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ASX RELEASE **9 July 2025**

ASX: NVU

Investor Webinar Presentation

Nanoveu Limited (ASX: NVU) ("Nanoveu" or the "Company"), a technology innovator across advanced semiconductor, visualisation, and materials science, is holding its webinar commencing at 1.00pm (AWST) / 3.00pm (AEST) today.

The presentation materials are attached for the information of investors and can also be accessed via the "Announcements" page of the Company's website https://nanoveu.com/.

Key highlights to be discussed:

- EMASS' ECS-DoT SoC Technology and Major Markets
- 33% Flight Time Gain in First Simulated Drone Trials, Further Work to be Completed in Q3
- Center of Nanoelectronics and Devices Collaboration and Tape-out of New Integrated Circuit on TSMC's 16nm FinFET Process

If you would like to join, please click on the link below to register:

Date: Wednesday, 9 July 2025

Time: 1.00pm Australian Western Standard Time (AWST) / 3.00pm Australian Eastern Standard Times (AEST)

Invite link: https://zoom.us/webinar/register/WN_5RSKDsXRTl2T8SXeRibonA

This announcement has been authorised for release by the Board of Directors.

-ENDS-

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About Nanoveu Limited

Further details on the Company can be found at https://nanoveu.com/.

EMASS is a pioneering technology company specialising in the design and development of advanced systems-on-chip (SoC) solutions. These SoCs enable ultra-low-power, AI-driven processing for smart devices, IoT applications, and 3D content transformation. With its industry-leading technology, EMASS will enhance Nanoveu's portfolio, empowering a wide range of industries with efficient, scalable AI capabilities, further positioning Nanoveu as a key player in the rapidly growing 3D content, AI and edge computing markets.

EyeFly3D™ is a comprehensive platform solution for delivering glasses-free 3D experiences across a range of devices and industries. At its core, EyeFly3D™ combines advanced screen technology, sophisticated software for content processing, and now, with the integration of EMASS's ultra-low-power SoC, powerful hardware.

Nanoshield™ is a self-disinfecting film that uses a patented polymer of embedded Cuprous nanoparticles to provide antiviral and antimicrobial protection for a range of applications, from mobile covers to industrial surfaces. Applications include *Nanoshield™ Marine*, which prevents the growth of aquatic organisms on submerged surfaces like ship hulls, and *Nanoshield™ Solar*, designed to prevent surface debris on solar panels, thereby maintaining optimal power output.

Forward Looking Statements This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'ambition', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'mission', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance, or achievements to be materially different from those expressed or implied by such forward looking information.

CEMASS

a nanoveu business

Investor Webinar

July 9, 2025

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AUTHORISATION This document has been authorised for release by the Company's Board of Directors.

EMASS Introduction

Fabless Semiconductor Innovator in Edge AI Processing

- Ultra-low-power Edge AI SoCs for always-on intelligence in battery constrained devices

Established Global Operations

- Founded in 2020, Singapore headquartered
- 100% of EMASS acquired by Nanoveu Limited (ASX:NVU), March 2025
- Technical R&D centers in Singapore and Cairo, Egypt
- Commercial development team based in the United States

Expert Team Across Disciplines

- Deep expertise in AI/ML, neural network acceleration, semiconductor design, sensor fusion, and embedded systems
- Experienced management with semiconductor and AI industry backgrounds

Leadership Team

Mark Goranson

CEO of Semiconductor Technology

- VP of Global Ops, TE Connectivity
- SVP of Fab Ops, ON Semi
- VP of Fab Ops, Freescale
- Early Member of Intel

Dr. Mohamed Sabry

CTO, Founder of EMASS

- Associate Professor, NTU Singapore
- Postdoc, Stanford
- Recipient of Nanyang Education Award
- Ph.D. from EPFL

Scott Smyser

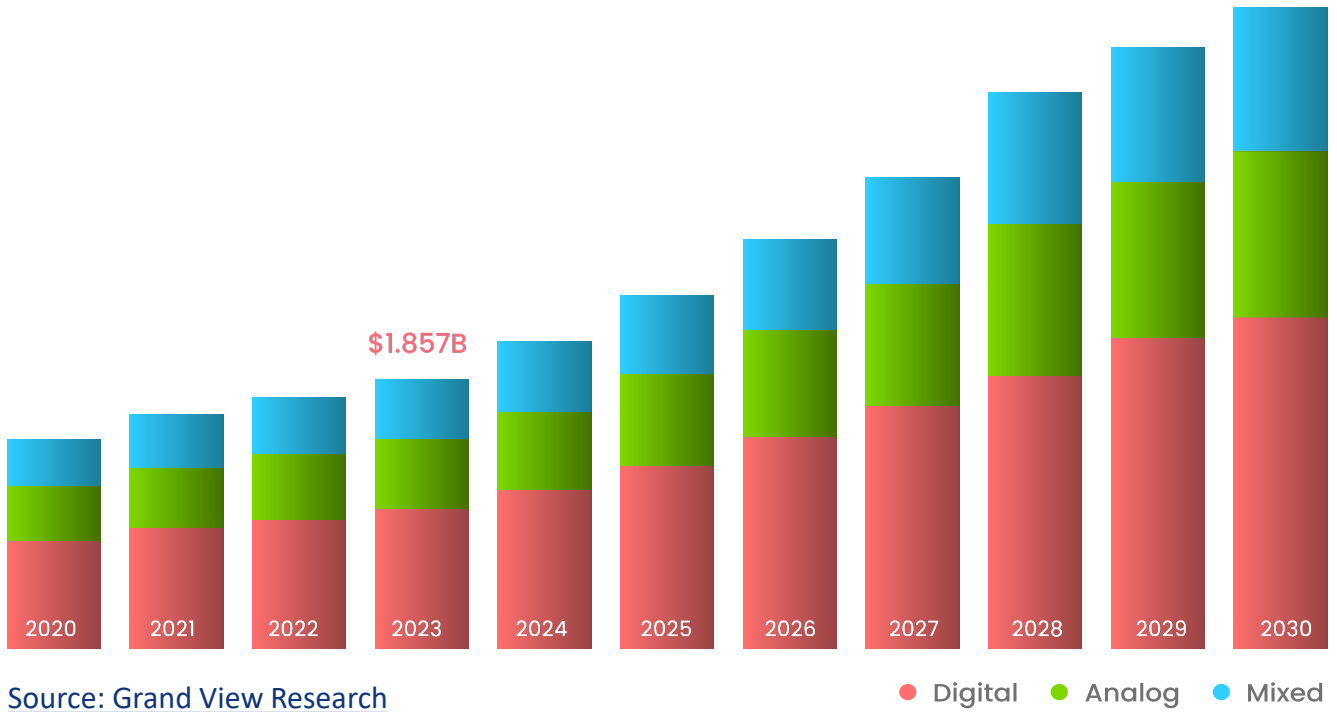
VP, Sales & Marketing

- EVP Marketing & BD, Si-Ware Systems
- VP & GM, VTI Technologies (Murata)
- SVP Sales, Atomica
- SVP Strategic Sales, Rockley Photonics

Semiconductor & SoC Market Opportunity

System On Chip Market Size

By Type 2020-2030 (USD Billion)



Source: Grand View Research

SoC Market Growth:

Applications demanding continuous sensing, context awareness, and real-time decision-making

Set to hit

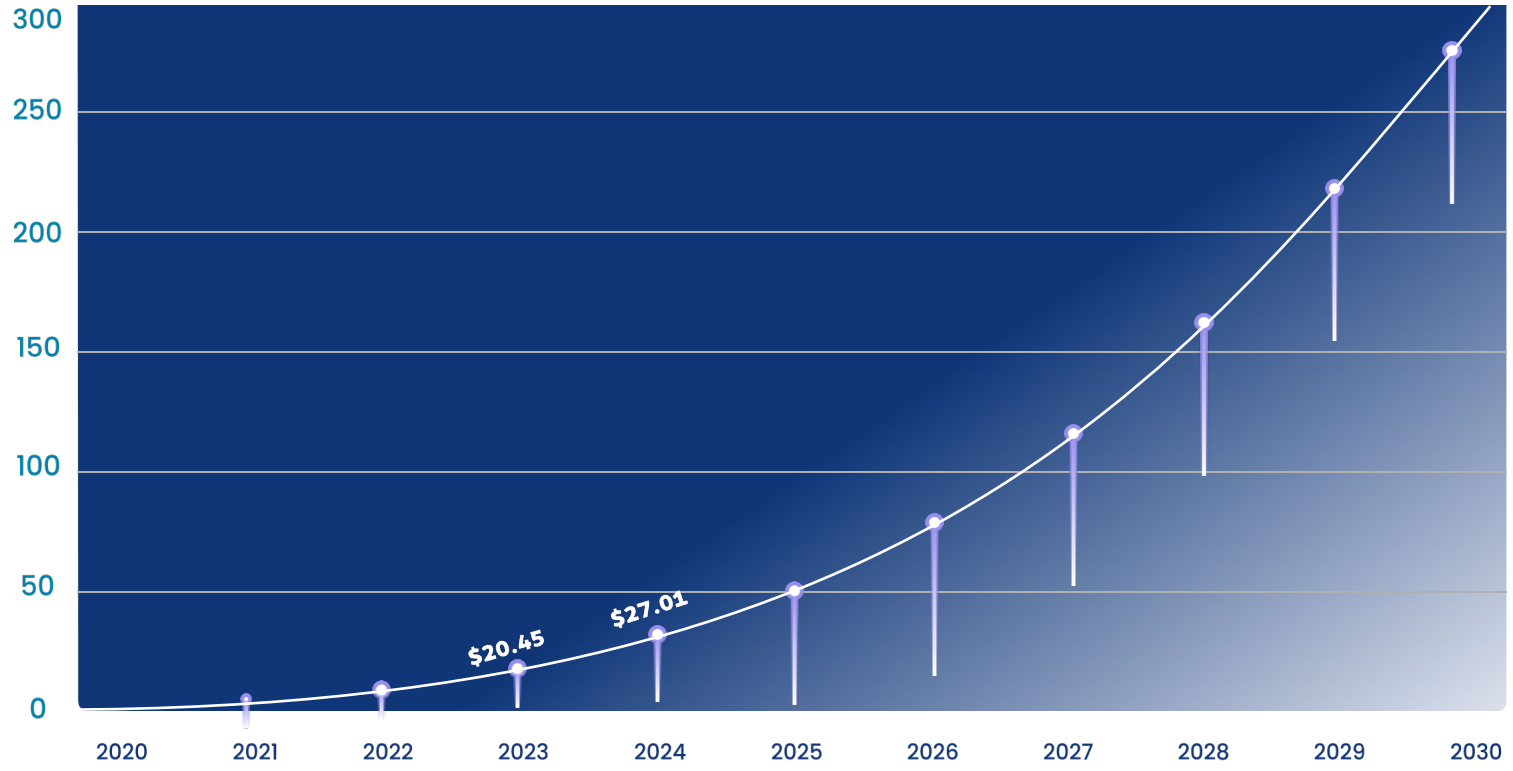
$325.7B by 2030

8.5% Global Market CAGR

Driven by AI, 5G, and smart devices.

Demand for Edge AI is Growing Fast

Edge AI Market Size



Source: Fortune Business Insights

Edge AI Growth:

Billions of connected devices require intelligence at the edge - not in the cloud

Expected To Reach

$269.82B by 2030

33.3% CAGR

As AI moves to on-device processing.

Edge AI Market Opportunity

Core Challenges

High power consumption **drains batteries fast**

Complex system architectures lead to **higher cost and larger size**

Limited flexibility with **single-function solutions**

Our Solution

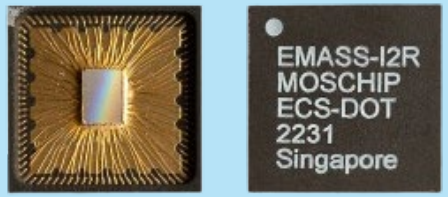
Enable meaningful **AI processing directly at the sensor/edge**

Deliver orders-of-magnitude improvements in **power, size, cost, and integration simplicity**

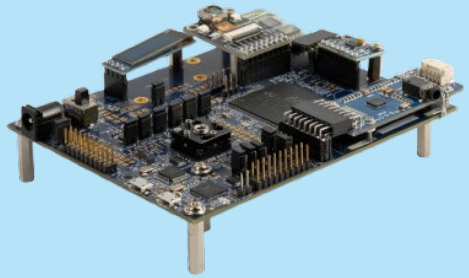
Unlock new categories of devices that were previously impossible or impractical

Atoms to Apps—at the Edge, on Sub-milliwatts

Silicon



Modules



Applications

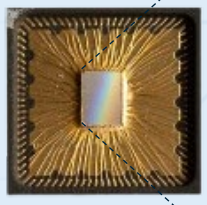
Drones

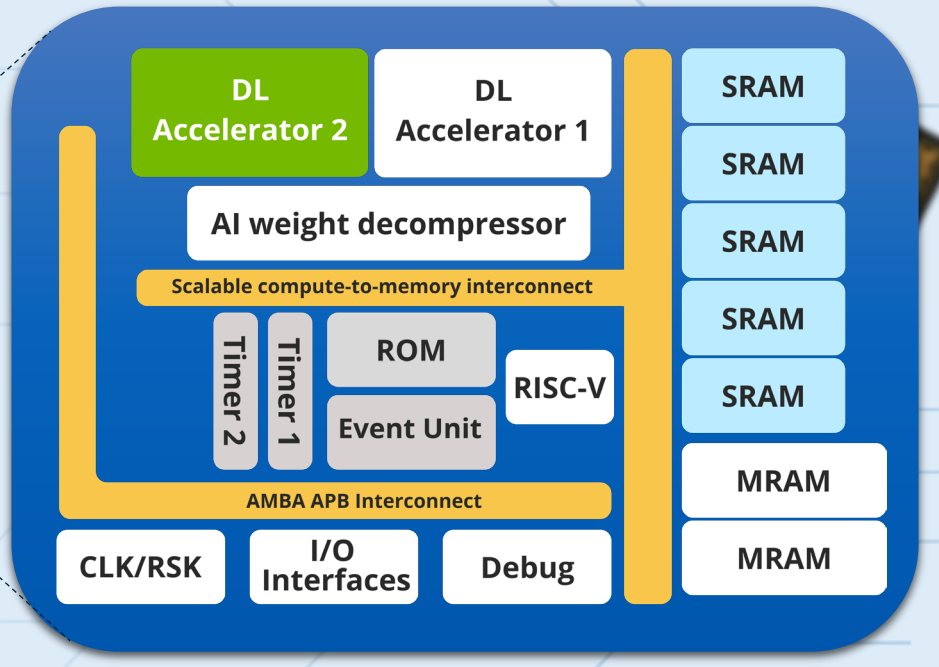
Wearables

ECS-DoT

Redefining What's Possible in Ultra-Low-Power Edge AI

- **Fully Programmable System on Chip**
  - Processor
  - AI engines
  - IPs for compressed AI
- **Local decision-making at the Edge**
  - Always-on AI Inference
  - Sensor Fusion
  - Support CNNs, ML, Data Processing etc.
- **Key Architecture Features**
  - <1 to 5 mW power consumption (Avg 2mW always on)
  - No External DRAM needed (very fast on-chip SRAM and nonvolatile MRAM/RRAM)
  - SW and HW support for highly compressed AI workloads





ECS-DoT Differentiation

Full AI capability, true always-on operation

Key Attribute	ECS-DoT	Typical Alternatives
Compute Architecture	RISC-V + Dual Deep Learning Accelerators	General MCU, DSP, or fixed-function NNs
Memory Architecture	Fully on-chip (up to 8MB) — No external DRAM	External DRAM often required
Model Efficiency	Compressed models (~1.3 bits/weight)	Full-precision models, higher memory demand
Power Consumption	~2mW active power	10–50mW or higher
Always-On Performance	Optimized for continuous inference	Not designed for continuous sensing
Integration Complexity	Single-chip, minimal BOM	Complex multi-chip solutions
Supported Workloads	Neural networks + classical + sensor fusion	Often limited to specific NN types
Package Size	5mm x 5mm QFN-40	Often larger footprints
Target Applications	Audio, vision, sensor fusion, IoT, XR, wearables	More narrow or general-purpose

ECS-DoT

Superior Performance, Low Power, Small Form Factor

Up to 12
TOPs/Watt

Compressed
AI Model < 2-bits

4
MBytes

22nm technology
with 7mm²die area

30 GOPs
@ 50 MHz, 2mW

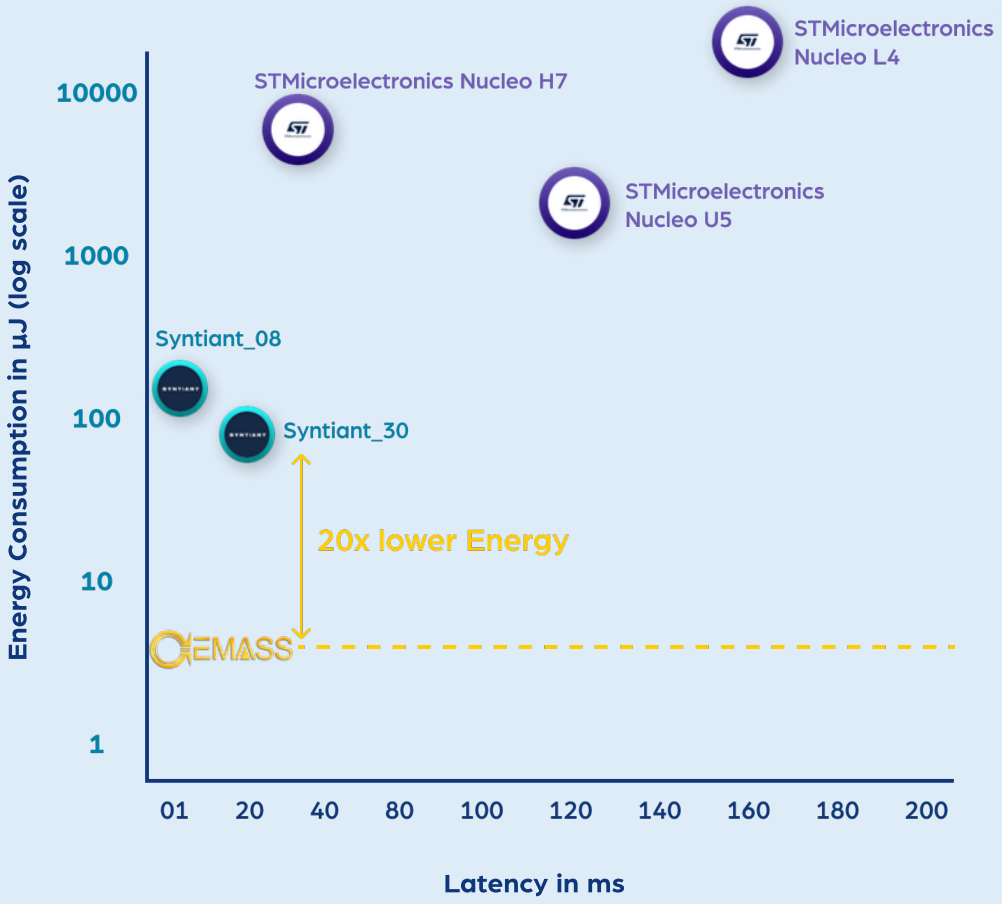
Leading Industry Peers in AI Computation Tasks

Company	Software Optimization	AI Performance per Watt (Avg/Peak)	Power (Avg/Peak)	AI Performance	Max AI Parameters
EMASS	Yes	3/15 TOPs	0.1mW/10mW	30 GOPs	13 million
Syntiant	No	0.1/1 TOPs	7mW/30mW	6.4 GOPs	7 million
Himax	No	40/320 GOPS	2.5mW/20mW	0.8 GOPs	500 thousand
Ambiq	No	240/133 GOPs	1mW/1.8mW	0.24 GOPs	1 million
Maxim	No	1.6/64 GOPs	50mW/2W	3.2 GOPs	3.5 million

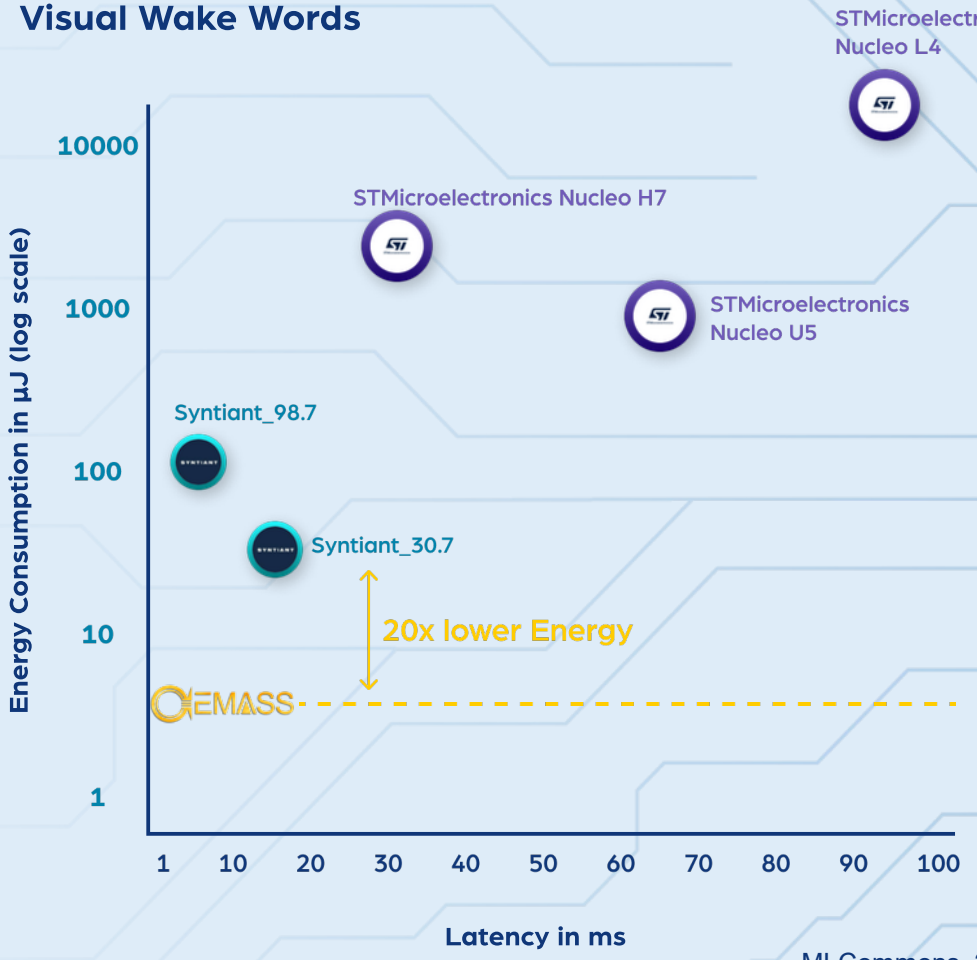
Exceptional AI Computation

20X Lower Energy

Image Classification



Visual Wake Words



MLCommons, 2025

Exceptional AI Computation

At least 20X Lower Energy

EMASS ECS-DoT at 50MHz

- Compared to current best in class chips from Syntiant and STMicroelectronics
- Running at least 2.5x to 3x faster*

Image Classification	
Execution Time	Power Efficiency
0.8x	**20x**
Visual Wake Words	
Execution Time	Power Efficiency
1x	**20x**
Keyword Spotting	
Execution Time	Power Efficiency
1.1x	**10.3x**
Anomaly Detection	
Execution Time	Power Efficiency
1x	**102.4x**

*Based on MLCommons, 2025

Ideal Solution for Battery-Constrained Devices

Continuous activity tracking, gesture detection, and health monitoring

Wearables

IoT Devices

Continuous sensing for voice control, anomaly detection, and environmental monitoring in always-on connected devices

Always-on voice triggers, gesture recognition, head tracking, and contextual awareness

AR Glasses

Hearables

Always-on keyword spotting, ANC, and sound classification

Real-time sensor fusion, object detection, and flight pattern recognition for autonomous navigation and obstacle avoidance

Drones

Smart Remotes

Gesture recognition, wake word detection, and low-latency control for intuitive user interfaces

AI Cameras

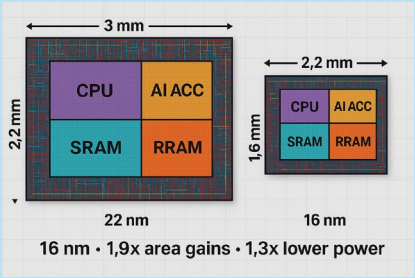
On-device object detection, event recognition, and pre-processing to enable real-time edge video intelligence

Next Generation ECS-DoT

Advanced 16nm Architecture

Built on TSMC's 16nm Fin Field Effect Transistor (FinFET)

- Higher Perf. & Lower Power
- Smaller Die Size
- Production Ready



Integrating Wireless Connectivity

Bluetooth 5.x + Bluetooth Mesh

Wi-fi

Lora for low-power, long-range (optional)

Key architecture enhancements

- Single/Dual-core
- Improved AI performance with dynamic 1-16 bit precision
- Expanded support for AI operators: CNNs, Transformers, NLP, object detection

Building for scalable edge AI deployment

- Edge autonomy: local sensing, AI processing, and wireless communication — all on one chip
- System cost reduction: fewer external components, smaller PCB
- Scalable platform for wearables, smart home, drones, industrial sensing, and more

Strategic R&D Collaboration

Key Partnership

Center of Nanoelectronics and Devices (CND), American University in Cairo

- One of the region's leading research institutions for advanced semiconductor design
- Deep expertise in low-power architecture, AI acceleration, and SoC optimization

Strategic Advisor

Dr. Yehia Ismail, CND Director

- Globally recognized expert in energy-efficient chip design
- Strong ties to TSMC, Stanford, and the global AI hardware community

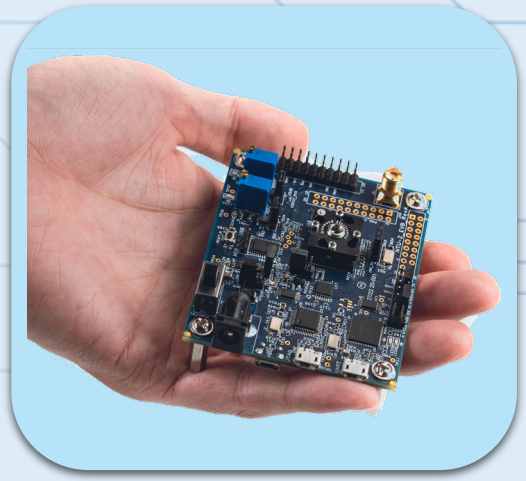
Driving Market Innovation

Center of Nanoelectronics and Devices (CND), American University in Cairo

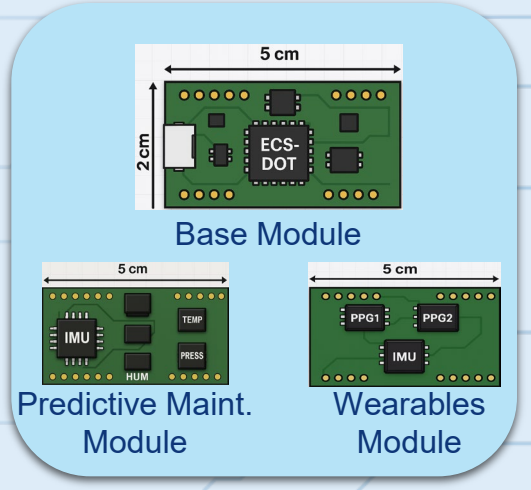
- Access to world-class semiconductor talent and AI researchers
- Expands IP portfolio and strengthens long-term technology independence

ECS-DoT Dev Kit and Modules

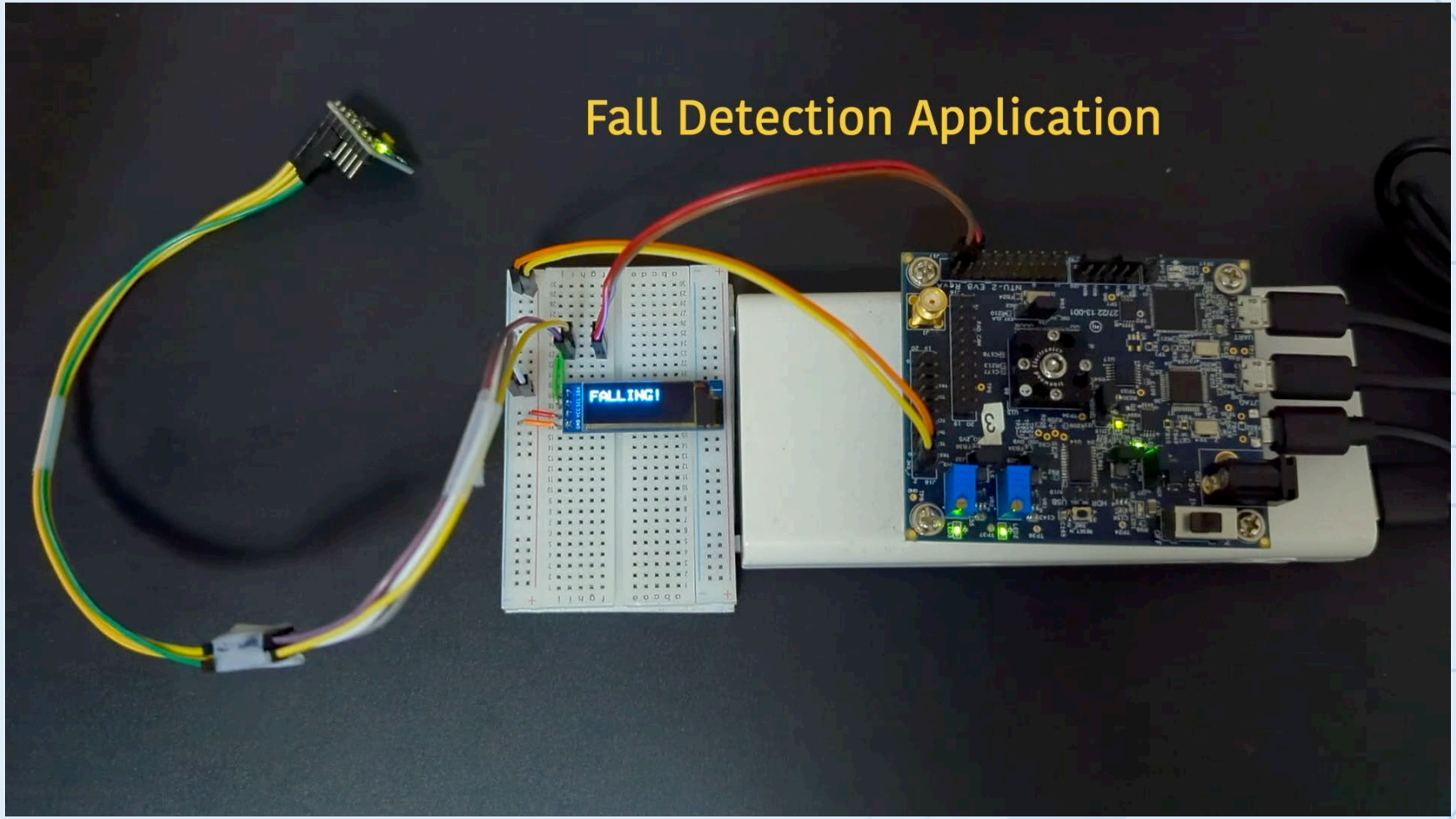
- **Current: Small 8cm x 6.5 cm Eval Board**
  - ECS-DoT chip + dedicated JTAG & UART-USB Interfaces
  - Pins to attach all sensors via standard interfaces (I2C, SPI, etc)



- **Next-Gen: 5 cm x 2 cm Modular board**
  - Base Board with ECS-DoT and debug ports
  - Pins to mount daughter boards, each for use case



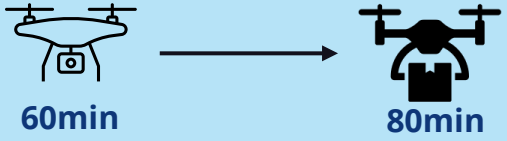
Wearables (Fall Detection)



ECS-DoT Unlocks Breakthrough in Drone Flight Efficiency

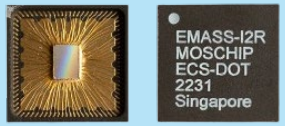
Longer Flight Times

+33% simulated flight time without any hardware changes



AI Ready Platform

Enables **onboard intelligence** for mission-critical use cases.



- Precision Landing
- Predictive Maintenance

Minimal Overhead

AI logic uses minimal battery, **preserving power** for propulsion.

How it works

Real-time control @ 50hz executing full “sense-think-act” loop every 20msZ

Operates in sub-milliwatt power envelope

AI engines include:

- Surrogate power predictor (25% drop in overthrust)
- Reinforcement learning controller (improves distance per Watt by 20%)

Positioning ECS-DoT for Autonomous Drone Markets

Minimal Overhead, Maximum Intelligence

ECS-DoT consumes **<1mW** total AI power, preserving battery

Precision Landing

Autonomous Inspection

Model Refinement

Addressable Market

USD$73B Market (2024)

USD$163B Market (2030)*

Next Steps Toward Market Readiness

Model Refinement

Targeting 40-70% endurance gains

Simulation Expansion

Diverse profiles (payload, wind, battery)

OEM Engagement

Pipeline for integration

Real-world Testing

Phase 2 live flights underway

Platform Expansion

Microdrones, fixed-wing, VTOL

*https://www.grandviewresearch.com/industry-analysis/drone-market-report

Strategic Collaboration on Edge AI Modules

Accelerating ECS-DoT Adoption

Phase 1

Industrial predictive maintenance

- USD$60 Billion Opportunity by 2030[1] (predictive maintenance)
- Integrated into a compact, intelligent module
- Real-time vibration sensing, anomaly detection, and machine diagnostics

[1]https://www.grandviewresearch.com/industry-analysis/predictive-maintenance-market

Phase 2

Wearable module

- USD$186.14 Billion Opportunity by 2030 (wearables)
- Ultra-low-power design for motion sensing, health tracking, and contextual AI
- Tailored for consumer and medical-grade wearable applications

[2]https://www.grandviewresearch.com/industry-analysis/wearable-technology-market

Phase 3

Accelerating real-world adoption

- De-risks integration for OEMs and solution developers
- Expands global reach through partner-led customer engagement
- Drives volume through alignment with industry-specific applications

*Source: SHD Group, March 2025

Building Commercial Momentum

Engaging with Tier 1 OEMs

- Actively engaging with leading wearables and drone manufacturers
- Strong interest driven by ECS-DoT's differentiated architecture and capabilities
- Potential customers see clear advantages over incumbent solutions from Syntiant and Ambiq

Drones

What Market Is Responding To

- Ultra-low active power during AI inference
  → Enables longer runtime, smaller batteries, and sleeker product designs
- Integrated sensor fusion: real-time fusion of audio, motion, and environmental data
  → Delivers richer context and higher accuracy from a single chip
- AI Model Portability: supports deployment of a wide range of models across popular frameworks
  → Accelerates time-to-market by simplifying model migration and reducing development effort

Wearables

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Thank You

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