

M9614A and M9615A PXIe 5-Channel Precision Source/Measure Units

500 kSa/s, 100 pA/10 pA, 30 V, 500 mA

The single-slot PXIe SMUs are meant for broad applications requiring high channel density with wide output up to 30 V / 500 mA and fast throughput at a low cost per channel.

Higher channel scalability and density at a lower cost in the same footprint

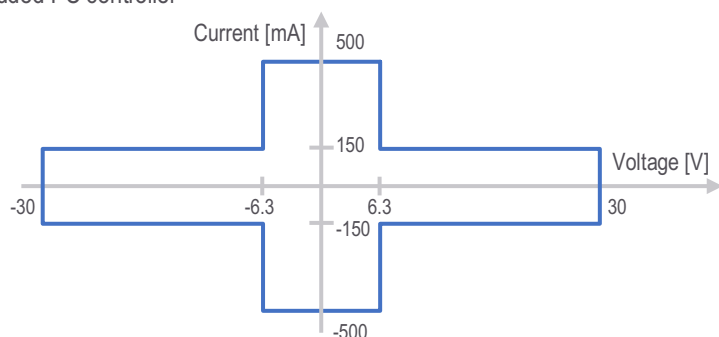
- 5 channels higher density per a single slot module
- Lower cost per channel

Broader application coverage by a single module

- Wider output range, up to 30 V / 500 mA per channel
- Minimum 10 pA resolution for low current measurement
- Accurate and flexible measurements, from DC to pulsed measurements, with pulse width down to 100 μ s at 500 kSa/s sampling rate

Faster throughput

- Seamless current measurement ranging eliminating range change time
- PXIe advantages such as increased test speed thanks to PCIe bus speed and embedded PC controller



Typical Applications

- Optical devices, vertical cavity surface emitting laser (VCSEL), Silicon Photonics
- Integrated circuit (IC) tests which needs multi-channel bias sources such as RF front end module (FEM)
- Semiconductor reliability tests such as time dependent dielectric breakdown (TDDB), flash memory array characterization

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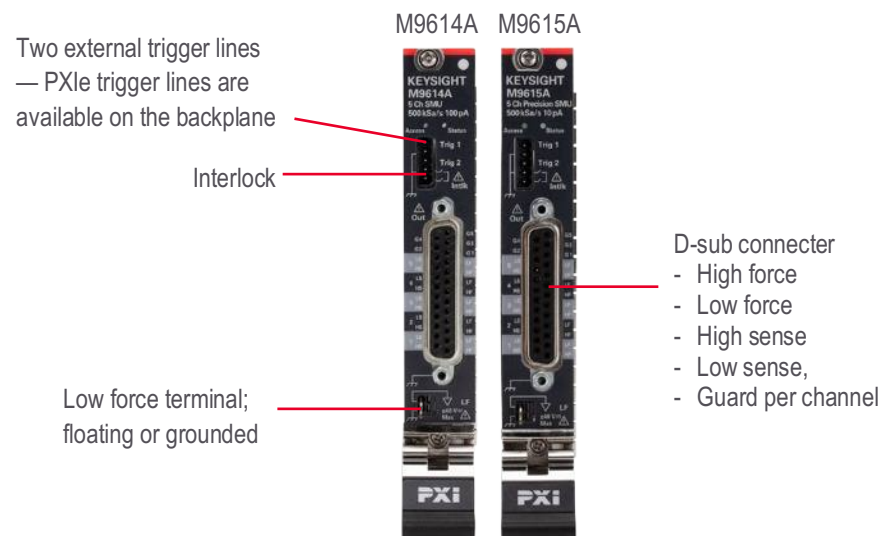
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Key Specifications and Characteristics:

Parameters		M9614A	M9615A
Output	Maximum voltage	30 V	
	Maximum current (DC / pulse)	500 mA	
	Quadrant operation	4-quadrant	
Current	Minimum resolution	100 pA	10 pA
	RMS noise ¹	1 PLC	75 pArms / 35 pArms
	Source noise 0.1 Hz to 10 Hz ¹	< 440 pApp	< 170 pApp
Voltage	Minimum resolution	6 μV	
	Source noise ¹	0.1 – 10 Hz	< 20 μVpp
		20 MHz bandwidth	< 6 mVpp
		200 MHz bandwidth	< 40 mVpp
Dynamic measurement	Minimum pulse width	100 μs	
	Sampling rate	500 kSa/s	
Slots / module	1-slot		
Channel / module	5-channel		

1. Supplemental characteristics, Refer to [M9614A](#) and [M9615A datasheet](#) for details.

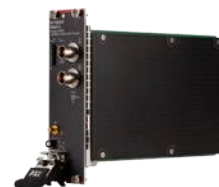
Front panel connectors:



Keysight PXIe Source/Measure Unit



M9111A
High-Speed SMU
13 V, ± 1 A or 6 V, ± 3 A



M9601A
Precision SMU
1.25 MSa/s, 10 fA
210 V, 315 mA



M9614/15A
5-ch Precision SMU
500 kSa/s, 10 pA/100 pA,
30 V, 500 mA

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