



IEC 61850 Conformance and Interoperability Certificate Statement

SEL-411L Advanced Line Differential Protection, Automation, and Control System

In accordance with the IEC 61850 Communications Standard, this product has been certified by an independent test authority via unit level and product family or product platform tests. This product also passed unit level and product platform tests performed internally using the same test tool and processes as used by the independent test authority. Additionally, this product has been confirmed to be interoperable with many third-party vendor peer IEDs and client applications.

A conformance test is the type test for communication and the system-related functions of the incorporated IEDs. As a global communications standard, the IEC 61850 series includes standardized conformance tests to ensure that all suppliers comply with applicable requirements. These requirements include MMS, GOOSE, SCL, and Time Services. SEL performed internal product-level conformance testing with a "pass verdict" using the KEMA Test Suite and internal standardized tests. These tests include Time Synchronization and File Transfer.

Compatible global standards for time services and data access have also been tested for compliance and interoperability. GPS-based time synchronization provides microsecond accuracy. These have been demonstrated compatible with standard software available on virtually all laptops, workstations, and servers throughout industry and the world.

Additionally, this device implementation has been demonstrated interoperable with other IEC 61850 vendor devices and software applications. Although not part of the conformance testing, confirmation of interoperability with third-party products has been verified also. Third-party vendors that SEL has demonstrated client/server and publisher/subscriber interoperability with include:

SISCO	ABB	Areva	Cybectec
GE	Omicron	RFL	Siemens
Team Artech	Toshiba	ZIV	ARC
EFACEC	EKRA	Schneider	Prosoft-Systems
Emerson			

Vice President, SEL Research and Development

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Date

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