



**MEMSCAP**  
*The Power of a Small World™*

## **MEMSCAP OPTICAL TECHNOLOGY PROTECTS HUMAN VISION**

*The MEMS leader provides Boston Micromachines the mirrors that help fight glaucoma, diabetic retinopathy, and age-related macular degeneration*

**Grenoble, France and Durham, North Carolina, September 13, 2007** – MEMSCAP (NYSE Euronext: MEMS), the leading provider of innovative solutions based on MEMS (micro-electro-mechanical systems) technology, today announces that its optical technology protects human vision. MEMSCAP is the foundry for Boston Micromachines, the leading provider of MEMS-based deformable mirror (DM) products for adaptive optics (AO) systems. Those products are used for varied fields such as Vision Science (phoropter, retinal imaging), Laser Communication (Point to point secure communication, holographic waveform coding), or Astronomy (high contrast imaging and planet finding).

MEMSCAP has been successfully fabricating Boston Micromachines' deformable mirrors for nearly 10 years for laser communications and astronomy. The MEMSCAP optical technology portfolio has been used to bring BMC revolutionary mirror to prototype and then to manufacturing stage.

The new mirror (Mini-DM mirror) was created to meet the needs of the next generation of biological imaging, that requested a low-cost, high performance deformable mirror with enhanced stroke that would enable widespread adoption of adaptive optics. It enables Vision researchers and ophthalmologists to gain a clear view of the human retina by correcting for image distortion caused by tissue-induced wavefront aberration. This is especially needed in the older population, which is most at risk for eye diseases, and where the aberration are larger making it more challenging to image. Therefore, researchers will now be able to study glaucoma, diabetic retinopathy, and age-related macular degeneration.

"MEMS device are the most wonderful tools and require excellency in the manufacturing processes. This need is increased for biological and life science applications," explains Paul Bierden, president and CEO of Boston Micromachines. "This is why we chose MEMSCAP to produce the mirror which is the key element to our device. MEMSCAP is the only company offering the quality requested and the repeatability that is necessary".

The Mini-DM is an advanced wavefront control device that consists of a mirror membrane manufactured by MEMSCAP, supported by an underlying actuator array. Each actuator in the array can be individually deflected by electrostatic actuation to achieve the desired pattern of deformation. Unlike other technologies such as electromagnetic and piezoelectric mirrors, electrostatic actuation ensures mirror deformation without hysteresis. The active mirror area is deformed by thirty-two electrostatic actuators and has a fully-integrated controller and user-friendly interface.

"Using our teams and skills to create useful, life-bettering products and components is part of our Group Credo. This is why we are very happy to contribute to BMC success as their device is a major step forward in the protection of human vision", states Ronald Wages, General Manager MEMSCAP Custom Products.

### ***About MEMSCAP***

MEMSCAP is the leading provider of innovative micro-electro-mechanical systems (MEMS)-based solutions. MEMSCAP standard and custom products and solutions include components, component designs (IP), manufacturing and related services. MEMSCAP customers include Fortune 500 businesses, major research institutes and universities. The company's shares are traded on the Eurolist of NYSE Euronext Paris S.A (ISIN: FR0010298620-MEMS), where MEMSCAP belongs to the Next Economy segment. More information on the company's products and services can be obtained at [www.memscap.com](http://www.memscap.com). Contact: Aurore Foulon, Vice-President, Corporate Communications, Tel.: +33 (0)4 76 92 85 00 [aurore.foulon@memscap.com](mailto:aurore.foulon@memscap.com)

### ***About Boston Micromachines Corporation***

Founded in 1999, Boston Micromachines Corporation (BMC) is the leading provider of advanced MEMS-based mirror products for use in commercial AO systems, applying wavefront correction to produce high resolution images of the human retina and enhance images blurred by the Earth's atmosphere. The company's suite of award-winning compact DM products are the most economical high-performance mirrors in the market today. They are widely used in vision science applications such as advanced optic retinal imaging, long range laser communications and astronomy, including NASA's search for planets in other solar systems. Customers include leading manufacturers of optical imaging and communication systems, governmental agencies and contractors and vision science research laboratories worldwide, such as NASA, UC Berkeley, Lockheed Martin and Boston University. Located in Watertown, Mass., BMC is privately held and also offers custom design-manufacturing services. For more information on BMC, please visit <http://www.bostonmicromachines.com>.