

EnergoEtalon™ software



Metrology for Smart Grids

“EnergoEtalon” software is a base solution to build multifunctional reference measurement system. “EnergoEtalon” may be used to conduct measurements of voltage, current, power, parameters of harmonics and interharmonics as well as impedance and ratio measurements.

One of the key features of “EnergoEtalon” software is a support of top level calibration for Digital Substation equipment and reference measurement systems with output according 61850-9-2LE.

Operating principle

EnergoEtalon utilizes sophisticated digital signal processing techniques that make it possible to correct signal imperfections of all kinds and to calculate active/reactive power as well as electrical power quality and energy signals with very high accuracy.

Who needs EnergoEtalon

- National Measurement Institutes and standard laboratories may use it as a multifunctional software tool for electrical energy and power quality measurements;
- Metrological service departments of power industry enterprises;
- Research and design departments and laboratories that conduct products testing.

Extra functionality

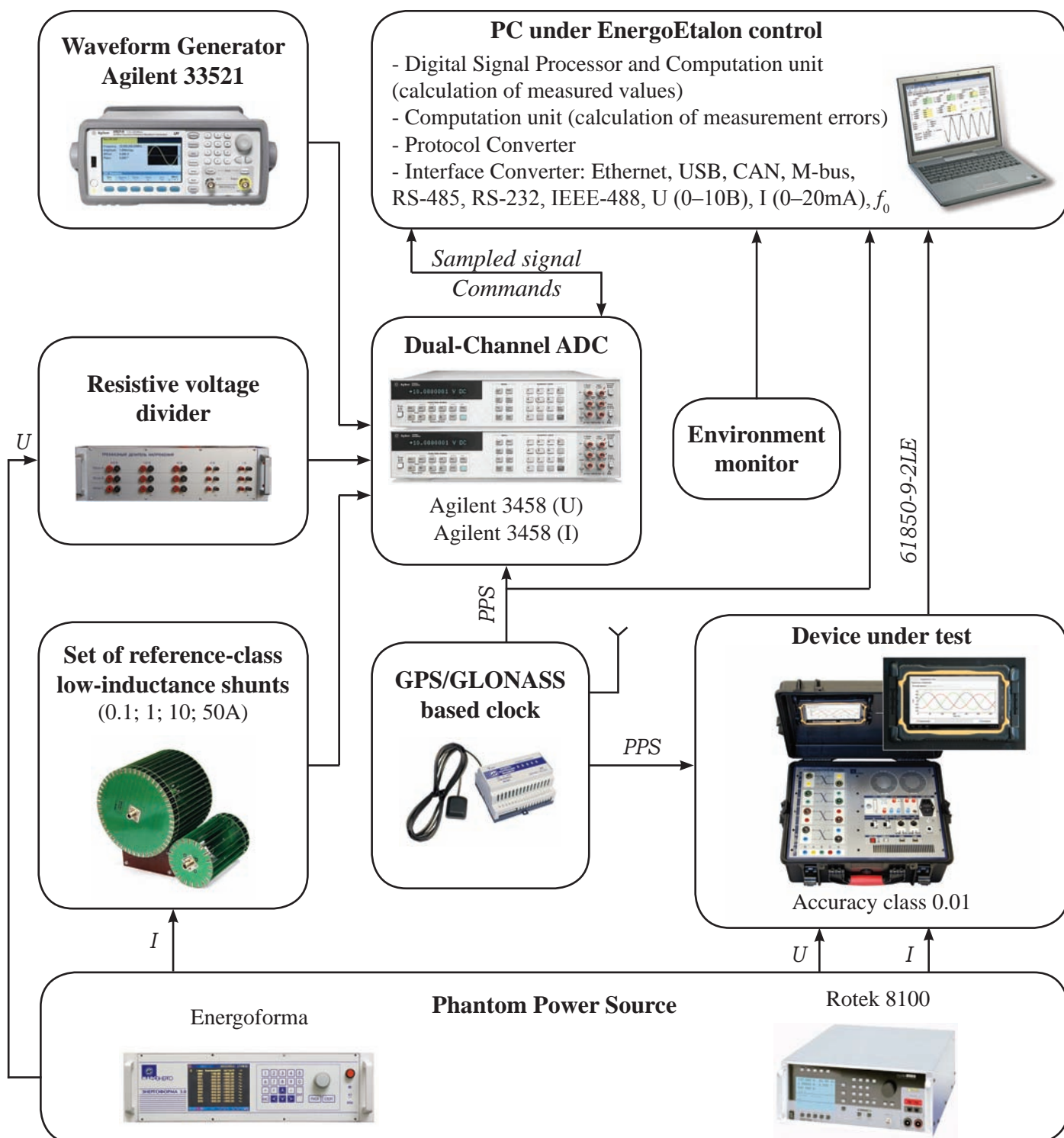
- “EnergoEtalon” operates with devices supporting digital communication interface (IEC 61850-9-2LE), e.g. merging units, non-conventional instrument current/voltage transformers or power quality analyzers;
- New module for calibration of the Phasor Measurement Units will be incorporated in the software at Q2/2015.

Create the standard that you need

We offer an opportunity to get either the entire calibration setup or any part of it (that can be easily integrated in the equipment already installed in your lab). Considering that most of its blocks are typical “on-the-shelf” equipment you may purchase just EnergoEtalon software as a key component of the system. The software can be adapted for your specific needs like as report generation, automation of test sequence etc.

Feel free to ask a trial version of “EnergoEtalon” software.

Block diagram and operating principle



Typical equipment and structure of the system

- AC Voltage/Current or Phantom power source
- Dual-Channel ADC Agilent 3458A multimeters
- Voltage divider
- Arbitrary waveform generator Agilent 33521
- Set of reference-class low-inductive shunts
- PC (Workstation)
- “EnergoEtalon” software.
- GPS/GLONASS based clock
- Environment monitor (pressure, humidity, temperature)

EnergOEtalon™ software

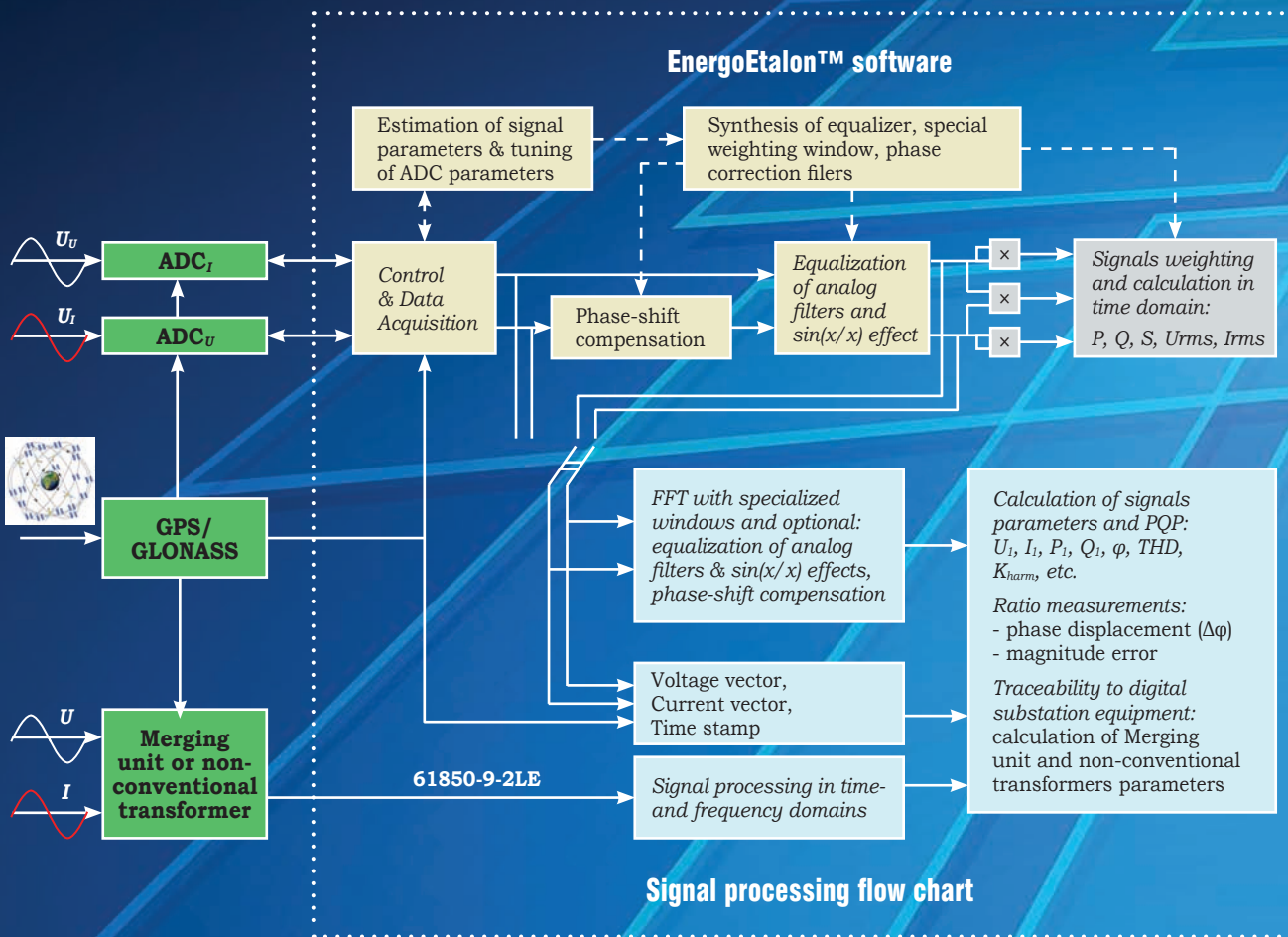
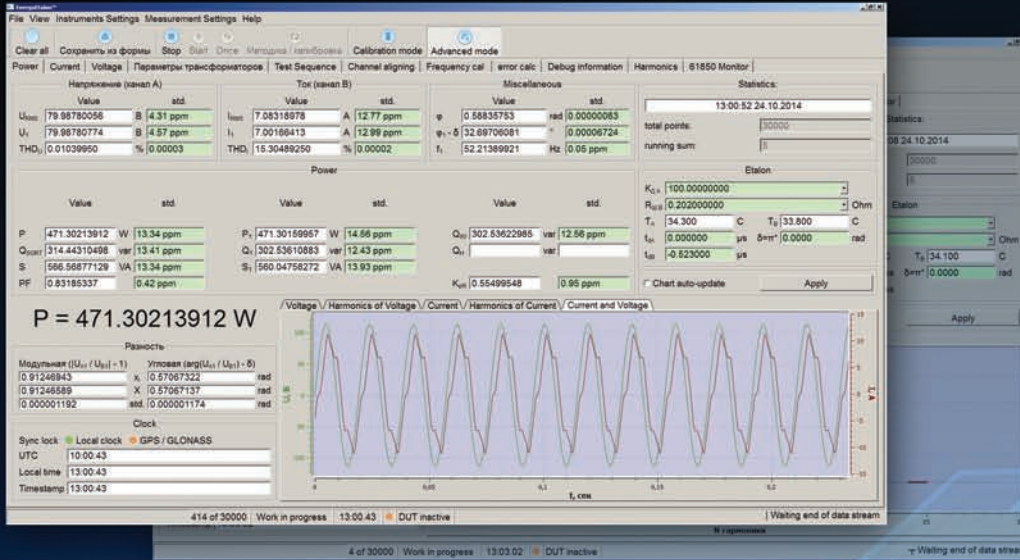
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Signal processing flow chart