

ERS electronic introduces ProbeSense™, a state-of-the-art measurement device for automated temperature calibration in wafer test



MAY 24th, 2022 – ERS electronic, the industry leader in the market of thermal management solutions for semiconductor manufacturing, has developed a temperature calibration device that allows automatic and highly accurate measurements below 30mK in the actual probing area.

The patent-pending device, aptly named ProbeSense™, consists of a temperature sensor, which is mounted in the probe card position on the prober. Taking advantage of the XYZ axis motion capability of the prober, the sensor can measure the temperature over several points on the wafer surface in the same conditions as during wafer probing. ProbeSense™ is delivered with adapter plates to fit your prober of choice and is thereby compatible with all wafer probers in the semiconductor industry. Included in the ProbeSense™ package is also a temperature measurement instrument, which has been calibrated together with the sensor in the mK range.

By integrating ERS's ProbeSense™ software in the prober, the process can be fully automated, allowing a test script to be run for multiple points and at multiple temperatures on the chuck without the need for an operator. MPI Corporation is the first prober manufacturer offering this add-on function in its probing stations.

“ProbeSense™ addresses the need for a robust, highly accurate, and easy-to-use calibration tool,” says Klemens Reitingner, CTO of ERS electronic. “We believe that the automation capability, which is in the process of being integrated by several prober manufacturers, will be a game-changer when it comes to accuracy calibration and temperature uniformity measurement.”

“MPI Corporation sees a clear benefit of integrating ProbeSense™ for thermal chuck calibration into SENTIO® Prober control Software Suite. The fully automated procedure provides intuitive operation and fast results by utilizing the night or the weekend for calibration, thereby eliminating the need to sacrifice valuable test time”, says Stojan Kanev, General Manager of Advanced Semiconductor Test at MPI Corporation. “By offering this capability to our

customers, we are addressing their demand for a cost- and time-efficient thermal calibration solution.”

ERS's ProbeSense™ is available to order now.