Channel for a Wide Range of Applications Requiring Numerous Precision Power Supplies**

## Key features

- High channel density (20 Ch in 1U rack height, full width at max.) at low cost/ch for multi-ch applications (>4 ch)
- Narrow pulse down to 100  $\mu$ s pulse width & fast Digitizer Mode with sampling rate at 500 kSa/s (PZ2131A)
- Low voltage source noise down to 25  $\mu$ Vrms with low noise filter
- Wide dynamic range with seamless current measurement ranging

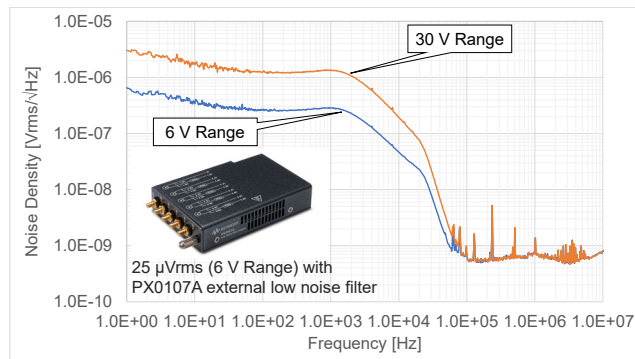
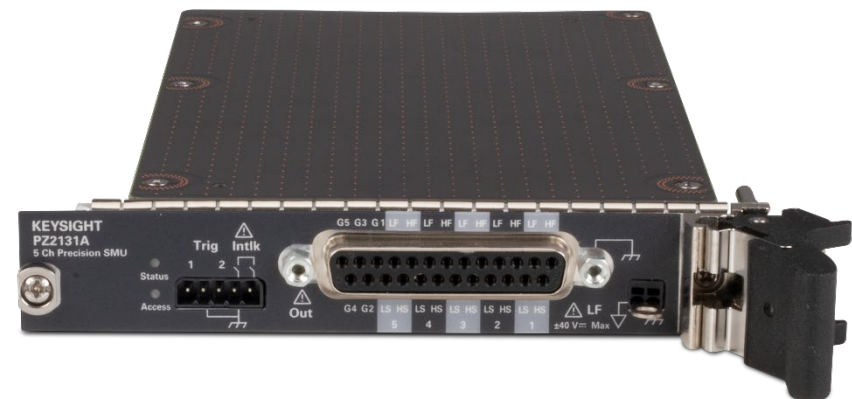


Figure 1. Noise Density with Keysight PX0107A Low Noise Filter Adapter

## Typical applications

- Optical devices (laser diodes, photodiodes, LEDs, etc.)
- Optoelectronic components (ITLA, CDM, ICR, IC-TROSA, etc.)
- 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.)



## Key specifications and characteristics

		PZ2130A	PZ2131A
Number of channels		5	
Number of slots		1	
Output range	Max. voltage	30 V	
	Max. current (DC)	500 mA	
	Max. current (Pulse)	N/A	500 mA
Resolution	Min. voltage	6 $\mu$ V	
	Min. current	100 pA	10 pA
Current measurement noise RMS(1 PLC)		75 pArms	35 pArms
Voltage source noise	RMS (20 MHz)	< 1 mVrms (< 25 $\mu$ Vrms with PX0107A)	
	RMS (200 MHz)	< 3.3 mVrms	
Min. pulse width		N/A	100 $\mu$ s
Max. slew rate		0.15 V/ $\mu$ s	
Digitizer mode		No	Yes
Max. sampling rate		250 kSa/s	500 kSa/s
Auto measurement ranging		Yes	
Seamless current measurement ranging		Yes	

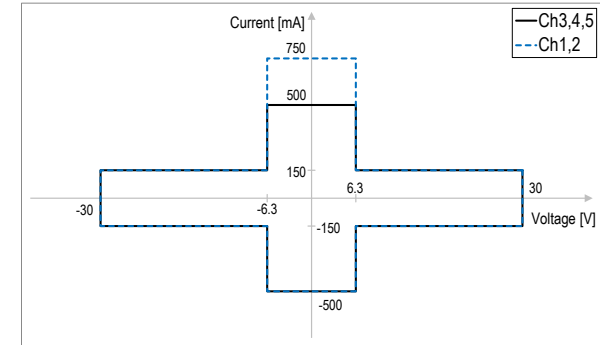


Figure 2. Voltage and current output capability per channel

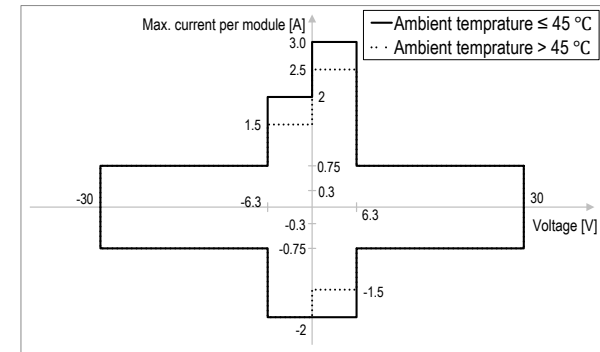
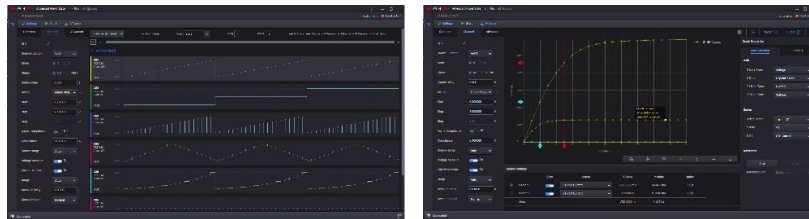


Figure 3. Voltage and total current output capability per module

## 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

