13 March 2026

dorsaVi Commences RRAM Device Evaluation as AI-Driven Memory Constraints Accelerate the Shift Toward In-Memory Computing

Initial RRAM test chips received to begin device-level evaluation as part of dorsaVi's development program progressing toward an advanced 22-nm RRAM platform designed to support future memory demand in robotics, drones and autonomous systems.

Key Highlights

- **RRAM development program underway:** dorsaVi has received initial RRAM test silicon and commenced early-stage device characterisation at the 180-nm node, representing the first step in its development pathway toward an advanced 22-nm RRAM platform and scalable manufacturing flow.
- **22-nm as the neuromorphic-ready node:** Stepping down from legacy 180-nm and 40-nm nodes toward 22-nm enables significantly higher memory density, faster access speeds and lower power per operation, creating a more capable platform for in-memory and neuromorphic computing architectures than older processes can support.
- **AI memory supply constraints intensifying:** Industry reports indicate accelerating demand for AI infrastructure is tightening availability and increasing pricing pressure across DRAM and high-bandwidth memory markets.
- **Robotics-led memory demand:** Robotics, drones and autonomous systems are emerging as major structural drivers of advanced memory demand over the coming decade.
- **"Memory wall" and "power wall" emerging as system bottlenecks:** Today's AI systems are increasingly memory-bound, with some industry estimates suggesting 70–90% of compute energy may be associated with moving data between processors and external memory. These constraints are driving interest in neuromorphic and in-memory architectures designed to minimise data movement and reduce reliance on large external memory bandwidth.
- **Shift toward in-memory computing architectures:** These dynamics are accelerating industry interest in architectures that reduce data movement and improve performance per watt by enabling computation closer to where data is generated.

- **RRAM roadmap positioned to address constraints:** dorsaVi's RRAM transition from 40-nm to an advanced 22-nm technology node[1] strategically aligns with these emerging memory and efficiency constraints.
- **Efficiency and intelligence at the ultra-edge:** The 22-nm program is intended to support robotics, drones and autonomous systems that must fuse sensor inputs, process sensor data and run onboard AI in real time under tight power, thermal and size constraints, prioritising compact, high-speed, low-latency memory architectures.

- **Neuromorphic IP aligned with emerging architectures:** dorsaVi's neuromorphic portfolio is designed to leverage RRAM and other emerging memory technologies capable of storing weights, supporting in-memory or analog computation, retaining data without power and operating at very low energy, enabling intelligence to operate directly within edge and autonomous systems.

Melbourne, Australia – 13 March 2026 – dorsaVi Limited ("dorsaVi" or "the Company") notes increasing global commentary highlighting structural constraints in conventional memory architectures as AI workloads scale across data-centre and edge computing environments. While much of the current focus remains on expanding compute capability, system performance and efficiency are increasingly influenced by memory bandwidth, data movement and power consumption.

Against this backdrop, dorsaVi has commenced early-stage testing and characterisation of RRAM devices following receipt of initial RRAM test silicon. The program forms part of the Company's staged development pathway toward an advanced 22-nm RRAM platform and a more scalable manufacturing flow, intended to support more memory-efficient, low-latency architectures for edge and embedded AI applications such as robotics, drones and autonomous systems.

Market Context: Memory Constraints and System-Level Pressure

Recent industry reporting indicates that surging AI training and inference workloads are placing sustained pressure on global memory supply chains, as HBM and server DRAM capacity is increasingly prioritised by major memory manufacturers.

Company	Market Capitalisation growth over the past 1-year[2]	Company Focus
SanDisk	~1,020%	NAND flash memory and storage solutions for data-centre and enterprise applications
SKHynix	~115%	DRAM and high-bandwidth memory (HBM) for AI servers and advanced computing
Micron	~300%	DRAM, HBM and NAND memory for data-centre, AI and automotive markets
Everspin	~47%	Persistent memory technologies, including MRAM, for industrial and enterprise use

Table 1 showing growth in memory companies over the past 1 year

[1] Refer to ASX Announcement Dated 6th November 2025
[2] Companiesmarketcap.com

At a system level, modern AI accelerators require materially higher memory bandwidth and capacity than traditional computing devices. As a result, performance is increasingly constrained not only by compute capability, but by the ability to feed processors with data -an effect often described within the industry as the “memory wall”. Conventional architectures that depend on frequent transfers of data between processors and external memory can therefore experience diminishing returns as additional compute is added.

As AI workloads scale, these dynamics drive:

- increasing energy consumption associated with data movement and memory access
- higher latency and bandwidth requirements
- greater cooling and infrastructure demands, particularly in dense deployments

dorsaVi believes these factors are accelerating industry interest in **in-memory** and **neuromorphic architectures** that reduce data movement and enable computation closer to the data source, improving performance per watt and lowering reliance on scarce, high-cost memory bandwidth.

RRAM Test Wafer Received as Advanced-Node Development Progresses:

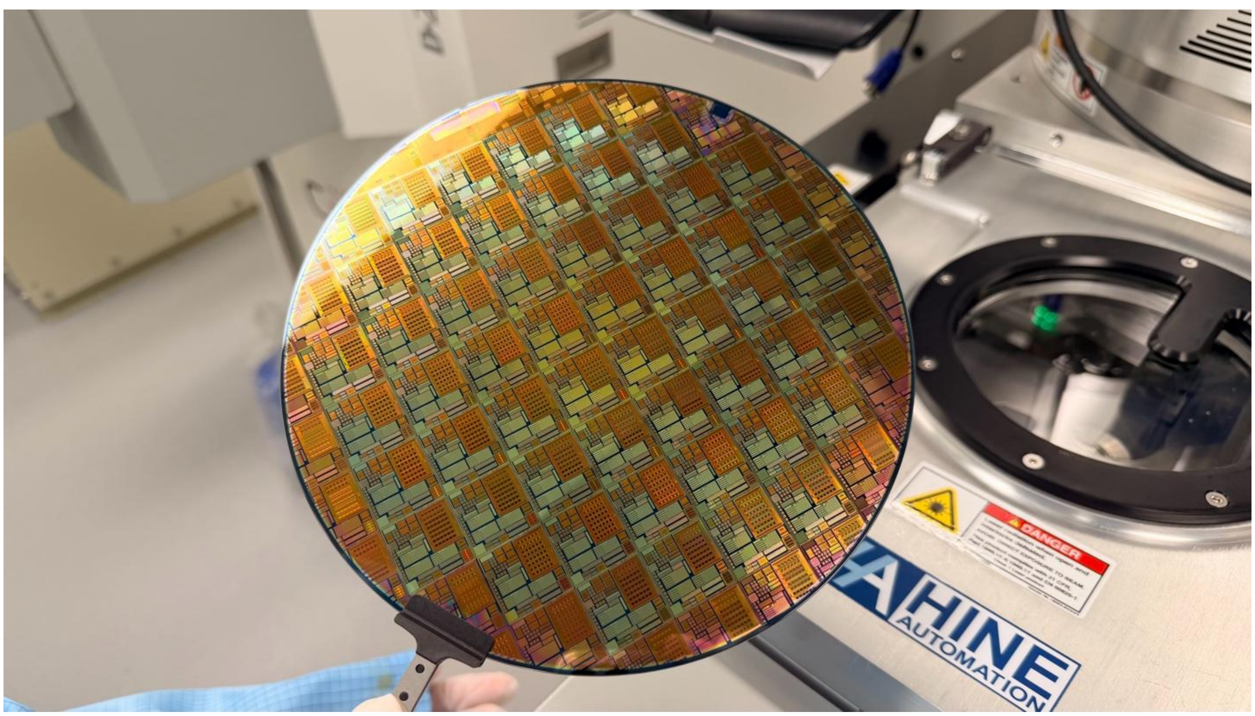

Figure 1: dorsaVi’s initial RRAM test wafer received for early-stage device-level evaluation.

dorsaVi has received its initial RRAM test wafer and commenced early-stage device characterisation as part of its RRAM development program. Current activities are focused on assessing:

- device level performance,
- material interfaces;
- integration considerations under manufacturing conditions

Insights from this phase are intended to inform subsequent optimisation and scaling steps as the Company progresses its RRAM development roadmap toward a commercially relevant 22-nm platform, with performance benchmarked against the 40-nm RRAM devices developed with NTU.

Targeted Performance Gains from Advanced-Node RRAM:

The 22-nm RRAM program targets lower write voltage, reduced latency, improved reliability and support for compute-in-memory operation relative to NTU's current 40-nm benchmark RRAM devices.

Parameter	Current [3] (40-nm node)	Goal (22-nm node)	Key Impact
Write Voltage	2.0 – 2.5 V	< 2.0 V	Lower energy per write, supporting battery-powered and always-on systems
Write Latency (Array-Level)	200 ns @ 2.0 V 50 ns @ 2.5 V	100 – 200 ns	Reduced decision latency in edge and reflex-driven applications
Endurance	> 10M cycles	> 10M cycles	Endurance customized to application, balancing performance, lifetime and energy efficiency
Retention	> 10 years @ 85°C	> 10 years @ 125°C	Improved reliability for industrial and safety-critical environments
Write-Verify	External	Integrated	Improved reliability and consistency across large arrays
AI and Neuromorphic Computing Enablement	Binary operation	Multi-state compute-in-memory macros	Enables ultra-low-power AI and neuromorphic processing
Compute-in-memory Array Efficiency	Not measured	> 20 TOPS/W	Provides highly efficient building blocks for AI and neuromorphic computing applications

Table 2: Summary of dorsaVi's RRAM performance metrics and 22nm targets.

These improvements are intended to deliver higher performance per watt and more efficient AI and neuromorphic processing in power- and latency-constrained ultra edge applications, including robotics, drones and autonomous platforms that must process multiple sensor streams and make local decisions in real time.

[3] Refer to ASX announcement dated 16 July 2025

Enabling Neuromorphic and Edge-AI Architectures

dorsaVi's RRAM roadmap is closely aligned with its neuromorphic computing portfolio, which is designed to use emerging memories such as RRAM not only to store AI weights, but also to perform in-memory and analog-style computation, retain data without power and operate at very low energy.

In this architecture:

- RRAM provides the high-speed, low-voltage, non-volatile memory fabric;
- neuromorphic and Processing-in-Memory blocks use that fabric as dense arrays of "artificial synapses" for local learning and inference; and
- ultra edge devices – including in robots, drones and wearable systems – can execute critical control, safety and perception workloads directly where the data is generated.

The Company believes that transitioning its RRAM technology from 40-nm to a neuromorphic-ready 22-nm node is an important step toward manufacturable, advanced-node silicon that can underpin these ultra-edge use cases.

Strategic relevance of building intelligent memory for the ultra-edge

As AI moves into real-world devices at the edge and ultra-edge – such as robots, drones, industrial systems and medical devices – designers increasingly need hardware that **does more work with less power**, responds **predictably and quickly**, and can **make decisions locally** without relying on a constant cloud connection. In these environments, large GPU- and DRAM-heavy systems can be difficult to deploy because they draw too much power, generate too much heat, take up too much space and are exposed to swings in memory supply and pricing.

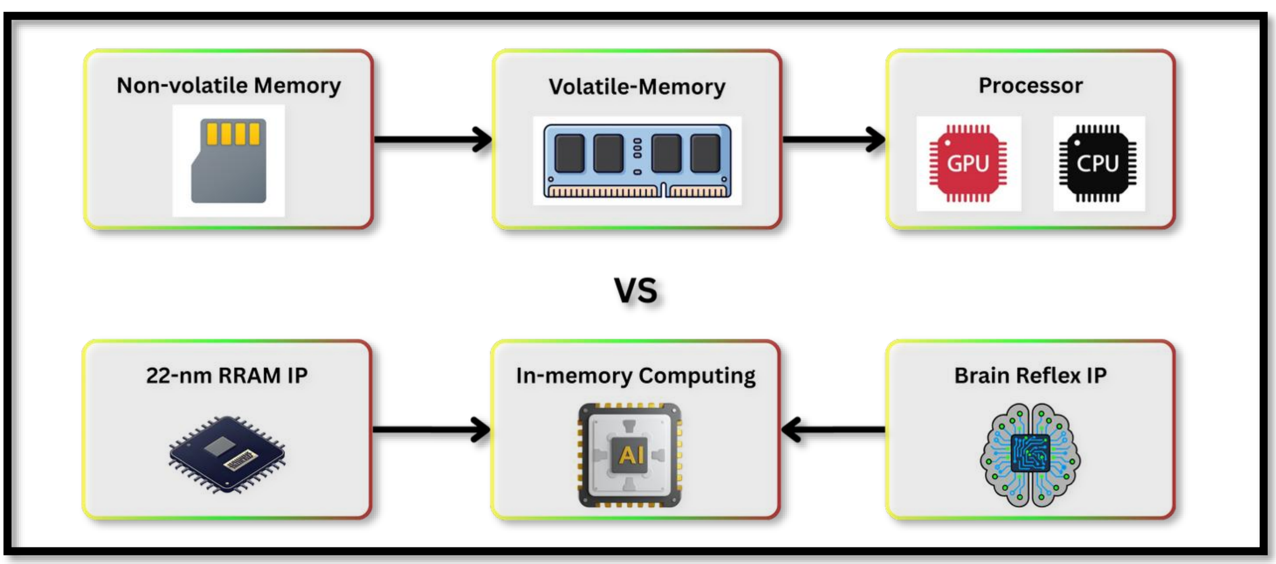

Figure 2: A conceptual comparison of data-movement-heavy traditional computing architectures versus a 22-nm RRAM-enabled neuromorphic in-memory computing approach.

dorsaVi believes its transition to an advanced 22 nm architecture is aligned with addressing these constraints by enabling more in-memory designs that enable computing in-memory.

The 22 nm program is intended to support:

- ✓ improved power efficiency and higher integration density
- ✓ tighter coupling of memory and logic for faster local processing
- ✓ integration of in-memory compute structures that reduce data-transfer overhead

Mathew Regan, Chief Executive Officer of dorsaVi said: *"The rapid expansion of AI infrastructure is placing increasing pressure on power efficiency and memory utilisation across the computing stack. While much of today's investment is focused on large-scale data-centre hardware, we believe the next phase of AI growth will become increasingly distributed, with intelligence embedded directly into physical systems operating at the edge and ultra-edge. Our RRAM-based in-memory and neuromorphic computing platform is being developed to reduce data movement and enable ultra-low-power, low-latency intelligence where efficiency is critical. We believe our technology roadmap is aligned with these structural industry trends."*

dorsaVi will continue to progress its RRAM and neuromorphic computing programs through further development, validation and commercialisation milestones. The Company believes that ongoing pressure on conventional memory supply, combined with accelerating adoption of edge-AI systems, reinforces the strategic relevance of its advanced-node RRAM roadmap.

The Company will keep the market informed as these initiatives advance.

This release has been authorised for lodgment to the ASX by the Board.

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About dorsaVi

dorsaVi Ltd (ASX: DVL) is an ASX company focused on developing innovative motion analysis device technologies for use in clinical applications, elite sports, and occupational health and safety. dorsaVi believes its wearable sensor technology enables, for the first time, many aspects of detailed human movement and position to be accurately captured, quantified, and assessed outside a biomechanics lab, in both real-time and real situations for up to 24 hours. dorsaVi's focus is on two major markets:

- **Workplace:** dorsaVi enables employers to assess risk of injury for employees as well as test the effectiveness of proposed changes to OHS workplace design, equipment or methods based on objective evidence. dorsaVi works either directly with major corporations, or through an insurance company's customer base with the aim of reducing workplace compensation and claims. dorsaVi has been used by major corporations including London Underground, Vinci Construction, Crown Resorts, Caterpillar (US), Boeing, Monash Health, Coles, Woolworths, Toll, Toyota, Orora, Mineral Resources and BHP Billiton.

- **Clinical:** dorsaVi is transforming the management of patients with its clinical solutions (ViMove+) which provide objective assessment, monitoring outside the clinic and immediate biofeedback. The clinical market is broken down into physical therapy (physiotherapists), hospital in the home and elite sports. Hospital in the home refers to the remote management of patients by clinicians outside of physical therapy (i.e. for orthopaedic conditions). Elite sports refer to the management and optimisation of athletes through objective evidence for decisions on return to play, measurement of biomechanics and immediate biofeedback to enable peak performance.

Further information is available at www.dorsaVi.com