

## Primary Level Hydrophone Calibration System Based on PC Oscilloscope

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**Abstract:** Primary level “hydrophone calibration system” for calibrating hydrophones in the frequency range from a few to hundreds kilohertz under free-field conditions is presented. “Open architecture system” has been developed on the basis of conventional laboratory equipment, namely, signal generator, power amplifier, and digital PC-oscilloscope. Concept of design, measurement flowchart and results of validation with uncertainty budget of measurements are presented. The system covers wide frequency range of underwater applications and also presents low-cost solution enabling to reach sufficient level required for primary calibration according to standards.

**Keywords:** Hydrophone; Reciprocal primary calibration; Free-field