

# PXI SMU Bundles

PC-based source measure units with interactive measurement software

## Use NI PXI SMU Bundles for

- Benchtop or distributed Validation
- Material Research
- Parametric test
- Combining measurements from different instruments in one system
- Interactively exercising devices-under-test using no-code InstrumentStudio PC software



## Popular Features

### Scalability

Simplify your benchtop by combining instruments in a single “box”

### High-Power Pulsing

Test at high instantaneous power with limited or no heat sink infrastructure

### Channel Density

Fit more channels in a smaller space to reduce system footprint



# Do more in one box with NI PXI

The NI PXI SMU Bundles each include a PXIe SMU in a 5-slot PXI Express based measurement system that is controlled through your laptop's Thunderbolt™ USB-C port.

Achieve high accuracy, high productivity, and higher speeds with the standard for automated test and automated measurement: NI PXI (PCI eXtensions for Instrumentation).



The PXI SMU Bundles features SMUs with 4-quadrant operation, ranges up to  $\pm 200V$  and  $\pm 3A$ , and sensitivity as low as 100fA. PXI Source Measure Units (SMUs) combine power, precision, and speed into a single instrument. Use the same instrument for both high-power sweeps and low-current measurements and take advantage of a high-speed update rate and sampling rate to use the instrument in non-traditional ways, such as generating and measuring a waveform.

	PXIe-SMU5100 P/N: 867110-01	PXIe-SMU5101 P/N: 867111-01	PXIe-SMU5102 P/N: 867112-01
<b>What is Included</b>			
<b>Chassis</b>	PXIe-1083		
<b>Module</b>	PXIe-4139 (20 W)	PXIe-4139 (40 W)	PXIe-4137 (20 W)
<b>Accessories</b>	Thunderbolt cable Power cable, US Backshell for I/O connectivity		
<b>Key Specifications</b>			
<b>Channels</b>	1	1	1
<b>Current Sensitivity</b>	100 fA	100 fA	100 fA
<b>Voltage Range</b>	$\pm 60 V$	$\pm 60 V$	$\pm 200 V$
<b>DC Current Range</b>	$\pm 3 A$	$\pm 3 A$	$\pm 1 A$
<b>DC Power Range</b>	20W	40W	20W
<b>Pulsed Current Range</b>	$\pm 10 A$	$\pm 10 A$	$\pm 3 A$
<b>Pulsed Power Range</b>	500W	500W	500W



# Upgrade and do more with your system!

Don't be limited by vendor-defined configurations. Use the remaining 4 slots to build on top of your system and manage change. Add measurements, more channels, or new analysis routines without having to purchase a whole new instrument.

## Start with these best-selling modules



P/N: 783129-01

### Digital Multimeter

#### PXIe-4080

- 6 ½ digit, ±300 V, ±1A
- 2- or 4-wire resistance measurements up to 5 GΩ
- Isolated Digitizer mode - Up to 1.8 MS/s
- Frequency/period measurements
- Diode tests



P/N: 783590-02

### Oscilloscope

#### PXIe-5105

- 8 simultaneously-sampled channels
- 12-bit vertical resolution
- 60 MHz Bandwidth
- 60 MS/s sample rate



P/N: 781056-01

### Multifunction IO

#### PXIe-6363

- 32 Analog Input (16-bit, 2 MS/s)
- 4 Analog Output
- 48 DIO channels
- 4 32-bit counter/timers



P/N: 785114-01

### Waveform Generator

#### PXIe- 5413

- 20 MHz Bandwidth
- Up to two 16-bit channels
- 800 MS/s
- ±12 V output range



P/N: 779647-11

### Power Supply

#### PXIe-4110

- Two isolated channels
- Single non-isolated channel
- Up to 20 V, 1 A per channel
- Up to 46 W output power
- Hardware timing and triggering
- Output disconnect relays
- Four-wire remote sense



P/N: 780587-27

### Multiplexer Switch

#### PXIe-2527

- 32 channel, 2-wire, 300 V, 2 A
- Electromechanical relay
- Supports 64x1 1-wire, 32x 2 2-wire, 16x1 4-wire configurations
- Onboard relay counting

Explore over 600 different PXI modules ranging from DC to mmWave.  
Contact your NI product expert to get help solving your test challenges.



# Select your software

## Interactive Measurement with InstrumentStudio

- **Control** all your instruments in a single, intuitive no-code application software.
- **Capture** screenshots, **export** data, and **share** projects with colleagues and between systems.
- **Monitor and debug** automated test systems

[Free! – Download Now](#)

## Graphical Programming in LabVIEW

- **Acquire, process, and analyze data** from NI hardware or any 3<sup>rd</sup> party instrument
- **Create interactive UIs** for test monitoring and control.
- **Save data** to .csv, .tdms, or any custom-defined binary file.

## Use Your Programming Language of Choice

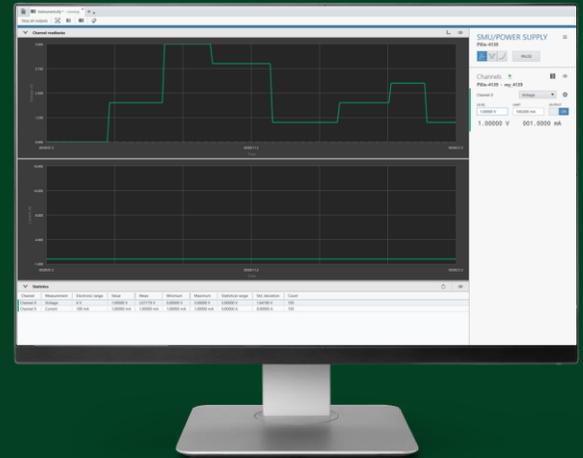
- **Drivers** for Python, C, C++, C#, .NET, and MATLAB®\*

## A Bundle of Software for Test

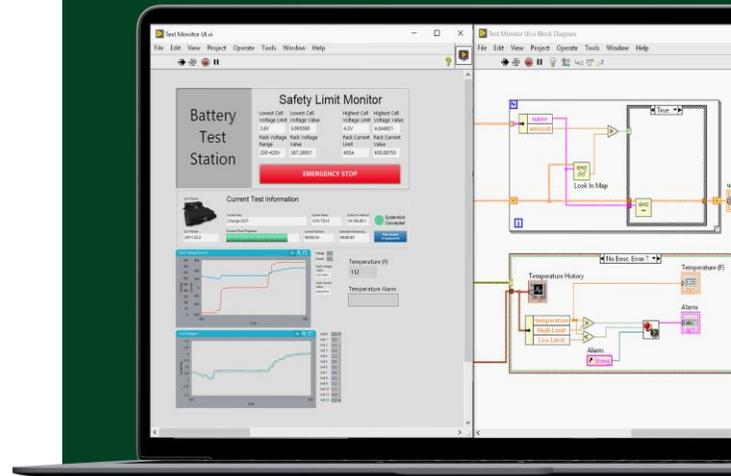
- **Develop** test systems faster with graphical programming in LabVIEW
- **Create** automated test sequences with TestStand
- **Build** web applications for test with G Web Development Software
- **Analyze** your data interactively with DIAdem
- **Perform** data acquisition and logging with FlexLogger

US Corporate Headquarters  
11500 N Mopac Expwy,  
Austin, TX 78759-3504  
T: 512 683 0100 F: 512 683 9300  
[info@ni.com](mailto:info@ni.com)

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With InstrumentStudio, view data from all your instruments unified on high-resolution monitors rather than small, integrated displays.



"The move to a COTS approach using PXI and LabVIEW was critical to this production-test success at Philips. The combination of best-in-class modular hardware along with industry-standard software was pivotal to the millions of dollars and hundreds of hours saved in production test engineering"

-Neil Evans  
Senior Manager, Philips



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PXIe-1083: Thunderbolt 3 connectivity for instrument control from your PC

Single-channel NI PXIe SMU



Multi-instrument synchronization by sharing timing and trigger signals through the backplane

4 additional PXIe slots- Simplify your benchtop configurations by combining instruments in one PXI System.

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