



## **CMC Microsystems Partners with Sound Design Technologies to Give Canadian Undergraduate Students a Jump Start in Microelectronics and Microsystems**

**KINGSTON, ONTARIO, March 26, 2008**—CMC Microsystems today announced that over 2,900 students and faculty members at more than 40 Canadian universities across the country will have access to fundamental microelectronics technology offered by Sound Design Technologies (SDT) of Burlington, Ontario. A new partnership between CMC and SDT will enable undergraduate and graduate students to design and fabricate microelectronics prototypes using industrial-grade bipolar linear array technology. This represents a core training technology in the portfolio of products and services offered by CMC and will provide undergraduate students with their first hands-on access to actual microelectronics technology and an initial opportunity to prove their concept in a working chip.

Sound Design Technologies was founded in 2007 following the acquisition of Gennum Corporation's Audio Division and Manufacturing Operations. Building on CMC's longstanding provision of access to bipolar linear array technology through Gennum from 1996 to 2007, CMC is collaborating with SDT to facilitate continued access to core microelectronics technology for university educators and researchers. In the last five years, over 780 students from nine universities and colleges have benefited from this technology. By providing exposure to the entire research and development cycle, this experience helps to stimulate future graduate studies and research, and supports the development of highly qualified people who are deployed through all sectors of the Canadian economy—from information and communications technologies to life sciences automotive, aerospace, energy and natural resources.

“CMC provides university researchers with access to the best semiconductor foundries in the world for the manufacture of microchip designs,” says Dr. Ian McWalter, President and CEO, CMC Microsystems. “Our partnership with Sound Design will allow hundreds of students to acquire essential skills and experience in the design, manufacture and test of microelectronics devices, leveraging the capability and expertise of a growing Canadian company. This is required

to build a solid foundation of talent for Canada's microsystems-based industry. It also supports the implementation of CMC's Strategic Plan, as we aim to help researchers to build on the fundamental capabilities of microelectronics and combine different technologies for the development of novel microsystems. We look forward to exploring the packaging and assembly capability offered by Sound Design as we aim to advance microsystems integration in Canadian universities."

"Our alliance with CMC will provide hundreds of students and faculty members with the ability to design, manufacture and validate microelectronics designs in a highly efficient and cost-effective way," says Ian Roane, President and CEO of SDT. "It promises to equip the next generation of engineers with the skills required by Canadian companies that commercialize new technologies, while providing valuable exposure to the microsystems products and services offered by SDT. It will also enable SDT to engage researchers across the country, helping us to stay apprised of disruptive technologies and algorithms that emerge from university research. This is critical to the future development of our technology roadmap."

"The Microelectronics Lab Course offered by McGill University provides undergraduate students hands-on experience in the design of integrated circuits. This would not be possible without access to the bipolar linear array technology through CMC," says Dr. Anas Hamoui, Professor of Electrical and Computer Engineering at McGill University. "It helps these aspiring engineers to better understand key principles and challenges in the design and fabrication of microelectronics devices. In addition, the fast turn-around time with this technology allows students to receive their fabricated and packaged chips within the same university term. As such, they can test their chip and validate the design concepts prior to the completion of their course. This gets engineers excited about the technology, often motivating them to pursue postgraduate studies or positions as integrated circuit designers in industry."

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### **About the Bipolar Linear Array Technology Offered by Sound Design:**

The bipolar linear array technology from Sound Design Technologies is based on pre-manufactured wafers containing tiles of capacitors, resistors, NPN transistors, PNP transistors, diodes, and bond pads. A design is typically on a 2x1 array of tiles where a designer has drawn metal interconnect lines to implement a circuit. During manufacturing, the metal interconnect is patterned and CMC Microsystems returns several integrated circuits packaged in 20-pin dual in-line packages. Fabrication time, from stream file to packaged chips, takes two weeks.

**About CMC Microsystems:**

CMC Microsystems builds partnerships among government, industry and universities to enable and accelerate Canada's global competitiveness in microsystems. As Canada's leader in the provision of national infrastructure for microsystems research and technology development in universities, CMC provides leading-edge tools and technologies for world-class research leading to innovation and the commercialization of microsystems. CMC's membership includes 42 universities, one college, and 27 companies. More information is available at [www.cmc.ca](http://www.cmc.ca)

For more information, please contact:

Sonya Shorey,  
Director of Marketing Communications  
CMC Microsystems  
Tel: 613.530.4698  
Cell: 613.851.9416  
[shorey@cmc.ca](mailto:shorey@cmc.ca)

As of April 1<sup>st</sup>, 2008, all media inquiries should be directed to:

Beth Caulfeild  
Communications Coordinator  
CMC Microsystems  
Tel: 613.530.4685  
[caulfeild@cmc.ca](mailto:caulfeild@cmc.ca)

**About Sound Design Technologies:**

Sound Design Technologies is a leading designer and manufacturer of ultra-low power semiconductor solutions for hearing instruments, and a leading provider of advanced high density interconnect technologies used in custom miniaturized 3D Multi-Chip Modules (MCM), System-In-Package (SIP) and Stacked Chip Scale Packages (S-CSP). Founded in 2007 via the acquisition of Gennum Corporation's Audio Division and Manufacturing Operations, Sound Design Technologies is headquartered in Burlington, Ontario, with additional offices in Ottawa. Additional information is available at: [www.sounddesigntechnologies.com](http://www.sounddesigntechnologies.com)

For more information, please contact:

Shailja Tewari  
Sound Design Technologies  
Tel: 905.635.0804 Ext. 2870  
[stewari@sounddes.com](mailto:stewari@sounddes.com)