



## Calibration and Quality Control in the Design and Manufacture of Seismic Instrumentation



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Seismic instruments to be employed for test ban treaty monitoring must be precisely calibrated with verifiable accuracy. Calibration and verification in the manufacturing process is essential for device acceptance and provides a baseline for quality assurance in a deployed network.

We describe Nanometrics' process for building and testing instruments to precise and accurately verified tolerances such as +/-0.5% on sensitivity and low-frequency response parameters. This process uses a combination of: (1) measurements at subassembly levels during manufacturing, and (2) measurements on final assembled units, including Sleeman coherence measurements in side-by-side tests to verify performance in the real use case of measuring ground motion.



