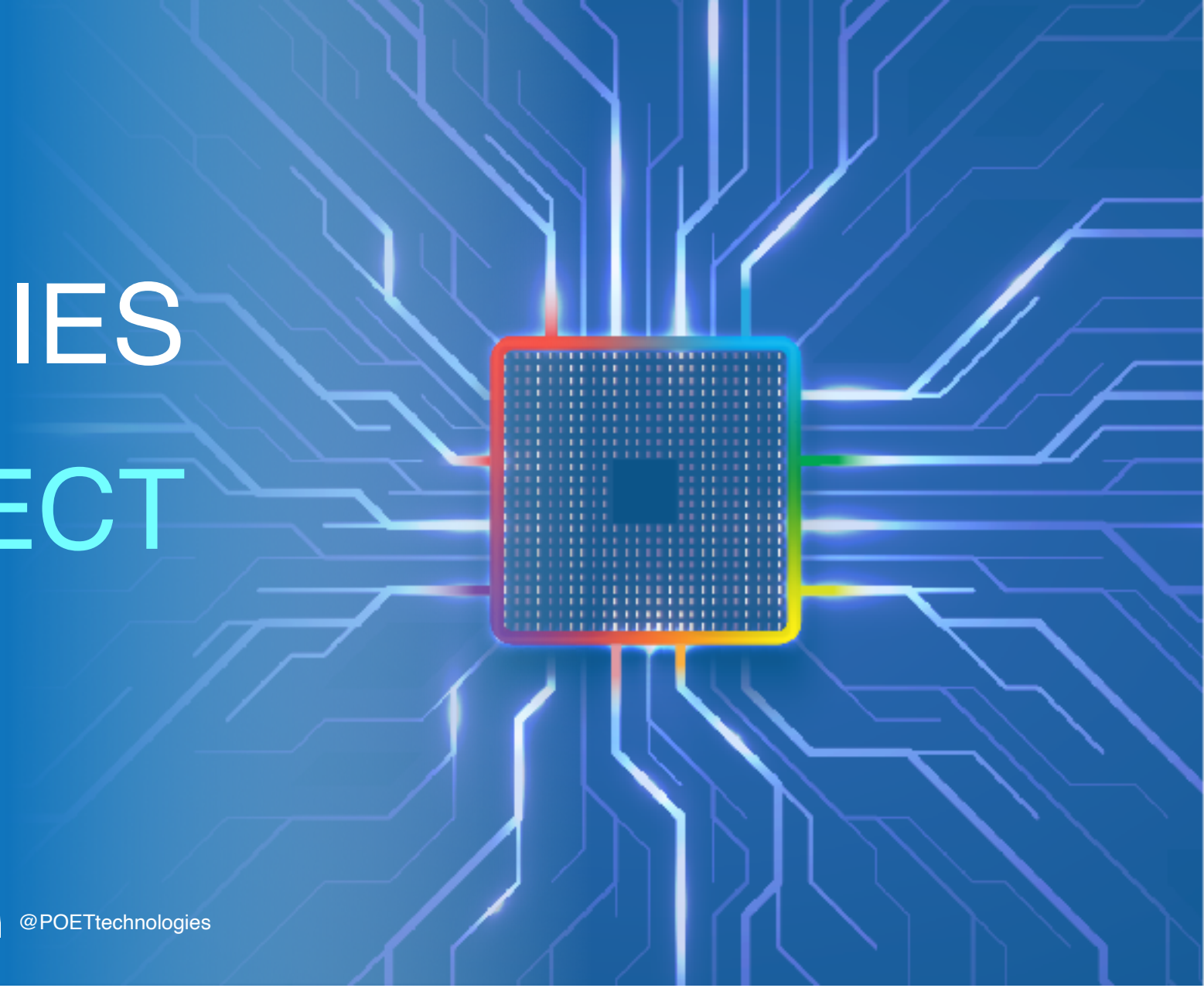
POET TECHNOLOGIES
AI DATACOM INTERCONNECT SOLUTIONS

Investor Presentation / September 2026



#POETpowersAI @POETTechnologies @POETtech @POETtechnologies

NASDAQ:POET

SAFE HARBOR STATEMENT

Forward-Looking Statements

This presentation contains forward-looking statements and forward-looking information within the meaning of United States and Canadian securities laws, including but not limited to statements relating to revenue potential, growth and/or projections, as well as the expected performance of products.

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THE STORY: POET POWERS AI CONNECTIVITY

POET provides transceiver and chip-to-chip compute solutions to customers engaged in AI hardware and AI clusters.

200G/Lane moving to 400G/Lane

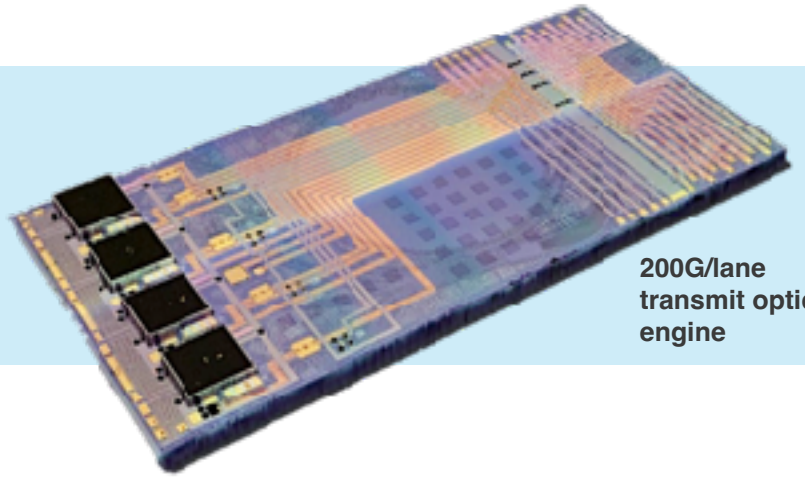
POET is significantly **ahead of the market with 200G/lane and 400G/lane** design architectures for its optical engines.

1.6T and 3.2T Data Speeds

POET is **one of very few companies that can reach 1.6T** right now. And it has design architectures scoped up to 6.4T.

~$30B TAM

LightCounting forecasts the markets in which POET operates **will grow by 20% per year over the next 5 years**.



200G/lane transmit optical engine

Our partners are the world's top manufacturers of computer devices…

MITSUBISHI ELECTRIC

Adtran

NTT

Lumilens

…and they supply AI and computing hardware to massive companies!

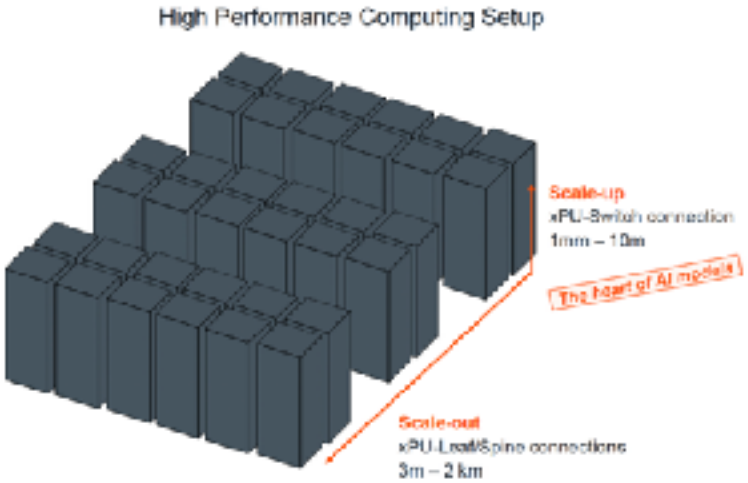
NVIDIA

Google

Apple

Representative end customers of POET's partners. No POET relationship is implied.

3 KEY AI CONNECTIVITY SEGMENTS



1 SCALE OUT

Horizontal – multiple nodes in a distributed system

Hyperscalers / Cloud

Inter Chip communication: GPU, CPU, Memory, etc.

800G to 1.6T (DSP based, LRO, LPO pluggable optics)

Future: ELS + CPO

POET Products

1.6T Gen1 Engines with **Mitsubishi** collaboration

1.6T and 3.2T engines with **NTT** collaboration

2 SCALE UP

Vertical — bigger, faster single system

AI System Vendors

Inter Chip communication: GPU, CPU, Memory etc.

External Light Sources & Co-packaged Optics

POET Products

External light source custom form factor modules

ELSFP Engines & modules

3 SCALE ACROSS

Disaggregated — specialized subsystems connected via high-speed fabrics

Disaggregated Network Players and Compute

Data Centers to Mobile Networks, Trading Operations, etc.

POET Products

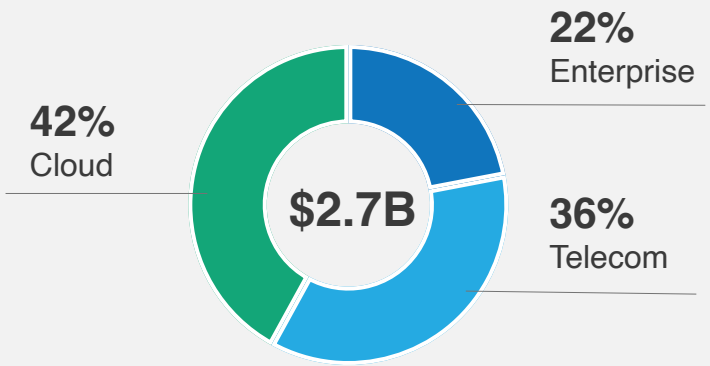
All Custom Products

100G BiDi & ER with **NTT**

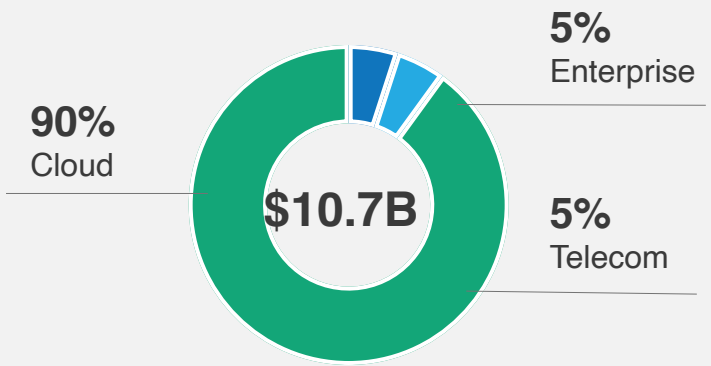
Datacenter Edge Optics with **Adtran**

UNPRECEDENTED MARKET OPPORTUNITY

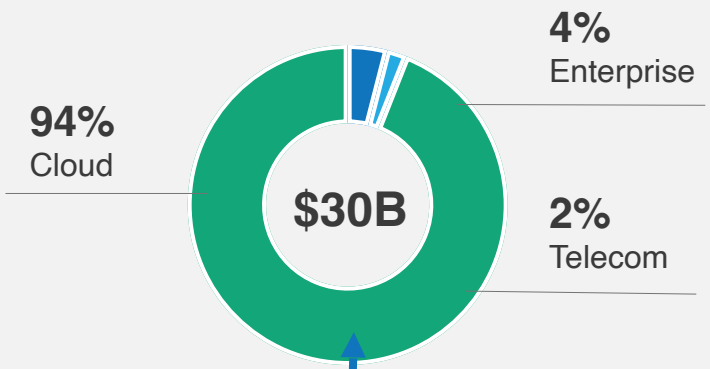
2016 Ethernet Transceiver Sales by Segment

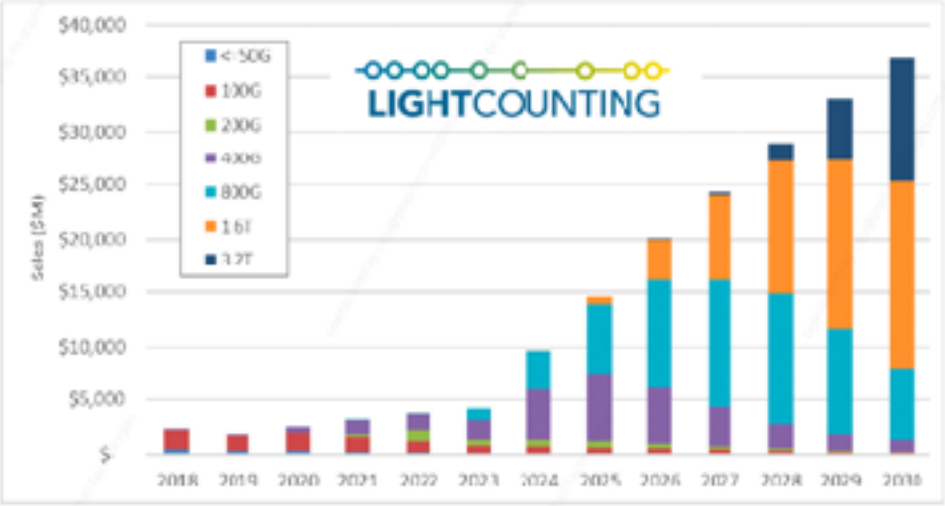


2024 Ethernet Transceiver Sales by Segment



2030 Ethernet Transceiver Sales by Segment





~$30B market - driven by 800G, 1.6T & 3.2T (Pluggables + CPO)

Optics for Scale-Out + Scale-Up
-
2024: $9.6B

2030: ~$30B

Source: LightCounting

THE INVISIBLE BUT CRITICAL LINK

AI processors, AI software, AI service providers and AI end-users are linked through “optical modules” - yet few outside the industry know what they are.

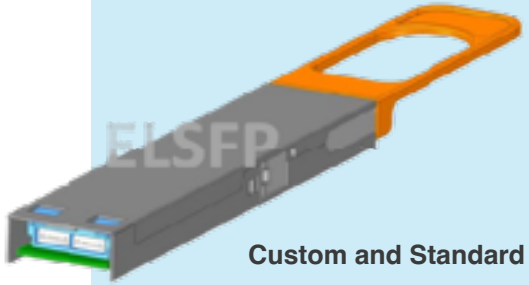
Optical Modules

are transmit and receive devices (“transceivers”) for data transmission using light. Light carries more data, at a faster speed, lower power and with far less heat compared to electrons through copper.

POET 800G+ Reference Module Solutions for Global Markets

External Light Sources

are for use in Co-Packaged Optics where the modulators are placed close to the GPUs but the lasers are remote to avoid overheating and to facilitate easy replacement. High Bandwidth and multiple frequencies are required to facilitate data communications.



Custom and Standard

Point-To-Point Ethernet

is used for communications among AI processors inside the data center and from the data center to other data centers and to trunk networks, i.e., 50m to 10km.

!

Migration to higher speeds constantly accelerating:

10G – 100G ~8 years
100G – 400G ~5 years
400G – 800G ~2 years
800G – 1.6T ~ 1 year

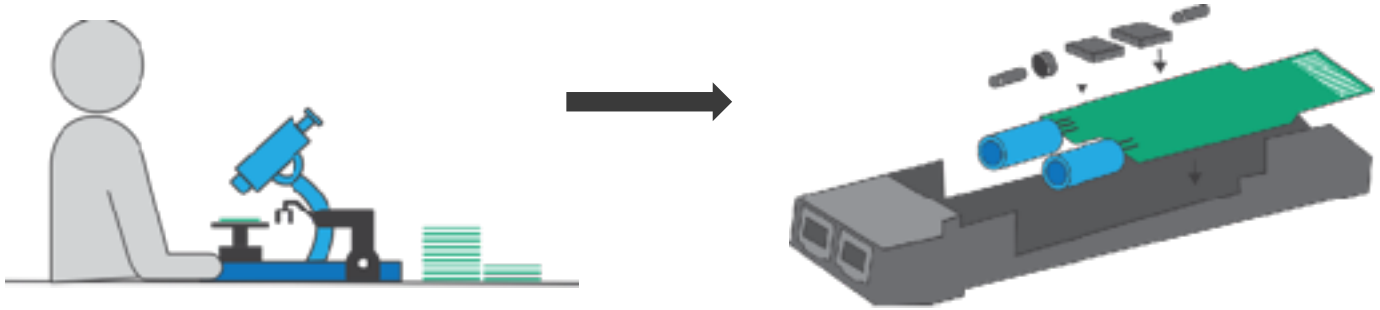
WHAT MAKES POET DIFFERENT

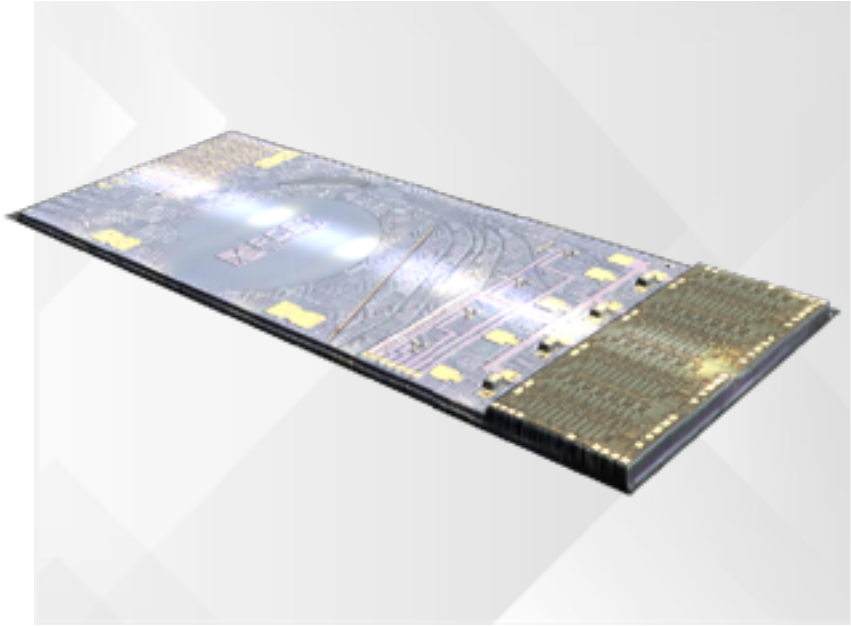
POET automates production by replacing job-shop assembly techniques in photonics, used since the 1990s, with semiconductor technology.

Conventional Discrete Job Shop Assembly

Engines and Modules built one-at-a-time with high capex and high labor costs.

Multiple components and sub-systems requiring active alignment.

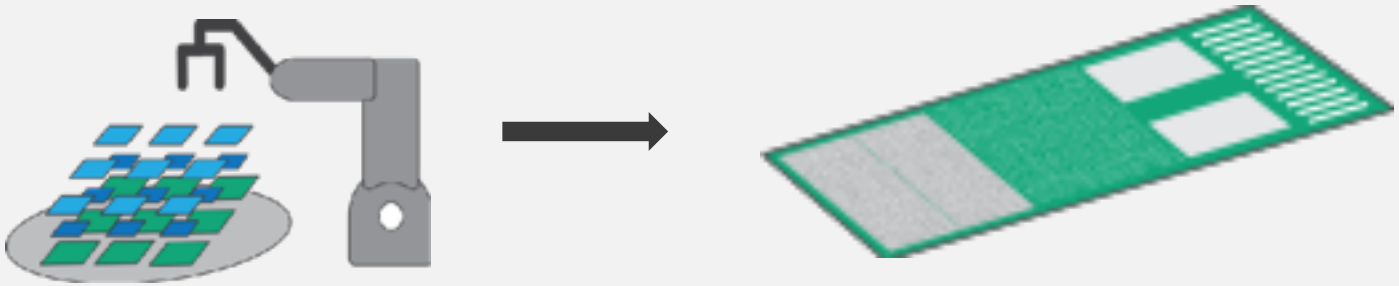




POET's Fully-Automated Semiconductor Assembly

Optical Engine chips built hundreds at a time using wafer-level assembly.

All components integrated onto a single chip with no active alignments.



POET'S FUNDAMENTAL TECH

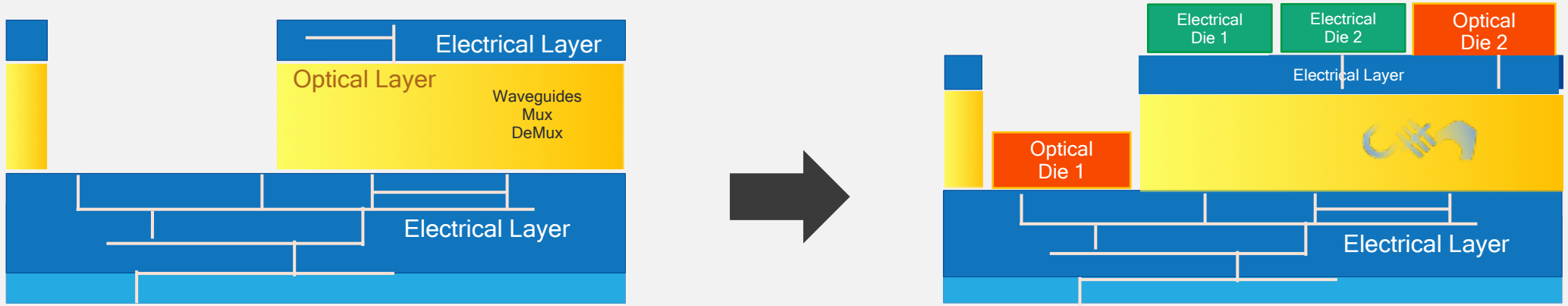
High throughput, visually assisted, passive "pick and place" assembly of electronics and photonics ICs and components at wafer scale – the "semiconductorization of photonics"

Improves Performance

- Chip-scale integration combines photonics and electronic devices in the same package
- Eliminates wire bonds - reducing interference and signal loss
- Compatible with multiple high-performance devices, such as InP, TFLN, SiPh and more

Geometric Scaling

- Wafer-scale manufacturing, assembly and test allows rapid increase in scale and volume of devices produced.



POET OPTICAL INTERPOSER

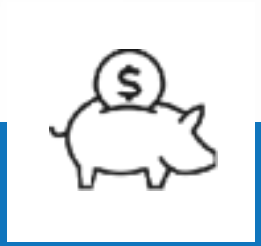
POET OPTICAL ENGINE

COMPETITIVE ADVANTAGES

POET's Optical Interposer revolutionizes optical engine and module assembly through *Hybrid Integration*, *Passive Assembly* and *Platform Scalability.*

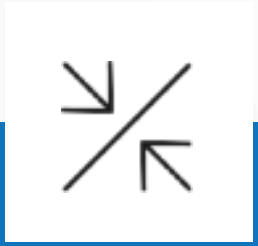
Key Advantages for Module Makers

- Simplified BOM
- Lower Complexity of Assembly
- One Module Design for Multiple Products



Module Cost

10 - 30% Lower

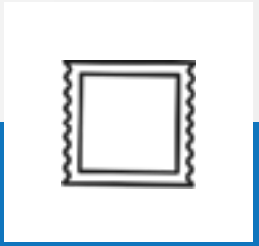


Form Factor/Size

75%+ Smaller

Wafer-Level Assembly & Test

>100X More Scale

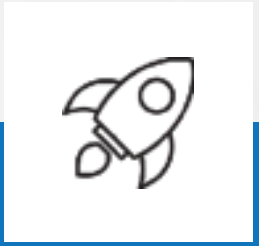


Chip-Scale Package

20% - 30% Lower Power

CAPEX for Assembly & Test

10X Lower



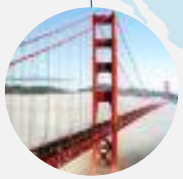
Platform Technology

Versatility for Multiple Applications

Notes: Based on Internal Estimates and Projections. Comparisons are made to current implementations of conventional Chip-on-Board and Silicon Photonics-based transceivers and laser-array-based light sources.

CURRENT COMPANY LOCATIONS

Toronto, Canada
CORPORATE HEADQUARTERS
1 Full-Time Employee
2 Contractors



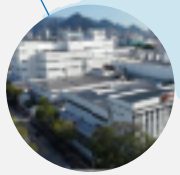
San Francisco, Bay Area, USA
MANAGEMENT, SALES & MARKETING
12 Full-Time Employees
2 Contractors

Kulim, Malaysia
SILTERRA INTERPOSER FOUNDRY
10 Full-Time Employees
1 Contractor

Taiwan
DEVELOPMENT & APPLICATIONS ENGINEERING
2 Full-Time Employees

Shenzhen, China
DEVELOPMENT & APPLICATIONS ENGINEERING
5 Full-Time Employees

Singapore
INTERPOSER & PROCESS DEVELOPMENT
95 Full-Time Employees
5 Contractors



Penang, Malaysia
OPTICAL ENGINE MANUFACTURING
20 Full-Time Employees

155	6	143	10
TOTAL HEADCOUNT	COUNTRIES	FULL-TIME EMPLOYEES	CONTRACTORS

ADDED 60 HEADCOUNT SINCE JANUARY 2026

POET Technologies Inc. trades on the NASDAQ Capital Market under the symbol: POET

ASSEMBLY AND TEST CAPACITY

LOCATION

Penang, Malaysia

CONTRACT MANUFACTURERS

Established partners in key jurisdictions

> 8K sq ft of clean room space going to 20K sq ft

> 25 semiconductor assembly and test tools installed:

- Optical die bonders
- Electrical die bonders
- Reflow oven
- Wire-bonders
- Burn-in and testers

Wafer-level assembly and test

GROWING FROM 1M/yr UNITS TO 10M/yr IN 2027

MAJOR ACHIEVEMENTS

2023

- Adtran — 100G QUAD LR4
- Marvell / celestial AI — External Light Source
- 400G ENGINES READY FOR PRODUCTION

2024

- FIT — 800G/1.6T Modules
- GOLD PRIZE: AI INNOVATOR GLOBAL TECH: BEST IN AI

- Mitsubishi Electric — 2x200G EMLs for 1.6T and 3.2T
- 800G POET INFINITY™ CHIPLET PRODUCTION READY

2025

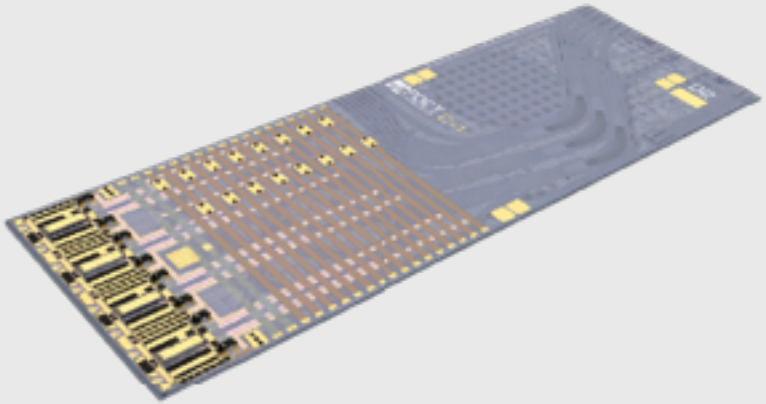
- Lessengers — 800G Modules
- 1.6T POET TERALIGHT ENGINES LIVE DEMO
- POET BLAZAR EXTERNAL CAVITY HIGH POWER LIGHT SOURCE
- NTT — 100G BIDI for Mobile Networks
- LIGHTWAVE BTR AWARD & BEST AI HARDWARE, AI BREAKTHROUGH AWARD 2024 & 2025

2026

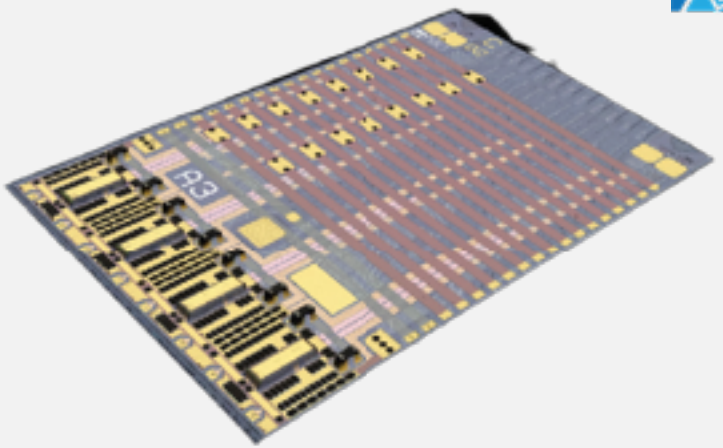
- LITEON — AI Optical Connectivity
- LIGHTWAVE INNOVATION AWARD 2026

- Lumilens — Modules and Light Sources for Hyperscalers
- $50M PO WITH POTENTIAL FOR $500M

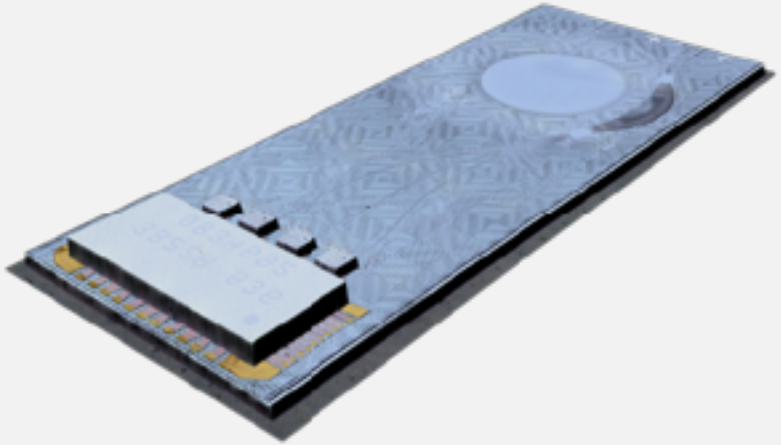
ADVANCED OPTICAL ENGINES FOR MODULE MAKERS



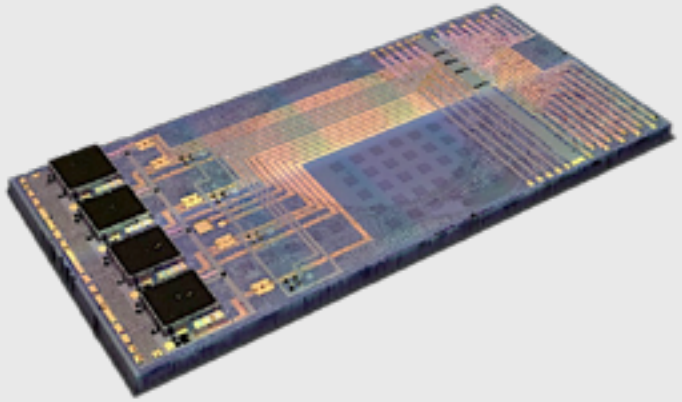
1.6T 2XFR4 TX



1.6T DR8 TX

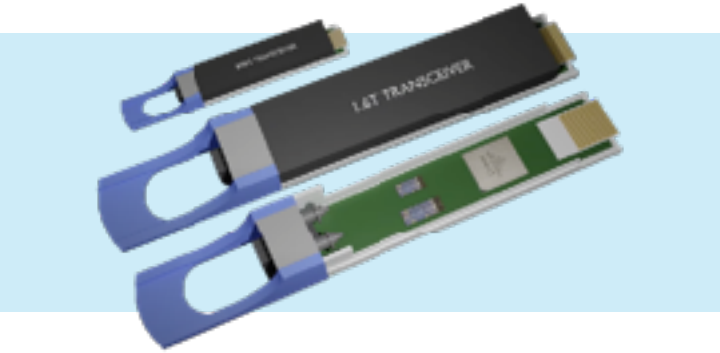


800G 2XFR4 RX + TIA + PD



INFINITY™ 1.6T TX

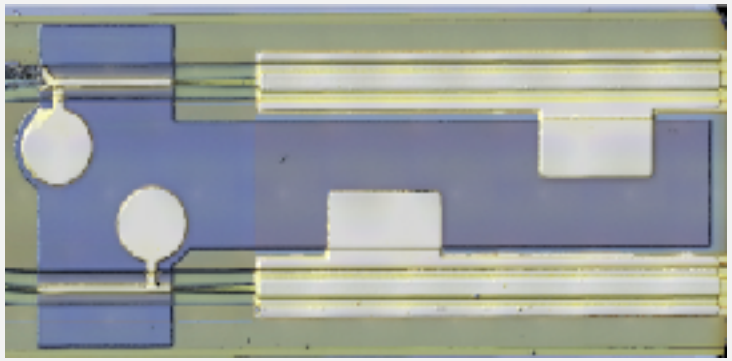
Serving Data Center Operators and Hyperscalers



CUSTOMER FOCUS

MITSUBISHI ELECTRIC

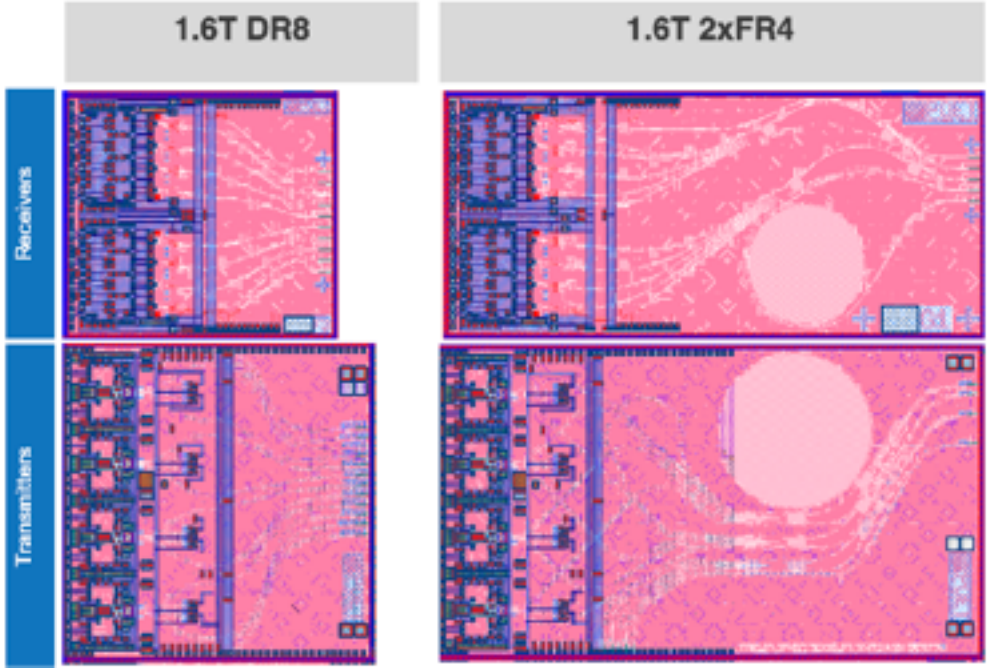
A collaboration to build 1.6T and 3.2T pluggable transceiver modules using Mitsubishi's 200G and 400G EMLs on the POET Optical Interposer.



2 X 200G – Single Chip 400G EML

EXTENDING EMLs INTO NEXT GENERATION TRANSCEIVERS

- Mitsubishi's 400G lasers cannot be used in conventional assembly with wire bonds – too much cross-talk
- Requires an integration platform
- Reliable, inexpensive, field-proven EMLs are preferred laser solution for end-users at 800G and 1.6T



ONE set of lasers – THREE different form factors – ONE module design

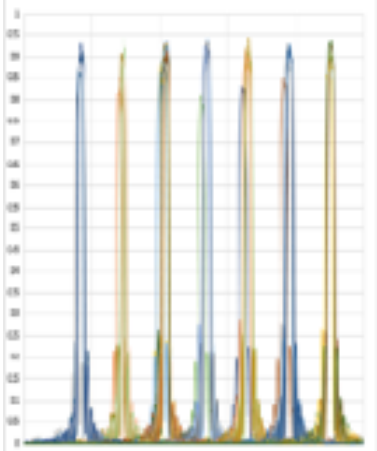
POET BLAZAR™ - HYBRID LASER

- Extreme control and precision across wafer utilizing conventional CMOS technology
- Ultra-narrow bandwidth supporting channel spacing frequency down to 50GHz
- Center wavelength control across wafer of < +/- 2nm
- Channel spacing control of < 10GHz
- Ability to generate >50mW of power per channel into a waveguide for applications requiring downstream multiplexing
- Ability to generate >80mW of power per channel when emitting into free space
- Potential to further increase power through optimization

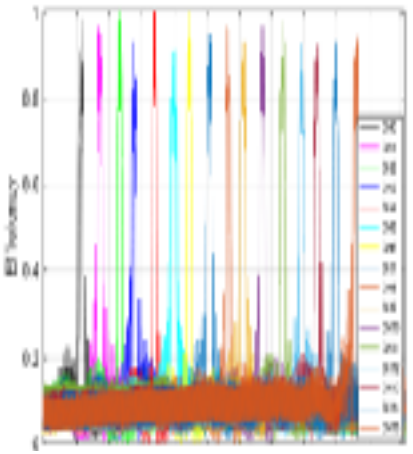
CHANNELS ARE SELECTED IN THE OPTICAL INTERPOSER

High Channel Count / Multi-frequency Solutions

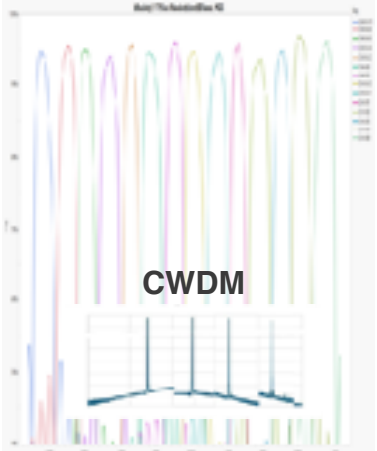
400GHZ SPACING

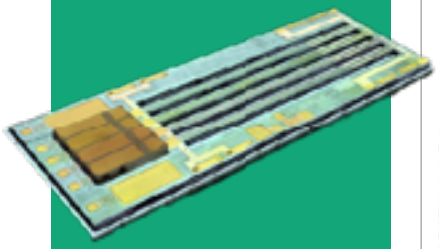


200GHZ SPACING



50GHZ SPACING

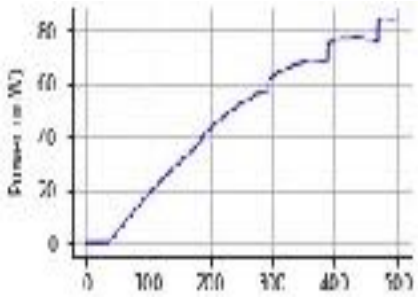




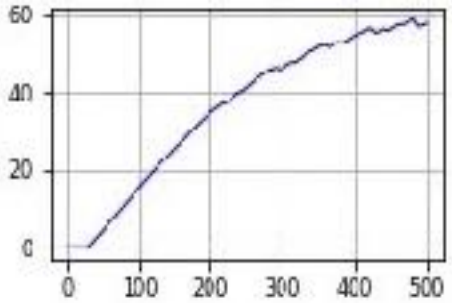
BLAZAR:
4 CHANNEL

High Power output per channel

Free Space Emission



Waveguide Coupled Power
No mode hop control enabled



DEEP SEMICONDUCTOR AND PHOTONICS HARDWARE EXPERTISE

Dr. Suresh Venkatesan
Chairman & CEO
- Inventor of the POET Optical Interposer
- Principal Inventor for 30 issued patents and 19 patent applications for POET
- Former SVP Technology at GlobalFoundries
- Former senior roles at Motorola & Freescale Semiconductors
- PhD in Electrical Engineering – Purdue University

Dr. Sandeep Kumar
Chief Operating Officer
- Former SFP Worldwide Operations at Silicon Labs
- Former global product and test engineering for the storage business at Agere Systems, Lucent Technologies and AT&T Bell Labs
- BS in Electrical Engineering from the Indian Institute of Technology in Bombay, India
- M.S. degree in Electrical Engineering from the University of Evansville in Indiana
- Ph.D. in Electrical Engineering from Lehigh University in Pennsylvania
- Completed Wharton's Leadership Development Program at the University of Pennsylvania

Thomas Mika
Executive Vice President & CFO
- Overall responsibility for Finance & Administration
- Raised $1 Billion in equity capital for POET
- Listed POET on NASDAQ in 2022
- Former Chairman, CEO & CFO of Tegal Corp. (Nasdaq) – semi capital equipment
- BSc Microbiology – University of Illinois; MBA – Harvard University

Raju Kankipati
Chief Revenue Officer
- CRO includes sales management, supply chain, marketing, customer service, pricing strategies, and revenue management
- Former Sr. Director, Product Management at MACOM
- Former senior roles at Arista, Cisco, OpNext (Lumentum)
- MBA- UC Berkeley, Haas School of Business

INVESTMENT HIGHLIGHTS

“

POET’s hybrid-integration platform technology will enable us to use best-of-breed components and ramp to high volume at a much faster pace and in a cost-efficient manner.

— Foxconn Interconnect Technology

Pure-Play in AI Datacom Interconnect Hardware

Leading-edge high-speed data transmission (800G, 1.6T - plus 3.2T on the way).

Large, High-Growth Multibillion Dollar Markets

Extreme demand from hyperscalers and data center network system providers.

Industry-Disruptive Technology Platform

Validated with several leading customers and qualified for production.

Deep Tech Protected by Patents & Trade Secrets

49 patents and 37 applications - all related to the POET Optical Interposer.

Financial Stability

Working capital of $796.3M USD (as of June 30, 2026). 6+ years of runway at projected burn rate.

Well Positioned to Grow with AI Capex Spend

Market to expand from $9.6B to ~$30B. Listed on NASDAQ: POET.

KEY METRICS

BALANCE SHEET SNAPSHOT

US$ in Millions

Total Cash	**$796.3M**
Working capital (Operating)	**$796.3M**

REVENUE AND CASH BURN

Sales (Jan 1, 2026 to June 30, 2026)	**$1.1M**
Projected Quarterly Cash Burn	**~$15M**
Projected CAPEX Spending for 2026	**~$60M**
Cash Runway at Projected Burn and 2026 CAPEX	**6+ Years**

CAPITAL RAISED FROM MAY 2025 TO MAY 2026

Private Placements	**66M Shares**	**$830M**

CAPITALIZATION SNAPSHOT (June 30, 2026)

		Ave. Exercise Price
Common Shares Outstanding	**173,035,169**	
Warrants Outstanding	**78,734,968**	***$4.39***
Management Options Outstanding	**5,369,393**	***$2.10***
Restricted Stock Units (RSU)	**7,035,953**	
Fully Diluted Shares	**264,175,483**	

SHARE PRICE SUMMARY

Closing Price as of September 23, 2026	**$7.80**
Market Cap	**$1.35B**
52-Week Range	**$3.81 - $20.81**
50d Ave Volume	**25M**

POET Technologies

NASDAQ:POET

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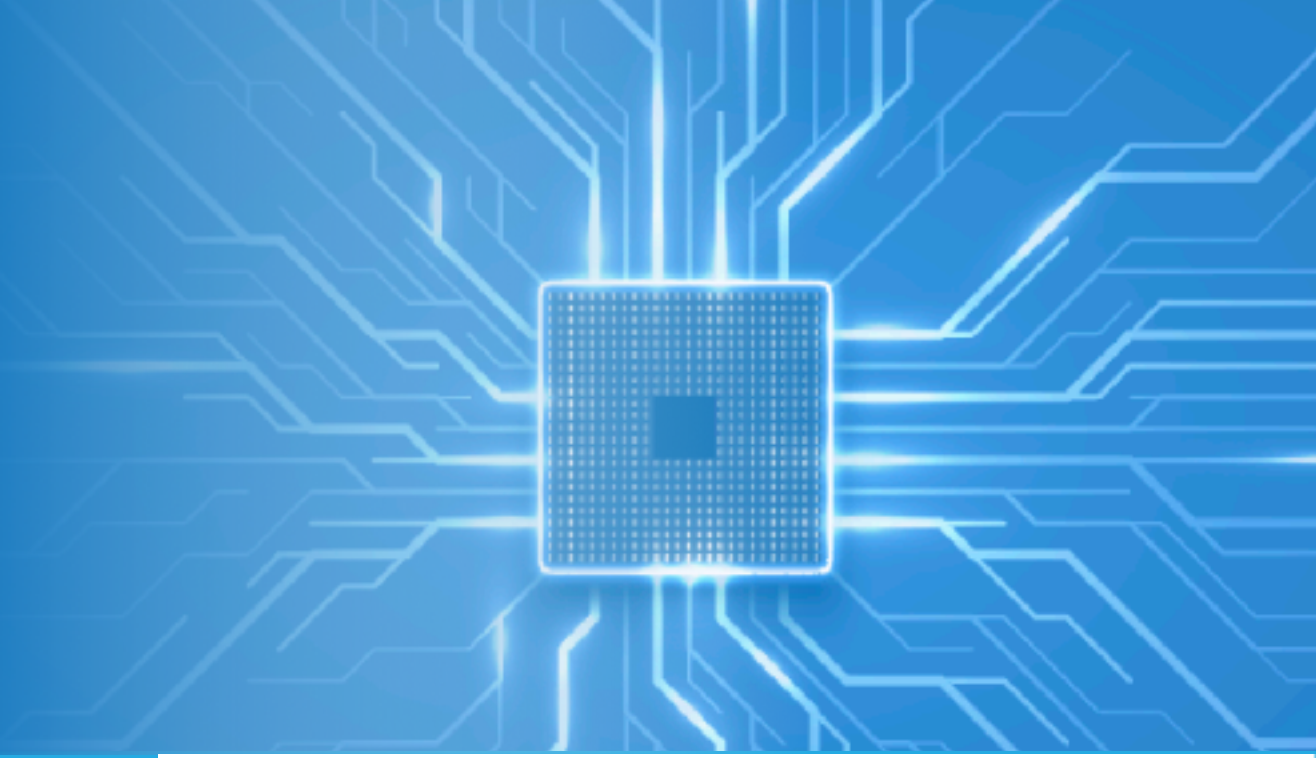

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#POETpowersAI

LIGHTWAVE + BTR INNOVATION REVIEWS	AI BREAKTHROUGH AWARD	ECOCOMBINATION INDUSTRY AWARDS 2025
2026 Elite Honoree POET TERALIGHT	2025 Best AI Hardware Innovation	2025 Most Innovative Chip-Scale Packaging & Optical Sub Assembly Product
PINNACLE AWARDS	LIGHTWAVE + BTR INNOVATION REVIEWS	The 2025 Infotone Awards 17th
2025 Platinum Award for Next-Gen Chip / Processor	2025 Elite Honoree POET OPTICAL INTERPOSER	2025 Best Product Innovation