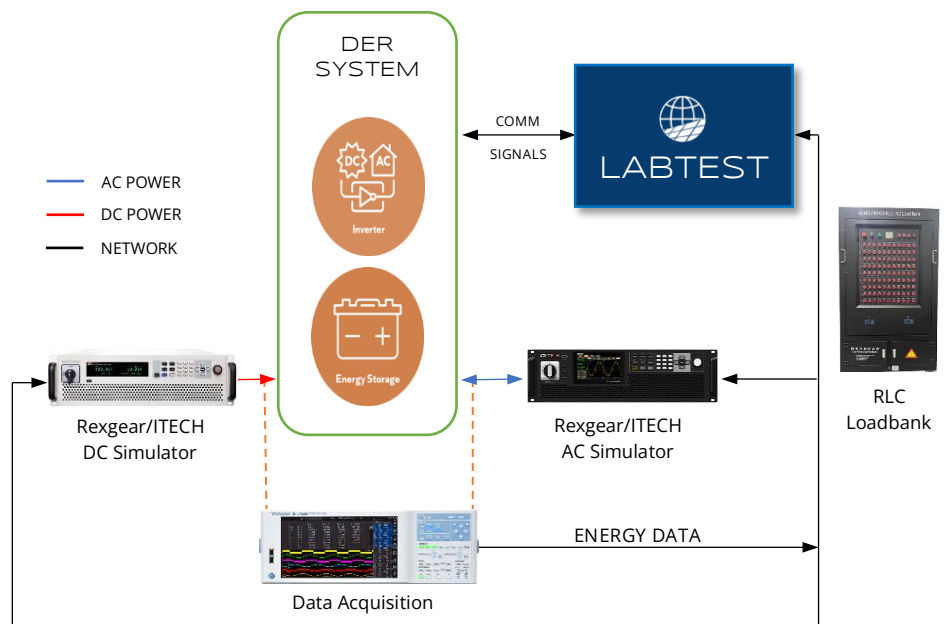


LABTEST IEEE 1547.1 TEST AUTOMATION

DER Security's LabTest SaaS product automates IEEE 1547.1 compliance testing for DER and EV devices. There are 2 versions:

LabTest Plus automates all IEEE 1547.1 communications interoperability (Clause 6) tests and delivers single-click SunSpec Modbus and IEEE 2030.5 interface testing.

LabTest Pro includes all LabTest Plus features and adds full IEEE 1547.1 Clause 5 electrical function testing. LabTest Pro reduces UL 1741 SB compliance projects from months down to weeks and enables powerful regression testing capabilities that will speed and improve quality in any DER development project.



Developed by DER Security, a leader in DER test automation and a spin-off of the SunSpec Alliance, LabTest delivers the most up-to-date standards-compliance in a convenient SaaS package that integrates with popular lab test equipment. LabTest has been tested extensively by NRTLs and is used by leading-edge DER and EV manufacturers around the world.

**LABTEST IS THE INDUSTRY LEADER IN FULLY
AUTOMATED TESTING FOR DERS AND EVS**



FEATURE COMPARISON	SUNSPEC DASHBOARD	DERSEC LABTEST PLUS	DERSEC LABTEST PRO
Interoperability Certification Support			
SunSpec Modbus client GUI with read/write functions	●	●	●
Protocol Implementation Conformance Statement (PICS) support	●	●	●
Snapshot SunSpec device register map	●	●	●
Customizable SunSpec model definitions	●	●	●
Modbus debugging with application-layer traces		●	●
Scripts for sequential SunSpec Modbus read/write		●	●
Automated SunSpec conformance testing and reporting		●	●
SunSpec conformance test result inspection tools		●	●
Interconnection Certification Support			
IEEE 1547.1 Clause 6 interoperability tests		●	●
IEEE 1547 Clause 5&6 for SunSpec Modbus and IEEE 2030.5			●
Supports range of AC/DC simulators, data acquisition systems, and DER equipment*			●
Save/Import/Export lab configurations			●
Equipment Emulation			
DER simulator with SunSpec server	●	●	●
DER simulator GUI, SunSpec server, IEEE 2030.5 client		●	●
DER simulator with power system emulation			●
Emulated AC/DC simulators, DAS, and DER devices			●
IEEE 2030.5 server			●

SUPPORTED LAB EQUIPMENT

DER: SunSpec 700 series, IEEE 2030.5 CSIP
 DAS: Yokogawa PX/PZ/WT-series
 Grid and DC Simulators: Rexgear and ITECH Grid simulators for pre-compliance testing, Battery Simulator, Solar Array Simulator, and RLC Load for full compliance testing.

*Additional lab equipment integrations available on request

Contact sales@dersec.io or call +1 (650) 206-9598 for more information