



## SPEKTRA expands engineering service business

Within the last years **SPEKTRA** became more and more known as the brand for excellent calibration systems for vibration and acoustic calibration. But the roots of the company are the **engineering of customized solutions** like the development and manufacturing of measurement systems for matching of micro-mechanical sensors (MEMS) in mass production. Since the establishment of **SPEKTRA** fifteen years ago such engineering services were always one of our strongest business segments. Within the last years the range of applications could be significantly expanded. Especially investigations and design services regarding the appropriate integration of accelerometers into newly designed customer devices becomes a growing business.

- What does the transfer function of vibration applied to the case of the device and the internally mounted accelerometer look like?
- Is the accelerometer properly mounted to be capable to measure such vibrations and shocks?
- Are the properties of the mounting stable over time or does the transfer function change?
- How does the sensor or assembly react on environmental impacts like temperature changes?
- What kind of design change must be applied in order to allow a proper operation of the sensor?

Those are questions that are investigated and answered in such customer specific projects. For many reasons **SPEKTRA** is well equipped for such investigations. The CS18 calibration systems are convenient measurement devices for the determination of transfer functions. We have a broad range of vibration and shock exciters available allowing vibration measurements in the frequency range from 0.2<sup>o</sup>Hz up to 50<sup>o</sup>kHz or the application of shocks up to 200,000<sup>o</sup>g<sub>n</sub>. Additionally the environmental conditions in a temperature range from – 70<sup>o</sup>C up to +140<sup>o</sup>C with controlled humidity can be simulated in climate chambers. Our engineers are experienced in the design of mechanical equipment as well as electronically devices. Furthermore we have an excellent software development department capable to program embedded systems as well as user software.

Thus **SPEKTRA** has access to a huge pool of know-how and experiences in the field of vibration and acoustics, to develop target-oriented measurement solutions quickly and efficiently. But also consulting services regarding a mechanical / electrical design appropriate for the measurement task as well as for a cost-efficient production can be offered.

Contact us, if you have a project where our services could be helpful.

Telephone: +49 351 400 24 - 24

E-Mail [sales@spektra-dresden.com](mailto:sales@spektra-dresden.com)