UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report
(Date of earliest event reported): May 19, 2026

Aeluma, Inc.
(Exact name of registrant as specified in its charter)

Delaware	001-42570	85-2807351
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

27 Castilian Drive Goleta, California	93117
(Address of principal executive offices)	(Zip Code)

805-351-2707
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	ALMU	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 7.01 Regulation FD Disclosure.

Aeluma, Inc. has updated its investor presentation, a copy of which is furnished as Exhibit 99.1 to this current report on Form 8-K and incorporated by reference into this Item 7.01. We intend to use the presentation in whole or in part, in one or more meetings with analysts, investors, and others.

Item 9.01 Financial Statements and Exhibits.

(d) *Exhibits.*

Exhibit Number	Exhibit
99.1	Investor Presentation of Aeluma, Inc. dated May 19, 2026
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

The information contained in this current report on Form 8-K, including Exhibit 99.1, is being furnished and shall not be deemed to be "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of such section, nor shall such information be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

AELUMA, INC.

Date: May 19, 2026

By: /s/ Christopher Stewart
Christopher Stewart
Chief Financial Officer

Exhibit 99.1


Aeluma™
Investor Presentation
May 2026
NASDAQ
ALMU
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Forward Looking Statements

This presentation contains summary information about Aeluma, Inc. (“Aeluma”) as of the date hereof. The information in this presentation is of general background and contains an overview and summary of certain data selected by the management of Aeluma. It does not purport to be complete.

This presentation is not a prospectus, disclosure document or offering document under the law of any jurisdiction. It is for informational purposes only. This presentation is not investment or financial product advice (nor tax, accounting or legal advice) and is not intended to be used for the basis of making an investment decision. A recipient must make their own independent investigations, consideration and evaluation of Aeluma and the offer and Aeluma recommends that investors should obtain their own professional advice before making any investment decisions in the company. This investor presentation shall also not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of securities in any states or jurisdictions in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No registered offering of securities shall be made except by means of a prospectus meeting the requirements of section 10 of the Securities Act of 1933, as amended.

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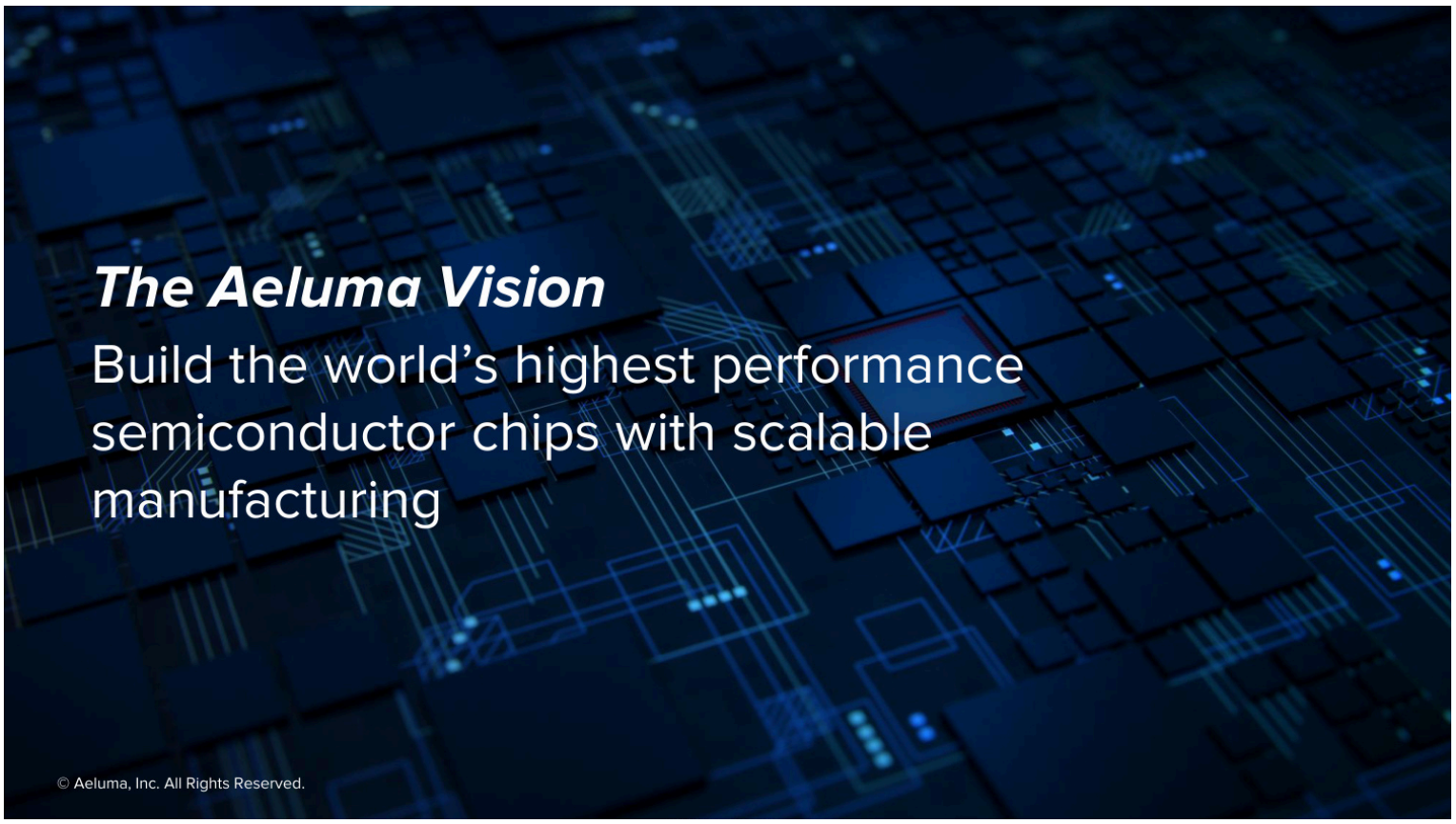
Some of the statements appearing in this presentation are in the nature of forward looking statements. You should be aware that such statements are predictions based on assumptions, and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industry in which Aeluma operates as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets and other factors that are in some cases beyond Aeluma's control. As a result, any or all of the Aeluma’s forward-looking statements in this presentation may turn out to be inaccurate and actual results may be materially different than those expressed in such forward-looking statements. Except as required by law, we are under no duty to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise, after the date of this presentation. These forward-looking statements speak only as of the date of this presentation, and we assume no obligation to update or revise these forward-looking statements for any reason.


The Aeluma Vision
Build the world's highest performance semiconductor chips with scalable manufacturing
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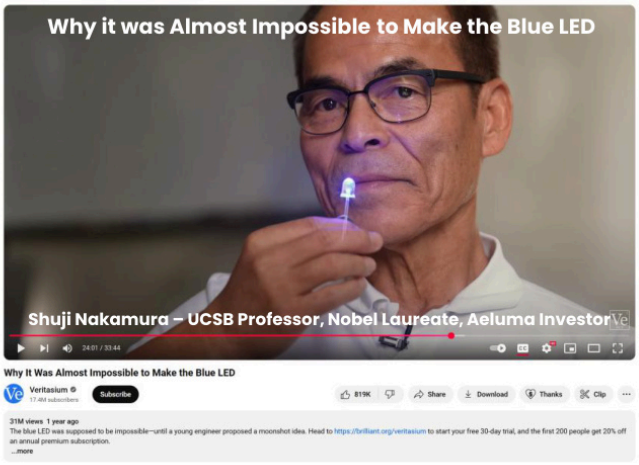
Background Story: Gallium Nitride (GaN) and the Blue LED

A materials breakthrough that enabled an industry and more

"These won't ever replace the kitchen light."
"The research is a waste of money."



https://www.youtube.com/watch?v=AF8d72mA41M&t=1399s

The blue LED revolutionized lighting and displays, and gallium nitride broadly impacted many photonics and electronics applications.

LEDs use **75% less energy** and last **25 times longer**

Energy savings by 2035 of **569 TWh** (92 1,000 MW power plants)

LED: light emitting diode; www.energy.gov/energysaver/led-lighting

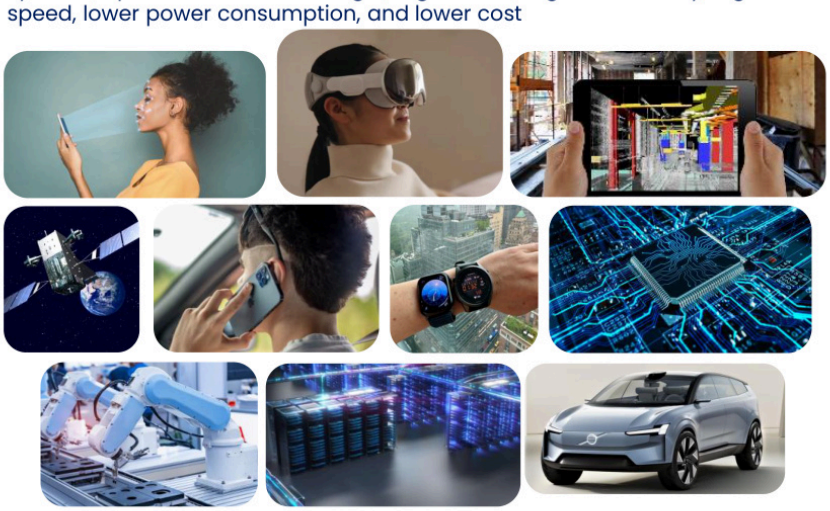
Aeluma's Indium Gallium Arsenide (InGaAs) Breakthrough

Best-in-class materials with scalable manufacturing

"InGaAs on silicon won't work, people have tried."
"You can't grow quantum dots by MOCVD."

InGaAs is the best material for shortwave infrared (SWIR) applications, impacting defense & aerospace, mobile and consumer electronics, AI infrastructure, industrial and robotics, quantum, and automotive.

Eye safe, operation in direct sunlight, night vision, higher sensitivity, higher speed, lower power consumption, and lower cost



MOCVD: metalorganic chemical vapor deposition; Outcomes cannot be guaranteed.

Company Overview

Transformative Technology

- Best-in-class materials with large-volume manufacturing
- **~36 issued and pending patents**

Capital-Light Manufacturing

- Primarily outsourced manufacturing for rapid scaling
- Proprietary steps in house
- **ISO 9001:2015** certified

Significant Business Traction

- Disruptive tech validated by U.S. agencies and customers
- Sampling, NRE, initial sales
- **20+ customer engagements**

Talented Team

- **27 people**
- Engineering, Manufacturing, G&A, Business Development

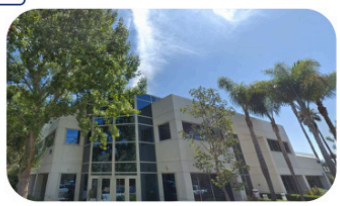
State-of-the-Art Facilities

- Materials Production
- Test and Validation
- **12k total sq. ft.** (7.5k sq. ft. R&D/Manufacturing)

Strong Financial Outlook

- Recurring R&D revenue ($4.7M FY25)
- Nasdaq listed
- No debt or overhang
- **~$37.8M** cash at 3/31/26

Headquarters in Goleta, California



Outcomes cannot be guaranteed.


Innovation & Technology
Next-generation photonics with large-diameter wafer manufacturing
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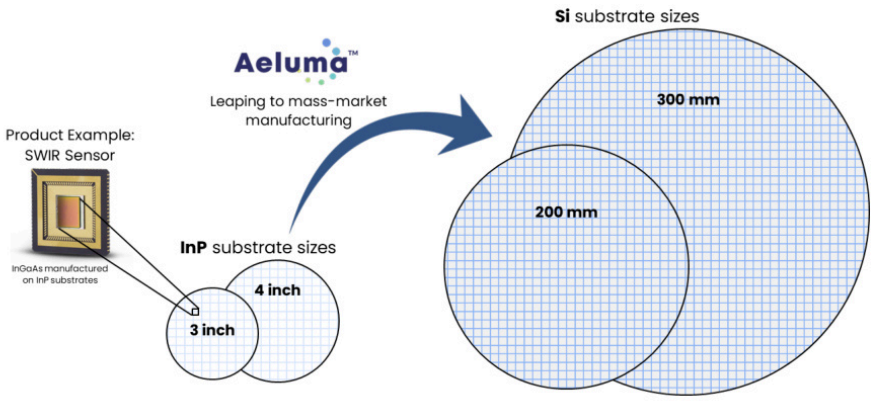
Aeluma's Breakthrough in Semiconductor Manufacturing

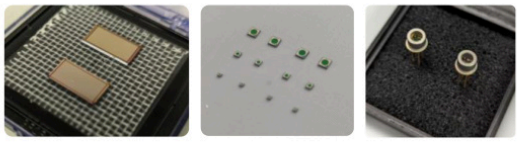
The Foundation for Next-Generation Photonics



- ✓ Overcomes supply chain constraints
- ✓ Highly automated manufacturing
- ✓ CMOS integration
- ✓ 3D wafer-scale packaging
- ✓ 5-10X lower manufacturing cost

The World's First 300 mm InP-on-Si wafer

Products: InGaAs image sensors, high-speed photodiodes
Markets: Mobile, AI, Datacom, D&A, Quantum

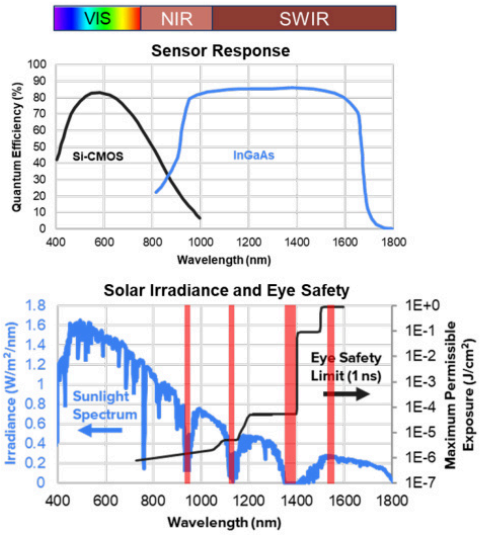


InP: indium phosphide; Si: silicon; D&A: defense and aerospace; Source of SWIR sensor image: https://www.flir.com/support/products/swir-ingaas-fpa/

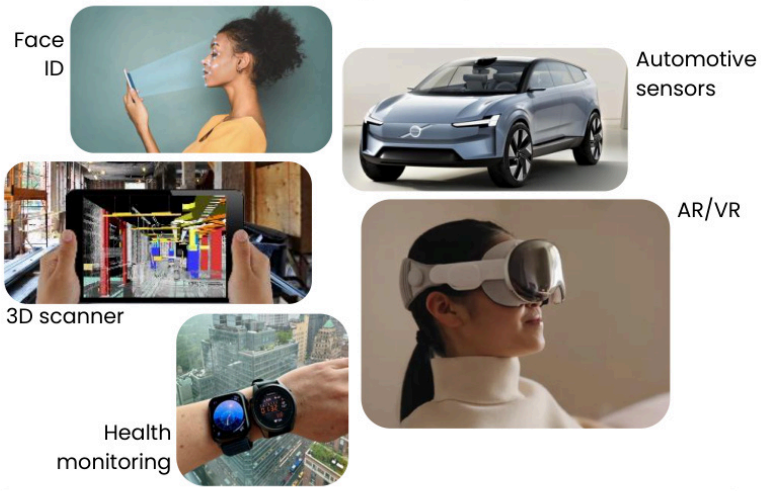
Why Aeluma and Why Now?

Shortwave Infrared (SWIR) Sensors for Mobile and Consumer Electronics

What is SWIR?



SWIR sensors needed for eye safety and other benefits



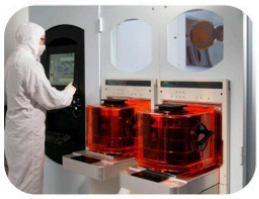
Radical approach required to scale and reduce cost

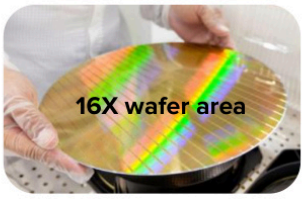
VIS: visible; NIR: near infrared; SWIR: shortwave infrared; InGaAs: indium gallium arsenide; Si: silicon; Source of plots: Rep. Prog. Phys. 85, 12 (2022).

Manufacturing for Mass Markets

Aeluma's Large-Diameter Substrate Manufacturing: Economies of Scale

Incumbent technologies cannot meet volume and cost requirements for consumer markets. Aeluma's manufacturing enables scaling and cost reduction required for mass markets.





	Substrate size	Wafers for 20 million chips	Typical fab capacity
Incumbent technologies	3 inch	425k wafers	1k-10k wafers per month
	4 inch	213k wafers	1k-10k wafers per month
Aeluma™ Large-diameter platforms	**200 mm**	**43k wafers**	**10k-100k per month**
	300 mm	**18k wafers**	**10k-100k per month**

300 mm substrate has 16X wafer area of 3 inch. Outcomes cannot be guaranteed. Values provided for qualitative illustration purposes.

Scalable Technology for a Broad Market

From Consumer to Defense

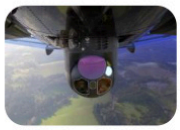
Mobile and Consumer Electronics

- Face ID
- 3D scanner
- Health monitoring
- AR/VR

Datacom and AI Infrastructure

- AI/ML infrastructure
- Data centers and HPC
- Telecommunications
- 5G/6G wireless

Defense & Aerospace



- HD imaging
- LiDAR
- Communications
- Autonomous systems

Quantum

- Quantum photonics
- Networks and sensors
- Nonlinear optics
- Sources and detectors

Other markets: industrial, robotics, automotive

AR/VR: augmented/virtual reality; AI: artificial intelligence; ML: machine learning; HPC: high-performance computing; HD: high definition; LiDAR: light detection and ranging.

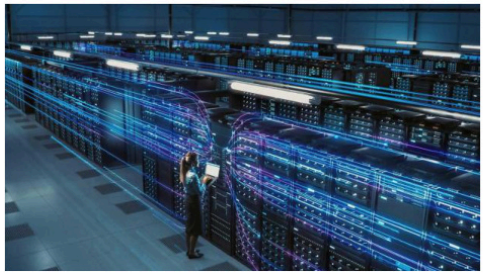
Why Aeluma and Why Now?

AI Infrastructure and Data Center Interconnects

Market Opportunity

- $300+ billion in data center capex investments made by top four U.S. hyperscalers in 2025
- Investment will approach $700 billion in 2026; growing to $1+ trillion in 2029
- Optical networking comprises ~15% of this investment
- This is a significant opportunity for photonics

- Demand outpacing supply for pluggable optics components; investments being made in next-generation NPO, and CPO
- Emerging architectures:
  - Slow-and-wide based on microLEDs, microVCSELs, SiPh
  - Fast-and-narrow based on EMLs, SiPh, TFLN
- Industry facing major InP substrate supply shortage and limited InP fab capacity for lasers, EMLs, InGaAs photodiodes



Overcoming the data transfer bottleneck

High-bandwidth, low-latency, and energy-efficient optical interconnects required for AI data centers

Aeluma's non-InP photonics manufacturing can provide performance and scale for critical components including InGaAs photodiodes, quantum dot lasers, and high-speed modulators.

NPO: near-package optics; CPO: co-packaged optics; microLED: micrometer-scale light emitting diodes; microVCSEL; micrometer-scale vertical cavity surface emitting laser; SiPh: silicon photonics; EML: externally modulated lasers; TFLN: thin film lithium niobate; Outcomes cannot be guaranteed.

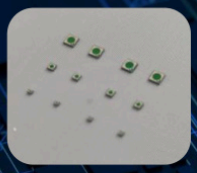
Portfolio

Scaling the World's Highest Performance Semiconductors

Aeluma™

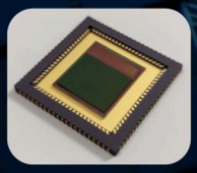
Large Wafers and Templates

Large-Area InGaAs Photodiodes



High-Speed InGaAs Photodiodes and Arrays

InGaAs Imaging Photodiode Arrays



Quantum Dot Lasers

Quantum Nonlinear Photonics

Wafers and Templates

Features: Low defect density, surface roughness, and wafer bow

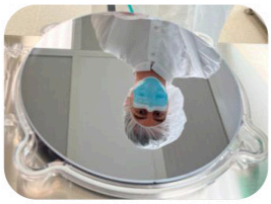
GaAs-on-Si

- 100 to 300 mm wafers
- Suitable for GaAs RF, Opto, MWIR

Applications

- Defense & Aerospace
- RF Wireless

InP-on-(GaAs/Si)



- 100 to 300 mm wafers
- Suitable for InP RF, SWIR

Applications

- Datacom and Telecom
- Mobile and Consumer

AlGaAs-on-Insulator

- 100 to 300 mm wafers
- Suitable for InP RF, SWIR

Applications

- Quantum Photonics
- Nonlinear Photonics

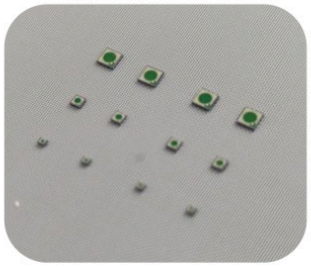
Opto: optical semiconductors including VCSELs; MWIR: midwave infrared

Large-Area InGaAs Photodiodes

Features

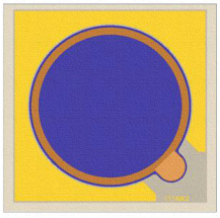
- **Typical Photosensitive Diameter (D):**
  0.25 to 5.0 mm (0.25 and 0.5 mm most common)
- **Typical Operating Wavelength (λ):**
  850 to 1550 nm
- **Device Type:**
  PIN, UTC, APD or SPAD
- **Sample Format:**
  Bare die, mounted on carrier or mounted in TO package

Bare Die

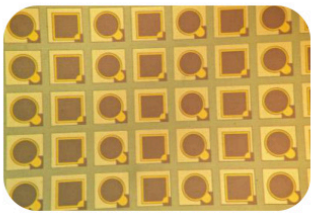


TO Package

Photodiode Schematic



Photodiodes



Applications

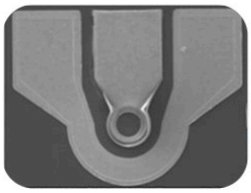
- Optical Communications
- Mobile and Consumer
- Industrial and Robotics
- Defense & Aerospace
- Automotive

High-Speed InGaAs Photodiodes

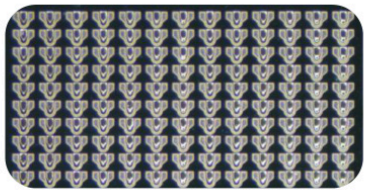
Features

- **Typical Data Rates:**
  1 to 100G
- **Typical Operating Wavelength (λ):**
  850 to 1550 nm
- **Device Type:**
  PIN, UTC, APD
- **Sample Format:**
  Bare die, mounted on carrier, array format, wafer-scale integrated
- **Target Architecture:**
  MMF, SMF

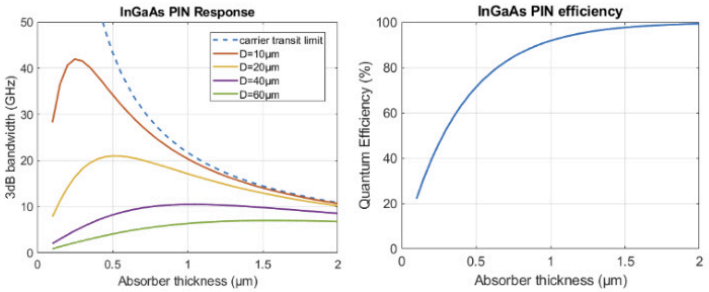
Single-Element



Array



Bandwidth-Efficiency Design Engineering



Applications

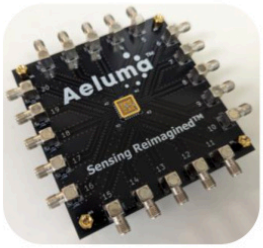
- Datacom and Telecom
- Defense & Aerospace
- Instrumentation

SWIR InGaAs Photodiode Arrays

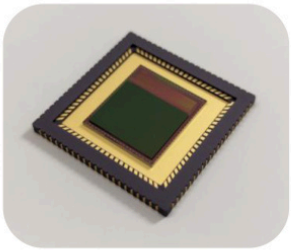
Features

- Low dark current photodiodes arrays manufactured with large-diameter substrate platform
- Pixel and array size customizable
- Typical array sizes: 128X32, 256X128, 640X512
- Delivered as PDA chips or with ROICs
- FPA assembly available
- Small test arrays (ex. 8 X 8) available for evaluation

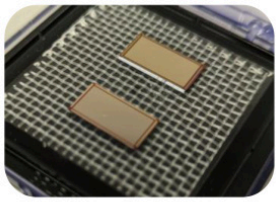
Evaluation Board

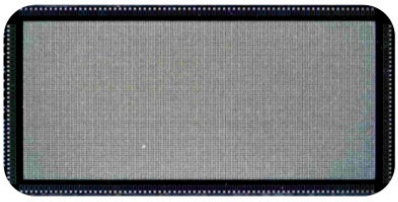


Focal Plane Array Assembly



Photodiode Arrays





Examples shown are 256X128 format

Applications

- Mobile and Consumer
- Defense & Aerospace
- AR/VR
- Industrial and Robotics
- Automotive

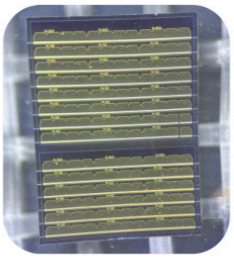
PDA: photodetector array; ROIC: read-out integrated circuit; FPA: focal plane array

Quantum Dot Lasers

Features

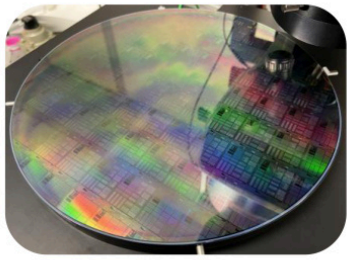
- **Typical Operating Wavelength (λ):**
  O-band (1260 to 1360 nm)
- **Device Format:**
  Fabry-Perot laser, SOA, RSOA, *DFB laser*
- **Sample Format:**
  Bare die, mounted on carrier, integrated with SiPh
- **Target Architecture:**
  SMF, WDM, CPO

Fabricated Quantum Dot Lasers



MOCVD Quantum Dots

SiPh Integration



Applications

- Datacom and Telecom
- Consumer Sensing
- Defense & Aerospace
- Quantum

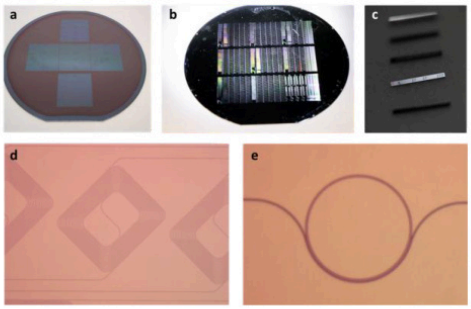
SOA: semiconductor optical amplifier; RSOA: reflective SOA; DFB: distributed feedback; SiPh: silicon photonics; SMF: single-mode fiber; MMF: multi-mode fiber; WDM: wavelength division multiplexing; CPO: co-packaged optics

Quantum Photonics

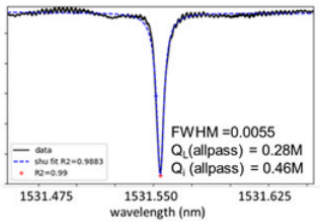
Features

- AlGaAs-on-Insulator wafers (100 to 300 mm)
- Strongly nonlinear optical material
- Low optical loss (<1.5 dB/cm)
- Integration with

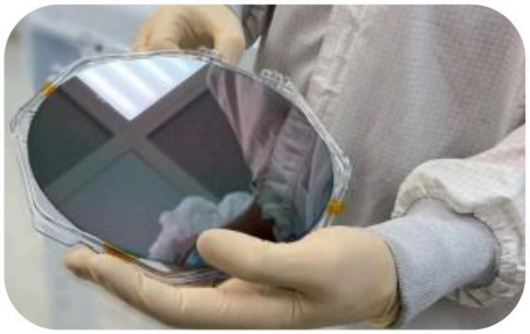
Fabricated Waveguides and Ring Resonators



Resonator Performance



200/300 mm Capable Platform



Applications

- Quantum Photonics
- Entangled Photon Pair Generation
- Nonlinear Optics


Facilities & Capabilities
Capital-light, large-volume manufacturing
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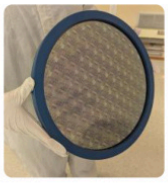
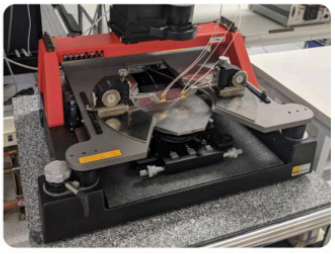
Aeluma's Cost-Effective and Scalable Manufacturing

Transitioning to Commercialization

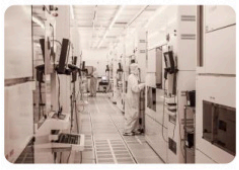
12-inch wafer capability

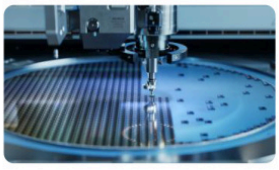


Rapid prototyping and small-volume manufacturing



Partners for medium- and large-volume manufacturing





Combining rapid prototyping capabilities and volume manufacturing partners, Aeluma is positioned to effectively transition from R&D to commercialization with a capital-light approach.

Aeluma's Headquarters

Ideal Ecosystem for Development and Commercialization

Aeluma's Headquarters: Capabilities

Ideal Ecosystem for Development and Commercialization

Aeluma™

Headquarters with R&D and manufacturing capabilities [9,000 sq. ft.]

Executive office and meeting space [2,400 sq. ft.]

300mm MOCVD capability

300mm Test and Validation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