



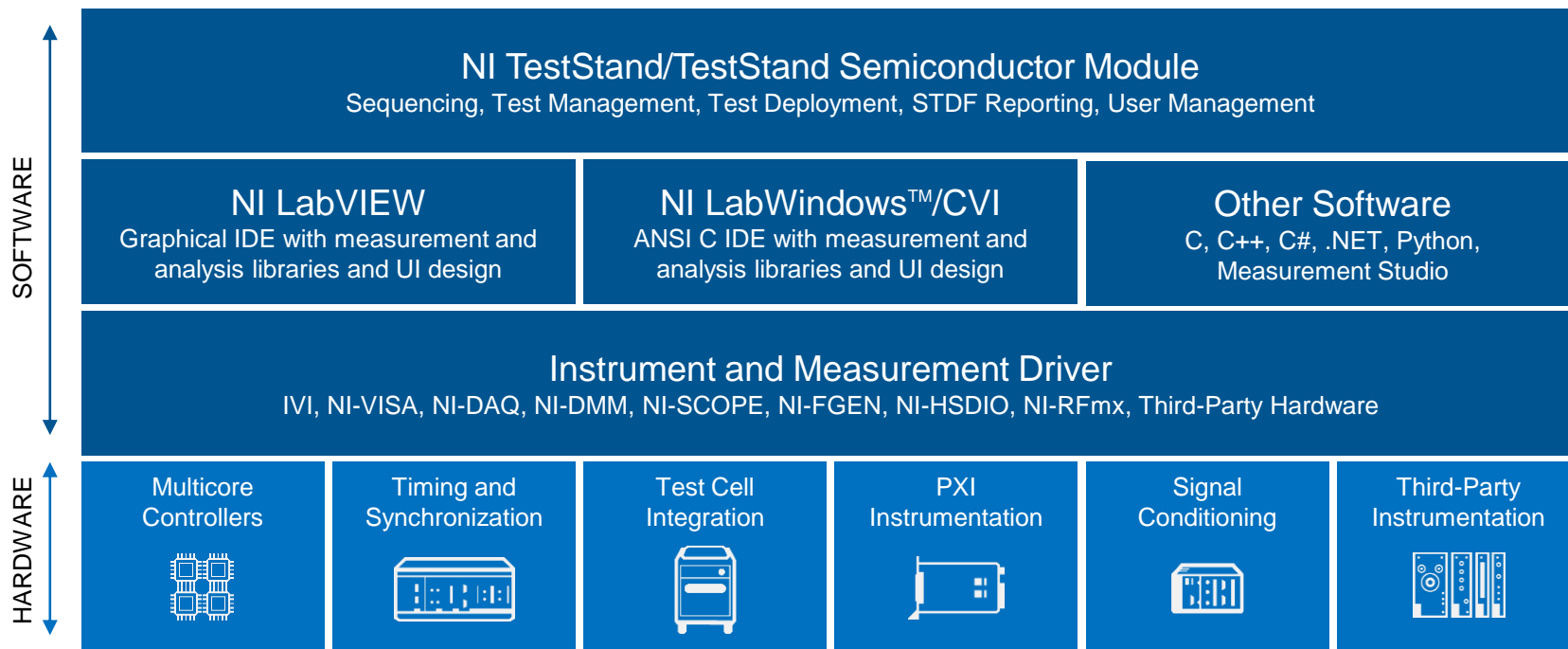


Introducing the NI ATE Core Configurations

Reggie Rector

Principal Product Manager, PXI/ATE

Architecture of an Automated Test System



ATE Systems Require More Than Instrumentation

Service/Maintenance

Instrumentation Test Adapter

Turnkey Software

Mass Interconnects

Test Fixtures

Application-Specific Components

DC Power Supplies

Test Management Software

PXI Instrumentation and Drivers

Application Development Software

Instrumentation Switching

Instrumentation and Software Tools

19 in. Rack

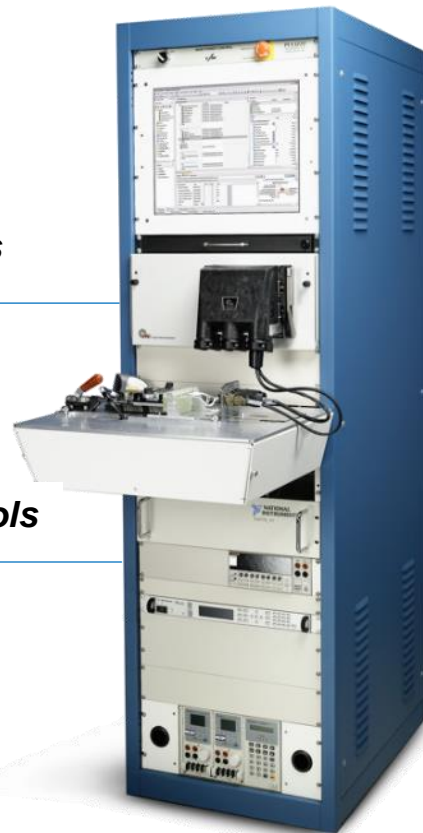
Safety/Emergency Power Off

Rack Accessories

Display/HMI

Power Distribution and Conditioning

Test System Infrastructure



NI ATE Core Configurations

Core mechanical, power, and safety infrastructure for a test system

Faster development—*standardized starting point for test system design*

Full customizability—*PXI Advisor system configurator*

Simplified procurement—*simplified BOM and vendor management*

Expedited delivery—*delivery in days instead of weeks or months*

Simplified global deployments—*IEC 61010 safety certified configurations*

Looking for a turnkey solution?

NI has over 1,000 Alliance Partners ready to help.

ni.com/alliance



(Configured System)

What Is an ATE Core Configuration?

24 V DC Fan Kit
(Low-/High-
Power Options)

Thermostats

Removable
Walls

Rear Door

1U Brush
Cable
Entry

Power
Entry
Panel

Industrial Casters
3 in. Swivel (1000 lb/Caster)

Air Inlet Panel With
User-Serviceable Filters

Start/Stop/Emergency
Power Off (EPO) Panel

Cable
Management

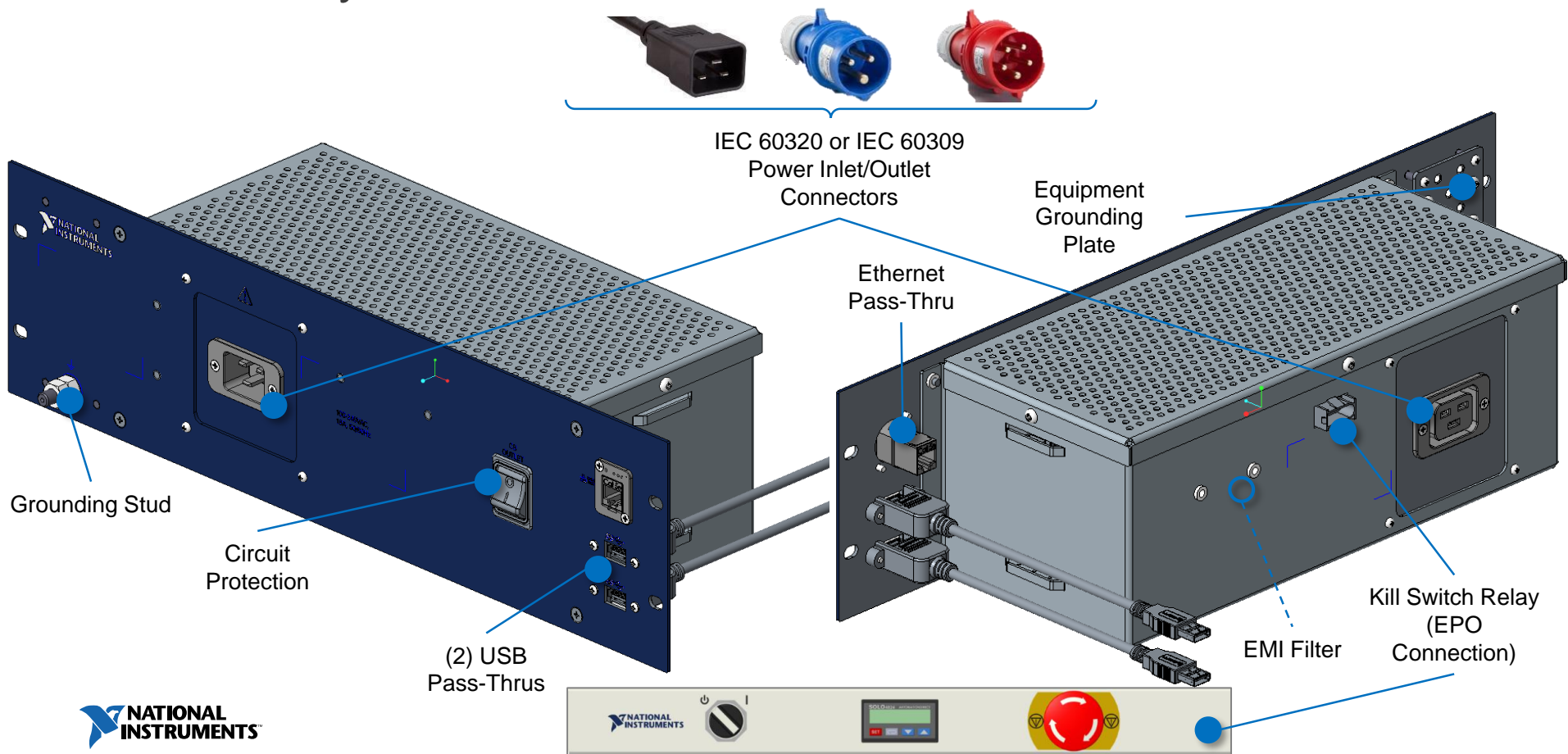
Power
Distribution Unit

10/100
ENET
Switch

(3) Sets of
Mounting Rails

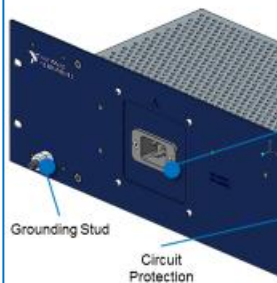


Power Entry Panels



Serviceable Components and Spares

Power Entry Panels



NATIONAL INSTRUMENTS

Uninterruptible Power Supplies

- Region-specific models with global coverage (110-120V, 220-240V)
- Double-conversion (vs. line-interactive)
- High density – up to 2kW
- Emergency Power Off (EPO)



NATIONAL INSTRUMENTS

Power Distribution Units

- Globally supported (IEC | 100-240V / 200-208V / 380-415V)
- Multiple power options (30, 60, 120, 240A)
- Time-Delayed power bank
- Emergency Power Off (EPO)
- Integrated DC power for remote monitoring



NATIONAL INSTRUMENTS

NI RMX-412x Rack Mount kW Programmable DC Power Supplies

- Flexible I-V Ranges (up to 650 V or 150 A)
- USB, LAN, RS232, and analog control available
- 1U Full-Rack
- Included Calibration Software Utility



Model	Part Number	Description	USD	Euro	Yen
RMX-4120	784761-01	RMX-4120 1U DC power supply, full rack width, 750W, 0 to 30VDC, 0 to 75A	\$2,350	€ 2,260	¥ 294,000
RMX-4121	784762-01	RMX-4121 1U DC power supply, full rack width, 750W, 0 to 80VDC, 0 to 28A	\$2,350	€ 2,260	¥ 294,000
RMX-4122	784763-01	RMX-4122 1U DC power supply, full rack width, 750W, 0 to 230VDC, 0 to 10A	\$2,350	€ 2,260	¥ 294,000
RMX-4123	784764-01	RMX-4123 1U DC power supply, full rack width, 750W, 0 to 650VDC, 0 to 3.5A	\$2,350	€ 2,260	¥ 294,000
RMX-4124	784765-01	RMX-4124 1U DC power supply, full rack width, 1500W, 0 to 30VDC, 0 to 150A	\$2,995	€ 2,880	¥ 374,000
RMX-4125	784766-01	RMX-4125 1U DC power supply, full rack width, 1500W, 0 to 80VDC, 0 to 56A	\$2,995	€ 2,880	¥ 374,000
RMX-4126	784767-01	RMX-4126 1U DC power supply, full rack width, 1500W, 0 to 230VDC, 0 to 20A	\$2,995	€ 2,880	¥ 374,000
RMX-4127	784768-01	RMX-4127 1U DC power supply, full rack width, 1500W, 0 to 650VDC, 0 to 7A	\$2,995	€ 2,880	¥ 374,000



ATE Core Configuration Options



1-Phase, 16 A



1-Phase, 24 A



3-Phase, 16 A

24U

1-Phase
(16 A)

[100–240 V]

24U

1-Phase
(24 A)

[200–240 V]

24U

3-Phase
Delta
(16 A)

[200–208 V]

24U

3-Phase
Wye
(16 A)

[380–415 V]

40U

1-Phase
(16 A)

[100–240 V]

40U

1-Phase
(24 A)

[200–240 V]

40U

3-Phase
Delta
(16 A)

[200–208 V]

40U

3-Phase
Wye
(16 A)

[380–415 V]

Coming
Soon

Configuring Systems Using the PXI Advisor

Select Your ATE Core Configuration

Select	Name	Number of Slots	Input Current	Input Voltage	Price Per Unit
<input type="radio"/>	ATE LOW POWER 24U CONFIGURATION	24	16 A	100-240VAC	\$ 9,350
<input type="radio"/>	ATE MID POWER 24U CONFIGURATION	24	24 A	200-240VAC	Call for Price
<input type="radio"/>	ATE HIGH POWER WYE 24U CONFIGURATION	24	16A - 3P	380/220 - 415/240 VAC	Call for Price
<input type="radio"/>	ATE HIGH POWER DELTA 24U CONFIGURATION	24	16A - 3P	200-208VAC	Call for Price
<input type="radio"/>	ATE LOW POWER 40U CONFIGURATION	40	16 A	100-240VAC	\$ 9,900
<input type="radio"/>	ATE MID POWER 40U CONFIGURATION	40	24 A	200-240VAC	Call for Price
<input type="radio"/>	ATE HIGH POWER WYE 40U CONFIGURATION	40	380/220 - 415/240 VAC	Call for Price	
<input type="radio"/>	ATE HIGH POWER DELTA 40U CONFIGURATION	40	16A - 3P	200-208VAC	\$ 13,200

(x8) ATE Core Configuration Selection

ATE Rack Accessories and Options

Chassis Placement

- ☒ Rack Location: 12U
- ☒ Mounting Direction: Front Rail
- ☒ Alignment: Flush

HMI Display

- ☒ HMI Display Type: 22" Flat Panel Monitor (3U, Adjustable Mounting Arm) - \$ 465
- ☒ Rack Location: 21U

Mains Voltage

- ☒ Mains Voltage Option: 100-120V, 50/60Hz

Rack Accessories

- ☒ RU24 Position: EPO Panel and ENET Switch
- ☒ RU23 Position: High Power Distribution Unit
- ☐ RU22 Position: Occupied
- ☐ RU21 Position: Occupied
- ☐ RU20 Position: Occupied
- ☐ RU19 Position: Occupied
- ☒ RU18 Position: Empty Slot
- ☐ RU17 Position: Empty Slot
- ☐ RU16 Position: Empty Slot
- ☐ RU15 Position: Empty Slot
- ☐ RU14 Position: Empty Slot
- ☐ RU13 Position: Empty Slot
- ☐ RU12 Position: 1U Ventilated Shelf
- ☐ RU11 Position: 1U Fan Kit
- ☐ RU10 Position: 1U Keyboard Drawer
- ☐ RU9 Position: 2U Locking Drawer
- ☒ RU8 Position: Equipment Support "L" Brackets

Customizing Instrumentation

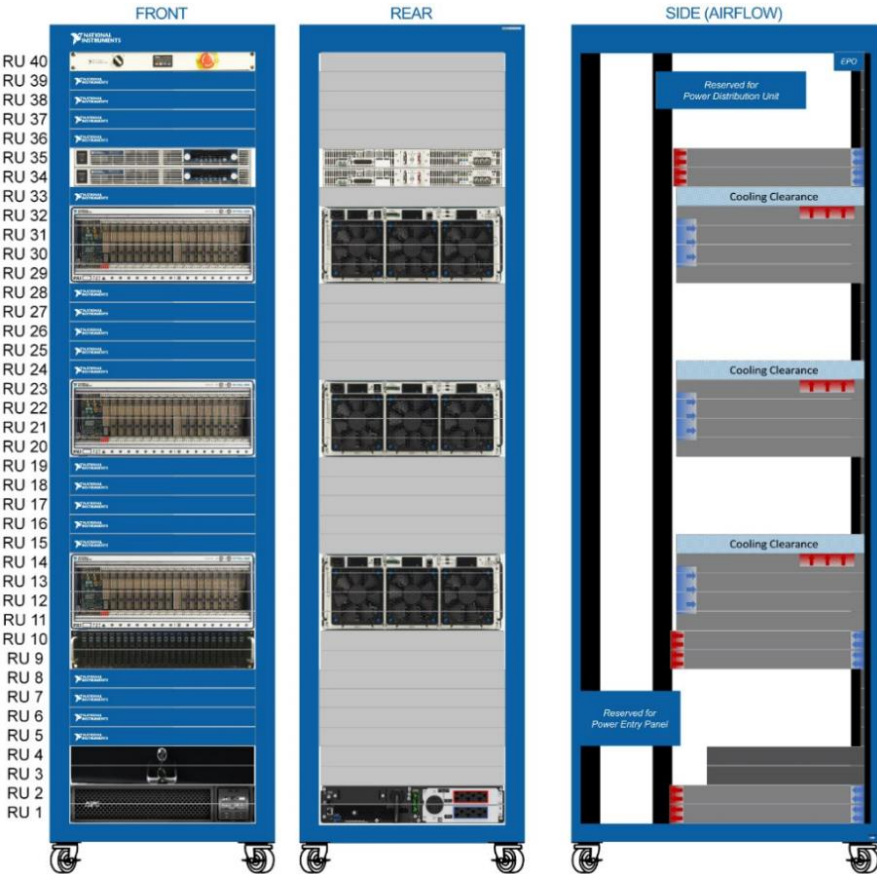
- Choice of rack location/orientation
- Multichassis/platform support (cDAQ, SLSC, PXI)

Customizing Accessories

- Choice of rack location/orientation
- Drawers, shelves, terminal blocks, etc.



Coming
Soon



ATE Core Configuration System Report

PXI Configuration ID: PX4630282

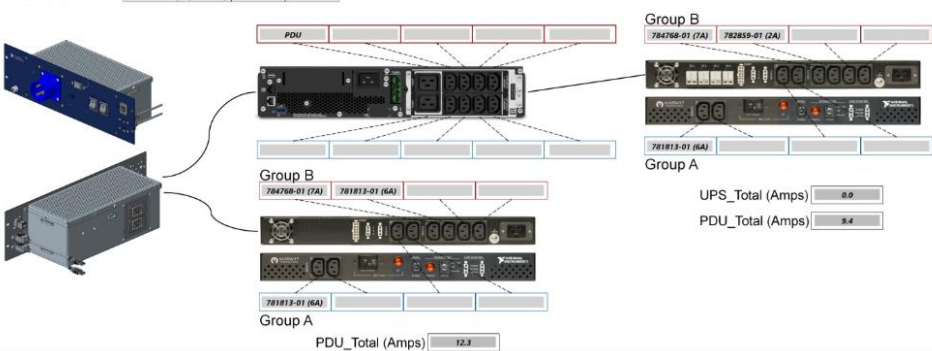
Weight: 297 Kg

PDU Output Voltage: 240 VAC

Dimensions: W (mm) D (mm) H (mm)
584 800 2071

Power Connection Diagram

PDU DC Connections 12V 24V 24V 48V



Power Budget Warnings: *Power budget based on 65% of max load at mains voltage. Actual usage will vary based on utilization and load. For further information on power budgeting, visit ni.com/automatedtest/guides

<No Warnings>

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