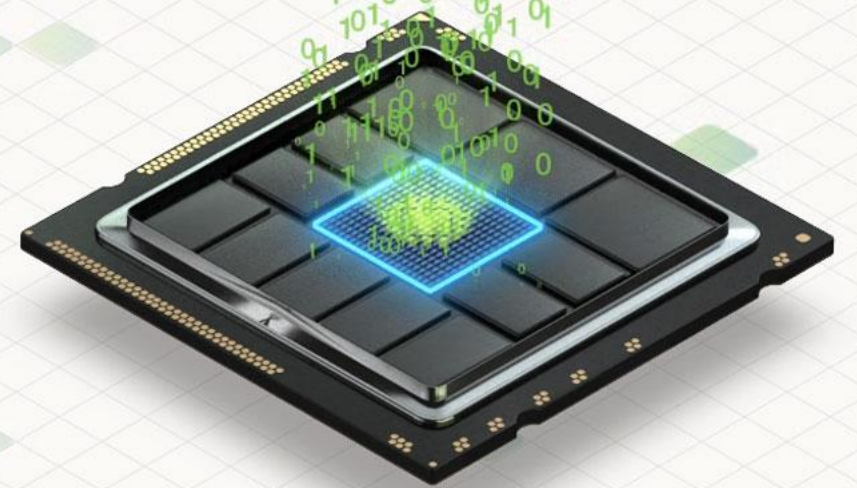


ReRAM after Qualification *Entering NPI and Production Ramp Era*

Amir Regev, VP Quality and Reliability



ReRAM: A Cost-Effective NVM

❖ Fab-friendly materials

- ◆ No contamination risk, special handling, etc.

❖ Using existing deposition techniques and tools

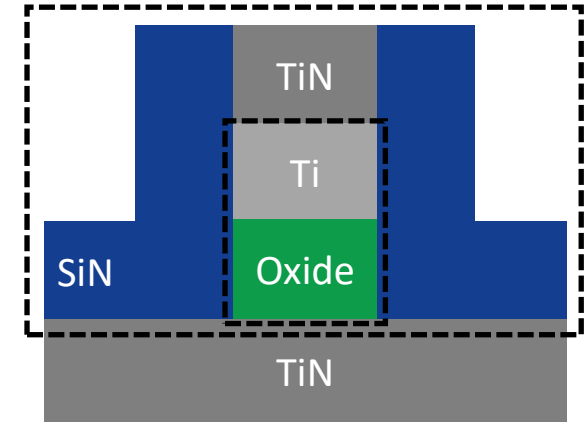
- ◆ Easy to integrate into any CMOS fab

❖ 2-mask adder

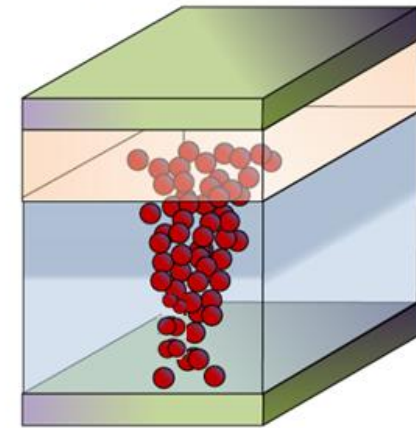
- ◆ Very few added steps

❖ BEOL technology

- ◆ Stack between any 2 metal layers
- ◆ No interference with FEOL
- ◆ Easy to scale from one process variation to another



Oxygen Vacancy Filament



State of Weebit ReRAM Today

Modules proven for toughest industrial & automotive mission profiles

- ❖ Retention at 175°C for automotive Grade 0 operation
- ❖ Completed AEC-Q100 qualification (150°C and 100K cycles)

Technology demonstrated on multiple process nodes

- ❖ From 130nm to 22nm, Al / Cu, 200mm / 300mm
- ❖ Analyzed & developed on 20+ PDKs; 130nm down to FinFET nodes

Texas Instruments: Technology transfer underway

onsemi: Qualification underway

DB HiTek: Qualification complete; two customers taped out

MAY 2026:
Two product
customers
tape-out

MAR 2026:
chosen for Korean
national IMC
program

JAN 2026:
TI licenses
Weebit ReRAM

JAN 2026:
Tech
qualification at
DB HiTek

SEP 2026:
Tape-out of test
chip at onsemi
production fab

Recent Highlights



MAR 2025

Completed
AEC-Q100
150°C, 100K
cycles
operation
qualification
for
automotive



DEC 2025

Several **product**
customers
integrating
Weebit ReRAM
in next-
generation
products



DEC 2025

Achieved
technology
qualification at
DB HiTek



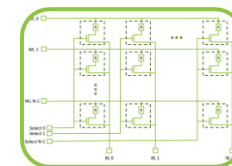
DEC 2025

TI licensed
Weebit
ReRAM for
embedded
processing in
advanced
nodes



FEB 2026

onsemi test
chips **fully**
functional;
achieving
expected
performance



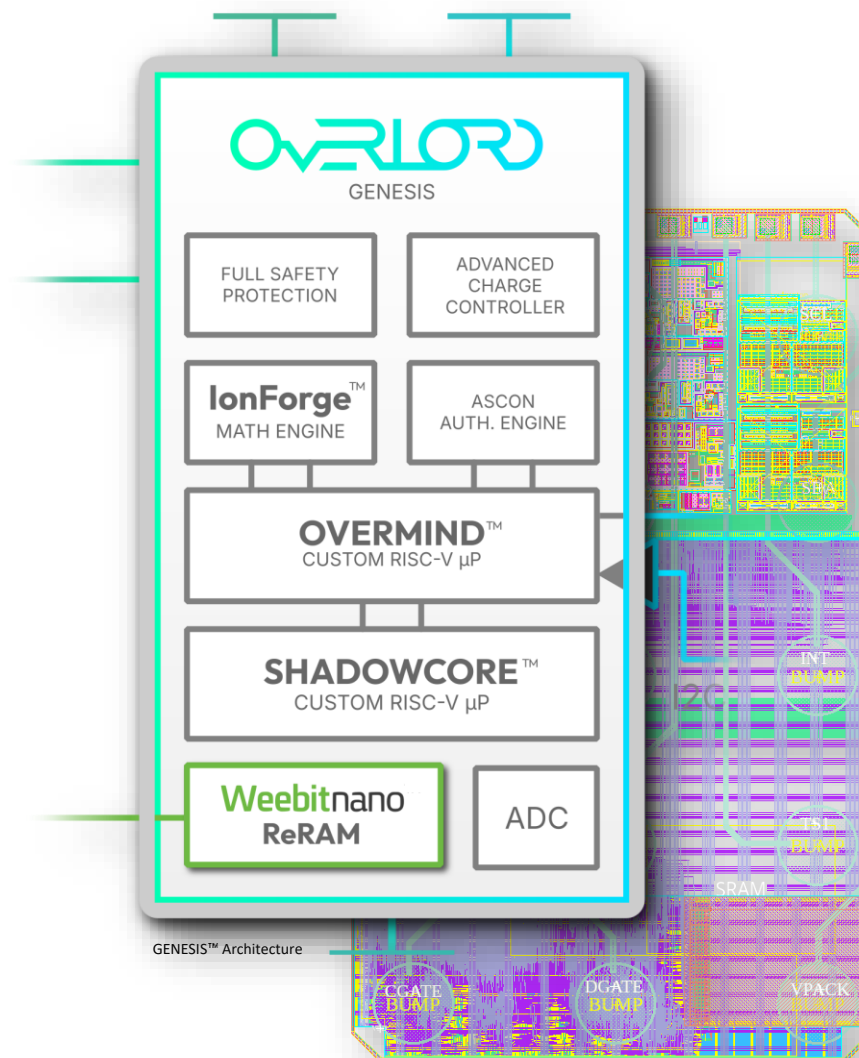
MAR 2026

Weebit ReRAM
Selected for
Korean National
In-Memory
Compute (IMC)
Program

Weebit ReRAM Powering Edge-AI Battery Intelligence

❖ Overlord Labs integrates Weebit ReRAM into its **Battery Intelligence Platform**.

- ◆ **GENESIS™** | Silicon × Algorithm Architecture for intelligent battery management.
 - Purpose-built IC for battery-powered **Edge AI devices**
 - Continuous **battery sensing, modeling & optimization**
 - Optimized for battery **performance, safety & cycle life**
- ◆ Weebit ReRAM for Genesis™
 - Low voltage, ultra-low power embedded NVM
 - High-density non-volatile memory
 - Bit-addressable architecture
 - Higher efficiency and reliability
- ◆ Foundry: DB HiTek
- ◆ First-Silicon: **July 2026**
- ◆ Production-Ready: Q4 2026

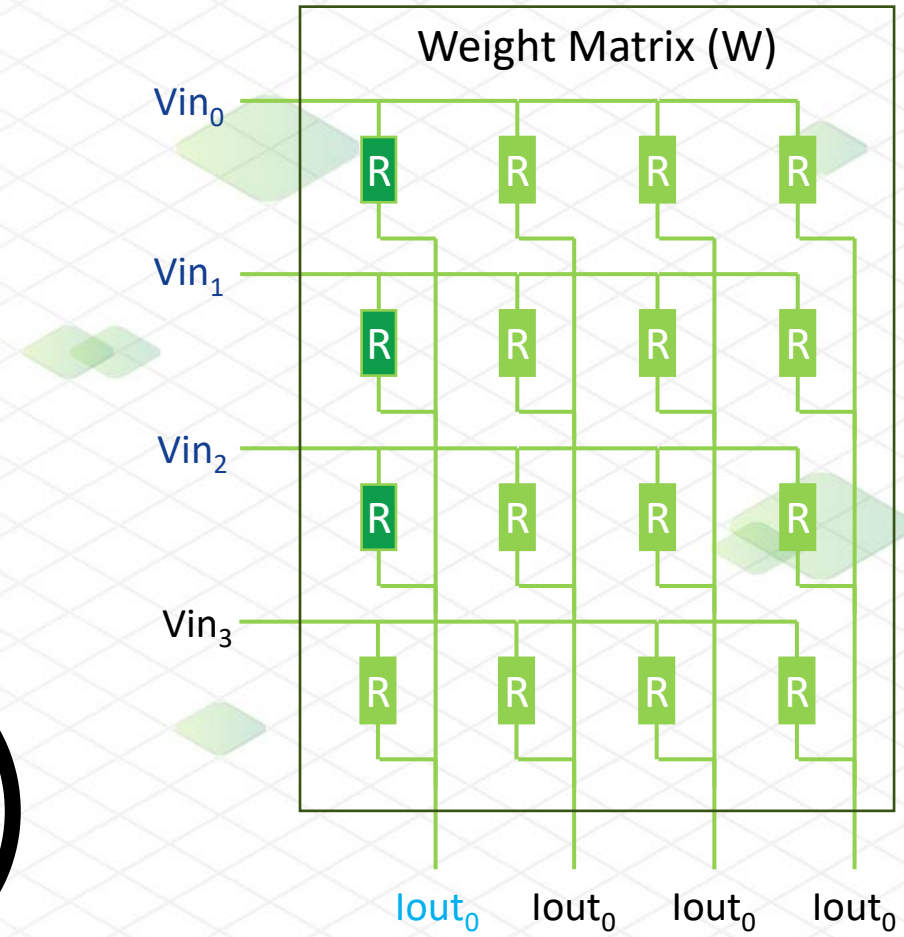
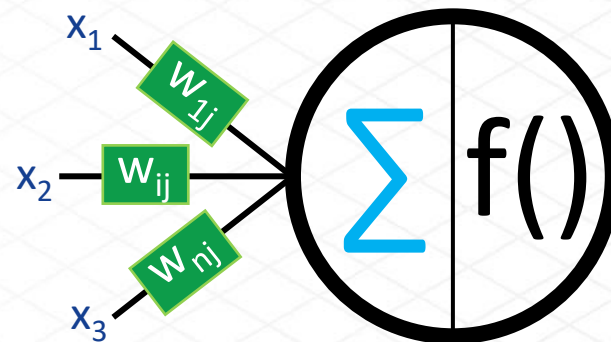


GENESIS™ Architecture

Genesis™ Die Image

ReRAM For IMC

- ❖ ReRAM can perform multiplication thanks to Ohm's law
 - ◆ The read voltage as the **input**
 - ◆ The conductance as the **weight**
 - ◆ The current as the **multiplication** result
- ❖ The crossbar structure can perform the multiply and accumulate (**MAC**) thanks to Kirchhoff's law
 - ◆ The resistances are the **weight matrix**
 - ◆ The voltages are the **input array**
 - ◆ The current sum at the nodes is the **compression**



In-Memory Computing at Scale: The ReRAM Advantage

Be sure to attend “other memory technologies” session tomorrow at 14:25 in Ballroom B

- ❖ Gain a broader perspective on what's driving adoption of **in-memory computing (IMC) for AI**
 - ◆ How IMC overcomes the limitations of conventional computing architectures
 - ◆ The advantages ReRAM brings as an IMC memory technology
 - ◆ The outlook for production-ready IMC systems

The need for tightly coupled memory & compute for next generation AI,

Why **scalability and non-volatility** are critical for edge-AI deployment.

Conclusions

- ❖ ReRAM In transition from technology transfer and qualification to product development
 - ◆ First customers products in design stages
- ❖ Weebit in various engagement levels with commercial fabs
 - ◆ onsemi technology qualification underway
 - ◆ TI technology transfer ongoing
- ❖ Various AI architectures are being developed for edge applications
 - ◆ See our presentation tomorrow! August 6th at 14:25 [Other Technologies session](#)



Thank You!

www.weebit-nano.com



 **Weebitnano**
THE NEXT NVM IS HERE