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ULTRARAM Start-up Wins Best of Show Memory Technology Award at World's Largest Memory Event in Silicon Valley

ULTRARAM aims to out-perform DRAM with the added advantage of non-volatility.

Lancaster, UK and Santa Clara, CA — 10 August 2023 – Quinas Technology, the spinout from Lancaster University formed to commercialise ULTRARAM™ memory, has been named as Best of Show in the Most Innovative Flash Memory Startup category at the Flash Memory Summit in Santa Clara, CA, the world's largest independent storage and memory conference. Invented by Professor Manus Hayne from the Physics Department at Lancaster University, ULTRARAM combines the high performance of dynamic random-access memory (DRAM) with the non-volatility of flash, something that was widely believed to be unachievable. It has the ability to both store data for more than 1,000 years – exceeding the capabilities of flash, and also to be read from and written to very quickly and at lower energy than DRAM.

Similar to a compound semiconductor version of flash, ULTRARAM exploits the quantum-mechanical effect of resonant tunnelling, replacing the oxide tunnel barrier in flash with a triple-barrier resonant tunnelling structure. This eliminates flash's deficiencies, allowing a floating-gate memory to operate at low voltage and high speed, with high endurance and unprecedented efficiency, but without compromising on non-volatility.

Quinas' commercial objective is to develop the technology into a product that can out-perform DRAM, the working memory in digital electronics and computing, with the significant added advantage of non-volatility.

"New forms of memory tiering technology can potentially create compelling value for customer workloads in the future," said Jay Kramer, Chair of the Awards Program and President of Network Storage Advisors Inc. "We are proud to recognize Quinas Technology for inventing a new type of computer memory which combines speed, endurance, retention and energy efficiency into a single memory concept."

James Ashforth-Pook, CEO of Quinas Technology said, "Quinas is delighted to have been honoured with this award by Flash Memory Summit. It is particularly gratifying to have this endorsement from the world's leading memory conference, given the highly disruptive use of compound semiconductors in ULTRARAM."

The Flash Memory Summit award is given for 'innovations that will change the way flash memory and all other forms of high-performance memory work, and how it is used in products. The

recipients of this award will enjoy significant differentiation of their intellectual property and patents from alternative competitive technologies in the memory industry’.

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About Quinas Technology

Quinas Technology Limited was incorporated in February 2023 as a spinout of Lancaster University to commercialise ULTRARAM™ memory technology. It recently successfully ‘graduated’ from Innovate UK’s ICURe programme, the UK’s leading early-stage research pre-accelerator programme.

For more information see: <https://www.quinas.tech>