

# IEEE Synchrophasor Measurement Test Suite Specification

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The electric utility industry is undergoing an unprecedented rate of change, and new government programs have provided the industry with billions of dollars in grants to deploy smart grid technologies in order to modernize the world's electric grid.

In accordance with the Smart Grid Interoperability Panel (SGIP) Interoperability Process Reference Manual (IPRM), the IEEE Standards Association has developed the Synchrophasor Measurement Test Suite Specification (TSS). It provides a comprehensive, dependable plan that any manufacturer can use globally in the design stage to test their phasor measurement unit (PMU) products for eventual certification of IEEE C37.118.1™ Standard for Synchrophasor Measurements for Power Systems.

The TSS lays out requirements for equipment used for the testing of PMUs, requirements for the measurements made by PMU test equipment, and requirements for the reporting of PMU measurements.

*"Synchrophasors are such a promising technology with regard to grid modernization around the world. To this point, however, gauging compliance to the IEEE C37.118.1 standard has been left to the interpretation of the given organization doing the testing, producing market confusion and fragmentation. The new IEEE Synchrophasor Measurement TSS provides a comprehensive, dependable plan that any manufacturer globally can use in the design stage to test PMU products for eventual certification."*

—Anthony Johnson, P.E, Consulting Engineer, Southern California Edison

### Who could benefit from access?

Utilities worldwide

PMU manufacturers

Traditional meter companies making the transition to smart grid technologies

Large-scale companies leading the installation of smart grid technologies around the world

Small startups eager to capitalize on the market

Universities with a strong power engineering program & strong partnerships with industry

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# IEEE Synchrophasor Measurement Test Suite Specification: Delivered via IEEE *Xplore*<sup>®</sup>

## IEEE Synchrophasor Measurement Test Suite Specification

The TSS is available as either a stand-alone product, or bundled with related standards:

Bundle 1:

- IEEE Synchrophasor Measurement Test Suite Specification
- IEEE C37.118.1<sup>™</sup>-2011
- IEEE C37.118.1a<sup>™</sup>-2014
- IEEE C37.118.2<sup>™</sup>-2011

Bundle 2:

- IEEE Synchrophasor Measurement Test Suite Specification
- IEEE C37.111<sup>™</sup>-2013
- IEEE C37.118.1<sup>™</sup>-2011
- IEEE C37.118.1a<sup>™</sup>-2014
- IEEE C37.118.2<sup>™</sup>-2011
- IEEE C37.233<sup>™</sup>-2009
- IEEE C37.242<sup>™</sup>-2013
- IEEE C37.244<sup>™</sup>-2013

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