Product Brief

High Performance 300 W PXI Power Supplies

Provides fixed or dynamic DC voltage and current to a device under test (DUT) with high accuracy measurements and a compact form factor optimized for design validation, characterization, and production test.

Ideal for:

- General semiconductor electronics test
- Power electronics validation and test
  - Power management ICs (PMICs)
  - DC-DC converters
  - Linear regulators
  - Gate drivers/isolators
  - Buck and boost converters
  - And more

The NI Advantage

01

High Accuracy: Get detailed insights thanks to the high accuracy of output values and simultaneous current and voltage measurements, and further refine the accuracy by selecting the most appropriate measurement range for the magnitude of the signal.

02

High Speed: Take measurements with sample rates up to 1.8 MS/s preventing the need for an external DMM/scope in most applications. Use update rates of up to 100 kS/s to create custom, complex waveforms for even the most dynamic test requirements.

03

Timing & Synchronization : Use built-in capabilities of the PXI architecture to trigger and synchronize multiple instruments, and skip the hassle of manually routing and configuring cables.

PXI Programmable Power Supply

PXIe-4151

	PXIe-4150	PXIe-4151
Quadrant of Operation	I - Sourcing (III if manually inverted)	I - Sourcing (III if manually inverted)
Number of PXI Slots	2	2
Channel Count	1	1
Max Voltage (V)	60	20
Max Current (A)	10	25
Max Power (W)	300	300
Max Voltage Measurement Accuracy	0.022% + 500 µV	0.03% + 1 mV
Max Current Measurement Accuracy	0.03% + 30 µA	0.05% + 100 µA
Measurement Sample Rate (MS/s)	1.8	1.8
Update Rate (kS/s)	100	100
Isolation Voltage (V)	150 CAT I	150 CAT I
Connector Type	Weidmuller Omnimate Power SV/BVF Connector	Weidmuller Omnimate Power SV/BVF Connector
Driver Software	NI-DCPower	NI-DCPower
Chassis Requirement	38 W, 58 W, or 82 W NI Chassis	38 W, 58 W, or 82 W NI Chassis
Auxiliary Power Supply	APS-4157/8/9	APS-4157/8/9

Highlighted Features

- Simultaneous current & voltage measurements while sourcing
- Downprogrammer circuit for changing voltage levels faster on the falling edge
- DMM-like measurement accuracy
- Custom transient response tuning (SourceAdapt feature)
- Selectable measurement ranges for both current and voltage to maximize the accuracy of large and small signals
- Advanced Sequencing (per-step properties)