PXI SMU Bundles

Expandable PXI Bundles with SMU

Use NI PXI SMU Bundles for

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

Popular Features

Scalability

Simplify benchtop configurations by Combining instruments without buying more boxes

Channel Density

Fit more channels in a smaller space to reduce system footprint

High-Power Pulsing

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

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 ± 200V and ± 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-SMU510** P/N: 867112-01
What is Included			
Chassis	PXIe-1083		
Module	PXIe-4139 (20 W)	PXIe-4139 (40 W)	PXIe-4137 (20 W)
Accessories	Thunderbolt cable Power cable, US Backshell for I/O connectivity		
Key Specifications			
Channels	1	1	1
Current Sensitivity	100 fA	100 fA	100 fA
Voltage Range	± 60 V	± 60 V	± 200 V
DC Current Range	± 3 A	± 3 A	± 1 A
DC Power Range	20W	40W	20W
Pulsed Current Range	± 10 A	± 10 A	± 3 A
Pulsed Power Range	500W	500W	500W

Upgrade and do more with your system!

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. Don't be limited by vendor-defined configurations; explore over 600 different PXI modules ranging from DC to mmWave.

Oscilloscopes
- Sample at speeds up to 12.5 GS/s
- 6 GHz of analog bandwidth
- Numerous triggering modes
- Up to 24-bit resolution

Start with PXIe-5160

Digital Multimeters
- Voltage measurements up to 1,000 VDC
- Current measurements up to 3 A
- Resistance measurements up to 5 GΩ
- Isolated Digitizer mode - Up to 1.8 MS/s

Start with PXIe-4080

Digital Instruments
- 32-channel module (up to 512 per chassis)
- 100 MHz vector rate, 39 ps displacement
- Digital voltage -2 V to 6 V,
- PPMU force voltage -2 V to 7 V

Start with PXIe-6570

Waveform Generators
- Up to two 16-bit channels per module
- 800 MS/s with 20, 40, and 80 MHz bandwidth
- Up to 34 channels to build parallel
- Max ±12 V and min ± 7.75 mV output ranges

Start with PXIe-5413

Counters/Timer
- Up to eight 32-bit counter/timers
- TTL/CMOS-compatible digital I/O
- Up to 80 MHz measure frequency
- Onboard high-precision oscillators

Start with PXIe-6612

Source Measure Units (SMU)
- Up to 24 channels (408 per chassis)
- Up to 200 V and 3 A (10 A pulse)
- Current sensitivity down to 10 fA
- Max power per channel of 40W (500W pulse)

Start with PXIe-4144

Power Supplies
- Two isolated, 60W channels per module
- Hardware timing and triggering
- Output disconnect relays
- Four-wire remote sense

Start with PXI-4110

Reconfigurable IO (FPGA)
- Variety of on-board FPGA options
- 12-bit to 18-bit analog input resolution
- Up to 16 analog channels and 126 bidirectional channels
- Up to 1 MS/s analog sample rate

Start with PXIe-7856

Switches
- Electromechanical, Reed, solid state, FET
- Up to 150 V or 2 A
- Up to 544 cross points in a single PXI slot
- 1- and 2-wire options

Start with PXIe-2527

Digital Waveform Instrument
- Standard TTL/CMOS interface voltages and programmable voltage levels
- 32 bidirectional digital channels
- Advanced waveform sequencing and streaming features

Start with PXIe-6548

LCR Meter
- Current sensitivity as low as 1 fA
- Frequency up to 2 MHz
- Max Voltage of +/- 40V

Start with PXIe-4190

Multifunction IO
- Voltage measurements up to 10 MS/s/ch
- Analog I/O, Digital I/O, and Counters in a single device
- High speed simultaneous sampling up to 14MS/s/ch
- Up to 836 AI single ended channels in 4U of rack space

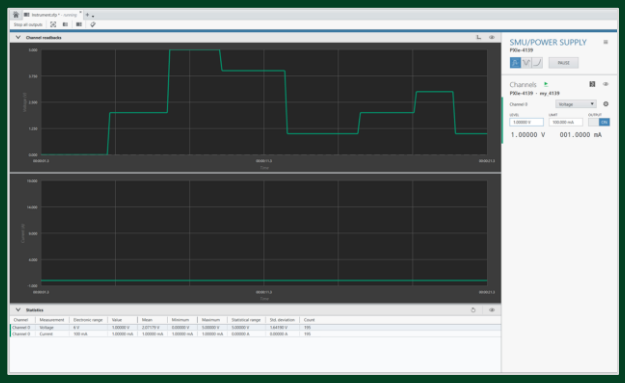
Start with PXIe-6363

Contact your NI product expert to get help solving your test challenges.

Choose how you like to work with flexible NI Software

Interactive- skip programming and control your instruments with InstrumentStudio

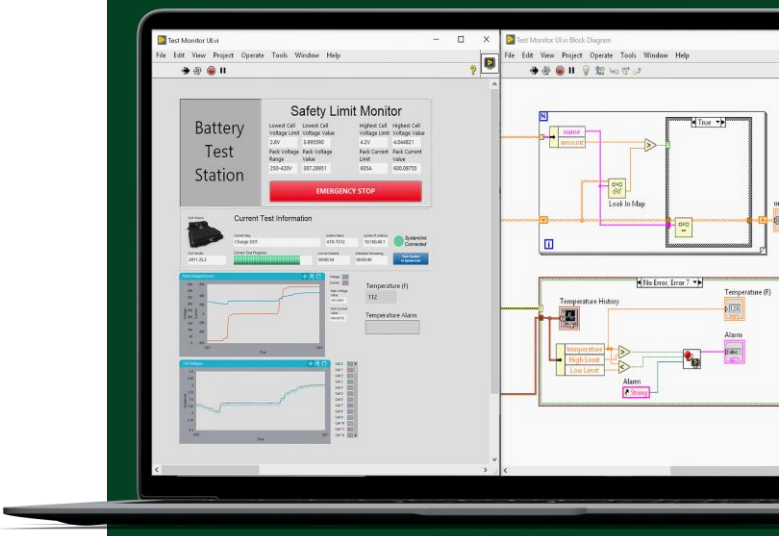
- **Control** all your instruments in a single, intuitive no-code application software.
- **Capture** screenshots, **export** data, and **share** projects with colleagues and between systems.
- **Monitor and debug** automated test systems



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

Programming- Build an Automated Test System with LabVIEW

- **Acquire, process and analyze data** from NI hardware, 3rd party instruments, and many industry-standard protocols
- **Create interactive UIs** for test monitoring and control.
- **Save data** to .csv, .tdms, or any custom-defined binary file.
- **Integrate code** written in Python, C/C++, .NET, and MathWorks MATLAB® software.



Why choose? Program or don't based on your task with a Test Workflow Bundle

- **Create** automated test sequences with TestStand
- **Perform** data acquisition and logging with FlexLogger™ software
- **Build** web applications for test with G Web Development Software
- **Interactively analyze** your data with Diadem

"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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