



LIGHTWAVE LOGIC[®]
Q1 2026 Financial Results & Business Update

NASDAQ:LWLG

May 13, 2026

Forward Looking Statements

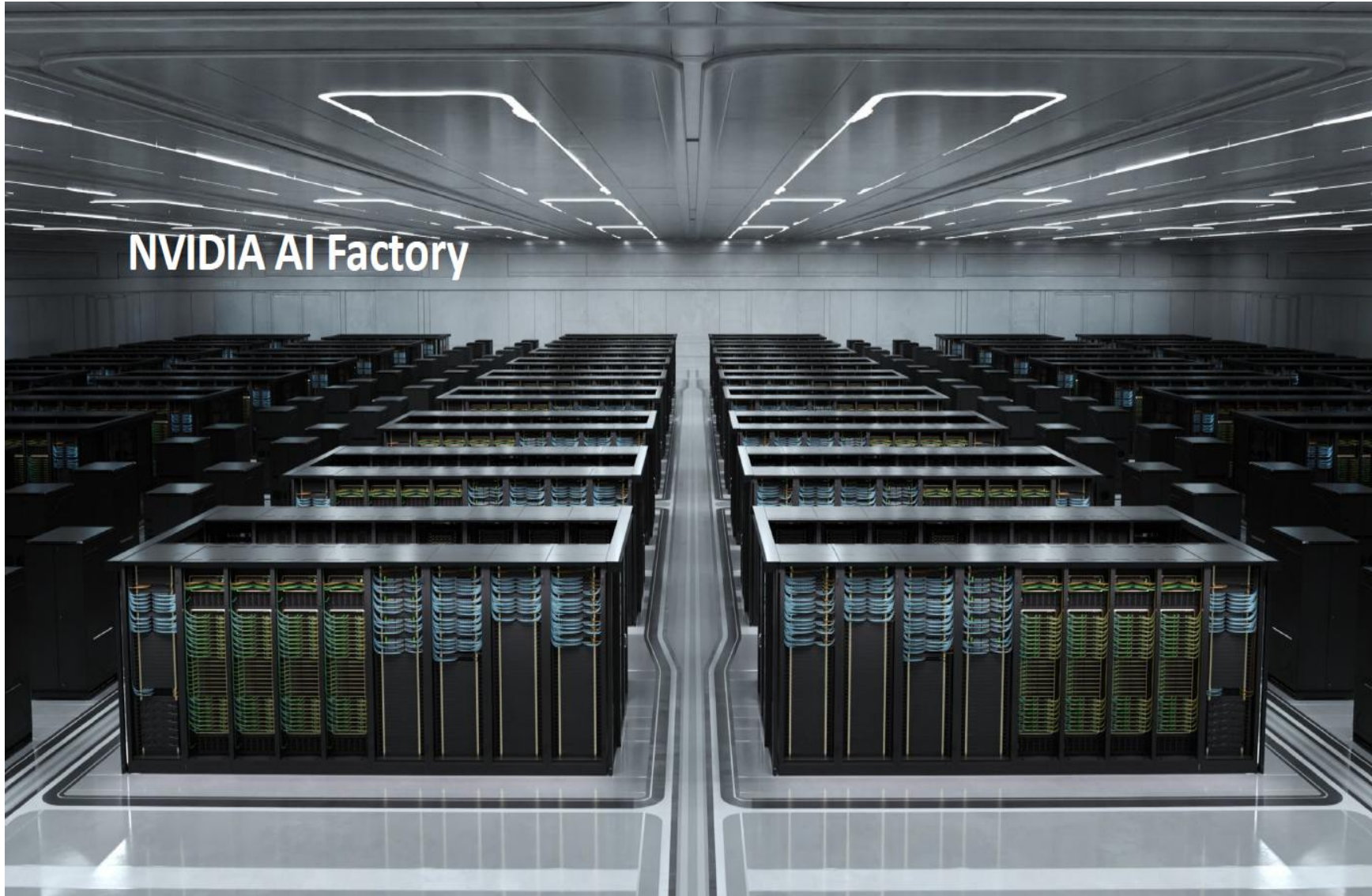
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All forward-looking statements are based on current beliefs as well as various assumptions made by, and information currently available to the company’s management team. A more detailed description of the risks presented by those assumptions and other risks are more fully described by the company under the caption “Risk Factors” included in our SEC filings and other risks to which our company is subject, and various other factors beyond the company’s control.

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The company does not undertake to update any forward-looking statement, whether written or oral, that may be made from time to time by company or on behalf of the company except as may be required by law.

AI Infrastructure Facing New Challenges






CONNECTIVITY

BANDWIDTH

POWER

INTEGRATION


Addressable Markets in Long-Term Secular Growth

AI	Data Center (non-AI)	Telecom/Scale Across
		
<p>\$37 billion TAM</p>	<p>\$10 billion TAM</p>	<p>\$7 billion TAM</p>
<p>45M units of 1.6Tb/s and 3.2Tb/s transceivers/CPO (200Gb/s+ lane)</p> <p>= 230M modulators</p>	<p>16M units of high-speed transceivers (200Gb/s+ per lane)</p> <p>= 128M modulators</p>	<p>3.5M units of coherent/DWDM transceivers (>800Gb/s per transceiver*)</p> <p>= 5M modulators</p>



\$2 – \$4 billion SAM (2028)
Serviceable optical transceiver market for EOP /SOH modulators depending on integration level

Future Opportunities



Quantum Computing

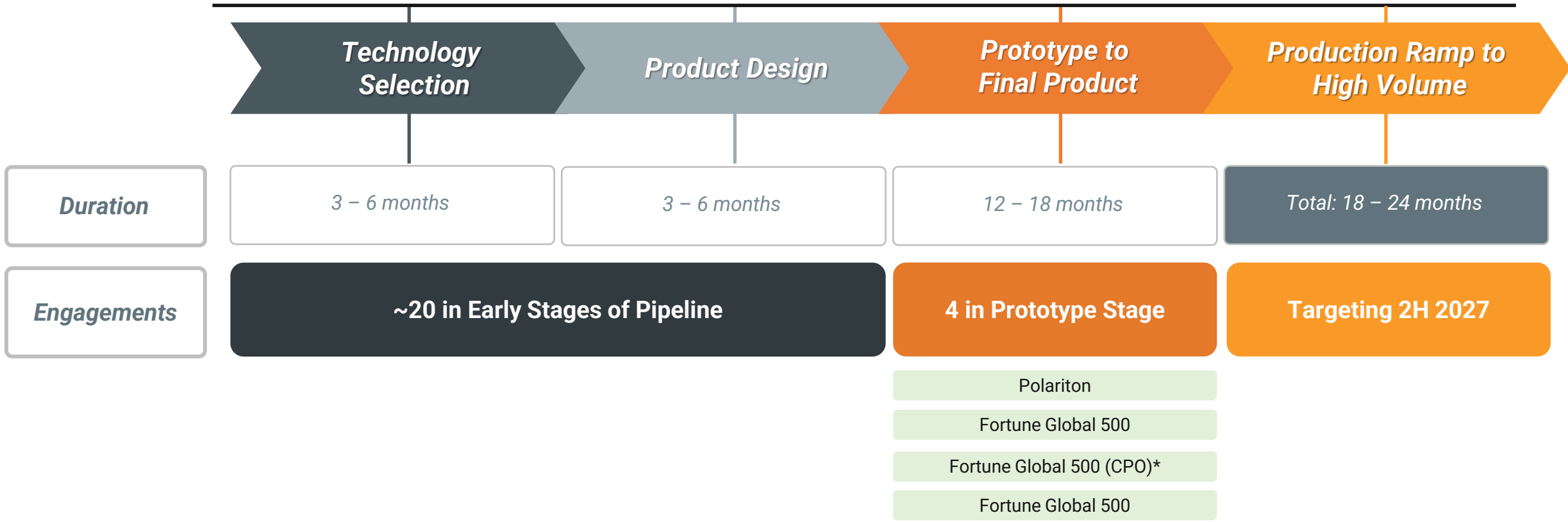
Aerospace & Defense

Consumer Electronics

Source: Lightcounting 2028 forecast for Ethernet transceivers; April 2026

*Due to complex encoding schemes Gb/s/lane not applicable

Market Reception and Customer Momentum Growing



Expect 1-2 additional customers in Prototype Stage 3 by the end of Q3 2026

**Formal product launch decision is contingent upon the successful execution of technical milestones related to Perkinamine® performance as well as achieving various other modulator design and integration results*

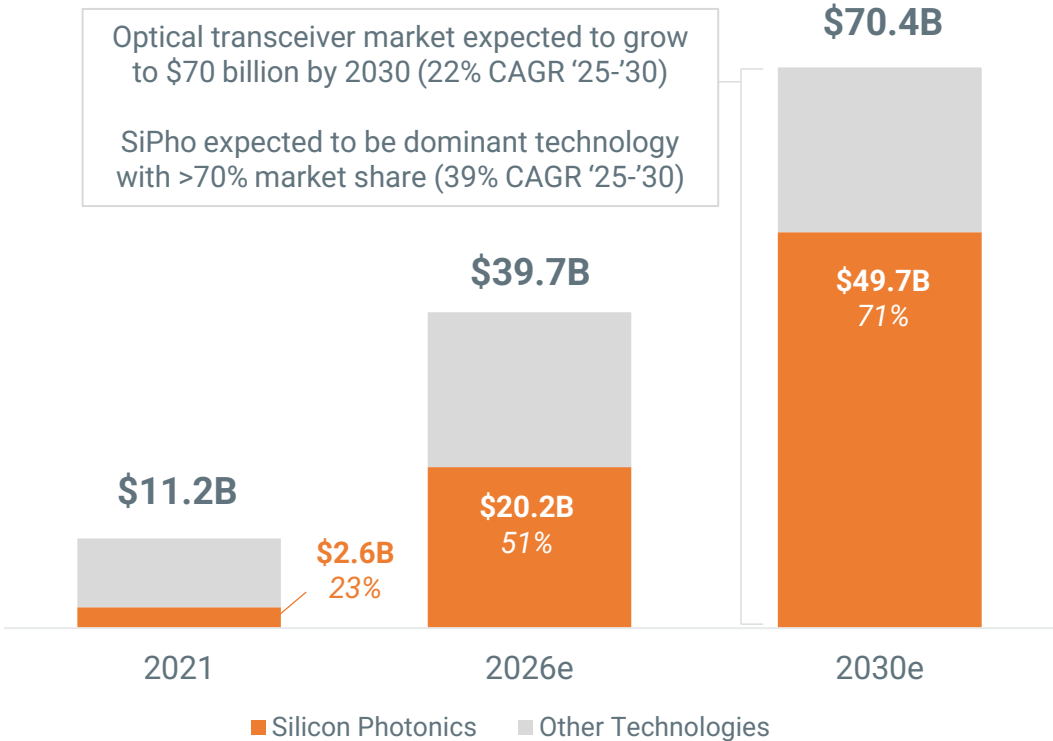
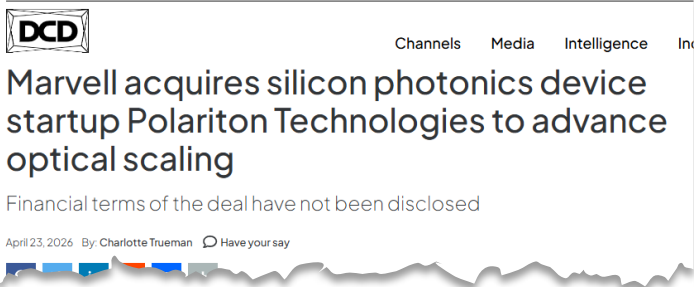
Silicon Photonics is Winning

Total Optical Transceiver Market¹ (by technology)

Total Sales

Optical transceiver market expected to grow to \$70 billion by 2030 (22% CAGR '25-'30)

SiPho expected to be dominant technology with >70% market share (39% CAGR '25-'30)

DCD Channels Media Intelligence Inc

Marvell acquires silicon photonics device startup Polariton Technologies to advance optical scaling

Financial terms of the deal have not been disclosed

April 23, 2026 By Charlotte Tueman Have your say

GlobalFoundries Acquires Advanced Micro Foundry, Accelerating Silicon Photonics Global Leadership and Expanding AI Infrastructure Portfolio

Samsung enters SiPh foundry market



Tuesday 31st March 2026

Reuters World Business Markets Sustainability Legal Commentary Technology Investigations

AMD buys Enosemi to boost co-packaged optics offerings

By Reuters

May 28, 2025 3:10 PM CDT · Updated May 28, 2025

Marvell to acquire Celestial AI for as much as \$5.5 billion



PUBLISHED TUE, DEC 2 2025 5:12 PM EST | UPDATED TUE, DEC 2 2025 6:40 PM EST

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Credo Agrees to Acquire DustPhotonics, Accelerating Expansion into Silicon Photonics and Next Generation Optical Connectivity

April 13, 2026

Silicon photonics is winning the integration platform battle for hyperscale and AI networking

¹ Lightcounting: Total Optical Transceiver Market by Technology; April 2026
News sources: CNBC, Data Center Dynamics, Credo, GlobalFoundries, PIC Magazine, Reuters

Foundry Ecosystem is Broadening

Foundry PDK Integration



+ One unnamed partner

Lightwave Logic and Tower Semiconductor Announce Development Agreement to Enable High-Speed, Low-Power Modulators on Tower's PH18 Silicon Photonics Platform

Lightwave Logic High-Speed Modulator Platform Now Available in GDS Factory PDK for GlobalFoundries Silicon Photonics Platform

SilTerra Silicon Photonics Platform Enables Integration of Lightwave Logic High-Speed Polymer Modulators Through Luceda Photonics PDK

March 3, 2026

Polymer platform integrated in foundry ecosystem; processes and designs are ready for 400Gb/s device deployments

Multiple tape outs planned throughout 2026

Additional Projects



Lightwave Logic, Inc. and QPICs Announce Partnership to Advance the Use of Electro-Optic Polymers in Quantum Processors

Foundries are key enablers to integration and scaled production as well as IP licensing strategy

Reliability Performance Exceeds Industry Standard

Material Reliability Challenges Addressed

Loss of Poling

Data demonstrates LWLG EO polymer is very stable at high temperatures (>>100yr projected lifetime at 85°C)

Chromophore Decomposition

Data showed no decomposition in harsh environments (e.g., 85°C/85% r.h.)

Photolysis

N/A for applications in which EO polymers is not exposed to 3.8eV photons (326nm or lower)

Photo-Oxidation

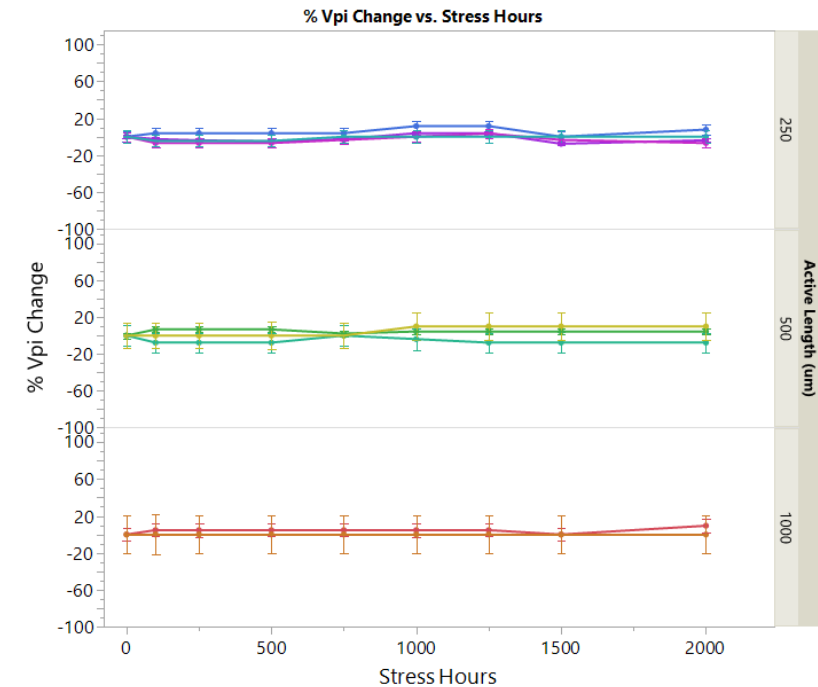
Data showed this failure mode is not likely with proprietary encapsulation

2025 Milestone: Validated that latest generation LWLG EO polymers pass Telcordia stress tests when used with proprietary encapsulation

Device Reliability In Progress

Temperature = 85 °C

Humidity =85%rh



Ongoing chip and device level reliability tests to validate reliability for foundry specific processes and device level encapsulation

Strong Patent Portfolio



Materials

Patent protection on **new, innovative EO chromophores and molecular architectures** to meet application needs such as high electro-optic activity and stability



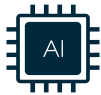
Optical Devices

Patented **device designs** to engineered approaches to enhance performance and optimize controls within modulators



Fabrication

Protected **fabrication and manufacturing** methods to enhance ways for partners to work with materials and advance ease of use



Integration

Patented **integration methodologies** to add functionality to existing semiconductor devices and innovate photon exchange with minimal losses



Packaging

Important patent protection on **encapsulation and packaging** to address key challenge of maintaining the quality of RF electrical signals and hermetic sealing

67 granted; 80+ pending

U.S. and international patents as of December 31, 2025

Patent portfolio spans major aspects of manufacturing and operations

IP protection is essential to monetization and royalty licensing strategy

Q1 2026 Financials

Q1 2026

FINANCIAL RESULTS

Added a Fortune Global 500 company to Prototype Stage 3 of Design Win Cycle in February

Signed a development agreement with Tower Semiconductor to use our polymer technology on Tower's PH18 silicon photonics platform

Announced availability of polymer technology within GDSFactory PDK to support GlobalFoundries' silicon photonics platform

Announced availability of polymer technology within Luceda PDK targeting SilTerra's silicon photonics platform

TOTAL REVENUE
(\$ thousands)

\$29

+27% YoY

vs. \$23K prior year

NET LOSS
(\$ millions)

\$6.3

+34% YoY

vs. a loss of \$4.7M prior year

NET LOSS PER SHARE
(\$)

\$0.04

Flat

vs. a loss of \$0.04 prior year

R&D INVESTMENT
(\$ millions)

\$3.5

+13% YoY

vs. \$3.1M prior year

G&A EXPENSE
(\$ millions)

\$3.3

+78% YoY

vs. \$1.8M prior year

CASH & EQUIVALENTS
(\$ millions)

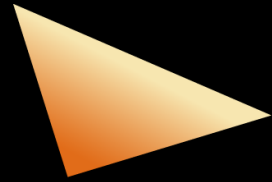
\$75.1

+200% YoY

vs. \$25.0 prior year

Priorities for 2026

- 1** Advance Stage 3 programs toward qualification milestones and Stage 4
- 2** Convert technical engagements into structured commercial agreements
- 3** Broaden and strengthen the EO polymer-ready silicon foundry ecosystem
- 4** Continue performance optimization at 200G, 400G per lane and beyond
- 5** Prepare operationally for a 2027 production ramp transition



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