

## Numem Introduces its SmartMem Endurance & Performance Engine for AI and IoT Applications

"The Time is now for efficient SOC Compute in Memory"

**Sunnyvale, CA September 13<sup>th</sup>, 2023** – Numem Inc., a leading provider of NuRAM MRAM Memory and SmartMem SOC IP cores and Chiplets which are revolutionizing power consumption in AI systems from edge nodes to servers, is pleased to announce the release of its Patented SmartMem Endurance and Performance Engine IP Core.

The Patented SmartMem Endurance and Performance Engine IP Core dramatically improves memory endurance and performance as well as operating power for next-generation persistent memory (MRAM, ReRAM, PCRAM, etc...), and embedded as well as external Flash.

Numem's SmartMem Endurance and Performance Engine delivers intelligent memory management, boosting ave endurance by 50x, ave read times by 2.5x to 15x, and ave write times by 7x to >100x, thanks to its SmartMem efficient data flow management.

As an example, when integrated with Numem NuRAM, it enables MRAM ave Read Speeds of 2.5ns. And, for even lower power consumption, SmartMem has standby or deep sleep power modes.

The Endurance and Performance Engine is part of the SmartMem product line of SOC Subsystems. It is comprised of RTL Datapath Processing, RISC V Processor and associated SRAM, Standard Bus Interfaces and a memory-dependent customizable interface.

"We are delighted to introduce the SmartMem Endurance and Performance Engine which enables to significantly improve Endurance and Performance and reduce memory active power for any persistent memories and on any process technology," Jack Guedj, Numem President and CEO intimated.

## About Numem

Numem, headquartered in Sunnyvale, California, is the leading provider of advanced SOC Compute in Memory based on its patented NuRAM (MRAM), as well as SOC Subsystem IP Cores and Chiplets based on its patented, SmartMem SOC Compute-in-Memory technologies. Numem NuRAM provides an excellent SRAM and eFlash alternative for SoC Designers/ Architects with 2.5x smaller area and >20x lower leakage power than SRAM.

Numem SmartMem IP Cores and Chiplets provide an end-to-end solution that is disrupting the semiconductor industry by enabling ultra-low power, high-performance integration of persistent memory for a variety of memory including: MRAM, Numem NuRAM, RRAM/ReRAM, PCRAM and embedded and standalone Flash.

Numem's IP Cores and Chiplets are used in IoT/Wearables, Al/Generative Al, Digital Security/Cameras, Autonomous Vehicle and Data Center applications. They enable Customers with a substantial reduction in system power and time to market.

Visit our website http://www.numem.com or contact us at sales@numem.com

## **About Numem**

Numem, headquartered in Sunnyvale, California, is the leading provider of advanced SOC Compute in Memory IP Cores based on its patented NuRAM (MRAM), and SOC IP Cores and Chiplets based on its patented, SmartMem technologies. Numem NuRAM provides an excellent SRAM and Flash alternative for SoC Designers/ Architects with 2.5x smaller area and >20x lower leakage power than SRAM.

Numem SmartMem provides an end-to-end solution that is disrupting the semiconductor industry by enabling ultra-low power, high-performance integration of persistent memory for a variety of memory types including: Numem NuRAM, other MRAM, RRAM/ReRAM, PCRAM, and embedded and standalone Flash.

Numem's IP Cores and Chiplets enable Customers to substantially reduce system power and speed up time to market for a wide range of applications including IoT/Wearables, Al/Generative Al, Digital Security/Cameras, Autonomous Vehicle and Data Center applications. Visit our website at <a href="https://www.numem.com">https://www.numem.com</a> or contact us at sales@numem.com.

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