Sandia National Laboratories

Microfabricated Field Calibration Assembly

SAND2012-1146P

POTENTIAL APPLICATIONS

Microsensors

Analytical Instruments

Remote Sensing

Gas Chromatography

Chemical Sensing

BENEFITS

Easy to Use

Small and Portable

No Monitoring Needed

High Accuracy with as Low as Picogram Aliquots

Microfabricated

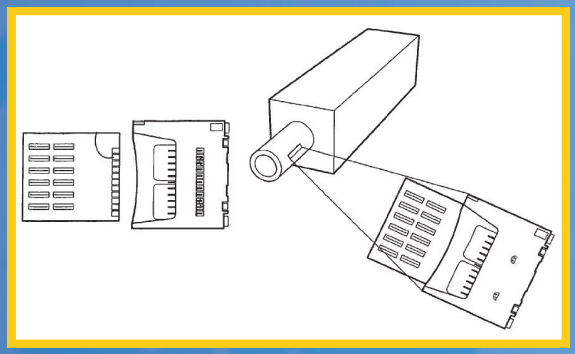
Incorporation in Existing and/or New Devices

INTELLECTUAL PROPERTY

US PATENT # 7,913,534
(SD #7727)

TECHNOLOGY SUMMARY

Reliable determination of the presence and/or quantity of a particular analyte in the field can be greatly enhanced if the analytical instrument is equipped with a time-of-use calibration standard. While proper calibration is necessary for reliability and accuracy, it can be challenging and cumbersome to provide such calibration in the field using conventional methods found in analytical laboratories. Sandia's Microfabricated Field Calibration Assembly is a small, easy-to-use calibration source that can be integrated with field-portable instruments, or embedded in unattended remote sensors. The Field Calibration Assembly is designed at a small scale for incorporation into the intake or housing portion of a sensor or analytical instrument. The small size and placement are conducive to calibrating in the field with quantities as low as picograms.



TECHNOLOGY READINESS LEVEL

Sandia estimates this technology at approximately a TRL 4. Key concepts of this technology have been demonstrated in the laboratory environment.

LICENSING CONTACT

Dan Allen | 505.284.6752 | dgallen@sandia.gov

HTTPS://IP.SANDIA.GOV

National Nuclear Security Administration

Sandia National Laboratories

Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration.
SAND # 2011-xxxx