PLUG AND PLAY

MAY 19-21 2026

SILICON VALLEY SUMMIT

#PNPTCSiliconValley

Join us at **pnptc.com**

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AEROSPACE & DEFENSE, SEMICONDUCTOR EXPO

SV SUMMIT



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Opening Remarks

Johannes Rott

Partner

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TODAY'S AGENDA

9:00 AM:	Opening Remarks
9:02 AM:	Aerospace & Defense Partner Announcements
9:07 AM:	Panel, Capital in Motion: Investing Across Aerospace & Defense ▪ Ryan Micheletti, Co-Founder & General Partner of The Veteran Fund ▪ Shohei Yamada, CEO of SBI Holdings USA ▪ Katie Gray, Partner at In-Q-Tel
9:32 AM:	Fireside Chat with Lieutenant General, Mauro D'ubaldi, Deputy Secretary General of Defense, Italy MOD
9:51 AM:	Fireside Chat with Daniel Hyatt, Director & Chief Engineer at Lockheed Martin
10:02 AM:	Aerospace & Defense Startup Pitches
10:20 AM:	Semiconductor New Partner Announcements
10:26 AM:	Semiconductor Startup Pitches
10:44 AM:	Closing Remarks

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SV SUMMIT

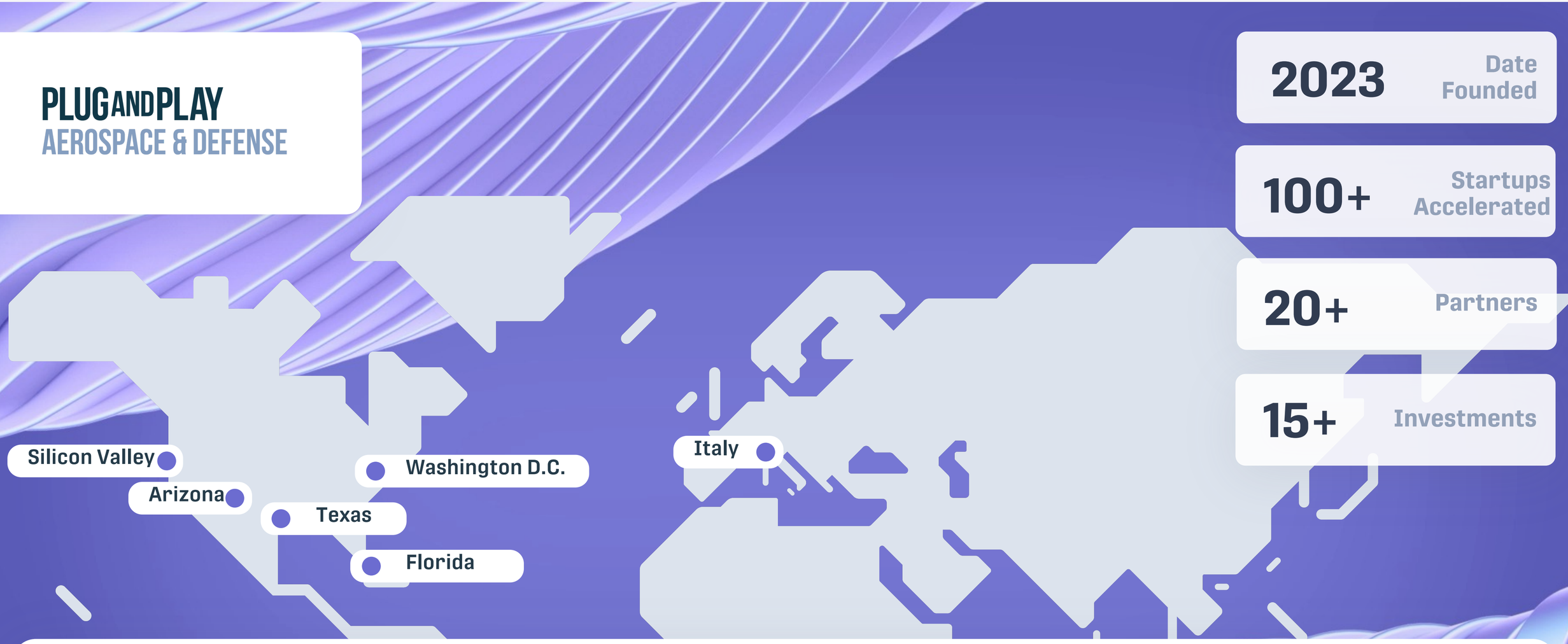
DOWNLOAD BRELLA TO NETWORK

Sign in here:
https://next.brella.io/events/SVMaySummit26

Password: SVMaySummit26

- Discover attendees
- Sync the agenda to your calendar
- Book meetings & meeting spots

PLUG AND PLAY
AEROSPACE & DEFENSE



2023 Date Founded

100+ Startups Accelerated

20+ Partners

15+ Investments

Our Ecosystem

Raytheon An RTX Business
Honeywell Aerospace
Texas A&M University
TECH
LEONARDO
DEFENSE INNOVATION UNIT
SERDP
Greater Brazos Partnership
TALENT MANAGEMENT
ARIZONA COMMERCE AUTHORITY
CEDAR PARK ECONOMIC DEVELOPMENT
CASSINI Business Accelerator
AVIO
SBCC
ASI Agenzia Spaziale Italiana
DIANA
UNIONE INDUSTRIALI Torino
European Commission
cdp Fondo Nazionale Innovazione CDP Venture Capital Sgr
MINISTERO DELLA DIFESA
EUSPA European Union Agency for the Space Programme

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Aerospace & Defense Partner Updates

Eric Froehlich

President & CEO

SBCC

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2026 AFGSC SHOWCASE

SBCC

Sourcing

JAN 15TH

Plug and Play & SBCC sourced startups & 100+ companies applied for the program.

Kick Off

MAR 13TH

Plug and Play & SBCC hosted an orientation for the 18 selected startups.

Program

MAR - MAY

During the program, the startups participated in 14 workshops over 8 weeks.

AFGSC x SBCC Showcase

MAY 13-14TH

On May 13 & 14 the startups presented their technologies to AFGSC in Shreveport, LA.

Plug and Play Summit Showcase

MAY 20TH

Today, some of the startups from the program will pitch during the Aerospace & Defense Expo



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SV SUMMIT

CAPITAL IN MOTION: INVESTING ACROSS AEROSPACE & DEFENSE



Manveer Sandhu

Moderator

PLUG AND PLAY



Ryan Micheletti

Co-Founder & General Partner

THE VETERAN FUND



Shohei Yamada

CEO

SBI Holdings



Katie Gray

Partner

iqt

PLUGANDPLAY

SV SUMMIT

AEROSPACE & DEFENSE FIRESIDE CHAT



Enrica Bonora

Program Manager

PLUGANDPLAY



LTG Mauro D'ubaldi

Deputy Secretary Gen. of Defense

MINISTERO DELLA DIFESA

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AEROSPACE & DEFENSE FIRESIDE CHAT



Manveer Sandhu

Moderator

PLUG AND PLAY



Daniel Hyatt

Director and Chief Engineer

LOCKHEED MARTIN

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STARTUP PRESENTATION

互宇向量股份有限公司
AEGIVERSE

Aegiverse

Fiber optic gyroscopes & GNSS Inertial Navigation System solutions.

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AEGIVERSE

Inertial One-Step solutions

FOG, AHRS, GNSS-INS

for

LEO, UAV, USV & UGV

AEIGVERSE

Simplified Navigation

One Step to Deployment

鍾宏彬 Dr. Acrux Chung, CEO, AEGIVERSE

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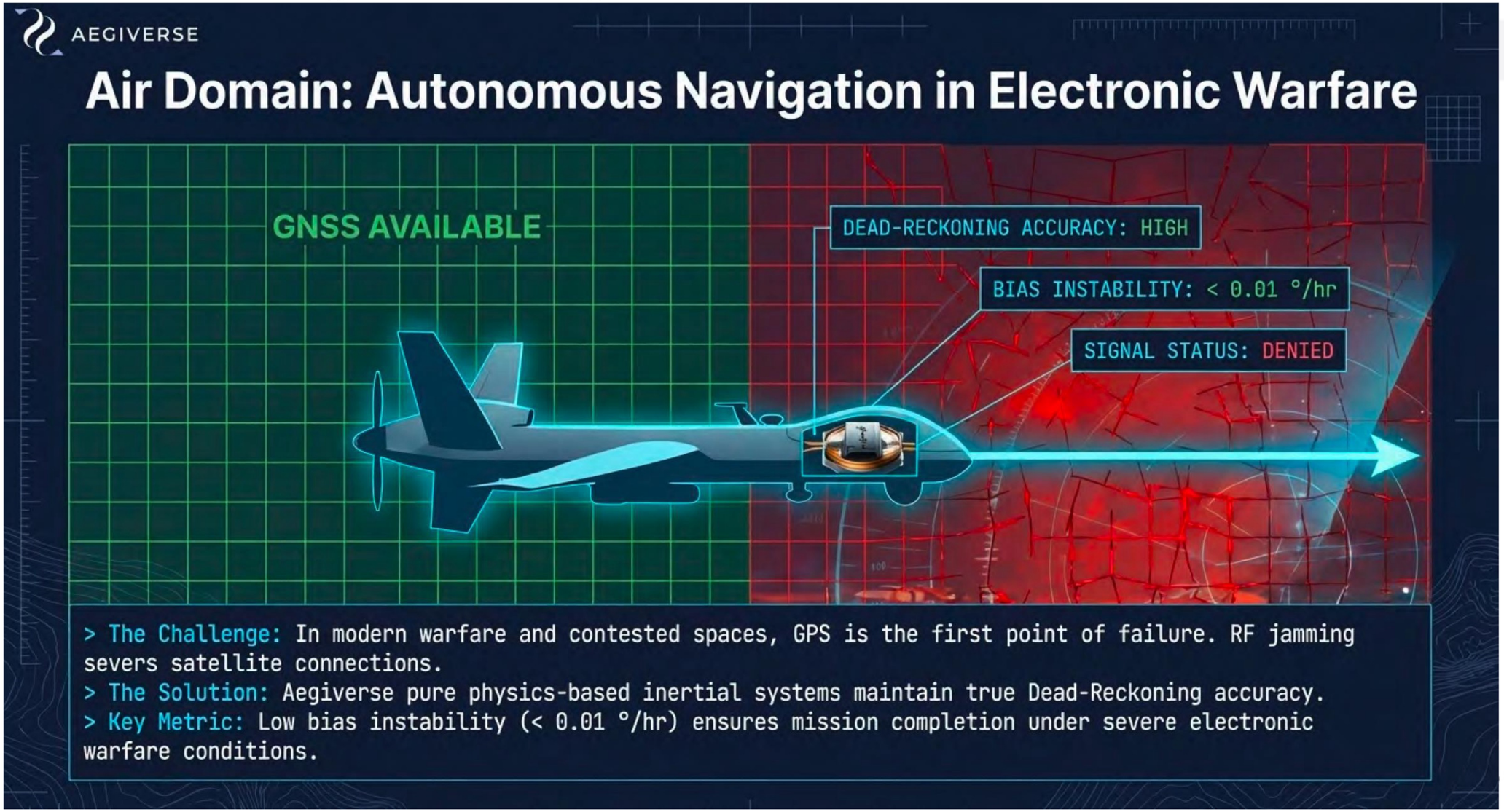
Anti-Jamming : Battlefield Ready ?

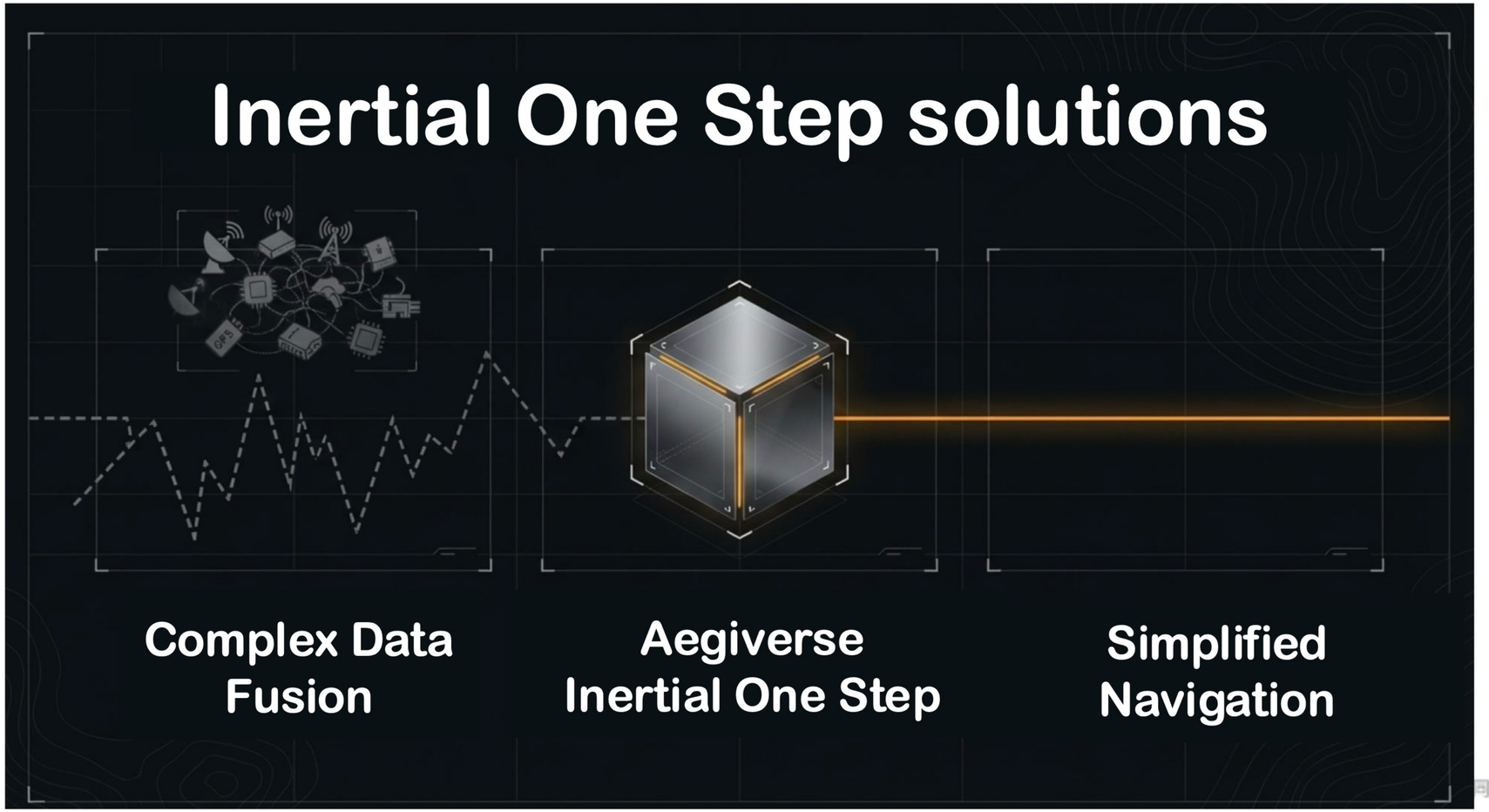
- **Survive the Jamming**: Precise Inertial Navigation for Drones, UAVs, and USVs.
- **Taiwan-Made Strength**: From Prototype to Mass Production.



Simplified Navigation

Inertial One Step solutions

- **Main Solutions**：Fiber-Optic Gyro (**FOG**) 、 Attitude & Heading (**AHRS**)、 Navigation (**GNSS-INS**)
- **Services**：Inertial solution from **Design** to **Deploy**
- **Certification**：IEEE std-952-2020、MIL-STD-810、INS、ISO 27001、NATO registration、CMMC LV1



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Inertial Reference for LEO

AEGIVERSE

Domain: Aerospace and Space Applications

Key Context: Aegiverse is a primary partner in Taiwan's sovereign space industry, executing strategic projects with the Taiwan Space Agency (TASA) to advance MIOC and FOG technology.

Technical Fit: High-reliability, low-drift FOG IMUs provide the critical Attitude Determination & Control Systems (ADCS) required for modern LEO constellations.



Inertial Navigation for Drone/UAV

AEGIVERSE





Head-to-Head Performance Comparison

Purpose: This table directly compares key performance metrics related to inertial navigation. For all metrics listed, a lower value indicates higher precision and greater stability, which is crucial for navigating without a GNSS signal.

GS-1V-AC (Industrial)		GS-3V-AC (Tactical)	
5 deg/hr	Gyro In-Run Bias Stability	1 deg/hr	5x More Stable
≤ 40 µg	Accelerometer In-Run Bias Stability	≤ 10 µg	4x More Stable
3.0 cm/sec²	Free Inertial Position Drift	0.5 cm/sec²	6x Less Drift
0.2 deg	INS Heading Accuracy (1σ)	0.05 deg	4x More Precise
0.5 deg	Static Pitch/Roll Accuracy (RMS)	0.05 deg	10x More Precise
≤ 0.05 m/sec	Velocity Accuracy	≤ 0.02 m/sec	2.5x More Precise





GS-1V-AC: High-End Industrial Grade

Built for Demanding Industrial Applications Systems

Delivers robust and reliable navigation for complex industrial automation and unmanned systems.

GS-3V-AC: Tactical Grade

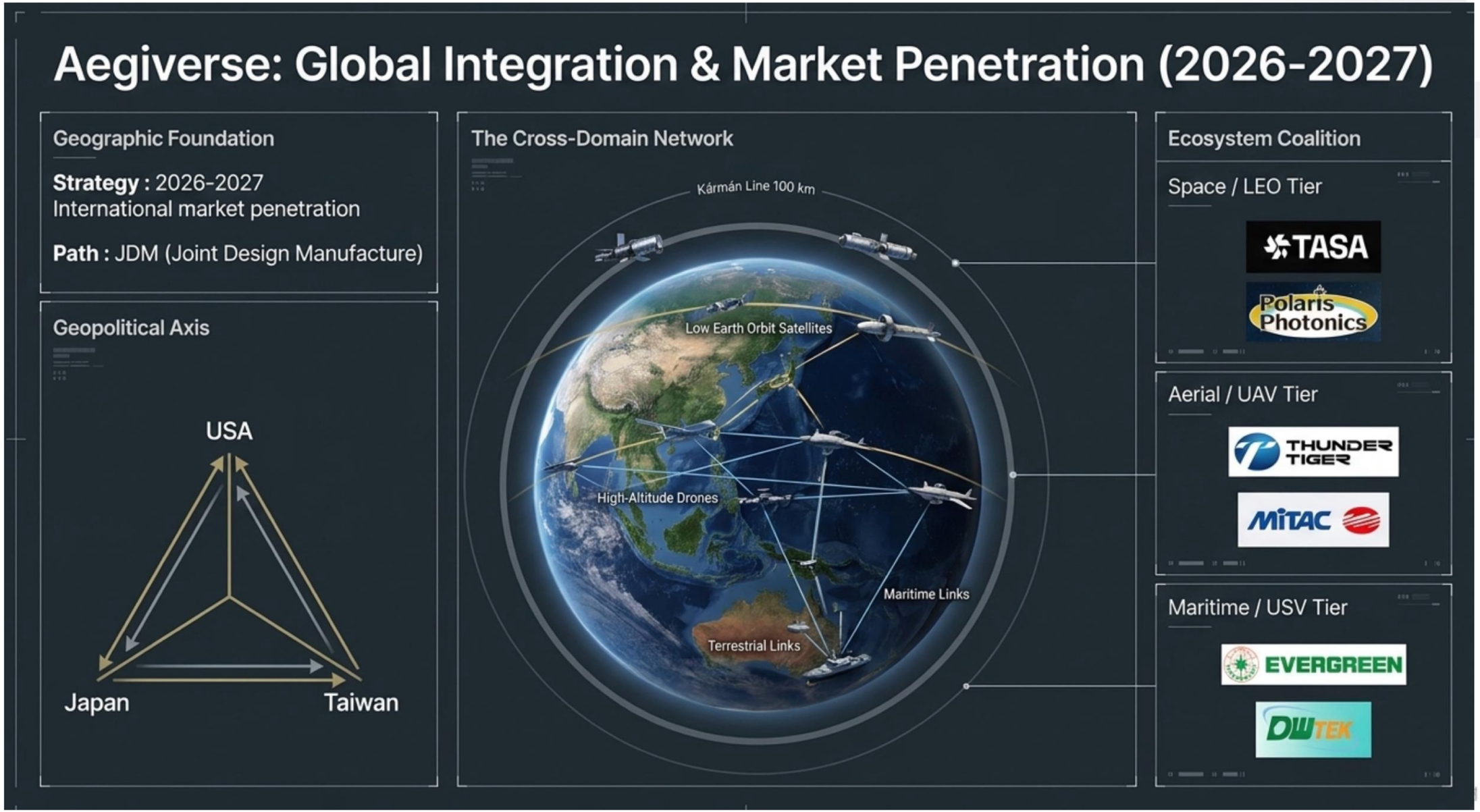
Engineered for Mission-Critical Precision

Offers elite stability for operations requiring uncompromised navigation, even during signal loss.

請尊重著作權，未經同意不得引用轉載，謝謝

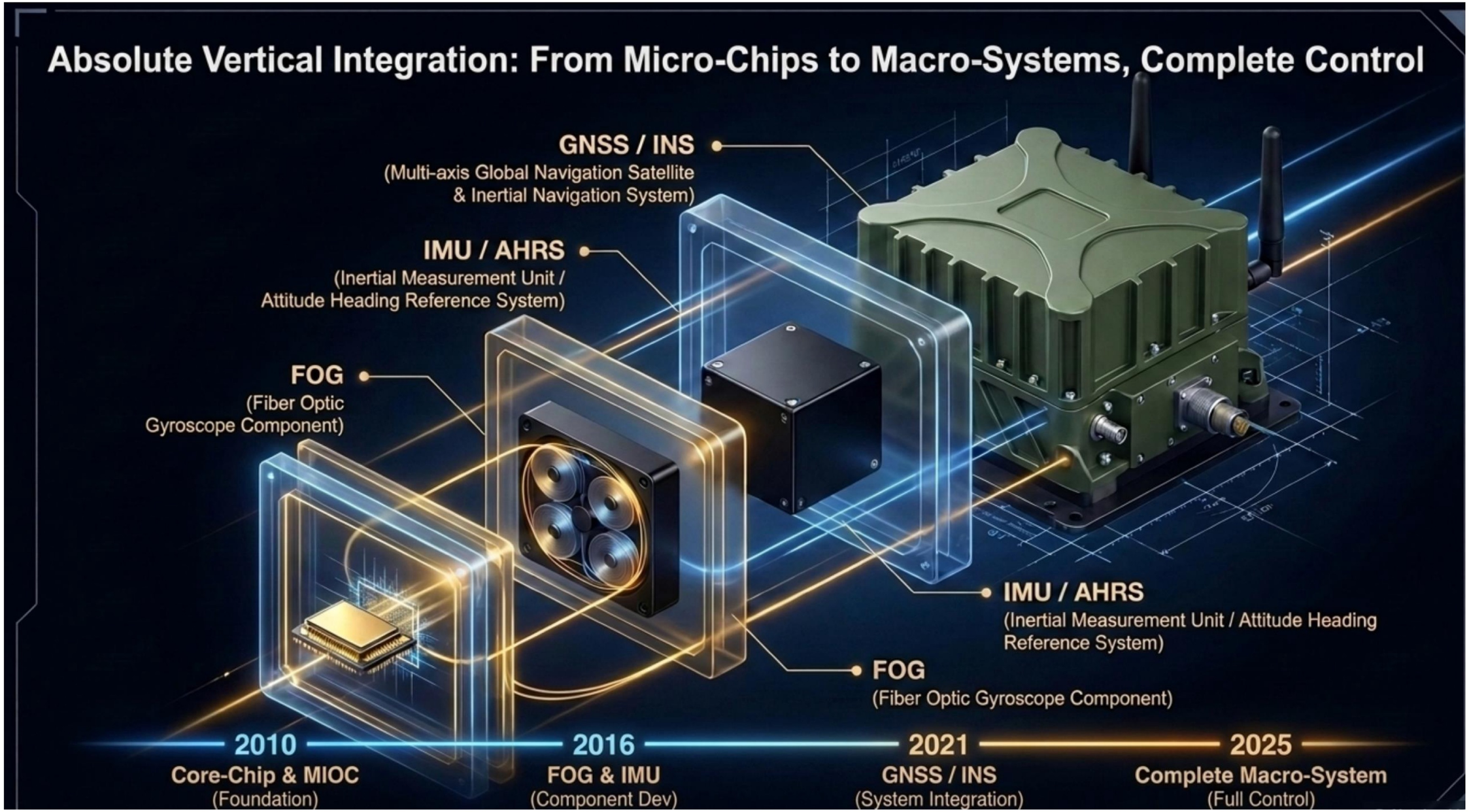
Global Perspective

- **Path： JDM (Joint Design Manufacture)** with LEO、UAV、USV integrators.（**USA**、**Japan**、**Taiwan**）



16 Years: From Lab to Deploy, Made Simple

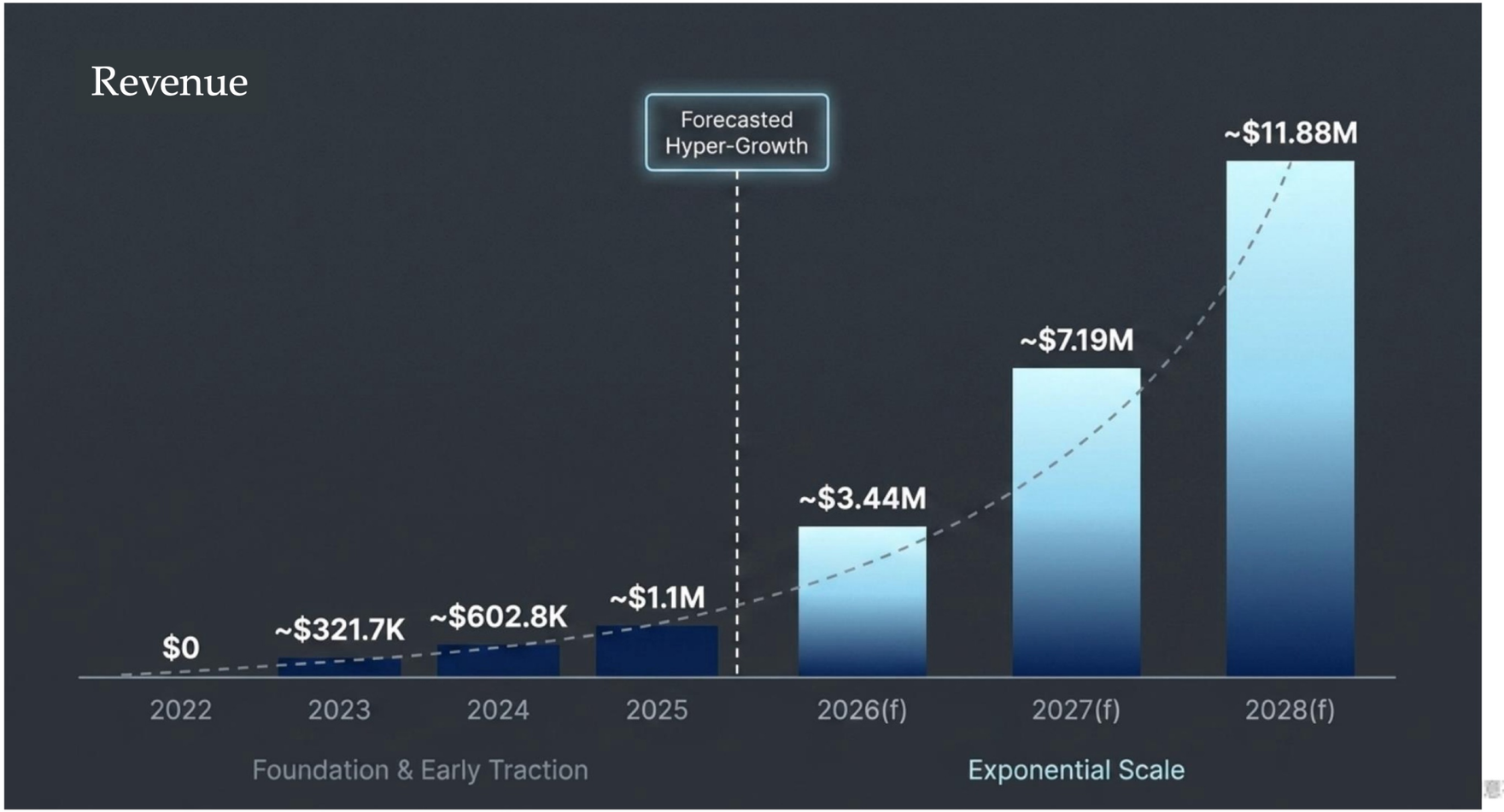
AEGIVERSE



Fundraising

A2 Round

- **Main Shareholder : Taiwan Aerospace Cooperation, PolarisPhotonics**
- **Accountant ： PwC**
- **Round** : A2, 2026 Q3
- **Range** : USD 15M



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AEGIVERSE
Guardian for Your Every Trajectory
One Step to Deployment

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STARTUP PRESENTATION

BRIGHT
Silicon Technologies

Bright Silicon Technologies

Accelerating breakthroughs by harnessing light.

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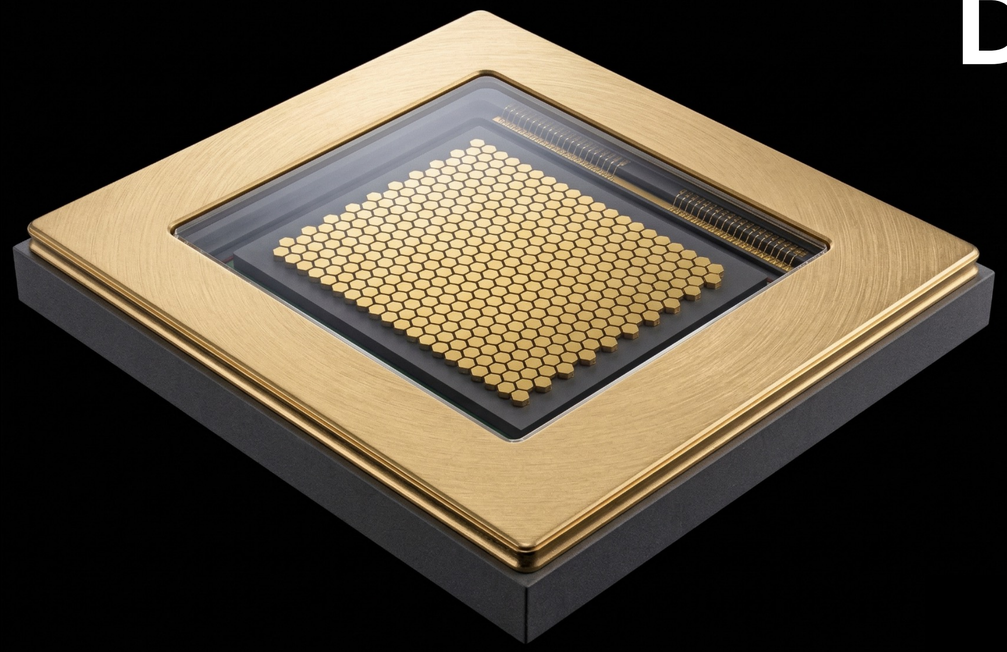
BRIGHT
Silicon Technologies

Transforming Global Data Distribution for the AI Era



Jeff Lang, CEO – jeff.lang@bright-si-tech.com
Robert Panas, CTO – robert.panas@bright-si-tech.com
Cynthia Panas, COO – cynthia.panas@bright-si-tech.com

Accelerating breakthroughs by harnessing light

From Dial-Up to All-Domain

Existing Optical Communications Terminals

Link Acquisition Time

10s – 60s +

Single point static links

Schedule ahead pointing and steering w/ no reconfigurability

Bright-Si-Tech Gimbal on a Chip

Multiplexed Optical Links

1ms – 10ms

Agility to dynamically reconfigure networks and establish ad-hoc interconnect

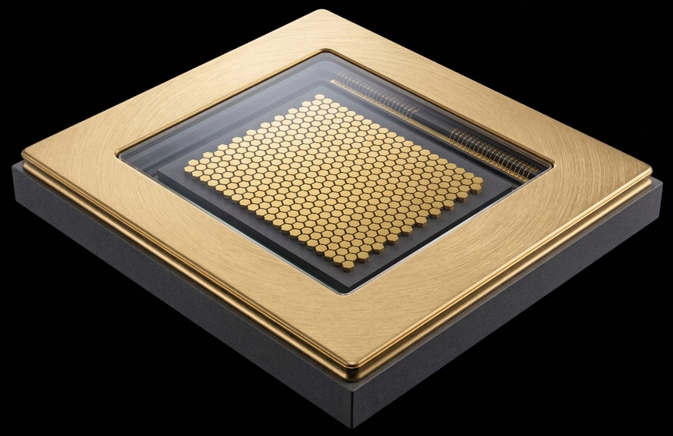
Multiplexing capability for 10’s to 100’s of endpoints from single transceiver

10,000 x Faster. 100x Smaller. Solid-state.

A revolution in optical communications hardware

Optical Communications On a Chip





Size and Weight Reduction:
10x

Link Acquisition Improvement:
100x

Loop closure Bandwidth:
100x

Steering Rate:
10,000x

Gimbal – Coarse Steering



Deformable Mirror



Controller & wavefront sensing

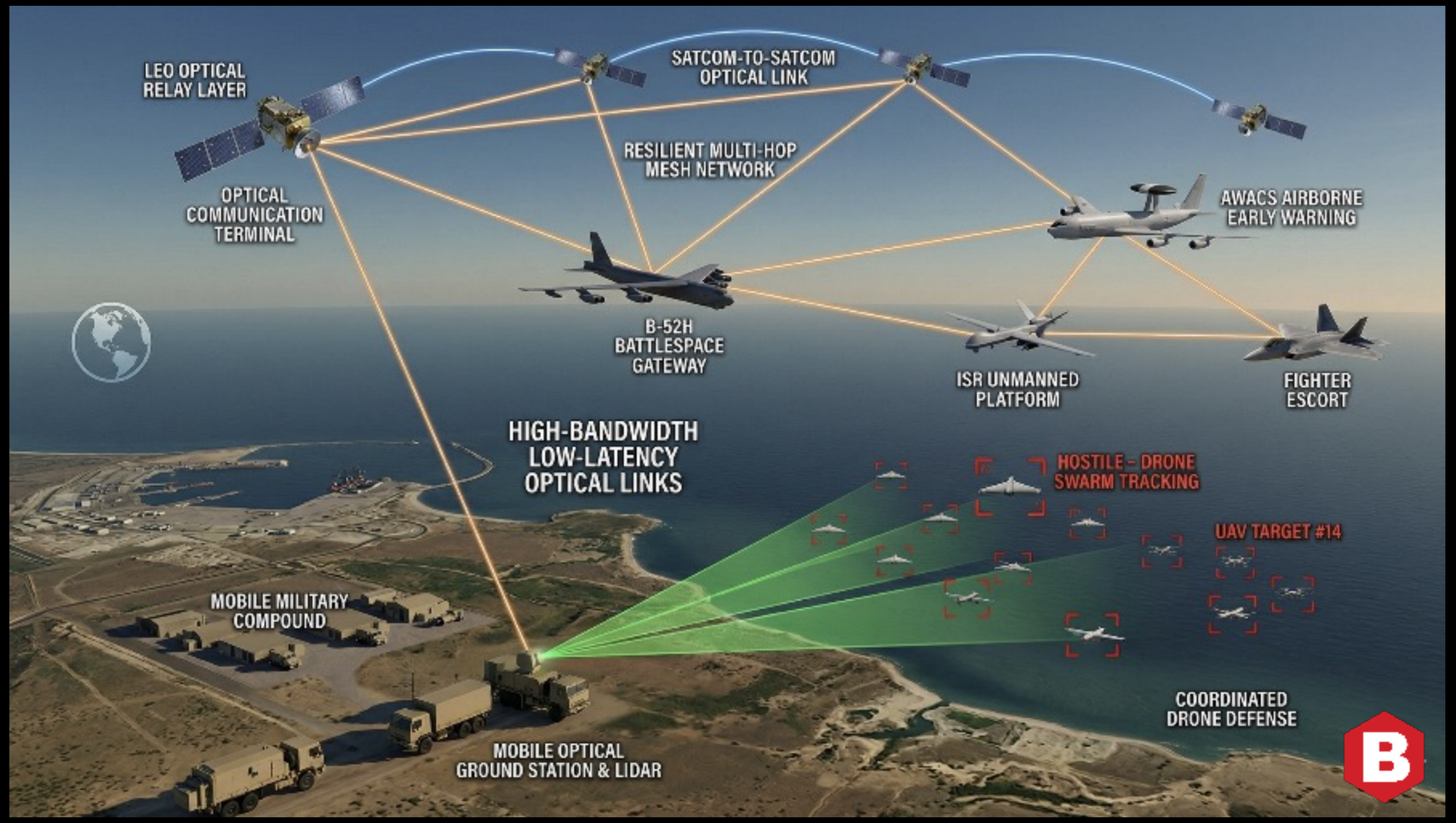


Fast Steering Mirror



Government Traction

Battlefield Information Dominance on a Chip



Phase III Government Contract for Air-to-Space Terminal Demo (2024)

Phase III Government Contract for Counter-UAS Drone Tracking (2026)

Non-dilutive funding to date for technology maturation: $25 M

SAFE & Convertibles Notes: $3M

Bright spun-out of National Lab (LLNL) in 2021

Primary Tech Stack Opens Multiple Adjacent Markets

Optical Circuit Switching

LUMENTUM Google

Massive-radix, low-loss networking for hyperscale data centers

Quantum Computing

atom computing

Scalable architectures for deployable neutral atom computing

Long-range Pulsed Lidar

PEREGRINE SPACE ANDURIL

Non-jammable, non-detectable, ultra-precise ranging and identification

Quantum Networking

Infleqtion

Distributed timing and low-latency interconnect for quantum information transmission

Laser Focused on Focusing Lasers

Seed Fundraise

- **Terms:** Raising $10M
- **Usage:**
  - Deliver pilot units for commercial customers,
  - Grow the team by 30% -- Key production and BD hires,
  - Silicon fabrication & component hardware procurement,
  - Install 2nd production line for scale-up,
  - Finalized production ready devices in 12 months
- **Additional Leverage:**
  Use as match for government funding via STRATFI opportunities
- **Timing:** Opening June ‘26



Jeff Lang, CEO



Dr. Robert Panas, CTO



Cynthia Panas, COO

Bright Silicon Technologies was founded in 2020 and operates a 9k sqft. facility with a mix of office space and cleanroom in Pleasanton, CA.

As of May 2026, Bright has 15 employees.

Bright Silicon Technologies, Inc.
6920 Koll Center Parkway, Suite 213
Pleasanton, CA 94566

Jeff Lang, CEO - jeff.lang@bright-si-tech.com
Robert Panas, CTO – robert.panas@bright-si-tech.com
Cynthia Panas, COO – cynthia.panas@bright-si-tech.com
www.bright-si-tech.com

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Xos Trucks

Enabling electric fleets right now.

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XOS

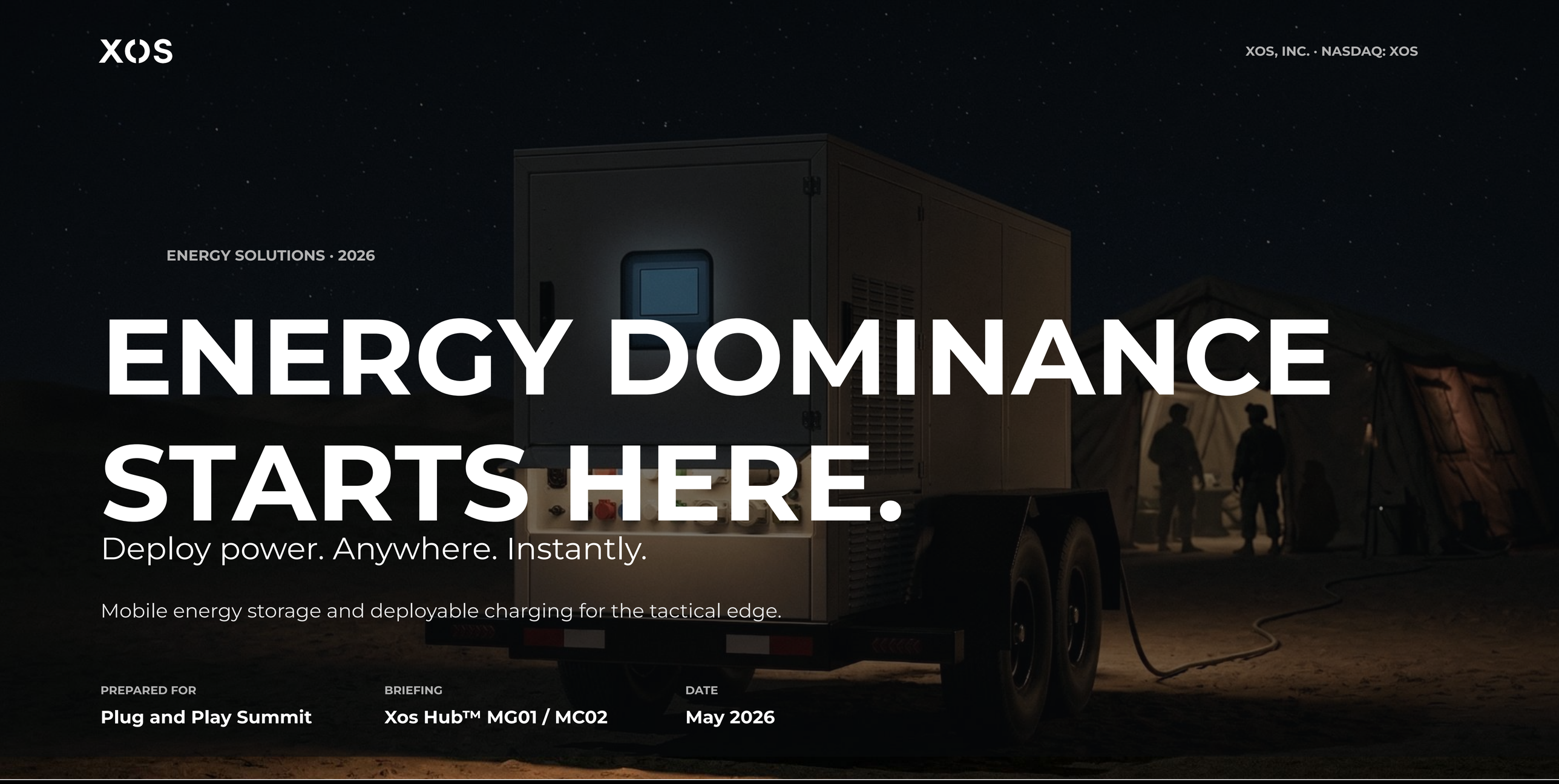
XOS, INC. · NASDAQ: XOS

ENERGY SOLUTIONS · 2026

ENERGY DOMINANCE STARTS HERE.

Deploy power. Anywhere. Instantly.

Mobile energy storage and deployable charging for the tactical edge.



PREPARED FOR
Plug and Play Summit

BRIEFING
Xos Hub™ MG01 / MC02

DATE
May 2026

WHY NOW

GRID VULNERABILITY IS A MISSION RISK.

99% of DoD installations depend on the commercial electricity grid — vulnerable to cyber-attack, sabotage, and extreme weather.

INFRASTRUCTURE

36 MONTHS TO PERMIT & BUILD

Permanent DC fast-charging installations cannot keep pace with electrification timelines or expeditionary needs.

LOGISTICS

FUEL BURDEN & SIGNATURES

Combustion gensets create heavy fuel logistics tails, plus noise and emission signatures that compromise position.

THE BOTTLENECK

ELECTRIFIED EQUIPMENT CANNOT DEPLOY

Without deployable charging, the Air Force cannot field next-generation electric UAS systems, computing, and other electric equipment.



XOS HUB™ MG01

DEPLOYABLE AC/DC POWER

Bridges legacy power and modern electric equipment in the field — without permanent infrastructure.

ENERGY STORAGE **~420 kWh LFP** Lithium iron phosphate chemistry — thermally stable, long-cycle.	DC OUTPUT **160 kW peak · CCS1** Direct-current output for next-generation electric GSE and vehicles.
THROUGHPUT **8 – 10 units** Vehicles or GSE charged simultaneously per Hub.	GENERATOR BUFFER **480 / 240 V 3-ph** Absorbs generator transient surges — cleans dirty field power.

MC02 AC POWER HUB

SCALABLE RESILIENCE FOR TACTICAL AC LOADS.

A battery-buffered mobile generator engineered for installation energy and bi-directional tactical power.

SCALABILITY

210 – 2500 kWh / unit

Link multiple units to deliver up to **20 MWh** of installation energy.

AC OUTPUT

300 kW

240 KVA continuous, dual independent control channels.

BI-DIRECTIONAL

In ⇄ Out

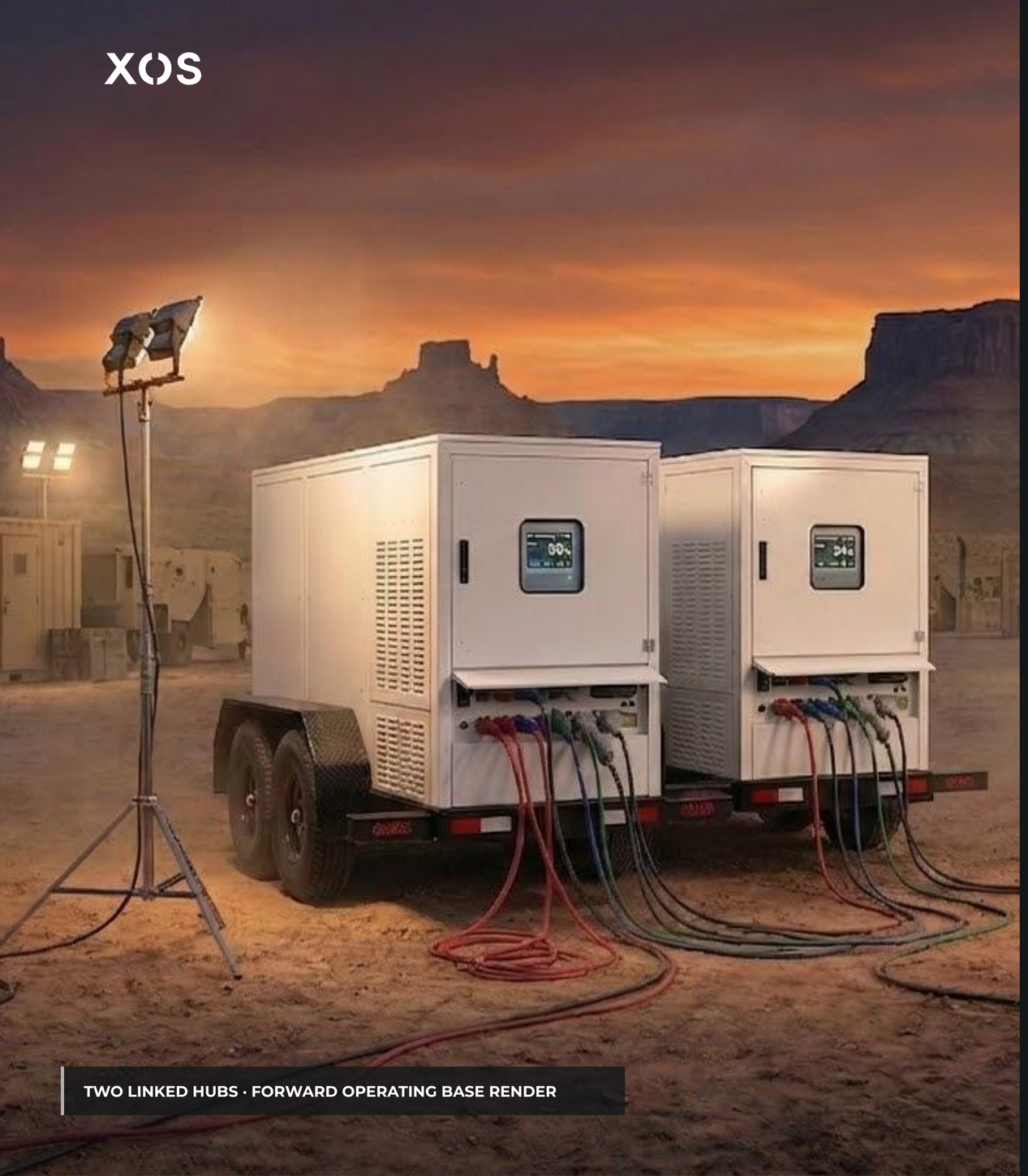
Simultaneous input and output for any tactical load profile.

SAFETY

UL

UL 1973 · **UL 9540A** certified battery systems.

DIESEL-GENERATOR ALTERNATIVE | **V2G CAPABLE** | **LINKABLE TO 20 MWH**



TWO LINKED HUBS · FORWARD OPERATING BASE RENDER

EXPEDITIONARY READINESS

BUILT TO MOVE WITH THE MISSION.

Re-packaged for 463L palletization, transportable on a single skid, and operational in under two minutes..

463L PALLET

≤ 104 in length

Actively re-packaged to fit standard Air Force 463L pallet constraints.

AIR TRANSPORT

C-130 / C-17

Fits the cargo envelope of a single C-130 or C-17 aircraft.

SETUP TIME

< 30 min

Forklift pockets and wheel-kit for site mobility on arrival.

OPERATIONAL RANGE

−20 → +55 °C

Verified performance across desert, arctic, and humid climates.

CHAPTER TWO

REAL CUSTOMERS. REAL DEPLOYMENTS.

The next five slides are taken from active commercial deployments — not pilots, not prototypes. Each customer is in service today, charging real equipment in the field.

Auto | Caltrans | Xcel Energy | NextEra Energy | Duke Energy

Caterpillar | UPS | FedEx | Loomis

XOS

USE CASE 01 · AUTONOMOUS FLEETS

Autonomous Fleets

High-volume, multi-port charging that keeps Waymo's robotaxi fleet rolling without grid build-out.

DEPLOYMENT	**Phoenix & San Francisco depots**
OPERATING MODE	**24/7 continuous, autonomous return-to-base**
WHY MOBILE USE CASE · AUTONOMOUS	**Scales charging without permanent DC infrastructure**



XOS

USE CASE 02 · STATE TRANSPORTATION

Caltrans

Mobile DC charging supports Caltrans crews where permanent infrastructure has not yet been built — on highways, at remote yards, and on incident response.

DEPLOYMENT	**District yards, California**
USE PROFILE	**Maintenance vehicles, incident response**

USE CASE · STATE TRANSPORTATION





XOS

USE CASE 03 · UTILITY GRID RESILIENCE

Xcel	Service truck charging & storm response — Colorado, Minnesota, Texas.
NextEra	Mobile DC charging for utility EV crews and renewables sites.
DUKE	Hurricane response in Florida — charged utility EVs when the grid was down.

Three of the largest U.S. utilities use Xos Hubs to charge service fleets where the grid is unreliable, restoring power for the customers who depend on them.



XOS

USE CASE 04 · MUNICIPAL FLEETS

Municipal and SD Fleets

Refuse, public works, and parks & recreation EVs charged on-site without rebuilding the depot — an answer for the hundreds of cities now electrifying vocational fleets.

CUSTOMERS	**City of Santa Barbara & growing**
USE PROFILE	**Refuse trucks, sweepers, public works EVs**
WHY MOBILE	**Avoids 24-month depot upgrade timelines**



PROVEN IN SERVICE

COMMERCIALLY VALIDATED. PROCURABLE TODAY.

100 +

HUBS DELIVERED

Active commercial deployments across utility, autonomy, and fleet operators.

1,000 +

INSTALLED BASE

Xos vehicles and energy units in continuous service across North America.

24 / 7

MISSION TESTED

From hurricane response in Florida to Waymo autonomous depots.

PROCUREMENT VEHICLES · MANUFACTURED IN TENNESSEE

GSA Schedule · Sourcewell Awarded Contract Contract # 062625-XOS · OMNIA PARTNERS · npp gov National Purchasing Partners Government

PROVEN IN SERVICE

REAL WORLD PROVEN RESULTS FOR DEMANDING CUSTOMERS

FedEx

WAYMO

Caltrans

ups

BLUE BIRD

DUKE ENERGY

TACOMA POWER
TACOMA PUBLIC UTILITIES

LOOMIS

ARCHER

City of portland

vestis

NEXTera ENERGY

UniFirst

Xcel Energy℠

THOMPSON TRUCK CENTERS

STABILIZE · CONDITION · DEPLOY

DEPLOY POWER. ANYWHERE. INSTANTLY.

COMPLIANCE

American-made in Tennessee.

AVAILABLE THROUGH

GSA · Sourcewell OMNIA Partners · NPP

NEXT STEP

Site visit & demo. Coordinated within 30 days.

PLUG AND PLAY

STARTUP PRESENTATION



HyperTunnel

Access experts through space and time.

#PNPTCSiliconValley

Join us at **pnptc.com**

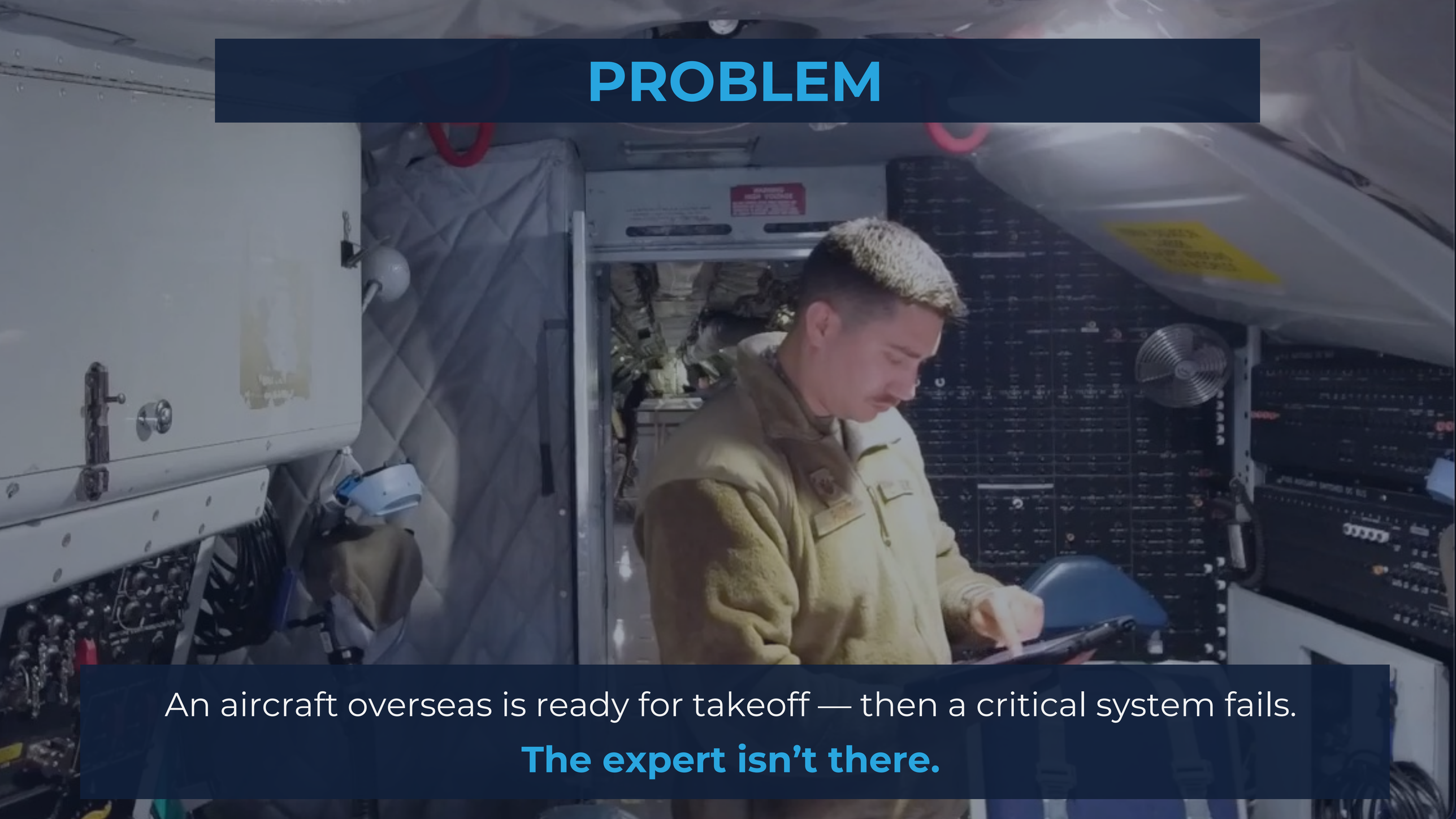


HyperTunnel®

Access experts through space and time

Eduardo Neeter, Founder / CEO
eneeter@hypertunnel.com

PROBLEM



An aircraft overseas is ready for takeoff — then a critical system fails.

The expert isn’t there.

SOLUTION



Frontline Technician

Remote Expert

HyperTunnel delivers **expertise where it’s needed**
using XR and AI — **live or on demand.**

DEMO

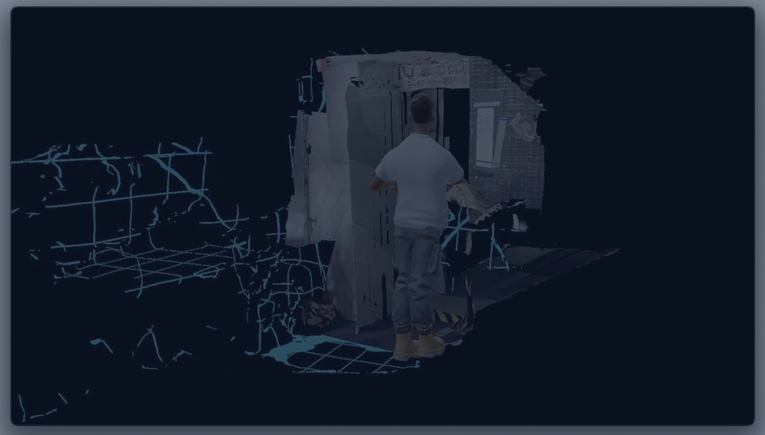
SCAN

Capture the worksite in AR



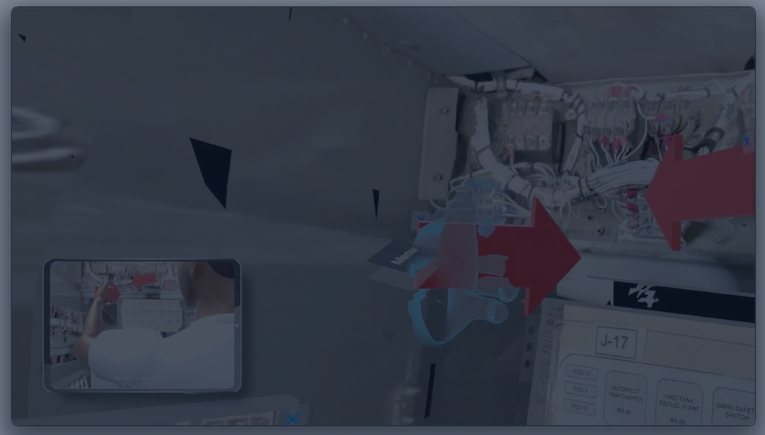
IMMERSE

Enter the digital twin in VR



COLLABORATE

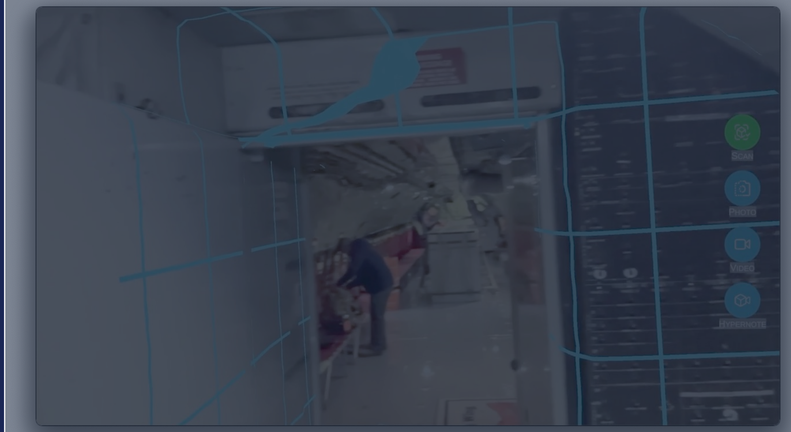
Guide work side-by-side



DEMO

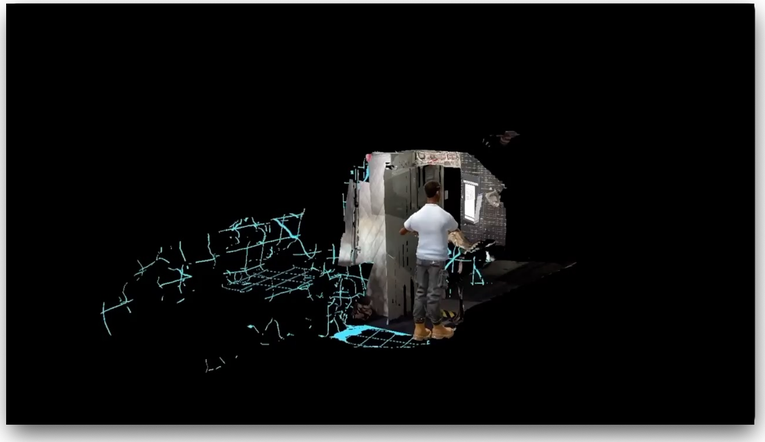
SCAN

Capture the worksite in AR



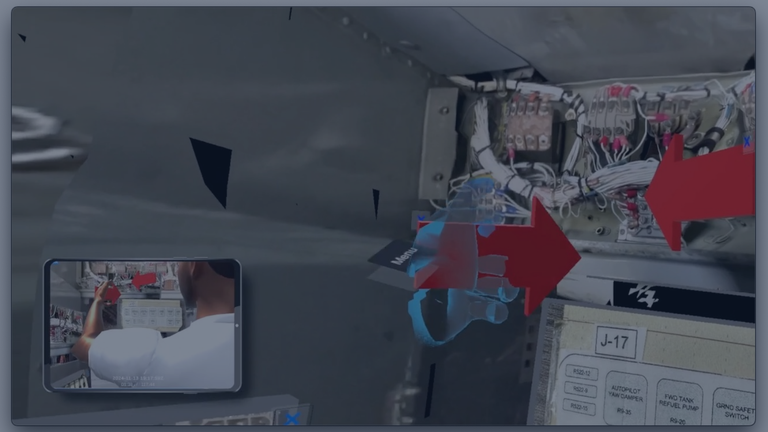
IMMERSE

Enter the digital twin in VR



COLLABORATE

Guide work side-by-side

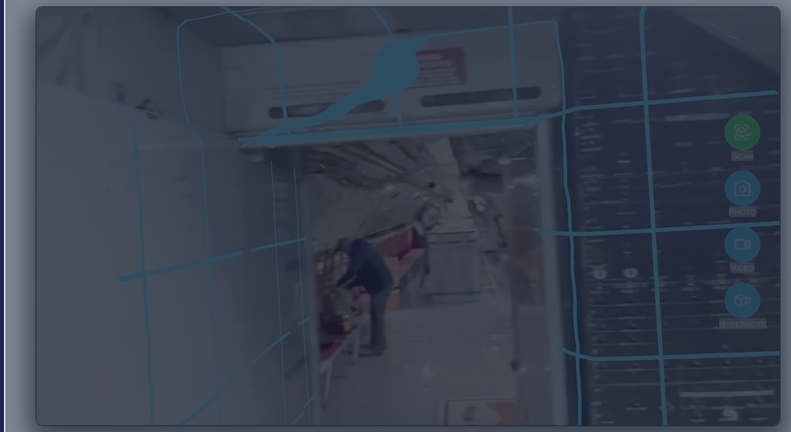


HyperTunnel

DEMO

SCAN

Capture the worksite in AR



IMMERSE

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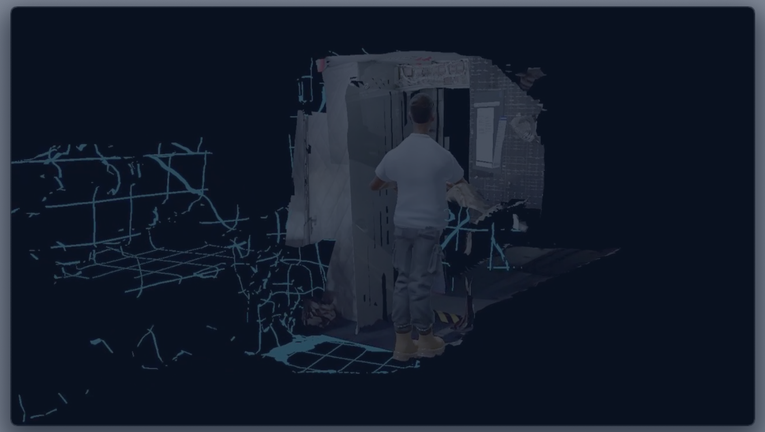


COLLABORATE

Guide work side-by-side



DIFFERENTIATORS

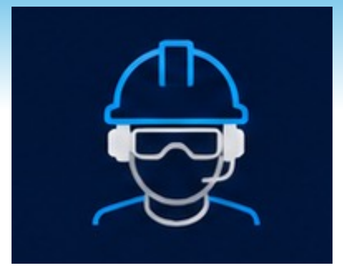
3 Granted Patents — Built for Frontline Operations



Immersive Digital Twins



Real-time + Async Collaboration



Expert Presence at Worksite



AI-Enabled Workflows



Built for Defense and Industrial



Others

AR Instructions + Video Support

vs.



HyperTunnel

Shared Spatial Operations

OPERATIONAL TRACTION

Government

Validated by the U.S. Air Force:

- **$2.7M+ non-dilutive funding** secured
- Sequential USAF SBIR Phase II completed
- **$250K operational deployment** underway
- Scaling toward production deployments

Enterprise

jetBlue®

- Pilot program in negotiation
- Preparing Business case
- Estimated **~$2M ARR** opportunity

Breeze

- Paid pilot under development
- Preparing Business case
- Estimated **~$500K ARR** opportunity

TEAM

XR, Defense, and Aviation Expertise — A Team Built to Execute



Eduardo Neeter

Founder & CEO

Serial entrepreneur. 25+ years XR domain expertise.
Former Fortune 500 Executive



Rich Poutier

SVP Business Development

30+ years MRO & BD experience



Yao Chen

VP Product Development

10+ years XR dev experience



Aristides Staikos

Chief Engineer

20+ years of DoD experience

HyperTunnel

FUNDING

Raising **$2M to scale deployments** and
convert pilots into enterprise programs

Use of Funds:

- **Scale** enterprise sales
- **Expand** product support
- **Convert** pilots into production

Funding Secured:

- **$2.7M+ non-dilutive** funding
- **~$1M pre-seed** raised
- **$300K** committed

U.S. AIR FORCE

TechConnect

techstars_

atdc GEORGIA TECH

PLUGANDPLAY



HyperTunnel®

Thank you!

Eduardo Neeter, Founder / CEO
eneeter@hypertunnel.com

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STARTUP PRESENTATION



Polymath

Your engineering knowledge, amplified.

#PNPTCSiliconValley

Join us at **pnptc.com**

Polymath

YOUR ENGINEERING
KNOWLEDGE, AMPLIFIED

POLYMATHMADE.COM
HELLO@POLYMATHMADE.COM

MAY 20, 2026
09:00 AM PT

Accelerating Defense Readiness Through Engineering Intelligence

Plug and Play A&D Showcase

Operational readiness is stalling on legacy data

Up to 50%

of A&D designs remain trapped as 2D drawings, since they predate 3D CAD.

23%

of total engineering time is wasted on "non-value- added work" like manual CAD conversion.[1]

2–4 yrs

is the lead time for critical components.[2]

1 Colab Team. August 19, 2024. www.colabsoftware.com. *23% of engineering time spent on non-value-added work*.

2 Deloitte Center for Energy & Industrials. May 12, 2026. www.deloitte.com. *Throughput, not just innovation, may define the future of US defense manufacturing and industrial scale.*

And the problem persists across industries



Aerospace & Defense



Energy & Power



Industrials & Machinery



Automotive

Polymath automates the reconstruction of 2D drawings into 3D to accelerate operational readiness

Polymath — Drawing to CAD

Polymath

01 — UPLOAD DRAWING

DRAWING TO CAD

STEP 1

Upload Engineering Drawing

Upload a PDF engineering drawing to begin the extraction process.
Configure options below to guide the analysis.

Click to select PDF

OR DRAG AND DROP

PAGE NUMBER

e.g., 7

UNITS

Select units

INCLUDE PMI DATA

DESIRED EDITS (OPTIONAL)

e.g., Reduce hole count to 3, change material to aluminum...

PROCESS DRAWING

Dc

Window

Designcenter

SIEMENS

File Home Tools

Search (Ctrl+Space)

New Open Recently Opened Parts Restore Previous Session Assemble Assembly Load Options Customer Defaults Touch Mode Window Help

Standard

Menu

History

3 Weeks Ago



SHAFT_765.prt from C:\Users\Katherine Playfair...



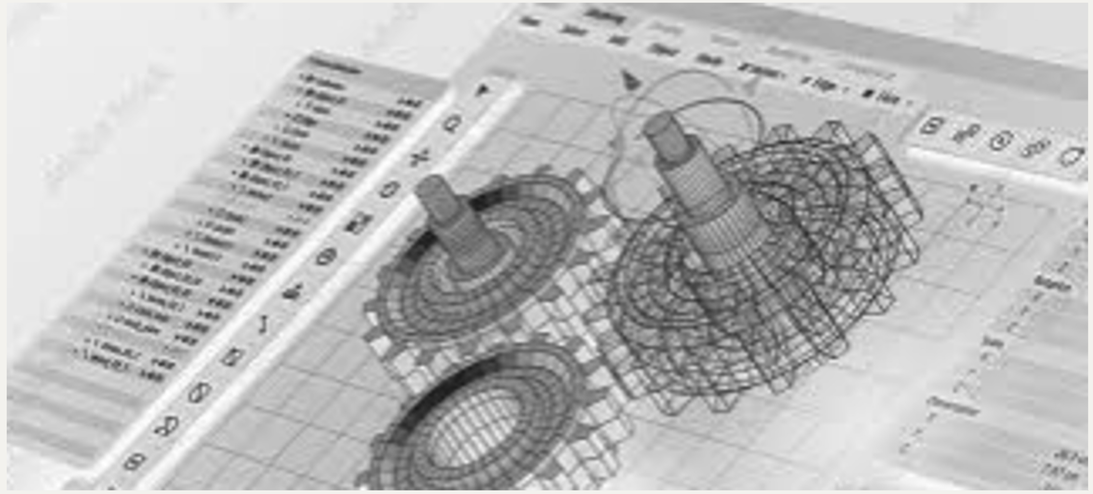
SHAFT_665.prt from C:\Users\Katherine Playfair...



COUPLING_3.prt from C:\Users\Katherine Playfair...

Designcenter

Select a journal



Drawing-to-CAD conversion is just the beginning

We are moving the industry toward an **AI-native, model-centric ecosystem**.

By partnering with Polymath, manufacturers' top talent avoids manual rework to **focus entirely on design and innovation**.

Our leadership brings the needed expertise across engineering & AI



Katherine Playfair
CEO



Brandon Abranovic, Ph.D.
CTO

McKinsey & Company

NASA

Relativity

Carnegie Mellon University

STANFORD GRADUATE SCHOOL OF BUSINESS

AUTODESK

Advisors



Levent Burak Kara
Leading researcher in ML for CAD
Mech. Eng. Prof., Carnegie Mellon



Kevin Carlberg
Former Director of AI, Meta
Associate Prof. of Mech. Eng. & Applied Math, UW



Walterio Mayol
CS Prof., University of Bristol
AI in Industry

Partner with Polymath today.

We are onboarding 1-2 manufacturers to modernize your engineers’ CAD workflows.

BOOK A DEMO



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Black Sand Solutions

Providing tailored, innovative, and reliable solutions that bridge technology and mission critical applications.

#PNPTCSiliconValley

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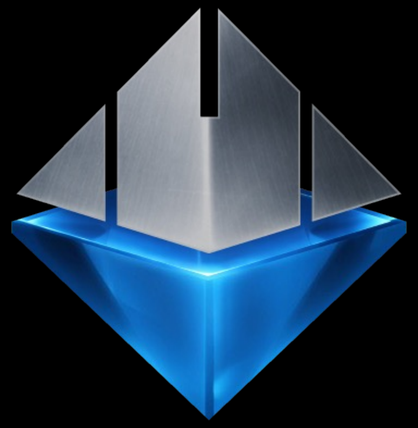


BlackSand

The AI data fabric and control layer for the Internet of Space.

Problem

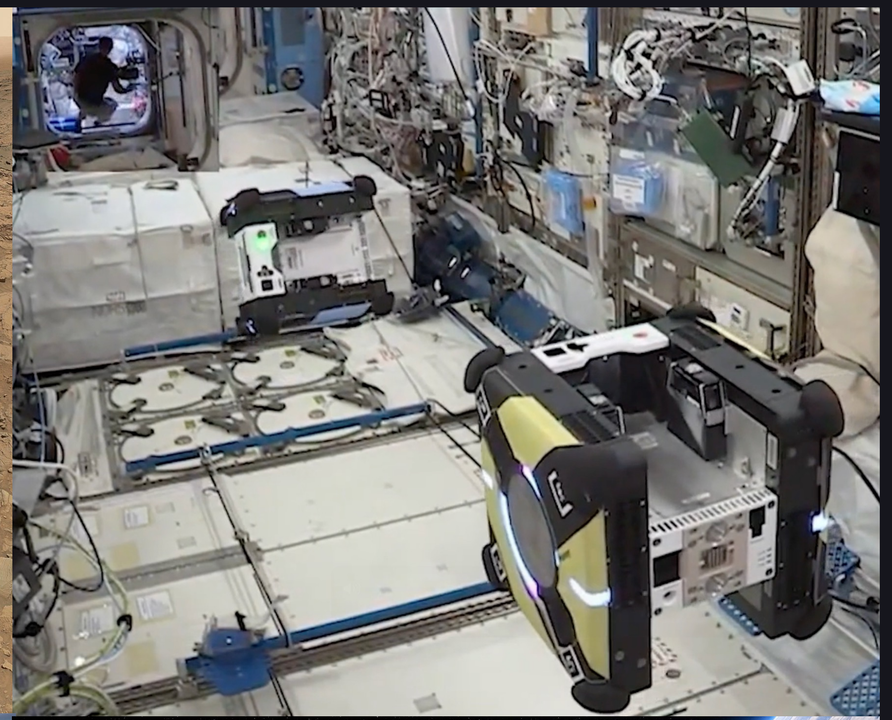
Machines are generating more data and risk than humans can manage.

35k Objects 9k Payloads in LEO
Over 1M debris > 1cm

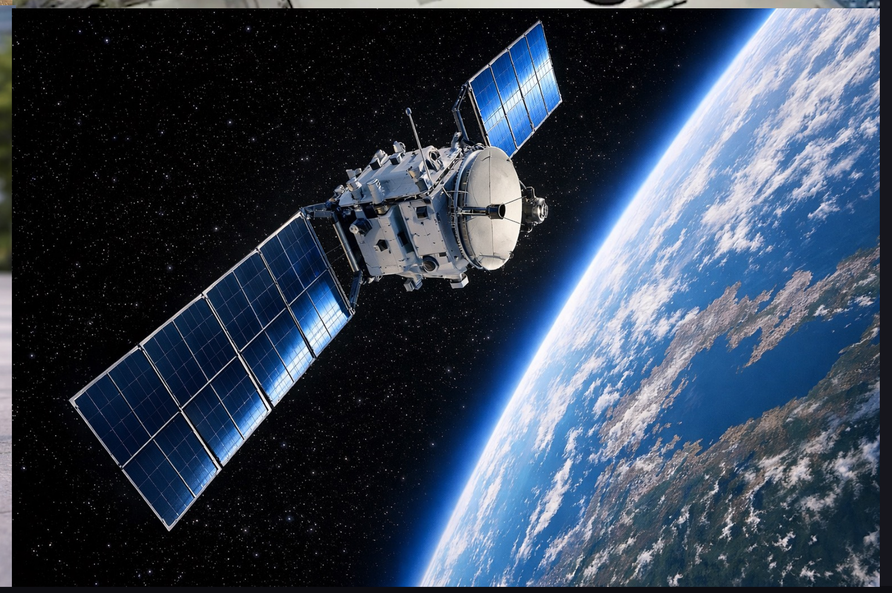
1,000-1,500
Close approach NASA alerts per day

~50,000
Starlink avoidance maneuvers in 6 months





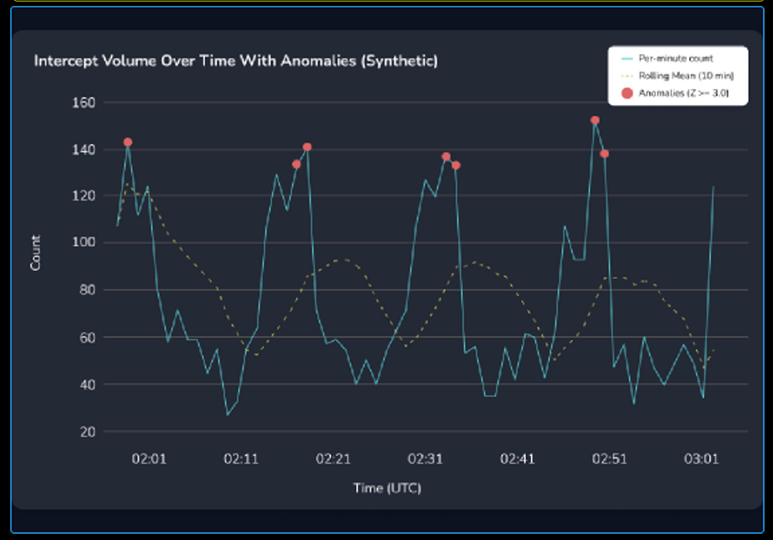




Solution

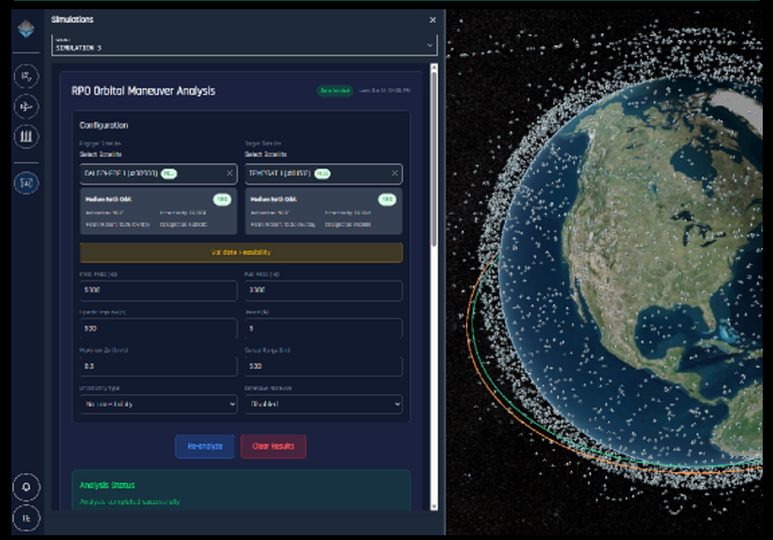
SENSE

Ingest and normalize data from robots, sensors, and devices both in space and terrestrial.



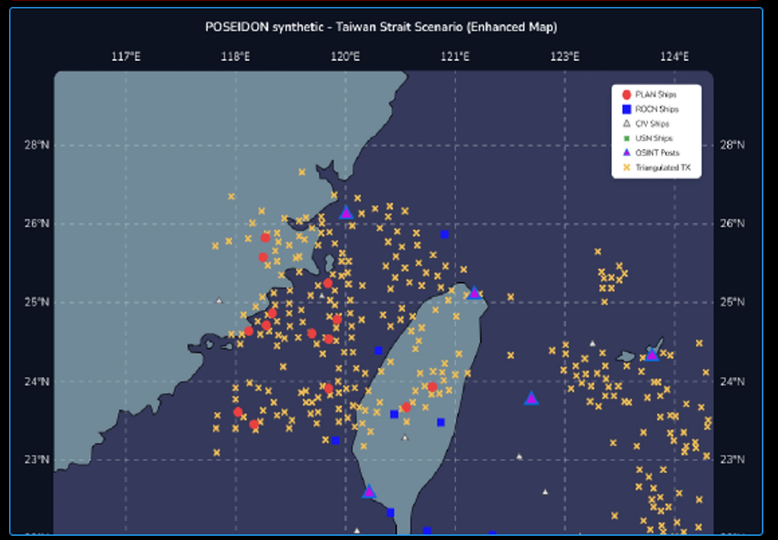
UNDERSTAND

Unify fragmented machine data and run physics, risk, and policy calculations.

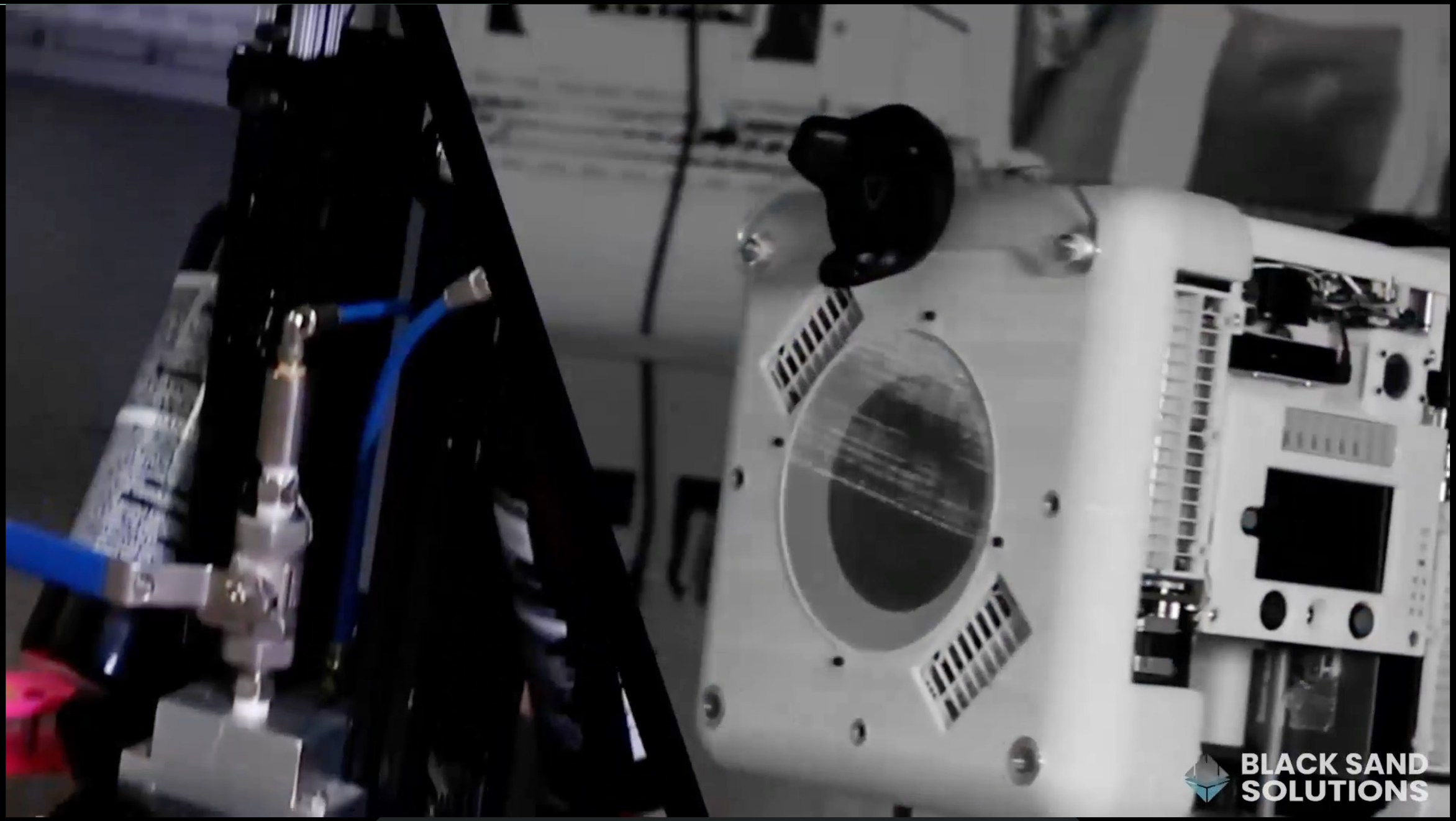


ACT

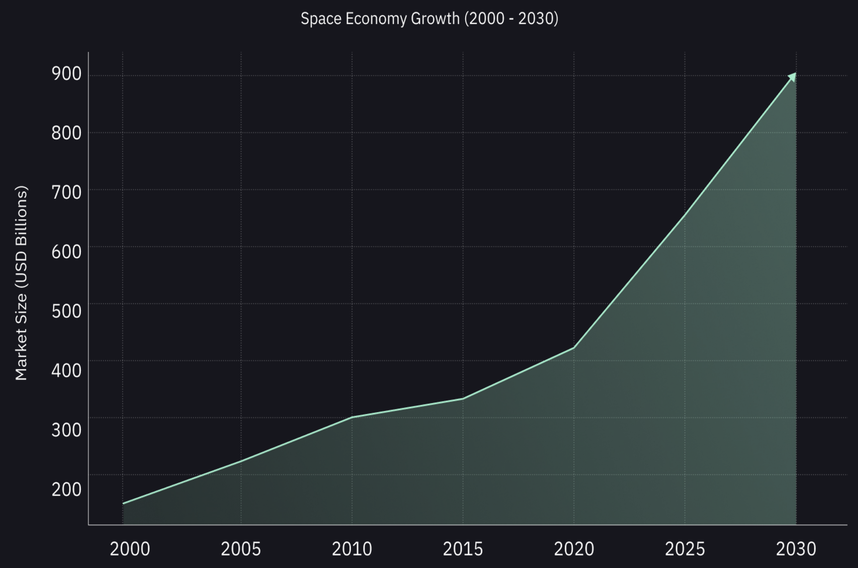
Analyze the next best actions, simulate outcomes, and transmit actions via APIs.



Video of BlackSand in action



Market & Traction



TAM $4B-$6B — Autonomy, mission/ops, and space software & services

SAM $750M-$1.2B — US government, primes, and large commercial operators

SOM $150M-$250M — Via NASA, USSF, DAF, OTAs, and B2B channels

Currently in use at US Space Force SDA TAP Lab

$250k + $1.25M NASA contract and testing onboard ISS in OCT 2026

$6.5M Defense contracting pipeline

NVIDIA

UMBRA

NASA

DEFENSE INNOVATION UNIT

DELL

ECHODYNE

Team & Raise



Bernard Mendez

Army SOF veteran, NASA principal investigator (ex-Amazon PM)



Austin Marshall

Sr Space Systems Engineer

(Ex-SpaceX: Starlink, Falcon 9, Dragon)



Jon Danckwerth

25+ years as Aerospace & Satellite SME (ex-Apple, Space Systems Loral)

$6M pre-seed

Own the control plane for autonomous operations.

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SEMICONDUCTOR EXPO

SV SUMMIT

PLUG AND PLAY

SV SUMMIT



Welcome Remarks

Rouzbeh Borhani

Head of Semiconductors

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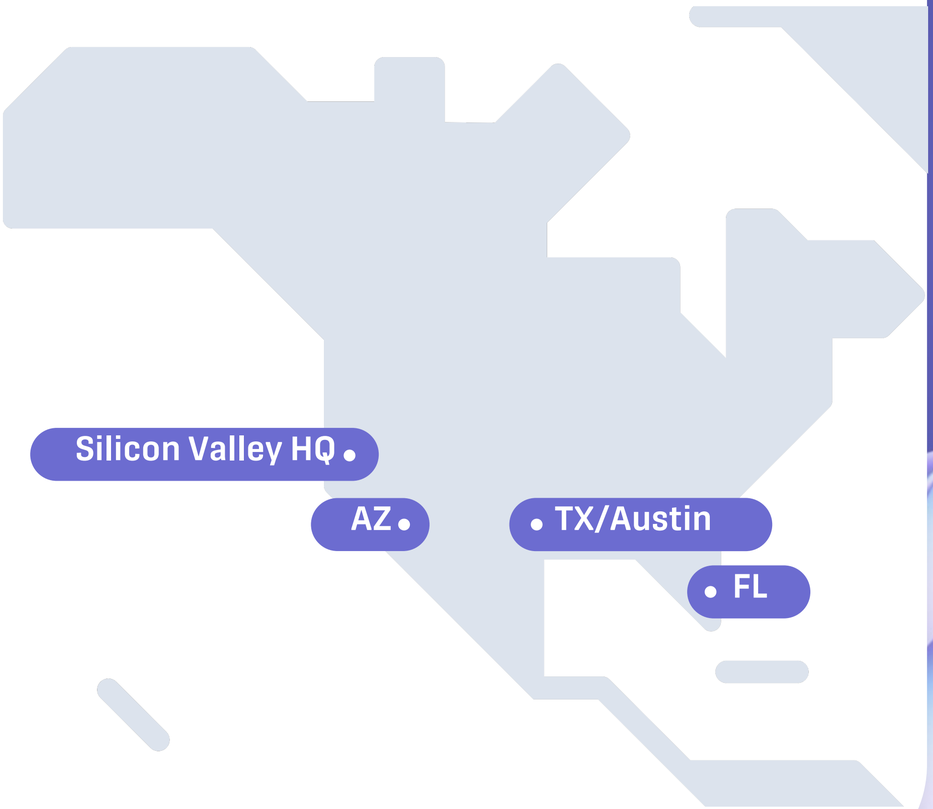
PLUG AND PLAY SEMICONDUCTORS



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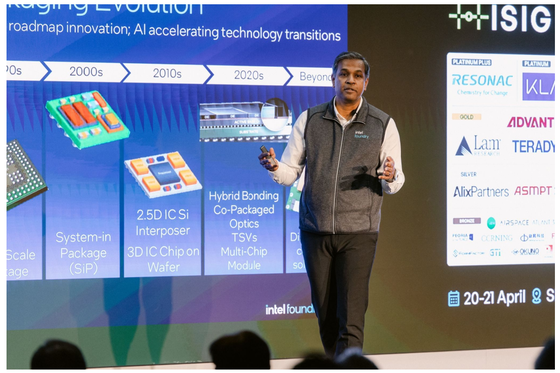
SV SUMMIT

Semiconductor Executive Week - April 2026















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SV SUMMIT

New Partner



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NEW PARTNER REMARKS

Nunzio Abbate

Sr. Director, Chief Innovation Office

STMicroelectronics

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AI: Aerospace & Fab Manufacturing

Lattice

Semiconductor Security

Enclave SEMICONDUCTOR

Connectivity & Sensing

LATYS

OZNI AI

Power

EGP TECHNOLOGIES

Critical Materials & Processes

MetalAF

FLO.

Semiconductor

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LightXcelerate
Empowering Next Computing Paradigm

LightXcelerate

Photonics Empowering Next Computing Paradigm.

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LightXcelerate

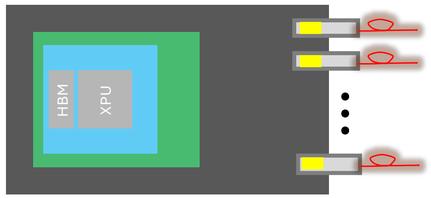
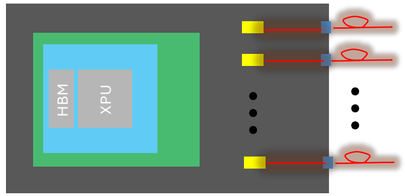
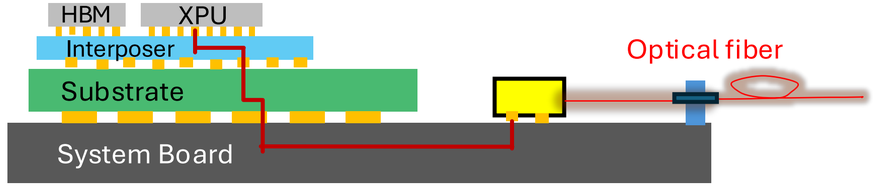
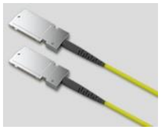
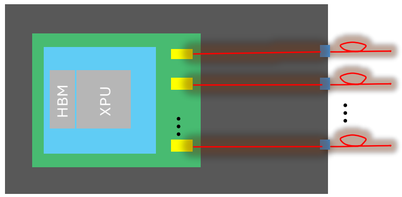
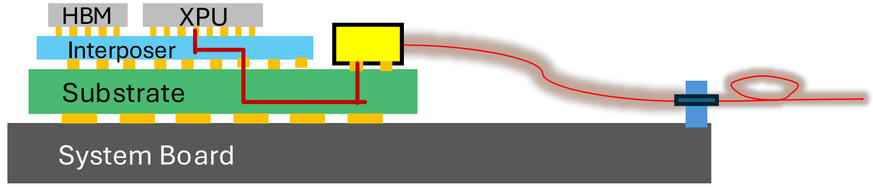
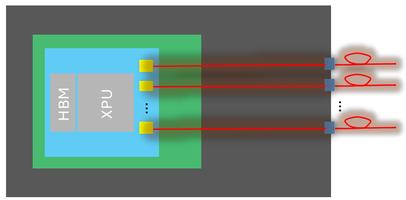
Wide-and-Native Optical I/O - The Nervous System for Rack-Scale AI

manchen@lightxcelerate.com

Evolution of Optical Interconnect

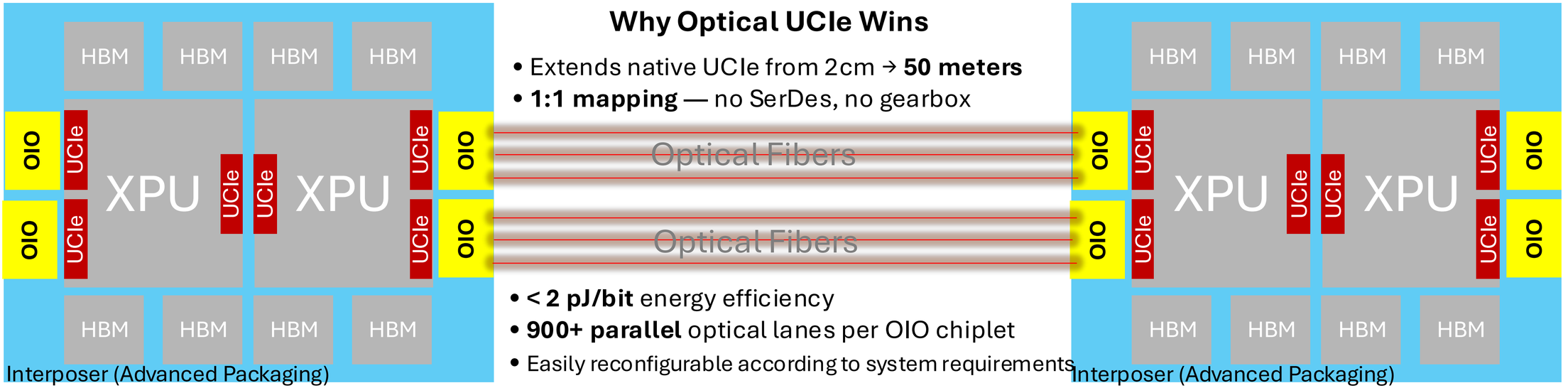
LightXcelerate
Empowering Next Computing Paradigm

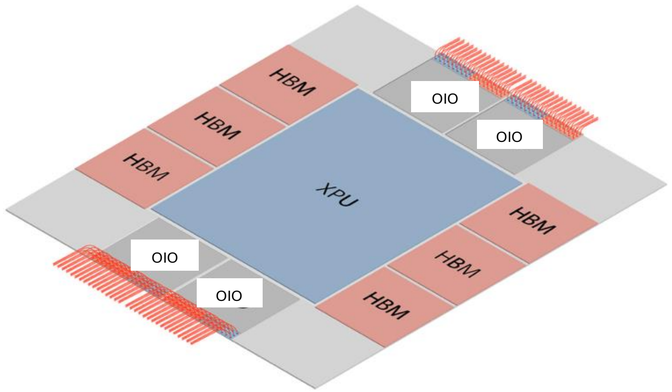
Higher Bandwidth and Lower Power

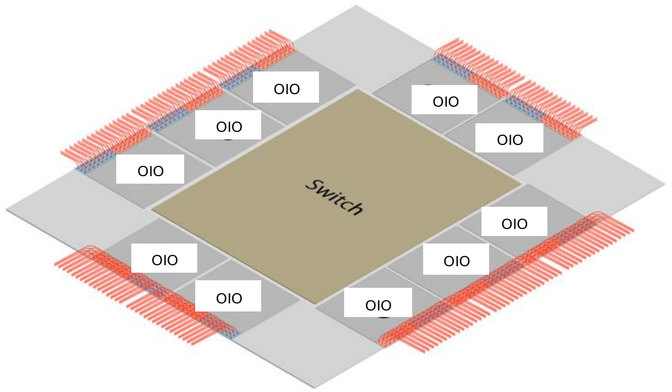
	Top View	Side View	Package	Bandwidth
Pluggable Transceiver			QSFP 	100/400/800G 1.6T
On-Board Optics			BGA/LGA 	0.8/1.6/3.2T
Co-Packaged Optics			Advanced Packaging	3.2/6.4/12.8T
Optical I/O			Advanced Packaging	3.2/6.4/12.8T and beyond

μVCSEL Optical UCIe: Extending Die-to-Die to Rack Scale

LightXcelerate
Empowering Next Computing Paradigm







Total Bandwidth

25.5 Tbps (Bi-directional)

Extreme Density

2 to 18.6 Tbps/mm

Standard Form Factor:

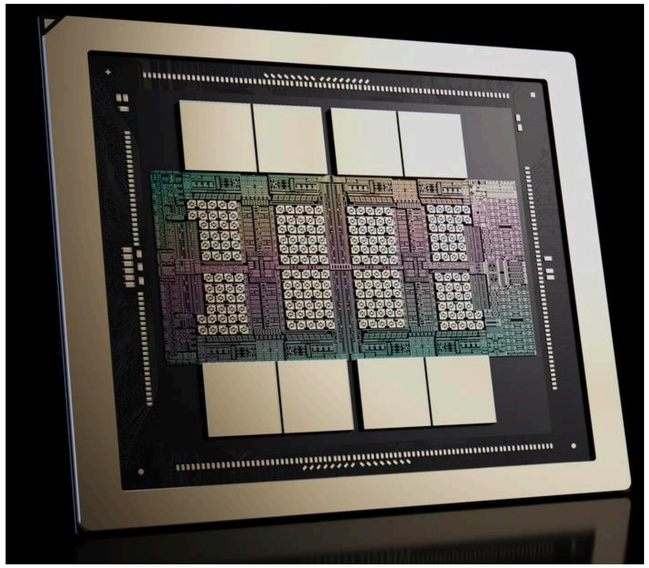
11 mm x 11 mm (Matches HBM3e)

manchen@lightxcelerate.com

Unleashing Die-to-Die: Beyond the Interposer Boundary

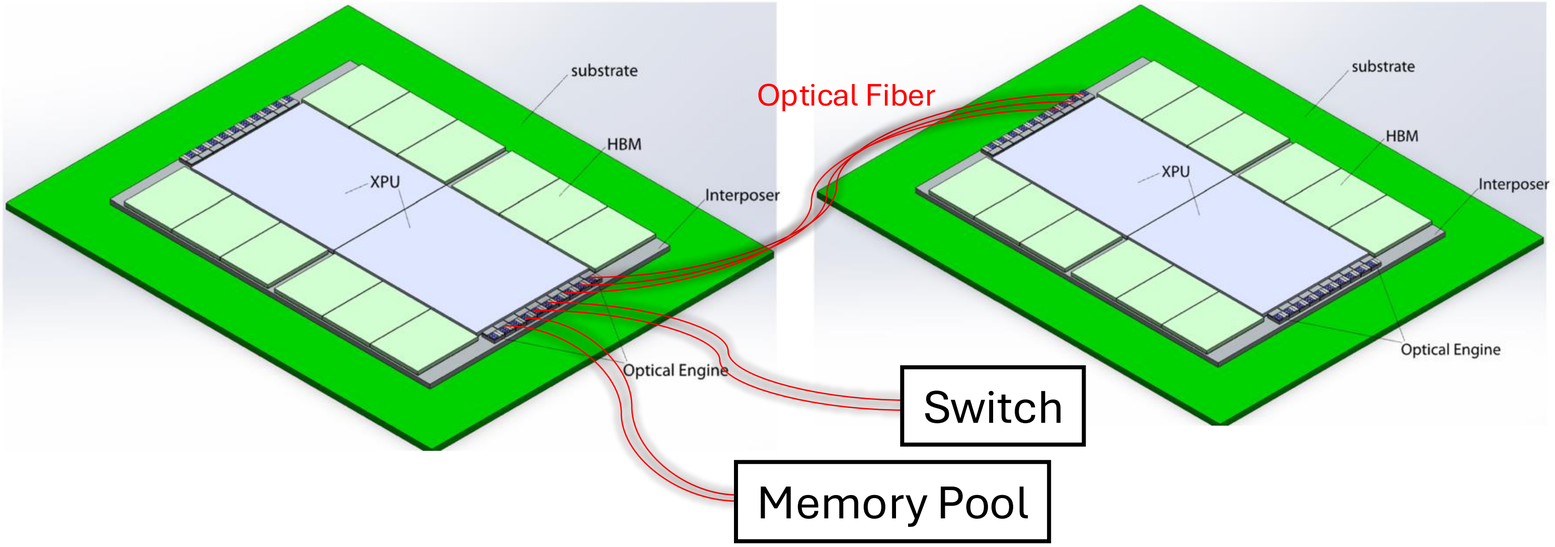
LightXcelerate
Empowering Next Computing Paradigm

Current: Copper Wall



Reticle Limited: Fixed Area (~850 mm^2)
Short Reach: < 5 mm (Package Only)
Rigid Topology: Locked Memory/Compute Ratio

Future: Optical Freedom



Unlimited Area: Multi-Chassis Disaggregation
Massive Reach: Up to 50 m (Rack Scale)
Universal Fabric: Switch <--> XPU <--> Memory

LightXcelerate

manchen@lightxcelerate.com

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Oso Semiconductor

Ultralow-power beamforming chips transforming wireless and sensing systems.

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Oso Semiconductor

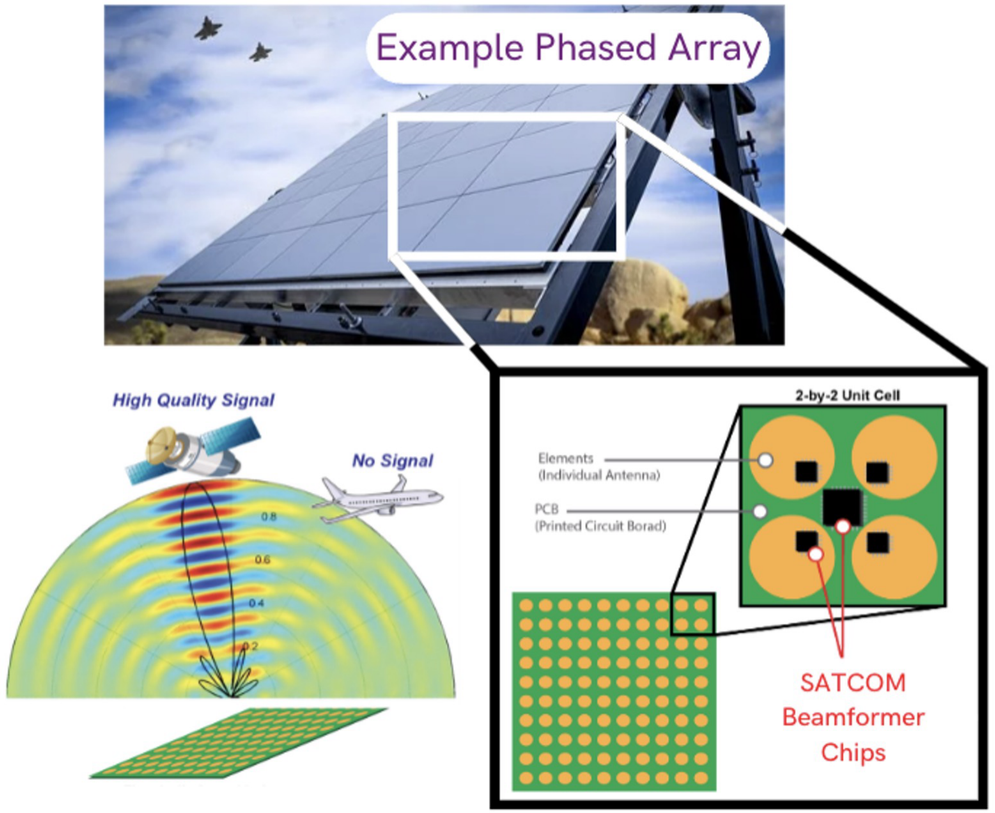
Ultralow-power, high-performance microchips transforming the future of wireless connectivity and sensing.

Dr. Matthew G Anderson
mga@ososemi.com

www.ososemi.com

Phased Arrays are the Antennas of the Future

Phased Arrays enable fast electronic steering of high bandwidth wireless beams, making them critical as our wireless environment gets increasingly dense and diverse



PHASED ARRAY

Longer range, narrow beams with fast electronic steering

COMBINED MARKET TAM

$120B+

BEAMFORMER ICs SOM

$12B+









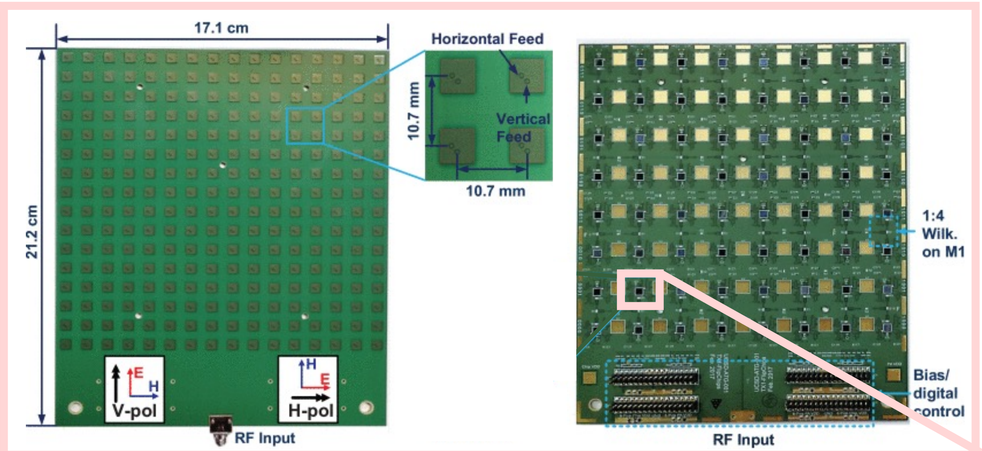
The Problem: Power Consumption and Cost

The problem



The root cause

10s of Phased Array Panels Per Antenna



Aljuhani et al., IEEE TMTT May 2021

Incredibly high power consumption

- RF circuits consume 70-90% antenna power
- Consuming kilowatts in some applications

Prohibitively expensive and bulky systems

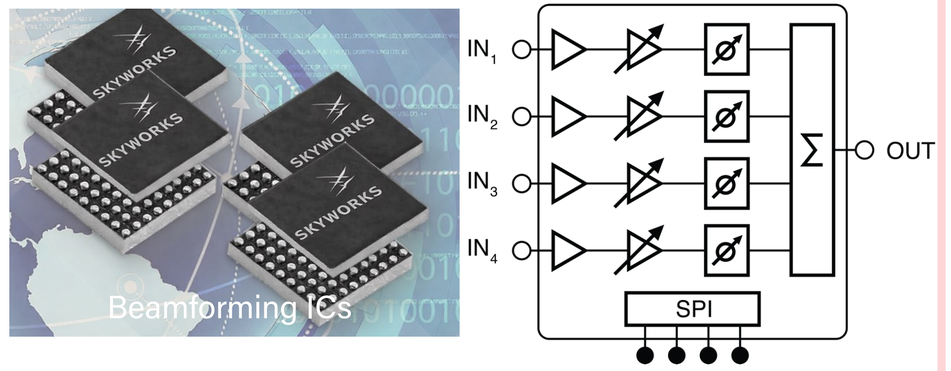
- RF circuits cost 40-80% of BOM
- Power and thermal management costs add!
- Costing $100K+ in some applications

High Power / Circuit

High Cost / Watt

High Cost / Circuit

10,000s of RF Circuits Per Antenna

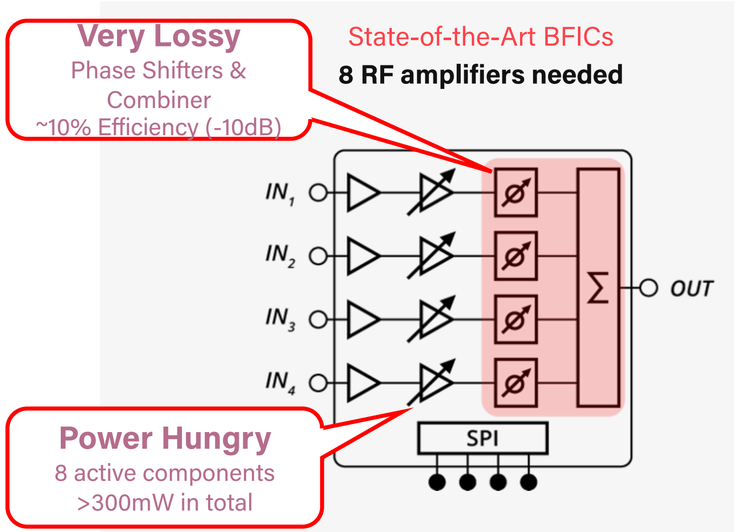


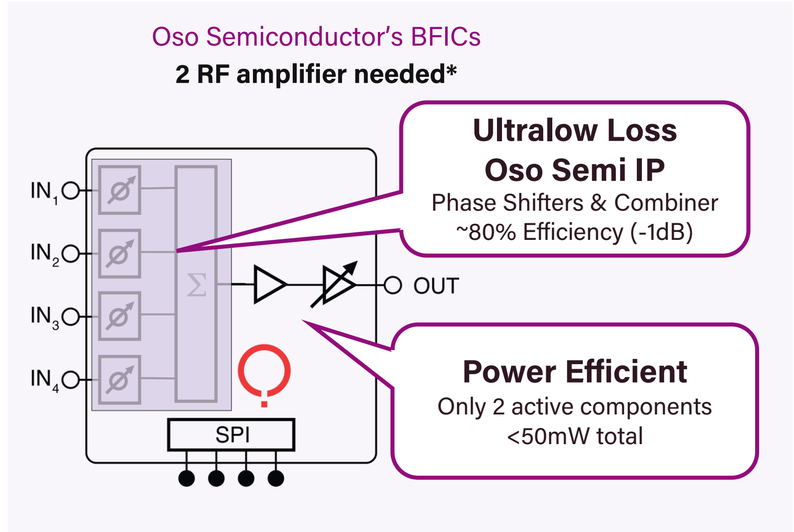
Breakthrough IP Addresses Both Power & Cost

Oso Semi's novel circuit IP increases the efficiency of core beamforming blocks by 8-10x

Enabling new Combiner-First™ microarchitecture, reducing the number of active RF components

Reduce power & cost – *without* compromising overall performance





Power Reduction

4X

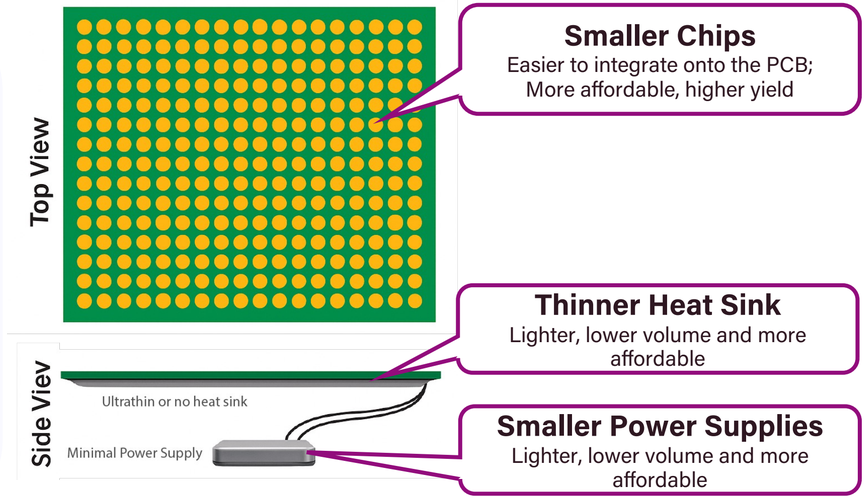
Si Area (Cost) Reduction

2X

Linearity Improvement

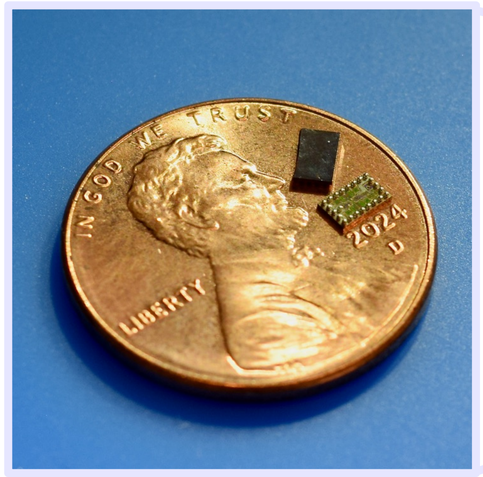
10X

Phased Array Antenna using Oso Semi BFICs



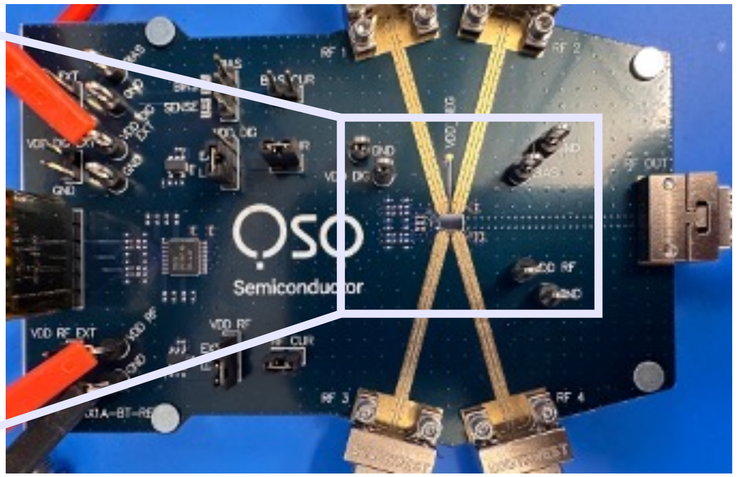
Eval Kit Hardware Verified By Customers

- **Sold and shipped ORX4 Evaluation Kits to multiple customers (across 3 continents)**
- **Tested and independently validated by multiple customer for SATCOM and Defense applications**
- **Multiple other customers in the pipeline for kits!**
- Multiple silicon spins to validate core IP and products



ORX4

Ku-band Rx Beamforming IC



Oso Semi Evaluation Board

(ORX4-KU-EVAL1)

* EVK comes with software GUI for easy device characterization

80% Reduction in power over competition verified by customers!

Established Customer Traction

Product Revenue

Non-Dilutive and Prospects

Defense SATCOM

[redacted]

$5M+ Est. TCV

Guaranteed chip sales in 2026 and 2027 + NRE + investment

Exclusive Ka-band chip provider for key customer's Defense products

In-Flight Connectivity (IFC)

[redacted]

$20M Est. TCV



Commercial In-Flight Connectivity opportunity with partner Antenna Panel

Joint Development

[redacted]

$9M Est. TCV

Joint proposal for CHIPS Act funding (Non-dilutive)

First-in-Market KuKa multi-band chip for dual-use SATCOM

UAV SATCOM Antenna

[redacted]

$30M Est. TCV

Satellite-based backhaul for Group I-II UAVs

Maritime SATCOM Program

[redacted]

$15M Est. TCV

Low SWaP maritime User Terminals for LEO constellations

Other Opportunities

30+

prospects in SATCOM, 5G/6G, Radar and Defense

$70M

pipeline of potential opportunities to qualify

The Core Team



PhD

Matthew Anderson

CEO (Founder)

Founder with proven track record of RFIC innovation and fast execution at commercial scales

- 3+ Years at Apple's Platform Arch Group
- PhD in RFIC Design from UC Berkeley



PhD, MBA

Sree Kasturi

Head of Operations

Seasoned technical business leader with deep operational experience

- 15 Years at Qualcomm and Intel
- PhD in Phased Array Antenna Design
- MBA from Wharton



PhD*

Greg LaCaille

Chief RFIC Engineer

Founding Engineer from UC Berkeley's premier RF research lab

- 8+ Years at Berkeley Wireless Research Center
- RFIC design experience at Apple, Intel



MSc

Jacob Freking

Principal Eng

Antenna and RF Systems Expert with experience building and testing phased arrays for defense applications

- 4+ Years at Raytheon Technologies Defense Systems

Revenue Forecast

Realistic revenue anchors:

2026-27 Revenues based on actual commercial engagements

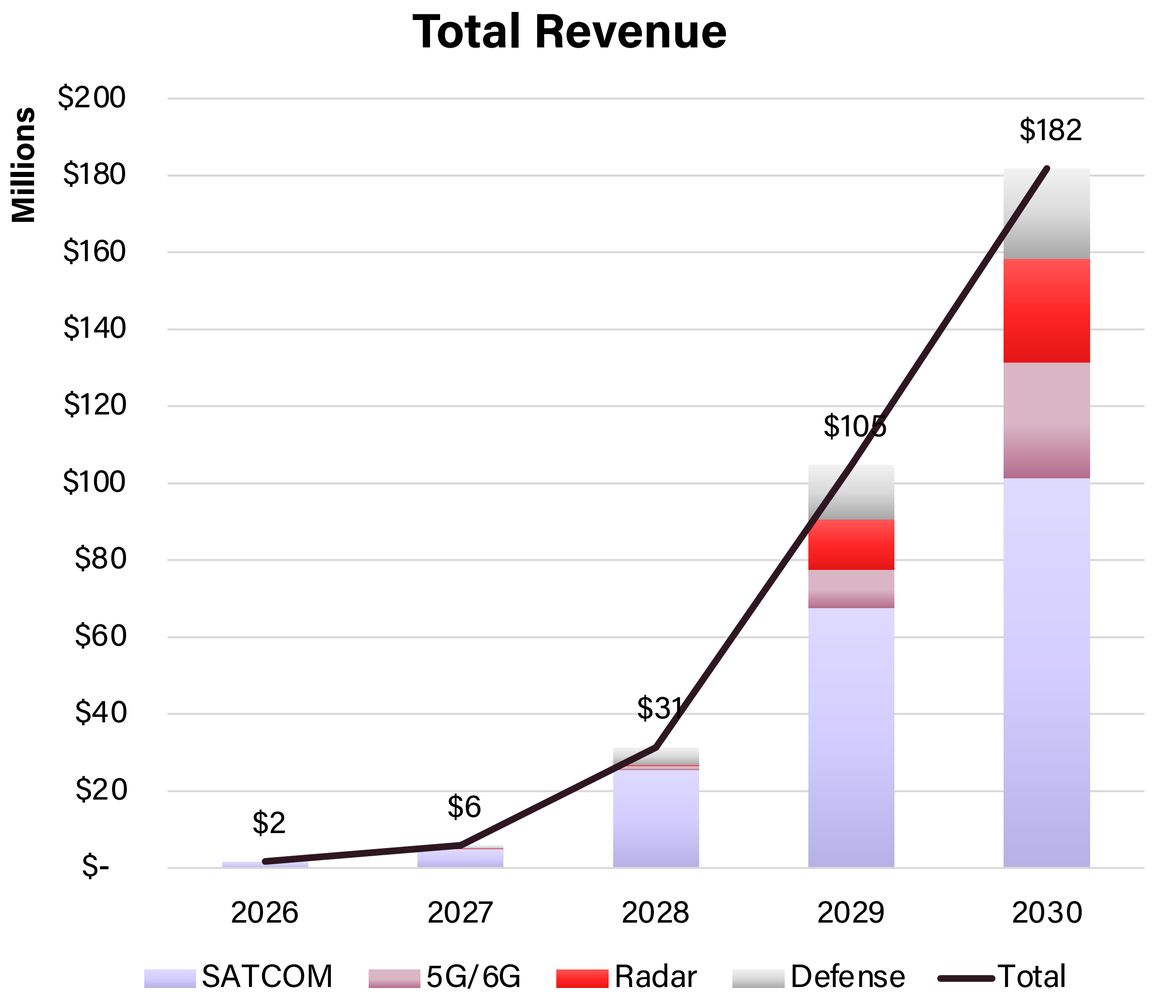
Time to first product revenue:

$2M In bookings by end of 2026

Rapid revenue growth:

$10M Annual revenue by early 2028
$100M Annual revenue before 2030

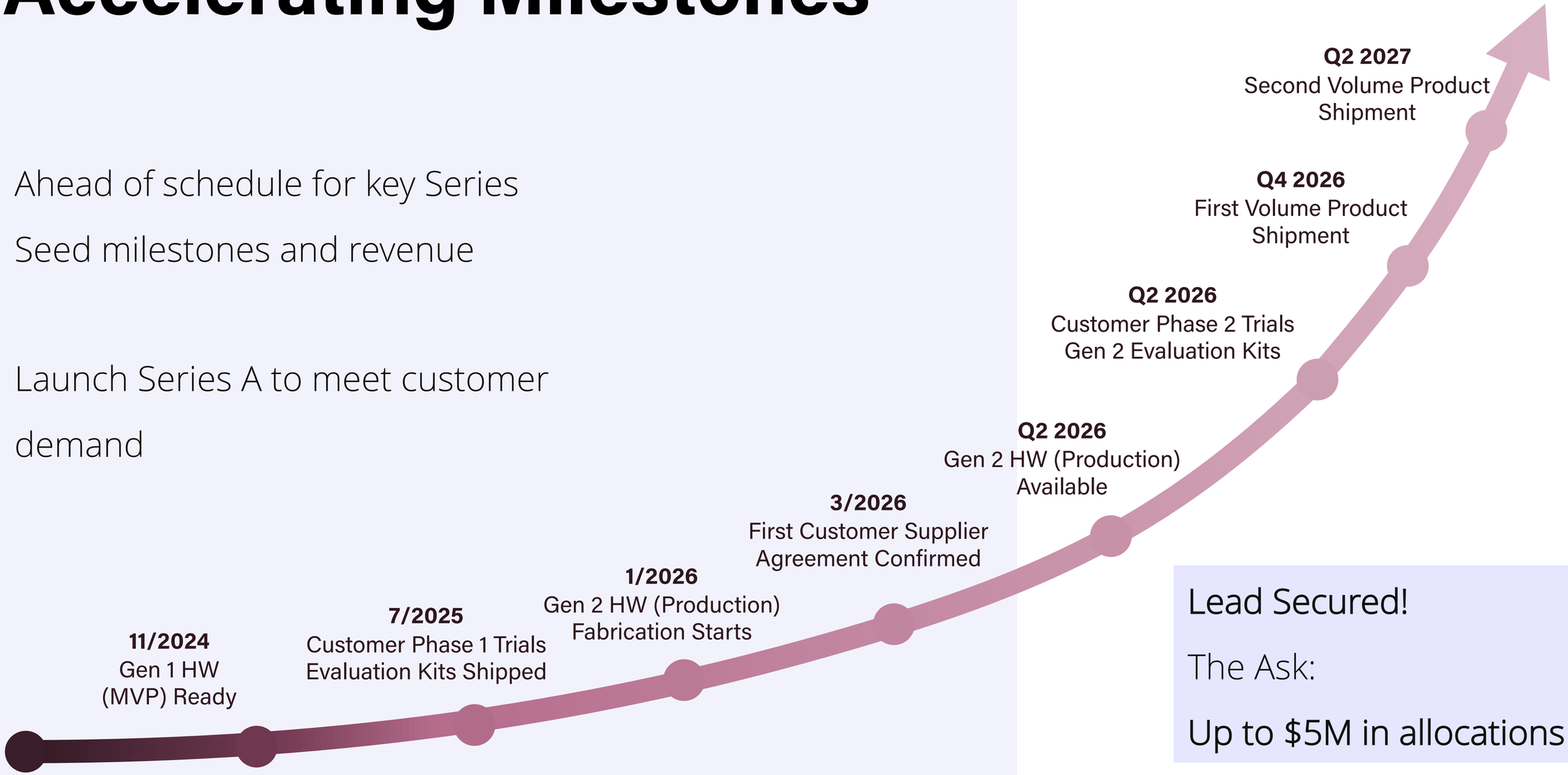
Achieving >$100M Revenue by 2029



Accelerating Milestones

Ahead of schedule for key Series Seed milestones and revenue

Launch Series A to meet customer demand



Lead Secured!

The Ask:

Up to $5M in allocations available

7/2024
$5.2M Seed Raised
(Priced Round)

Q2 2026
$10M+ Series A
(Priced Round)

Thank you!

THE ENGINE VENTURES

entrada

Berkeley SKYDECK

J-VENTURES
STRONGER TOGETHER

Activate

BERKELEY LAB

NSF

Collab Fund

IMPACT SCIENCE VENTURES

SAFAR™ PARTNERS

LONDON BAY VENTURE PARTNERS

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K1 Semiconductor

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Semiconductor
Unlocking Advanced Semiconductor Materials

Barriers Limiting Semiconductor Innovation

SiC, GaN, InP, LiNbO3, Diamond: Different physics. Different applications. Identical bottlenecks.



NEXT-GEN MATERAL COST

>90% of expensive crystal is underutilized.

SiC grows at mm/hour. Native GaN is $1500 per 100mm wafer. InP is $2300 per 100mm wafer. Every advanced material's #1 cost driver is the starting crystal — and only ~3% of it is active in the device.



SIZE CEILING

None of them scale to 300 mm.

Bulk GaN at 100mm. Bulk InP at 150mm. 300mm bulk SiC too thick for economic benefit. Compound semi fabs are locked out — and cannot utilize the ecosystem of 300mm silicon CMOS tools.



BULK WAFERS

Monolithic wafers are a performance burden.

SiC and GaN’s bulk electrical conductivity caps power density. InP and $LiNbO_3$ cannot co-integrate with silicon photonics. The monolithic wafer is a compromise — the final device pays the price.



COMPLEX INTEGRATIONS

Heterogeneous integration is artisanal.

Today, combining advanced materials means micro-transfer printing, hand-bonded dies, or one-off wafer bonds. No single method — every project reinvents the process from scratch.

Semiconductor

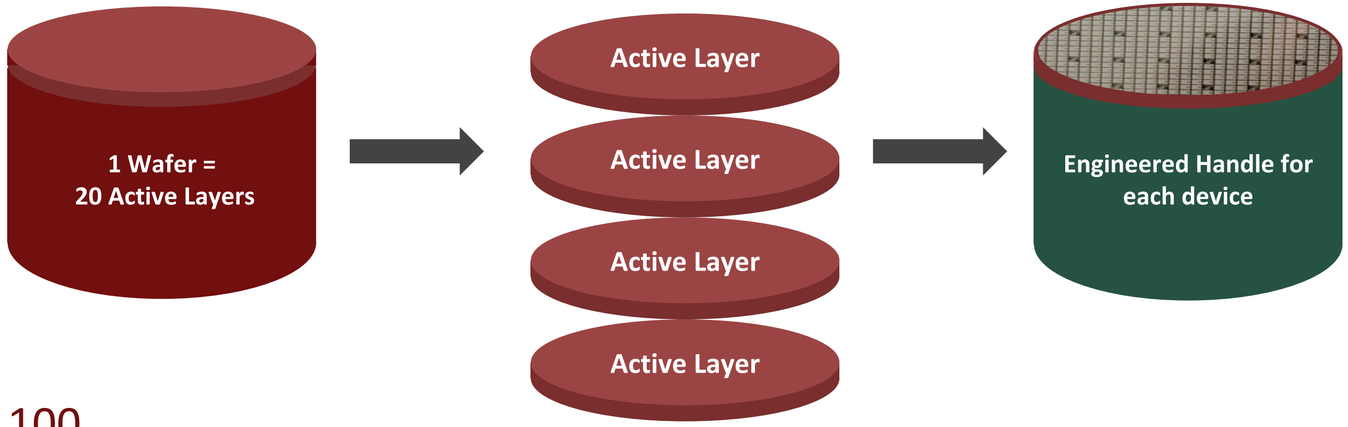
Redefining the Base Unit of Semiconductors

Current Manufacturing Process



Semiconductor

Pure Wafer | **20x Wafer Splitting** | **20x Engineered Wafers**

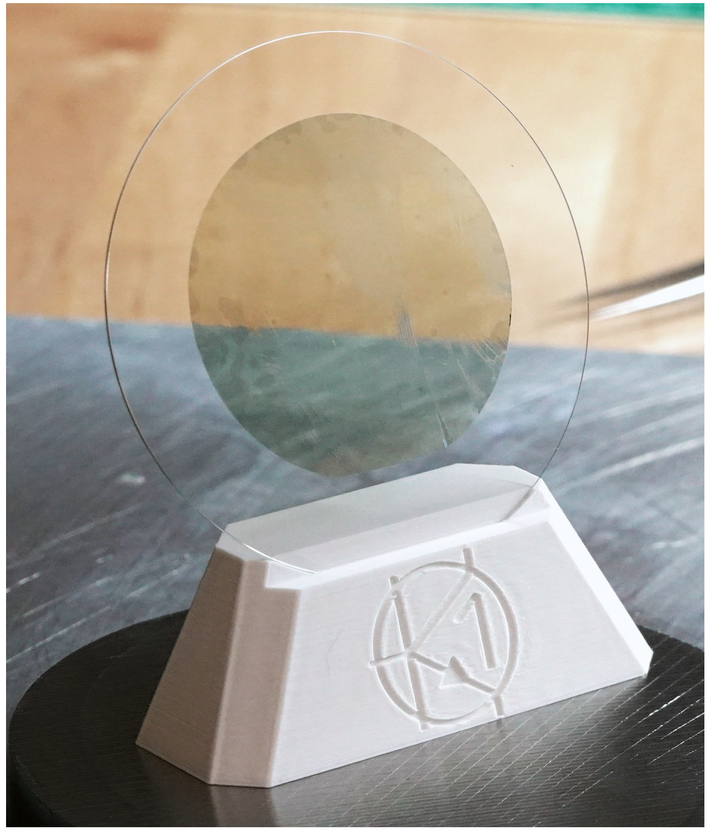


Semiconductor

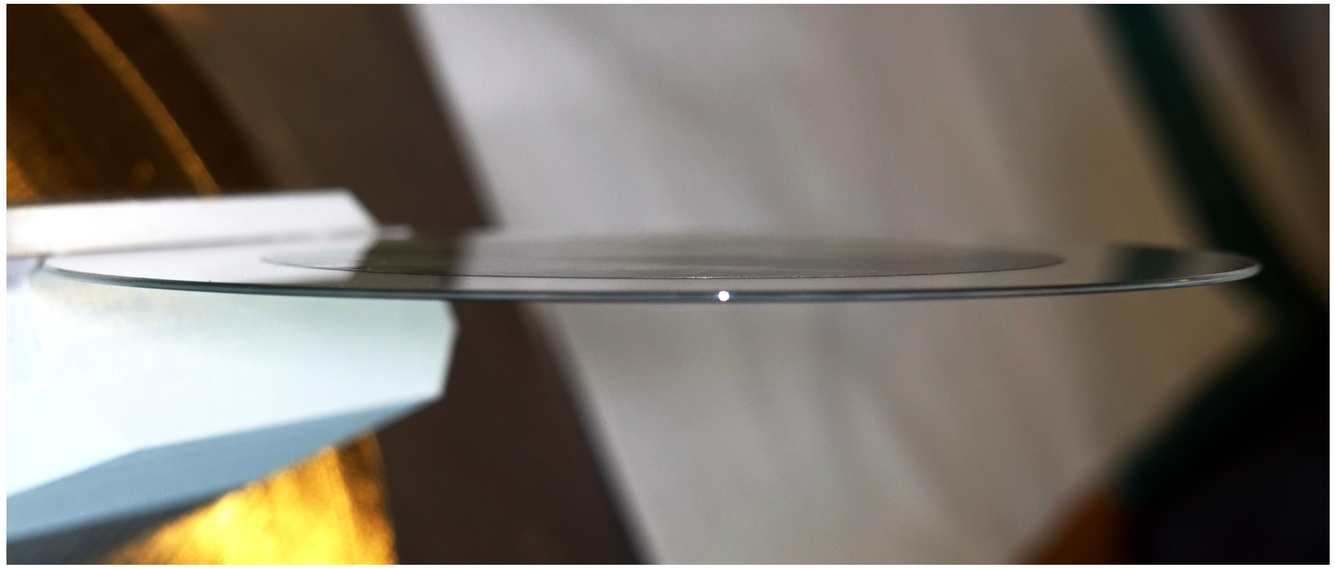
- 20x Films per wafer
- Engineered Handle for Each Device
- Layers transfer to any size wafer
- Single process: Any material

Semiconductor

Our Full-Process Capability



15 µm thick spalled SiC film (50 mm diameter) transferred to glass carrier wafer



Side view of the stack, showing the thinness of the SiC film

Tier 1 Partners Advancing through our Pipeline

Commercialization Pipeline

STAGE 1: SCOPING & DISCOVERY

- **Leading Foundry**
  GaN
- **Global Equipment Maker**
  All
- **Specialty Optics Co.**
  LN
- **Mid-Cap Foundry**
  LN
- **Diamond Substrate Startup**
  Diamond
- **More**

5+ PARTNERS IN SCOPING

STAGE 2: NDA / MTA NEGOTIATION

- **Major Electronics OEM**
  TBD
- **Chemical Materials Giant**
  GaN
- **US Power Semi Co.**
  SiC

3 PARTNERS IN NEGOTIATION

STAGE 3: ACTIVE POC/PILOT

- **European Semi Leader**
  SiC
- **Materials Conglomerate**
  GaN
- **Advanced Materials Co.**
  LN

3 PARTNERS IN ACTIVE PILOT

Semiconductor

Compound Semiconductor Market Opportunity

STRATEGIC TAILWINDS

EV & Power Electronics

SiC traction inverters, GaN fast chargers, SiC Solid-State Transformers, GaN-on-SiC modules

5G/6G, Satellite & Optical

GaN RF amps, InP lasers, $LiNbO_3$ electro-optic modulators

AI Infra & Photonics

$LiNbO_3$ thin-film interconnects, Diamond thermal mgmt, GaN power conversion

Defense, Radar & Aerospace

InP IR sensors, GaN-on-SiC radar, Diamond radiation-hard sensors

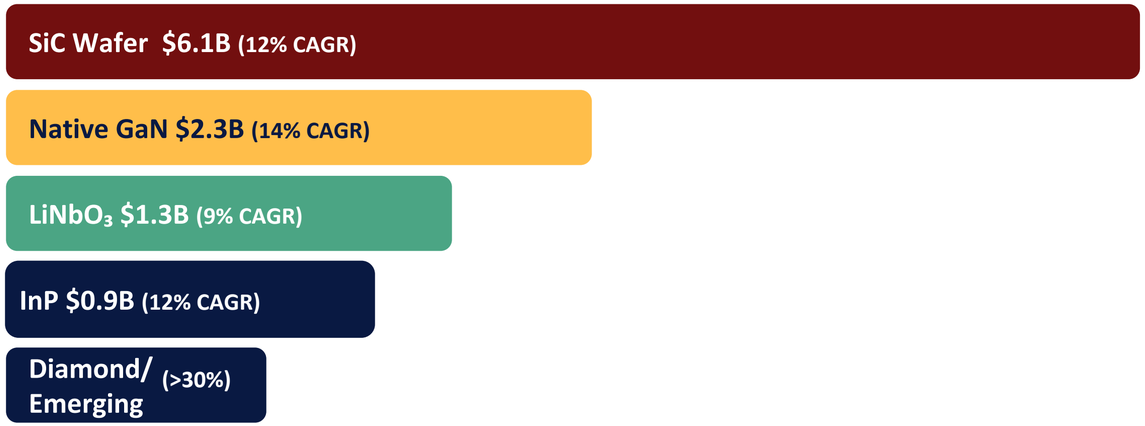
5 YEAR ADDRESSABLE MARKET

$68B by 2031

TAM: Compound Semiconductor Market (11.5% CAGR)

$11B SAM: Compound Semi Wafer Substrates

$2B K1 SOM: Strategic Customer Conversion



Sources: Mordor Intelligence, Market Research Futures, Research and Markets

Semiconductor

Leading Experts in Semiconductor Materials

Team



Connor Horn

Co-founder & CEO
UChicago PhD



Sagar Seth

Incoming GTM Lead
UChicago PhD



Xella Doi

CTO
UChicago PhD



Joe McDonald

COO
Chicago Booth MBA

Advisors



Supratik Guha

Co-founder



Samir Mayekar



Bruce Graham

Pre-Seed Round Drives Pilots / POCs in 2026

Closed $1.6M Pre-Seed Round

Actively Scouting for POC / Pilot Partners

Raising $4M Seed Round in Summer

PLUG AND PLAY

STARTUP PRESENTATION



Ozni AI

AI Native Defense Systems or Tactical sensors, Multi-INT fusion, anomaly detection, RF exploitation, and more for the modern battlespace.

#PNPTCSiliconValley

Join us at **pnptc.com**

COMPANY — OVERVIEW —

AI-NATIVE DEFENSE SYSTEMS · DENVER, CO · 2026

- TS/SCI CLEARED
- U.S. ENTITY
- FVEY QUALIFIED
- REV · $6.8M+
- SBC · SMALL BUSINESS

§01 THE UAS PROBLEM

COORDINATION GAP · SUBOPTIMAL DEPLOYMENTS

The sUAS threat is **agile and evolves on a weekly cadence** : low-cost, RF-agile unmanned systems that outpace defense acquisition cycles and the single-vendor sensor networks built to stop them.

01 · THE THREAT

WEEKLY

Pace of sUAS threat and tactics evolution, constantly nullifying defenses and strategies. **Hyperwar** doctrine warns about slow, centralized sense-making.

02 · NO SILVER BULLET

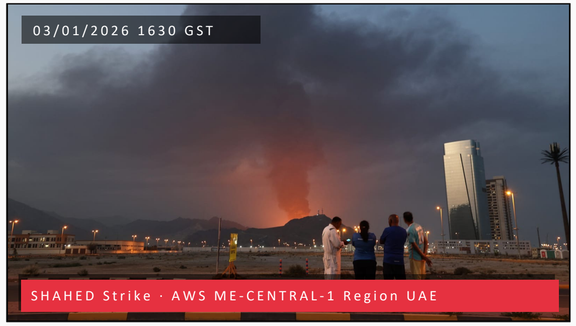
0%

No one product delivers 100%. **Layered defense** is the only posture that stands a chance.

03 · COORDINATION GAP

V × S × U

Vendors × sites × use cases keep changing, for systems integrators and warfighters alike, coordination is **unsolved**.



PROOF · COORDINATION FAILURE

In the 2026 UAE data-center strike, sensor coverage existed — coordination did not. Multiple vendors, overlapping sectors, no optimization. Fail to plan, **plan to fail**.

OZNI EXISTS TO CLOSE THIS GAP. COORDINATED SENSOR PLANNING ACROSS VENDORS, SITES, MODALITIES, AND THREATS.

§02 WHAT WE ARE DOING ABOUT IT

PRODUCTS · SOLUTIONS

PRODUCT.01

NEMESIS MULTI_INT SENSOR

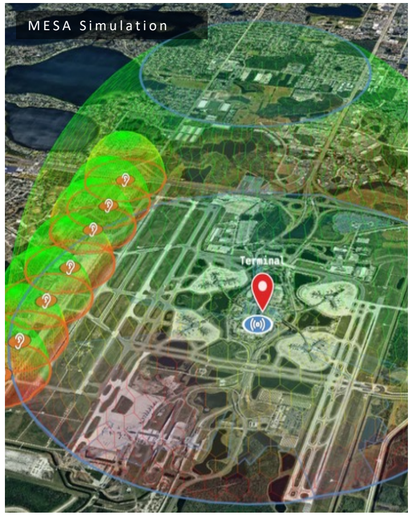
Distributed mesh sensor for tactical ISR-T. SIGMAN operations in contested environments.



SAAS.02

CUAS LAYERED_DEFENSE PLANNING

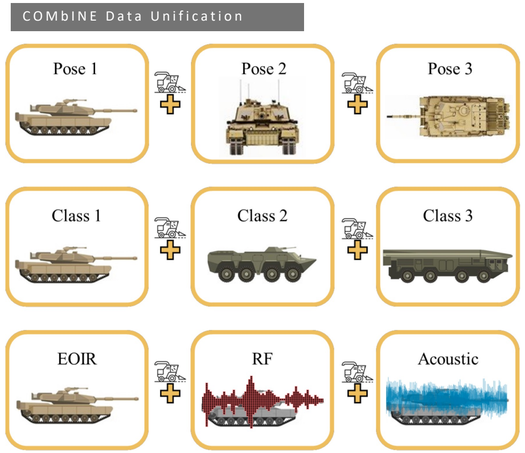
Coordinate layered defenses for counter-UAS mission planning and automated attack simulation.



SAAS.03

MULTI_INT DATA FUSION

COMbINE instantly creates highly accurate, labeled multi-INT datasets from unlabelled, disjointed data sources.



PRODUCT.04

LOW SWAP DRONE PAYLOADS

Rapid emitter geolocation for ISR-T missions. Deployable as a stand-in SIGINT and ELINT collector.



MISSION SETS

Counter-UAS · fixed and mobile
Base & perimeter defense
Maritime / littoral ISR

ALERTING STACK

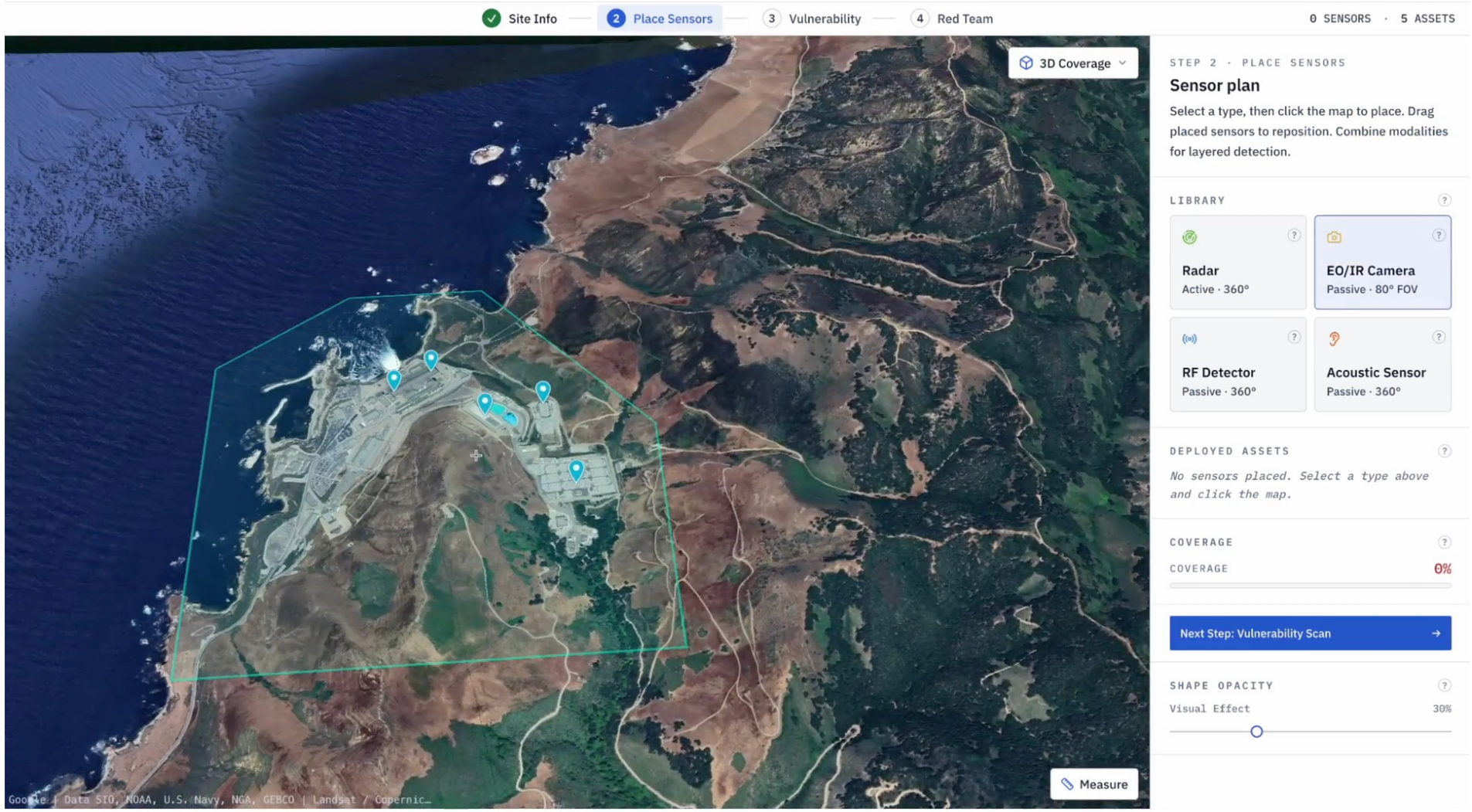
ATAK plugin · native
Anduril Lattice integration
Voice ↔ Voice HMI

SIGNATURE MGMT

Low-risk RF transmit windows
EMCON-aware mesh routing
Passive modalities default

§03 MESA · DIGITAL TWIN FOR LAYERED DEFENSE

LIVE NOW · SAAS



§04 WHO WE SUPPORT

END USERS AND CUSTOMERS

US ARMY · CPE ISW — USER.01

$2M · W51701-25-C-A241

CPE ISW

DETAILS

- CPE Intelligence and Spectrum Warfare
- Aberdeen Proving Ground, Maryland
- Delivers and sustains advanced soldier tech
- Major footprint at Fort Belvoir, Virginia
- Army AI Ops+ Center of Excellence
- xTech AI Grand Challenge

US AFRL · MUNITIONS DIR — USER.02

$1.8M · FA8651-25-C-B041

MUNITIONS DIRECTORATE

DETAILS

- AFRL Munitions Directorate
- Eglin Air Force Base
- Develops effective, affordable weapons tech
- Enables warfighters in all domains
- Supports Air Force and Space Force
- Modular, software-enabled weapons approaches
- Advances Weapon Open System Architecture

OTHER — USER.03

COMMERCIALIZATION

National Nuclear Security Administration

ANDURIL

VOYAGER

iCR
Ideas, Commitment, Results

NORTHROP GRUMMAN

Honeywell





SAFRAN
FEDERAL SYSTEMS

DOES NOT IMPLY ENDORSEMENT

DUAL USE NEMESIS · REGAL

COMMERCIAL COMbINE · MESA

PARTNERS MULTIPLE INDUSTRIES AND MARKET SEGMENTS

§05 TRACTION & GROWTH

END USERS AND CUSTOMERS

FY23-26 · CUMULATIVE AWARD VALUE

$6.8 M

FY23 $105K · FY24 $280K · FY25 $4.5M · **FY26 $6.8M**

YOY GROWTH

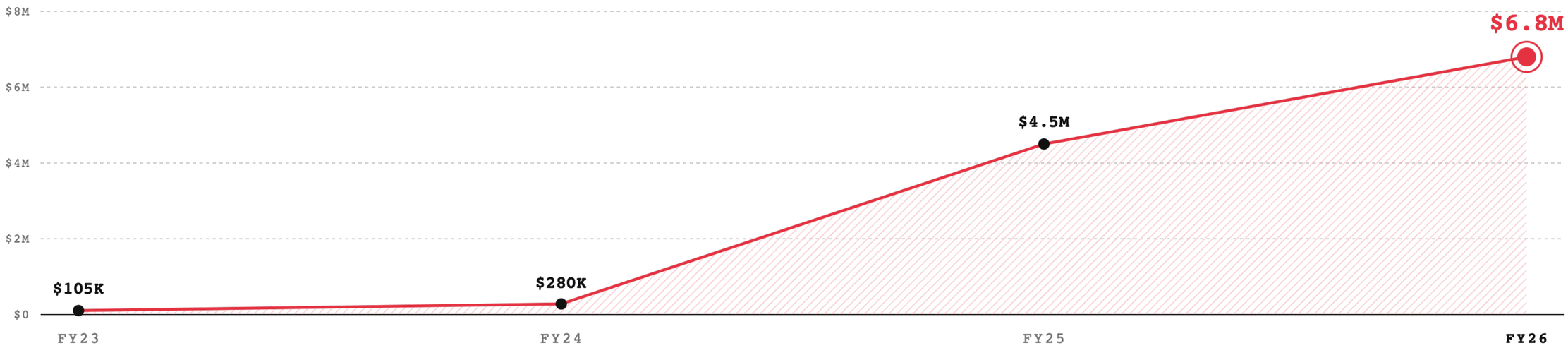
+51%

3-yr multiple · **64.8×** revenue

HEADCOUNT BY EOY 2026

10 FTE

1 → 3 → 7 → **10** · 10× in 3 yrs



FY23 · SEED

INC · 1 FTE

Ozni AI, LLC formed · Denver, CO · bootstrapped.

FY24 · FIRST CONTRACTS

AFRL · ARMY

3 FTE · SBIR pipeline opens · NGC IRAD begins.

FY25 · PRODUCT GA

MESA LIVE · NEMESIS MK-I

7 FTE · xTech AI & GSA wins · revenue 16×.

FY26 · SAAS + SPACE

MULTI-PROGRAM · DUAL-USE

10 FTE · $3.8M Army+AF on-contract · pilots in flight.

OZNI AI

AI-NATIVE DEFENSE SYSTEMS

THANK YOU FOR YOUR ATTENTION.

POINT OF CONTACT

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- MESA.OZNIAI.COM

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PLUG AND PLAY

STARTUP PRESENTATION

Enclave SEMICONDUCTOR

Enclave Semiconductor

Revolutionizing microelectronic data security via novel chip packaging.

#PNPTCSiliconValley

Join us at **pnptc.com**

Enclave
SEMICONDUCTOR

National & Economic Security Through Advanced Packaging

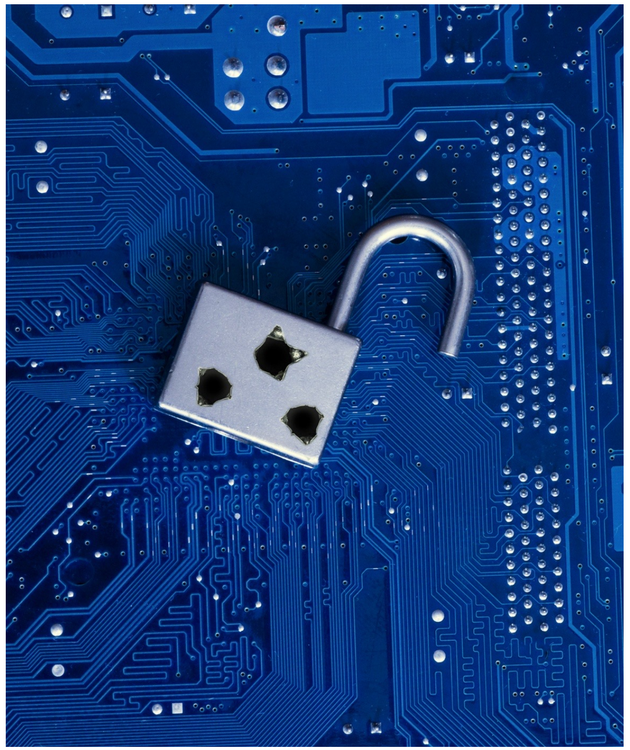
David P. Arnold, Ph.D.
Founder and President

Mark Litecky
Co-Founder and CEO

The Problem

National & Economic Security Threat

Modern semiconductor chips demand anti-tamper protections to protect intellectual property, secure data/information, and ensure intended functionality.



- Side-Channel Attacks
- Fault Injection Attacks
- Supply Chain Attacks
- Physical Attacks
- Reverse Engineering

You Can't Put the Genie Back in the Bottle

Hardware Attacks →

IP Theft & Data Exfiltration →

$Billions at Risk [1,2]

Counterfeits, Counterintelligence, Countermeasures.

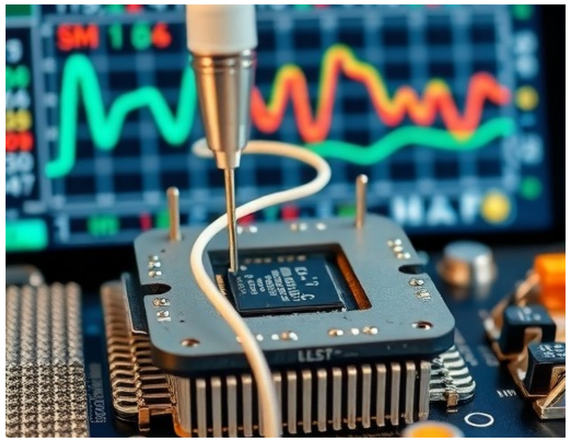


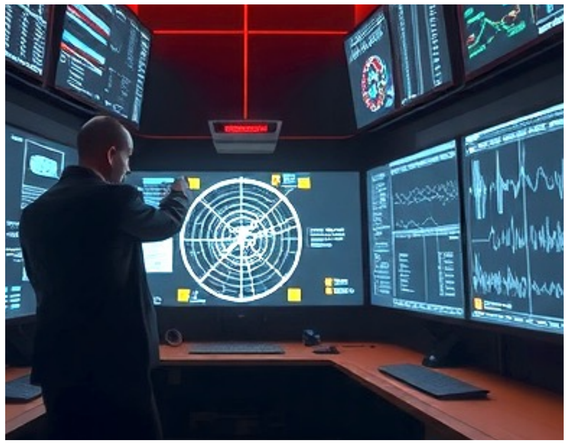
[1] Semiconductor Industry Association
[2] Proc. IEEE

Devastational Impact

Classified Information Loss







AI Model Exfiltration



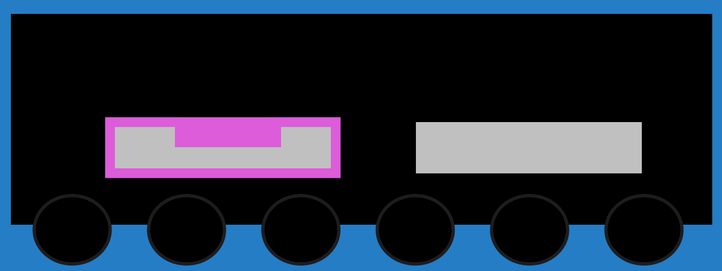




Our Solution

Secure the Entire Package rather than each Silicon Chip

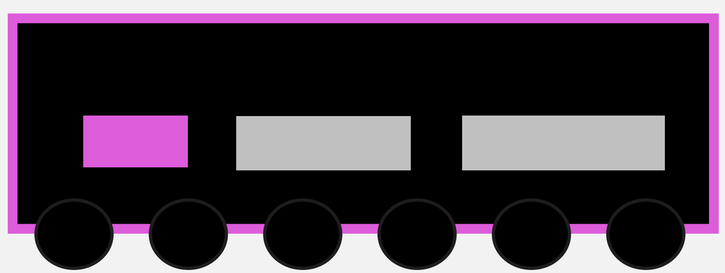
Current Approach



Expensive, Complex Security Features
Built into Each Silicon Chip (if at all)

Chip SCIF™

Protecting What Matters Most



Low-Cost Package-Level Security
Using Purpose-Built Security Chiplet

Leadership Team

David P. Arnold, PhD

Founder

Tech Innovator and Team Builder



Mark Litecky

CEO

40-year Proven Semiconductor Executive



Kenneth “Taz” Plaks, PhD

Strategic Advisor

DARPA Veteran, Anti-Tamper Expert, USAF Col. (ret.)

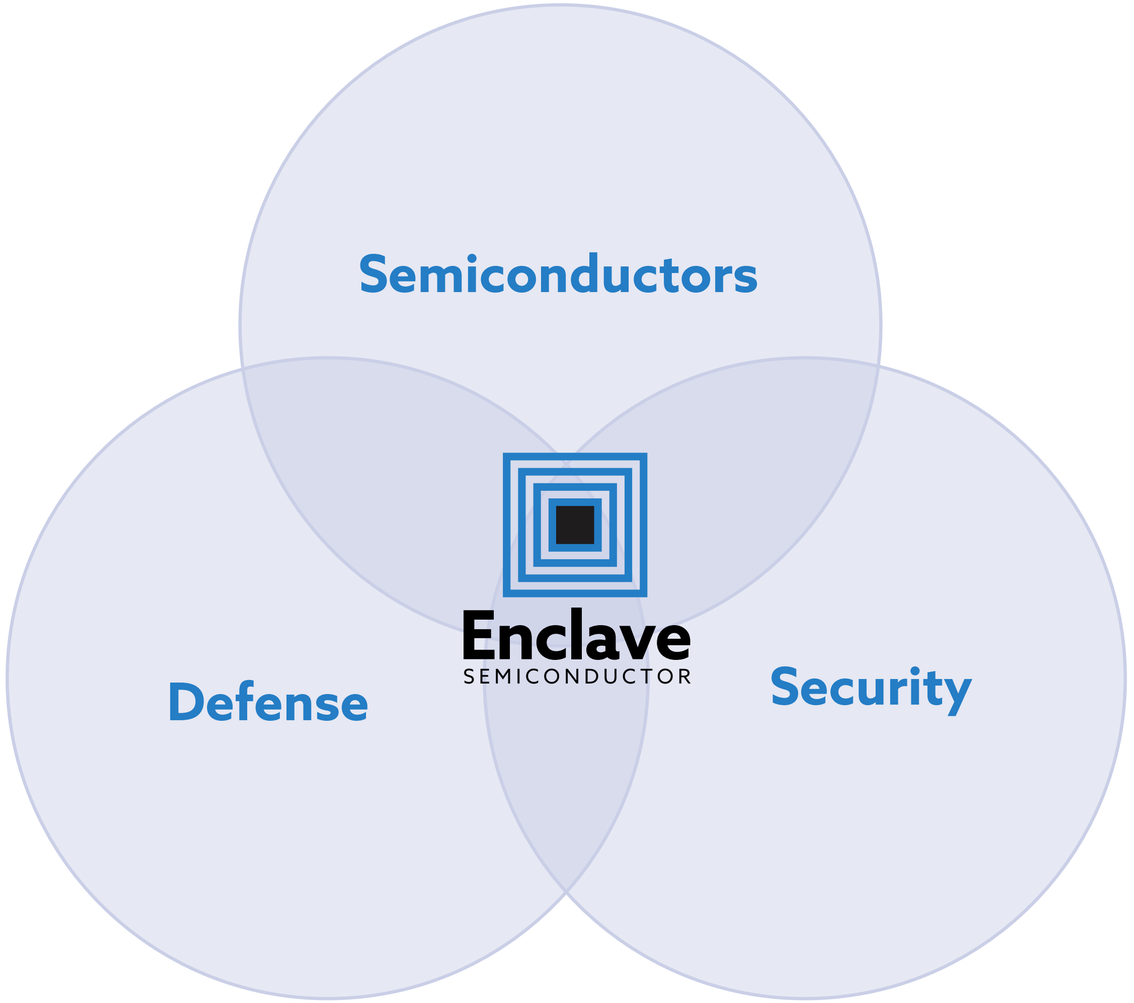


Mark G. Allen, PhD

Strategic Advisor

Distinguished Professor and Serial Entrepreneur

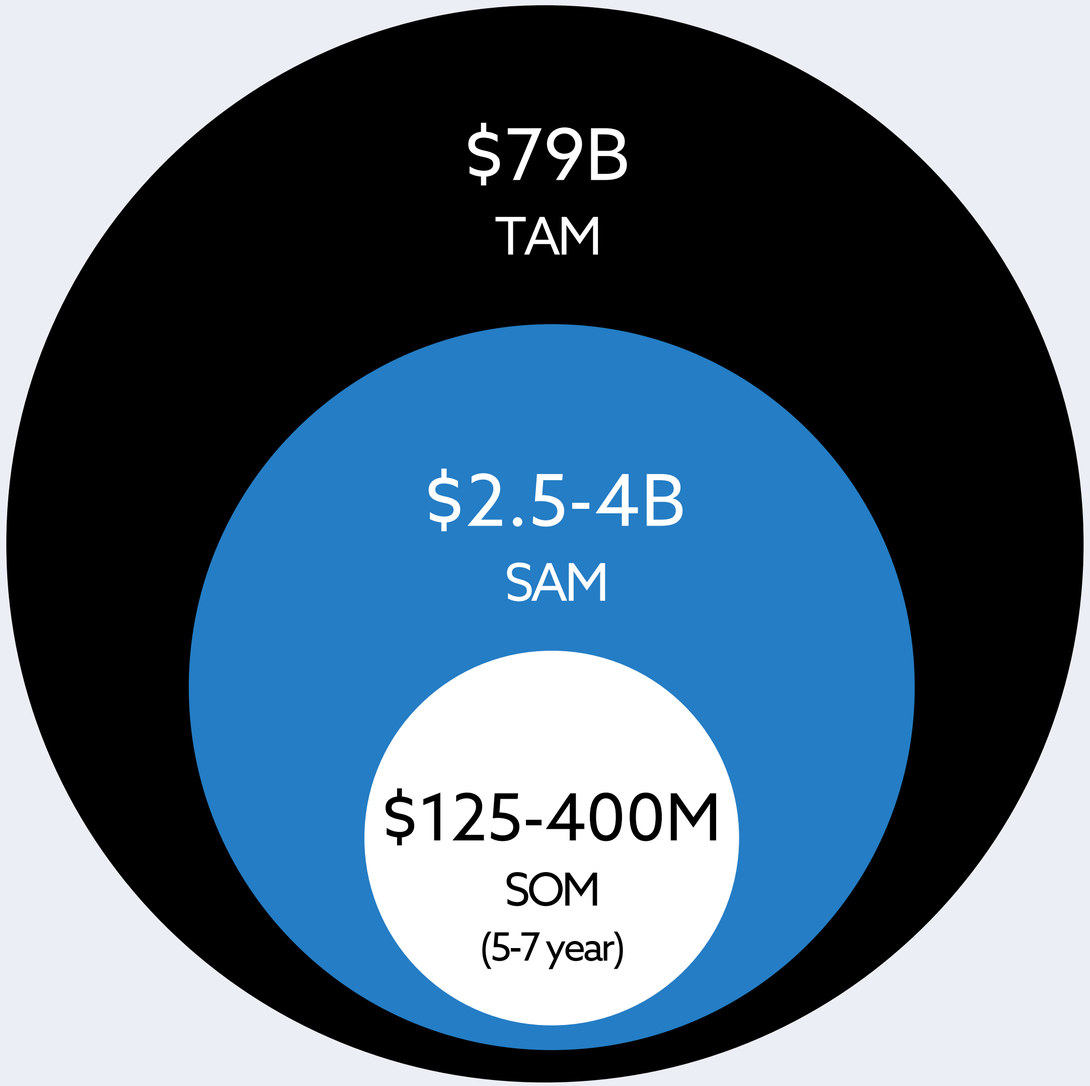




145 Years

Experience

The Market



TAM: Advanced Packaging

$39.6 billion in 2025, 9.5% CAGR, $79.4 billion in 2030 driven by AI, compute, and consumer electronics demand[1]

SAM: Secure Packaging

$2.5 – 4 billion by 2030, based on $2-3B DoD plus ~$1 billion critical infrastructure[2]

SOM: Enclave Semiconductor

5-10% market capture within 5-7 years, based on few incumbents, strong IP, and first-mover advantages

[1] Yole Group, 2025; Precedence Research, 2025
[2] McKinsey, 2023, U.S. DoD budget documents, and Fortune Business Insights, 2025 critical infrastructure applications (e.g., energy/telecom hardware security, ~$1 billion subset).

Security-Critical Applications

Platforms

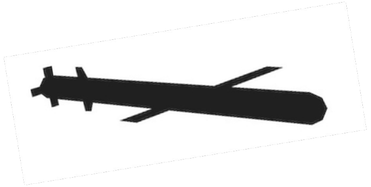






Attritables







Dual Use

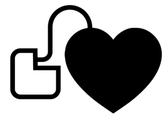
Data/Network





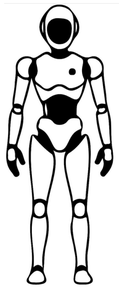
Health





Edge AI





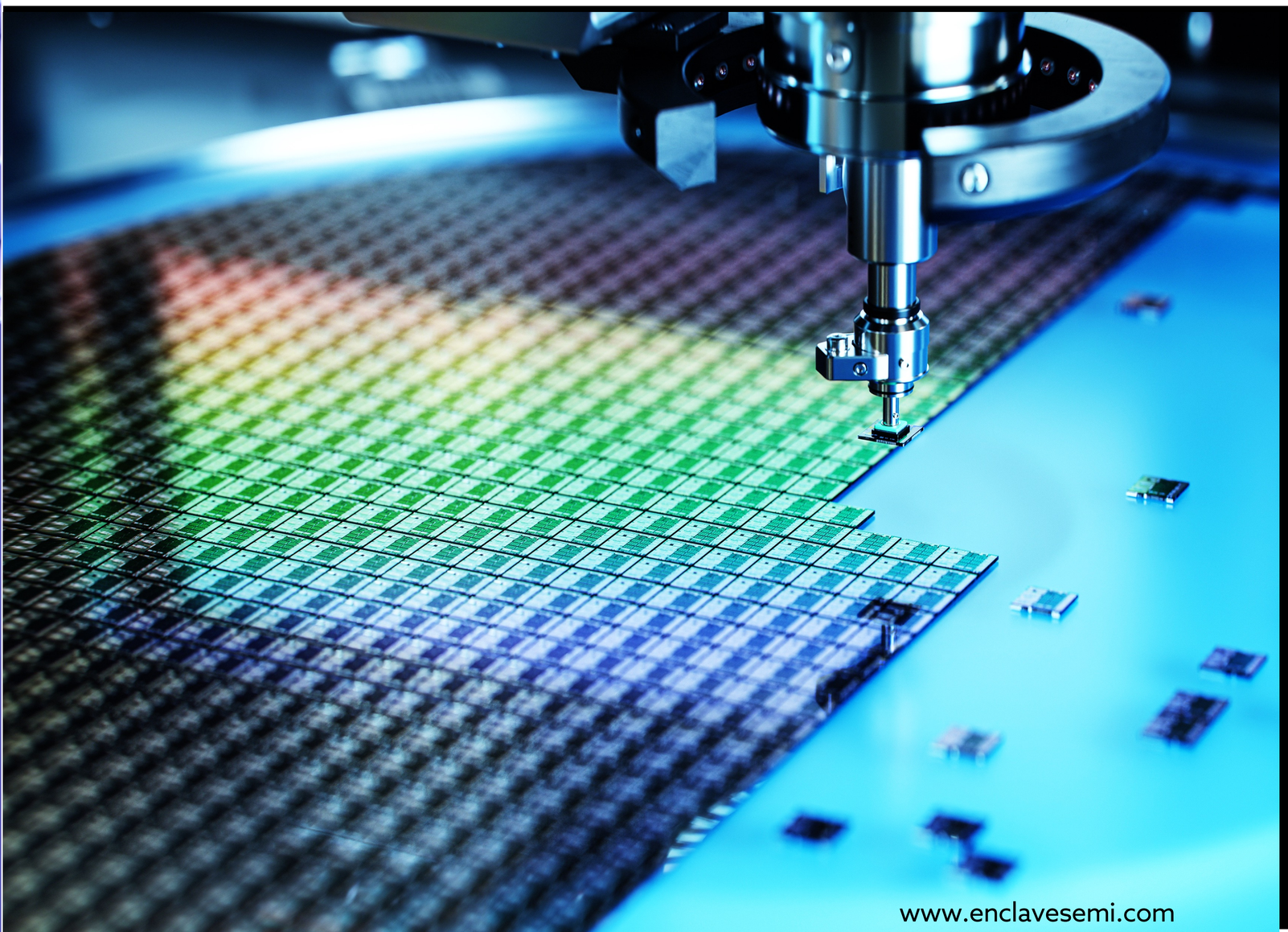


Command/Control





Technology Tailwinds



Urgent DoW Demand for Secure but Attritable Chips

Surging Threat of AI Model Theft (Weight Exfiltration)

Industry Pivot to Chiplet Heterogeneous Integration

Explosive Growth in Domestic Advanced Packaging Industry

Key Milestones

		TRL/MRL	Investment Needed
2026	Transfer IP Validate design/process Identify critical applications	4+	$10M
2027	Deliver first prototypes Customer integration Early access PDK	6	$20M
2028	Qualify production, reliability Establish PDK Initial volume ramp	7	$30M
2029	Scale production 1000 wafers/month Expand market reach	8	$35M

Enclave
SEMICONDUCTOR

National & Economic Security Through Advanced Packaging

Contact: info@enclavesemi.com

PLUG AND PLAY

STARTUP PRESENTATION

Bedrock Semiconductor Inc

Creating the world's most efficient semiconductor RF and power devices.

#PNPTCSiliconValley

Join us at **pnptc.com**

BEDROCK

Semiconductor Inc.

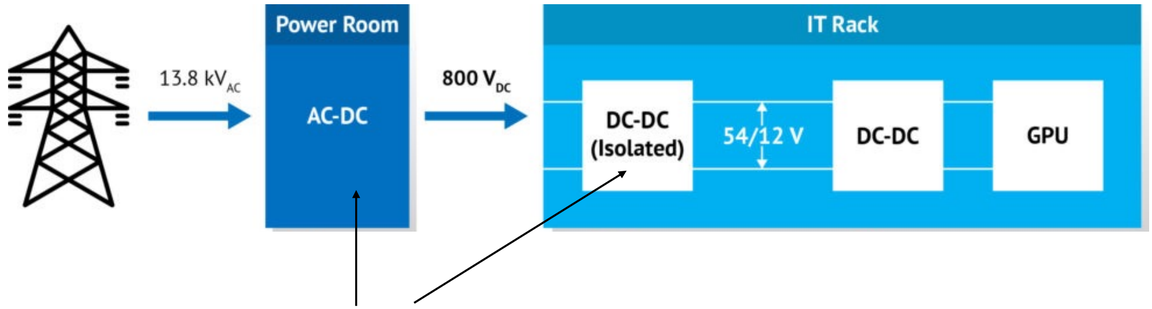
Plug and Play Silicon Valley May Summit

Bedrock Semiconductor makes semiconductor devices 

Based on GaN semiconductors 

To enable AI data center efficiency

Data Centers Efficiency Unlocks AI Revenue



10% lost in power conversion & distribution

<u>Bedrock Semi devices</u>

Energy savings: 3% - 5% of total

- More efficient devices
- High voltage architecture

PA Digital 1 Data Center

1.35 GW



Electric bill: $100M /month ($0.10 kW-hr)

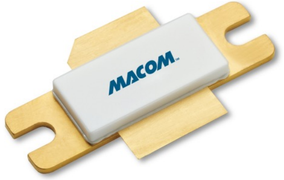
Revenue: $2B /month ($2 kW-hr)

Reduce expense up to $5M /month

Increase revenue up to $100M /month

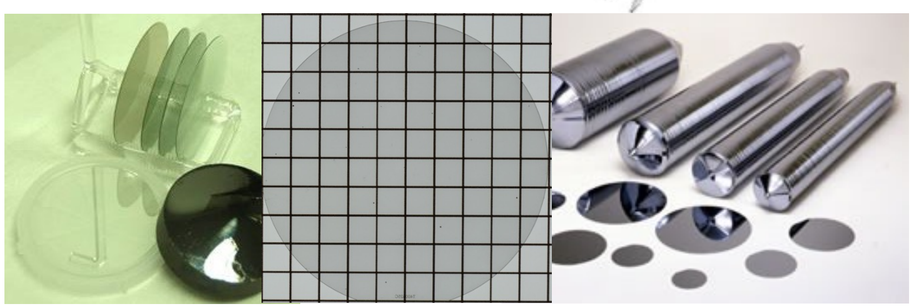
Substrates are the Bedrock of Semiconductors

GaN RF Device



GaN Power Device





SiC GaN Si

GaN on foreign material

- Lower cost
- Lower performance

GaN device
Foreign Substrate

<u>1000X less crystal defects</u>

GaN-on-GaN

- High performance
- High efficiency

GaN device
GaN Substrate

GaN-on-GaN is the Best

The highest efficiency RF and power devices employ GaN-on-GaN!

GaN-on-GaN RF Devices

- Highest report power-added efficiency at 2.45 GHz and 8 GHz

GaN-on-GaN Vertical Power Device

- 5X lower resistance & smaller chip than incumbent (SiC) technology
- 10X lower switching losses than SiC

AlGaN/GaN HEMT on a free-standing GaN substrate with record 85.2% power-added efficiency at 2.45 GHz

Check for updates

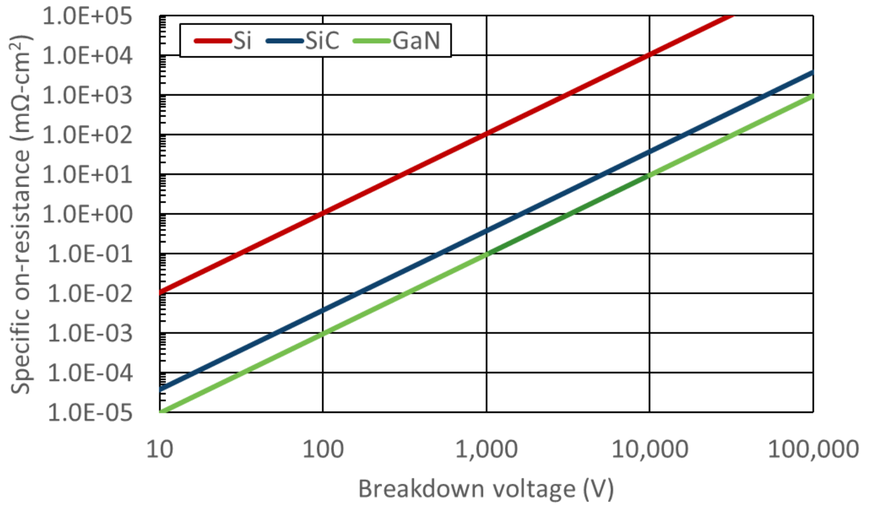
Toshihiro Ohki*, Atsushi Yamada, Yuichi Minoura, Yusuke Kumazaki, Kenji Saito, and Masaru Sato

Fujitsu Limited, Atsugi, Kanagawa 243-0197, Japan

*E-mail: t-ohki@fujitsu.com

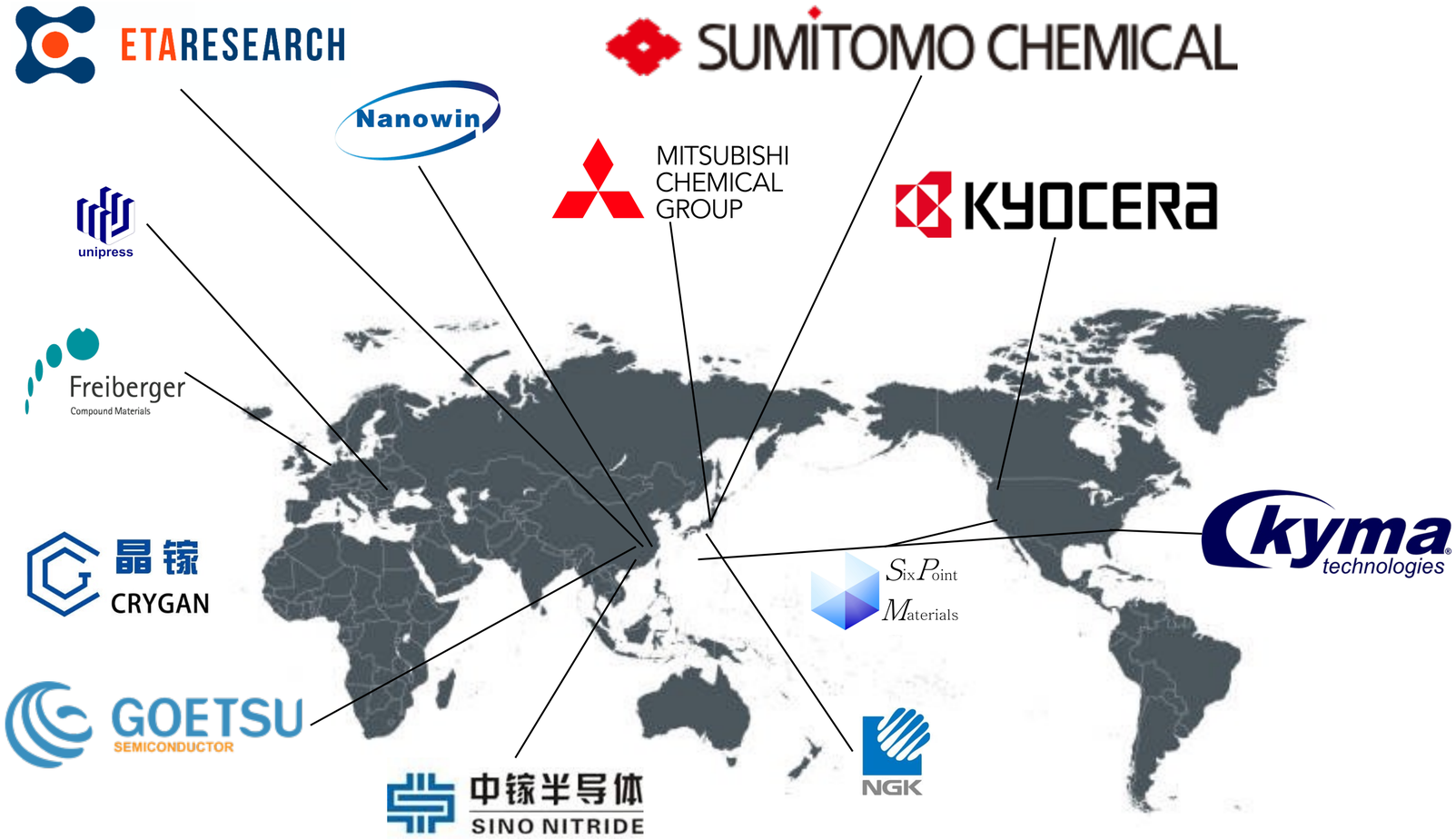
Received December 27, 2024; revised February 10, 2025; accepted March 3, 2025; published online March 19, 2025

An AlGaN/GaN high-electron-mobility transistor (HEMT) on a free-standing GaN substrate achieved impressive power-added and drain efficiencies of 85.2% and 89.0%, respectively, at 2.45 GHz. We improved the GaN channel quality by reducing the C concentration and eliminated the buffer leakage path by removing the residual Si at the substrate-epitaxial layer interface. These improvements, combined with the reduction in dislocation density and the elimination of the nucleation layer by using a free-standing GaN substrate, contributed to the enhanced efficiency. To the best of our knowledge, the achieved efficiency represents the highest reported for GaN-based discrete HEMTs in this frequency band. © 2025 The Author(s). Published on behalf of The Japan Society of Applied Physics by IOP Publishing Ltd



GaN Wafers Limit GaN-on-GaN Devices

3 companies produce 4” GaN wafers – limited size, availability; high price



Led by GaN Entrepreneur



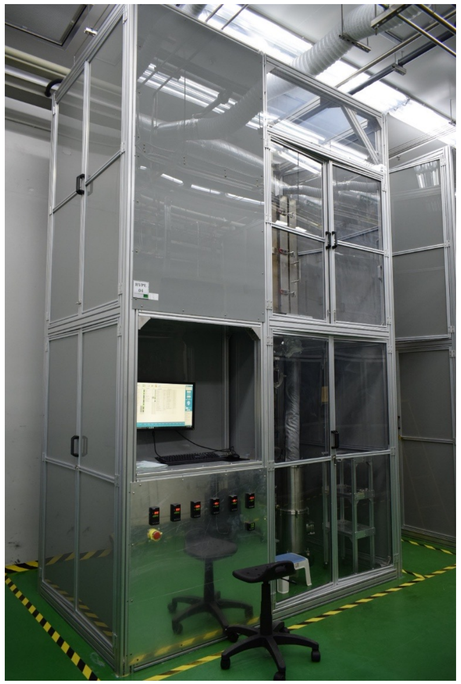
Troy Baker, PhD
CEO

ETARESEARCH

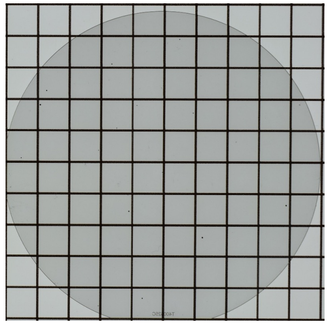
Founder & CEO of GaN wafer company in China.



Chinese GaN wafer factory that currently supplies laser diode manufacturers.



GaN production HVPE designed by Troy



4” GaN wafer

UC SANTA BARBARA MATERIALS

PhD at UCSB under Nobel Laureate.

Let’s build a semiconductor fab in Pennsylvania!

Deep GaN Expertise



Max Shatalov, PhD CTO

Experienced executive and expert on GaN materials, devices, equipment, and IP.

Held VP positions at LED startup and public semiconductor equipment company.



Dirk Ehrentraut, PhD VP Materials

Expert on GaN wafer production.

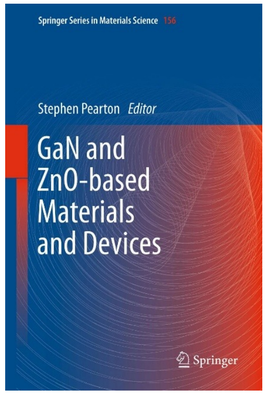
Held director/management positions at Kyocera International Inc. and Soraa Inc. Former Professor at Tohoku University.

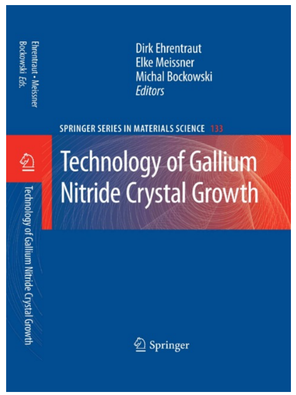


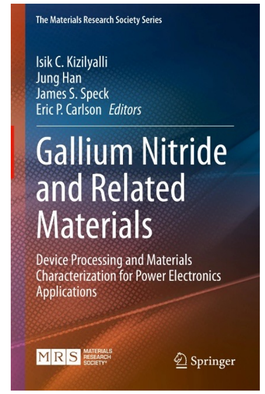
Travis Anderson, PhD VP Devices

Expert on GaN-on-GaN devices.

Former Head of Power Electronics at Navy Research Lab. Currently Professor at U. of Florida.







Seed Stage Funding

Currently raising $10M seed funding round

- Demonstrate state-of-the-art GaN devices

Contact: Troy Baker, troy@bedrocksemi.com

alphalab

PLUG AND PLAY SEMICONDUCTORS

PLUG AND PLAY

STARTUP PRESENTATION

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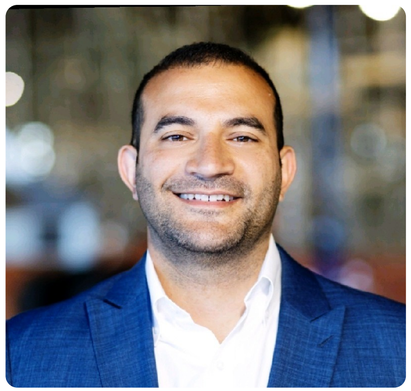
Built by engineers for the next generation of quality

Lattice



Mohamadou Bella Bah
Founder & CEO

MIT EECS
Former Google & Google X
bella@runlattice.com



Sharbel Karam
Head of Product & Customer Success

Embry-Riddle + John Hopkins
20+ years in aviation/aerospace/SMT manufacturing
sharbel@runlattice.com

Google

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY

JOHNS HOPKINS UNIVERSITY

NORTHROP GRUMMAN

KITTY HAWK

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hello@runlattice.com

The binding constraint in manufacturing quality has shifted from **detection to diagnosis**

Lattice

>$1M/hour

Cost of downtime in high-stakes manufacturing. Without fast and comprehensive diagnosis, defects recur.

Siemens, ITIC, ABB

73%

Percentage of manufacturers that experienced a product recall in the last 5 years. Nearly half say recalls are increasing.

ETQ/Hexagon, 2024

>$580 billion

In total cost of poor quality, spanning scrap, rework, warranty, recalls, regulatory, litigation, and brand erosion (US-based manufacturing).

Bureau of Economic Analysis I ASQ

Aeronex Systems › Workspace › Q1 2026

Ask a quick question...

ESC Propulsion Controller Board Solder Defects - Aeronex AX-7 Drone (NCR-2024-1138-ESC)

HIGH CONFIDENCE · 7 ITEMS · Updating

BB · Save & Exit · Finalize

1 assigned item pending review

Canvas

Visual root cause analysis for the current investigation

Diagram | Timeline | Evidence | Artifacts | Similar | History

Add Failure Mode · Add Hypothesis · Add Task · Click a node to select it

Review Queue Assigned 1 · Auto-assign



Conductor Chat

PLAN · Completed current plan 0/0 · GAP ANALYSIS

Should we implement a hard MES interlock that locks the SMT line when humidity exceeds 50% RH for more than 5 minutes?

Are the 12 marginal units (1116–1127) currently in a state where 100% X-ray inspection is feasible before final assembly?

Is there a record of T. Brennan receiving the updated IPC-A-610 Class 3 training module in the last 12 months?

Show Reasoning

2:13 PM

Bella Bah

Plot the temperature and humidity data from @[ENV_DATA_LINE3_14NOV2024.xlsx]

2:20 PM

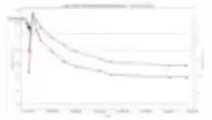
Conductor thinking

2:22 PM

The environmental telemetry from @[ENV_DATA_LINE3_14NOV2024.xlsx] shows a clear and significant excursion on November 14, 2024, starting at 07:02 and peaking at 07:05 with a temperature of **27.8°C** (+4.8°C delta) and humidity of **58% RH** (+16% delta).

Both parameters exceeded the process control limits (Temperature: 23.0 ± 2.0°C; Humidity: 42 ± 10% RH) for several minutes. This peak excursion directly coincides with the production of the 12 marginal units and the failed unit ANX-DRN-2024-1138. The increased humidity is a high-confidence driver for the observed solder paste slump and subsequent bridging at P5-P6.

Based on my analysis, the temperature and humidity spikes correlate directly with the HVAC damper actuator fault (FC-0017) documented in the MES logs.



env_excursion_plot.png

CODE EXECUTION (1 execution) 1 completed

2:23 PM

Investigation in progress...

Traction & Q1/Q2 Momentum

Lattice

→ **Enterprise Validation:** Completed demos with **30+ enterprise customers**, including several **$1B+ businesses**

→ **Inbound Interest:** Secured high-intent engagement from a major enterprise through **organic inbound**

→ **Sector Momentum:** Currently in advanced pilot discussions with leading **aerospace and automotive customers**

Who we want to partner with

Lattice

Lattice is Built for High-Stakes Engineering

Quality and reliability teams managing complex hardware systems where root-cause speed defines the pace of innovation.

Target verticals:

- Semiconductor & Electronics
- Advanced Mobility
- Medical Devices

We're looking for:

- **Pilots**:
  - Agile startups new to RCA and looking to **scale** their investigation workflows
  - Enterprises seeking to **reduce COPQ** across established operations
- **Distribution Opportunities** within high-stakes engineering sectors

Schedule a demo at runlattice.com | hello@runlattice.com

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Break

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DAY 1 - MAY 19

Morning: **A&D + Semiconductor Expo**
Afternoon: **The Future of Industries**
Corporate Reverse Pitch

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