Synchronization Support System for Telecommunication Networks

The Synchronization Support System (SWS) is a set of specialized devices and solutions developed at the Poznań University of Technology for generating, distributing, measuring, and assessing the quality of time and frequency signals in telecommunication networks.

The system includes time and frequency signal sources, distributors, and multichannel measurement systems. SWS solutions are based on proprietary fast synchronization methods and algorithms for determining the quality parameters of time and frequency signals in real time. The scope of work covers the full device development process – from hardware design and prototyping, through firmware and software, to the integration and customization of solutions to meet the requirements of other systems.

SP4000c – Multichannel Measurement System

- The SP4000c is a four-channel measurement system designed for comprehensive, real-time quality analysis of time and frequency signals in telecommunication networks.
- The system enables simultaneous measurement in four channels, the determination of synchronization signal quality metrics, and the automatic assessment of their compliance with masks defined in ITU-T recommendations.
- The SP4000c enables measurements to be conducted directly within an active telecommunication infrastructure.
- Dedicated electrical and optical probes allow for the acquisition of signals from active lines without interrupting or interfering with the transmission, enabling synchronization analysis in real network operating conditions.

