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MEMTECH Unveils New LPDDR3 Memory Subsystem Family with Hyper-Bandwidth, Automotive Safety, and Ultra-Low-Power Innovations

Cupertino, California — California Memory Technologies Inc. (also known as **MEMTECH**), an American semiconductor company specializing in advanced memory subsystem IP, FPGA prototyping solutions, and post-silicon engineering services, today announced the launch of its new **LPDDR3 Memory Subsystems (MSS) product family**, now available through MEMTECH's **Early Access and Customer Engagement Program**.

The new lineup includes **three specialized LPDDR3 subsystems**, each engineered to meet the performance, safety, and power demands of next-generation SoCs across AI/ML, automotive, industrial, and IoT markets.

A Modern LPDDR3 Family for AI, Automotive & IoT The LPDDR3 MSS product line consists of:

1. MemSpeed-LPDDR3-X
Hyper-Bandwidth Multichannel Memory Subsystem

- Supports **JEDEC-2133 Mbps**, delivering up to **~34 GB/s** in a 4-channel x32 configuration
- Designed for high-throughput and latency-sensitive workloads
- **Target Markets:**

  o Mid-range application processors
  o 5G/4G baseband and wireless SoCs
  o AI/ML edge and vision processors
  o SSD & storage controllers
  o Networking, WiFi, broadband SoCs
  o Multimedia, display, AR/VR compute engines

• **Problem Solved:** Addresses bandwidth bottlenecks in AI, networking, and high- performance embedded systems by delivering consistent, high-speed memory throughput.

2. AutoSafe-LP3
Functional-Safety & Secure LPDDR3 Memory Subsystem

- Designed for **automotive and industrial grade reliability**
- Features **Integrated Inline Memory Encryption**

- MEMTECH has **initiated 3rd-party ISO 26262 ASIL-D assessment** as part of its safety assurance roadmap
- **Target Markets:**

  o ADAS processors, domain/zone controllers o Infotainment SoCs, smart camera modules o Robotics, factory automation, PLCs, HMIs o Medical imaging/monitoring
  o Rugged edge compute systems

• **Problem Solved:** Replaces consumer-grade DRAM solutions with a functional-safety- driven, secure, and long-lifecycle memory subsystem suitable for mission-critical embedded systems.

3. EcoMem-LP3
Ultra-Low-Power LPDDR3/LPDDR2/DDR3L Combo Subsystem

- Consumes just **10–20 μW** in Deep Power-Down Mode
- Compact, area-optimized, cost-efficient architecture
- Supports **combo operation**: LPDDR3 + LPDDR2 + DDR3L
- **Target Markets:**

  o IoT controllers and MCUs & Smart home cameras, industrial vision
  o Wearables & health monitoring devices
  o Smart TVs, STBs, OTT boxes
  o WiFi/networking edge chips & Power- and area-constrained consumer/industrial SoCs

• **Problem Solved:** Enables legacy migration and extends battery life by delivering a flexible, ultra-low-power memory solution optimized for cost-sensitive SoC designs.

Future Availability via the TSMC OIP Ecosystem

MEMTECH has **initiated the TSMC9000 IP Quality Assessment process** as part of its engagement with TSMC—paving the way for future availability of the LPDDR3 subsystem family within the **TSMC OIP IP Alliance**.

Leadership Quote

"At MEMTECH, our mission is to democratize advanced memory subsystem technology for every SoC team, from startups to top-tier semiconductor innovators. With the introduction of our LPDDR3 memory subsystem family, we are enabling customers to design, verify, and deploy LPDDR3 subsystems faster than ever before. This launch represents a major milestone in our journey to simplify high-performance memory integration while maintaining uncompromising quality."
— **Saswat Mishra, Founder & CEO, MEMTECH**

Availability

- The LPDDR3 Memory Subsystem family is **available now through MEMTECH's Early Access Program**.
- Datasheets, PPA numbers, and sample user guides are available to qualified customers upon request.

• **Where to Buy:**

www.memtech.ai
https://www.design-reuse.com/
Future availability planned for **TSMC OIP**, pending qualification

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