

News Release



Cambridge Mechatronics and SAES® Getters announce a partnership that will accelerate mass adoption of Shape Memory Alloy actuators in Smart-Phone Cameras

Cambridge, UK and Lainate, Italy, July 1st, Cambridge Mechatronics Ltd (CML), a leading developer of ASICs, software and other Intellectual Property for precision electronic actuators used in high volume consumer products, today announced that it has entered into a multi-year agreement with SAES Getters S.p.A. The two companies have agreed to collaborate in the development of Shape Memory Alloy (SMA) based actuation solutions and to promote them to the world's leading miniature camera component manufacturers. SAES Getters, headquartered in Lainate (near Milano) in Italy, the World's leading manufacturer of base metal, wire and devices made from Nickel-Titanium and other Shape Memory Alloys, was introduced to CML by multiple common customers in Japan and Korea.

Wire drawn from ingots of Nickel-Titanium, the best understood SMA, has long been perceived as the potential basis of the smallest, strongest, simplest and therefore lowest cost mechanical actuators. However, mass adoption of SMA actuation had been held back by the problems related to controlling the wire in a linear fashion over the commercial temperature range and the difficulty in manufacturing 25-micron diameter wire in mass production quantities to a rigid specification. The key breakthrough was made during 2009, when CML delivered its tiny Xlinea CMOS IC to its Japanese licensees which, when combined with SMA wire, provides the fastest and smallest Continuous Auto-Focus solution currently available for high-resolution smart phone cameras. Then, in early 2010 SAES Getters wire was qualified for the Auto-Focus application by leading Japanese customers. SAES has also demonstrated its ability to deliver the 1000's of Kilometres of wire that the mobile phone industry will eventually require. The first camera phone using CML's integrated circuit and SAES Getters' wire is scheduled to ship in Japan this month.

Initially CML and SAES will focus on Auto-focus mechanisms for both 1/3" sensor/8.5mm and 1/4" sensor/6.5mm cameras. Thus giving smart phone vendors the option of incorporating the highest quality 10/12 MPixel A-F cameras or really low cost and smaller 5/8 MPixel A-F cameras. Due to its remarkable smallness, SMA is the only mechanical actuator technology capable of providing A-F in the 1/4"/6.5mm form factor at the cost and quality levels acceptable to the market. A move from the 8.5mm to the 6.5mm camera form factor will give smart-phone vendors additional space for other non-camera related differentiators as well as some cost savings to pay for them.

"SAES Getters has taken the mystery out of SMA wire production." said Simon Calder, CML's Chief Executive. "SMA wire can now be purchased like any other mass produced component found in a mobile phone. The potential volumes for virtually mass-less SMA Actuators in Consumer Electronics have always been astronomical, now they are also realisable."

"From our perspective CML's SMA Controller IC is the final piece in the SMA Actuator Jig-Saw puzzle" said Massimo Della Porta, Chairman and CEO of SAES Getters. "CML's combination of expertise and competencies in the auto-focus application, miniature camera design, mechanical actuator design, the physics behind SMA actuation, electronic circuit design and firmware development meant that it was uniquely able to come up with this solution. We look forward to many years of fruitful collaboration with our good friends in Cambridge."

About Cambridge Mechatronics

Cambridge Mechatronics is a privately held, product development and Intellectual Property company. Its mission is to deliver innovative electronic precision actuation platforms optimised for high-volume markets. Established in 1995 it has transformed actuation technology by inventing and developing both the world's lowest energy actuators and the world's smallest actuators. The company is also responsible for creating the soundbar market through its innovative application of arrays of phased actuators. Cambridge Mechatronics' inventions have already been applied to multiple consumer products, such as mobile phones, digital cameras, home theatre systems and flat panel televisions. As well as giving access to its large portfolio of patents and know-how, Cambridge Mechatronics also provides its licensees with complete mechanical designs, application software, firmware, electronic circuits, and ASICs. This has redefined the IP model for actuation technology allowing licensees to create new products and markets at greatly reduced risk and investment.

