Plenary on State of MRAM Today

- Organizer/Chairperson: Nilesh Gharia, CTO, Numem
- Presenters:
  - Barry Hoberman, Independent Consultant, "Annual Update on MRAM"
    - 11.15am to 11.45am (25 minutes talk/5 minutes Q&A)
  - Simone Bertolazzi, Engineer Analyst, Yole Development, "MRAM Technology and Market Trends"
    - 11.45am to 12.15am (25 minutes talk/5 minutes Q&A)

Introduction of Nilesh A Gharia

- Nilesh Gharia is Co-Founder/CTO of Numem (previously known as NVMEngines), an MRAM startup. Nilesh has 20+ years of experience in the semiconductor industry with a diverse background in semiconductor design and product development. Nilesh was part of the startup team at NetLogic Microsystems which went IPO in 2004, and was later acquired by Broadcom in 2012 for $3.7B, which in turn was acquired by Avago in 2016 for $37B. He was also the 1st Engineer at Lanstar Semiconductor, which also went IPO. Nilesh worked in Virtual Silicon Technology, doing memory compiler development for SRAM/ROM memories. His expertise includes startups, emerging memories, memory compiler development, MRAM technologies, semiconductor IP development, network processors, and team/project management. Nilesh holds a Masters in Electrical Engineering from the New Jersey Institute of Technology and has a portfolio of 14 US issued patents.

Introduction of Barry Hoberman

- Barry Hoberman is an independent consultant focused on MRAM and other emerging memory technologies. He specializes in overcoming the challenges of moving from technology development to manufacturing. Involved with MRAM for over 10 years, he served as CEO/Chairman of startup Spin Transfer Technologies (STT), which is developing an advanced technology based on a proprietary writing technique. He also was CMO at previous startup Crocus Technology. He has been an MRAM spokesperson at many private, government, educational, and industry forums (including Flash Memory Summit), where he addressed market opportunities, manufacturing yields, and tradeoffs among performance, retention, and endurance.

- He previously led semiconductor IP companies as CEO/founder at inSilicon (communications and I/O technology, acquired by Synopsys) and CEO at Virtual Silicon (embedded memory and libraries, acquired by Mosys). He holds a BSEE from MIT and over 20 US patents. He has over 35 years experience in the semiconductor industry with a focus on memory technology.

Annual Update on MRAM (11.15am to 11.40am)

- Slides by Barry Hoberman on "Annual Update on MRAM"

Annual Update on MRAM – Q&A (11.40am to 11.45am)

Introduction of Simone Bertolazzi

- Simone Bertolazzi is a Technology & Market analyst at Yole Développement (Yole) working with the Semiconductor & Software division. He is member of the Yole's memory team and he contributes on a day-to-day basis to the analysis of memory markets and technologies, their related materials and fabrication processes. Previously, Simone carried out experimental research in the field of nanoscience and nanotechnology, focusing on emerging semiconducting materials and their device applications. He (co-) authored more than 15 papers in high-impact scientific journals and was awarded the prestigious Marie Curie Intra-European Fellowship. Simone obtained a PhD in physics in 2015 from École Polytechnique Fédérale de Lausanne (Switzerland), where he developed novel flash memory cells based on heterostructures of two-dimensional materials and high-κ dielectrics. Simone earned a double M. A. Sc. degree from Polytechnique de Montréal (Canada) and Politecnico di Milano (Italy), graduating cum laude.

MRAM Memory Technology and Market Trends (11.45am to 12.10pm)

- Slides by Simone Bertolazzi on "MRAM Technology and Market Trends"

MRAM Technology and Market Trends – Q&A (12.10pm to 12.15pm)

Closing