



CMC partners with Advanced Micro Foundry to accelerate photonics R&D

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CMC Microsystems and Advanced Micro Foundry (AMF), a Singapore-based manufacturer of silicon photonics integrated circuits, are partnering to develop a new design automation platform for silicon photonics that will let Canadian university researchers take the lead in developing innovations in light-based technologies.

Photonics technology encodes data on light, rather than in electrical signals, leading to technologies and devices that are faster, more powerful, more secure and less energy-intensive. But photonics R&D to date has been hampered by inefficiencies and disconnects in existing design environments.

The new CMC-AMF Silicon Photonics Platform allows innovators to design and prototype photonics-based technologies faster and more successfully. It includes a design kit, developed by AMF with partner Luceda Photonics, access to AMF's fabrication services, and design tools from Luceda and Mentor Graphics. CMC will provide platform users with engineering support, reference guides and training, and will coordinate manufacturing of designs via its cost-effective Multi-Project Wafer (MPW) program.

CMC is providing the platform to academic researchers and industry across Canada's National Design Network[®], as well as internationally.

"A key value-add of this platform is its physical design kit (PDK), which is one of the most advanced created for photonics R&D," says Dan Deptuck, staff scientist at CMC Microsystems. "It enables unprecedented first-time-right design of more complex systems more quickly and its industrial approach speeds up time to market."

"Canada continues to make its mark as an innovator in this rapidly expanding technology field, and CMC has been a pioneer in enabling university-based silicon photonics R&D," says Gord Harling, President & CEO of CMC Microsystems. "To date we have helped innovators in Canada's National Design Network prototype more than 500 projects in silicon photonics and we have trained more than 400 students. Now, thanks to our partnership with AMF, we are able to increase our offerings to researchers, making it easier for them to access technologies and opportunities for advancing their photonics research and development. This translates directly into a technological advantage for a Canadian industry sector that is experiencing strong growth."

"CMC Microsystems has been a valued partner with us since 2012," says Kavitha Devi Buddharaju, Senior Manager, Business Development, AMF. "As a proven service provider and global facilitator of Multi-Project Wafer services in silicon photonics, they are perfectly positioned to help us bring our technology to clients around the world. This partnership will enhance our mutual efforts to help researchers and companies realize the potential of silicon photonics."

CMC expects to begin making the platform available in June 2018. Its first training session takes place June 20-21 in Montréal.

www.cmc.ca/photonics

Contact:

Gord Harling

President & CEO

P: 613-449-6820

E: harling@cmc.ca

Dan Deptuck

Staff Scientist, Optoelectronics Engineering

P: 613-530-4670

E: Deptuck@cmc.ca

About CMC Microsystems and Canada's National Design Network:

CMC Microsystems works with researchers and industry across Canada's National Design Network, providing access to world-class tools, technologies, expertise and industrial capabilities for designing, prototyping and manufacturing innovations in microsystems and nanotechnologies. CMC reduces barriers to technology adoption by creating and sharing platform technologies.

www.cmc.ca

About Advanced Micro Foundry (AMF):

AMF specializes in customizable prototyping and volume wafer manufacturing services for silicon photonics integrated circuits. AMF manufacturing services are the backbone technology to a global customer base in the emerging markets of data centres, telecom, automotive, medical and environmental sensors. AMF is a spinoff of Institute of Micro Electronics (IME), A*STAR.

www.advmf.com