

BLOCK MEMS, LLC

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FOR IMMEDIATE RELEASE

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Block MEMS Receives \$4.5 Million Development Contract for MEMS gas sensor

Marlborough, MA –September 25, 2006 – Block MEMS, LLC (Block) was recently awarded a \$4.5 million contract by the U. S. Army Research Office. The contract, which is being managed by the Soldier Biological and Chemical Command (SBCCOM) at Aberdeen Proving Ground, Maryland, provides funds to develop a miniaturized chemical detector using microelectromechanical systems (MEMS) technology. This new product will be called “ChemPen”. A working prototype should be available by 2008.

ChemPen uses sophisticated Fourier Transform Infrared (FTIR) technology that requires precisely positioned moving mirrors and extreme tolerances. This can be accomplished in a MEMS structure only by using the most advanced MEMS fabrication technology, SUMMiT-V. SUMMiT-V was developed by Sandia National Laboratories (www.sandia.gov), who is partnering with Block on this project.

The ChemPen (see Figure 1) will be lightweight, no larger than a fountain pen and will cost under \$1000 in comparison to current macro spectrometers that weigh 20 -30 pounds and cost from \$50,000 – \$150,000. Its software can be programmed to detect almost any gas including chemical warfare agents and toxic industrial chemicals.

The contract is a continuation of work that was begun in 2004 under a previous \$1.9 million contract. Working with Fairchild Semiconductor, a SUMMiT-V licensed foundry in South Portland, Maine, Block has already been successful in fabricating some of the important components that will go into the ChemPen FTIR. Block is also partnering with major universities—Cornell and Brigham Young—who have unique capabilities in MEMS, as well as a number of government labs in addition to Sandia.

Dr. Daniel Cavicchio, Jr, President of Block, commented on the new contract. “We are extremely pleased that the Army had enough confidence in our progress on the first contract to award us a follow on. MEMS is an important technology to the military as it produces orders of magnitude reduction in size and cost, which enables the military to procure thousands of these sensors for wide area deployment in the battle field, in facilities and in air and ground vehicles.”

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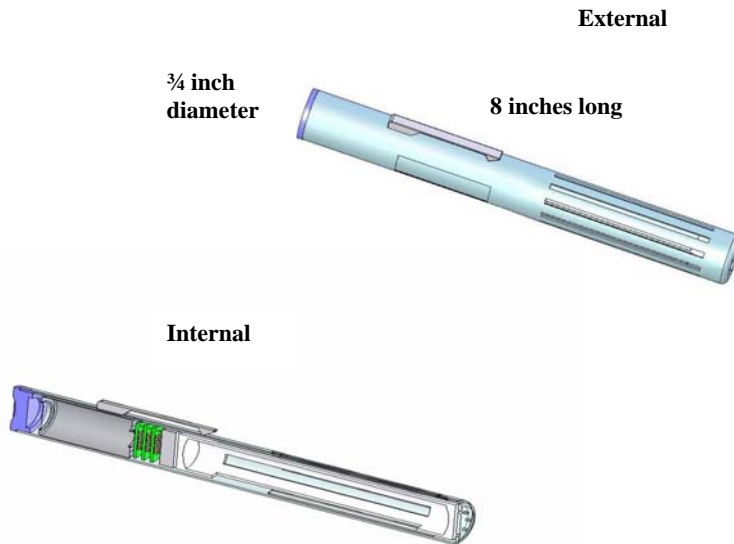


Figure 1 ChemPen

In addition to military applications, ChemPen should have broad application in a number of commercial and industrial markets. Examples include the confined space market, which consists of personal monitors for firemen and workers in refineries; chemical plants, mines and other dangerous locations; the process control market; the market for analytical and scientific instruments, which are widely used in industrial labs, educational institutions, factories, and hospitals; as well as the markets for leak detection and facility monitoring.

Block is currently expanding its staff due to the new contract.

Block MEMS has also been recently awarded a Phase I STTR grant from the Air Force to develop an extremely fast MEMS deformable mirror for correction of atmospheric aberrations in communications applications.

Block MEMS, LLC is an affiliate of Spectra Optics, Inc., whose Block Engineering division has more than 50 years of experience making custom and standard chemical detection spectrometers for a number of government and commercial customers. Block Engineering is teamed with the Northrop Grumman Corporation to market the Mobile Chemical Agent Detection system (MCAD). MCAD is a chemical detection system for detection of remote chemical attacks and is used to protect soldiers on the battlefield, military facilities or in homeland defense

For further information: blockeng.com

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