



LIGHTWAVELOGIC®

Faster by Design

Management update:

25th May 2023

Michael Lebby
CEO, Lightwave Logic



Safe harbor

The information in this presentation may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. You can identify these statements by use of the words "may," "will," "should," "plans," "explores," "expects," "anticipates," "continue," "estimate," "project," "intend," and similar expressions. Forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those projected or anticipated. These risks and uncertainties include, but are not limited to, general economic and business conditions, effects of continued geopolitical unrest and regional conflicts, competition, changes in technology and methods of marketing, delays in completing various engineering and manufacturing programs, changes in customer order patterns, changes in product mix, continued success in technological advances and delivering technological innovations, shortages in components, production delays due to performance quality issues with outsourced components, and various other factors beyond the Company's control.

- What we do...
- Market dynamics
- Market opportunity
- Competition & partnering
- Commercial strategy & activity
- Investor and public relations
- Summary



A server room with rows of black server racks. The scene is illuminated by vibrant, glowing light trails in shades of blue, orange, and purple that swirl and streak across the floor and racks, creating a sense of dynamic energy and data flow. The text "What we do..." is centered in the foreground in a clean, white, sans-serif font.

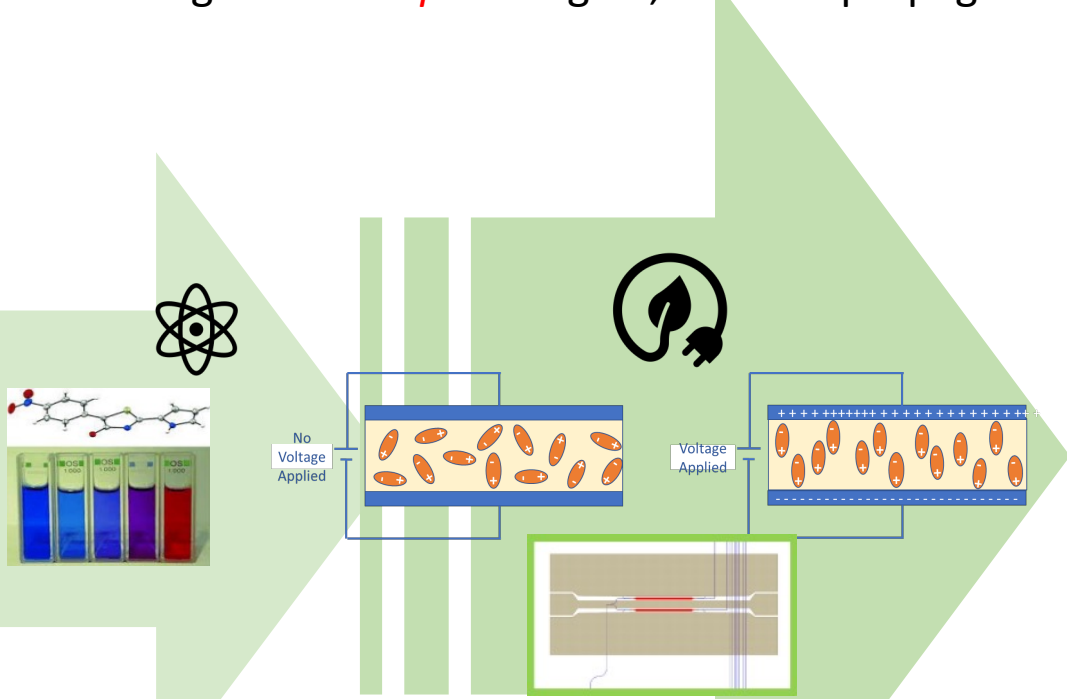
What we do...



Perkinamine[®] electro-optic polymers

LIGHTWAVELOGIC[®]

Electro-optic polymers align under applied voltage. They can then convert an *electrical* signal to an *optical* signal, which is propagated through fiber optic cables.



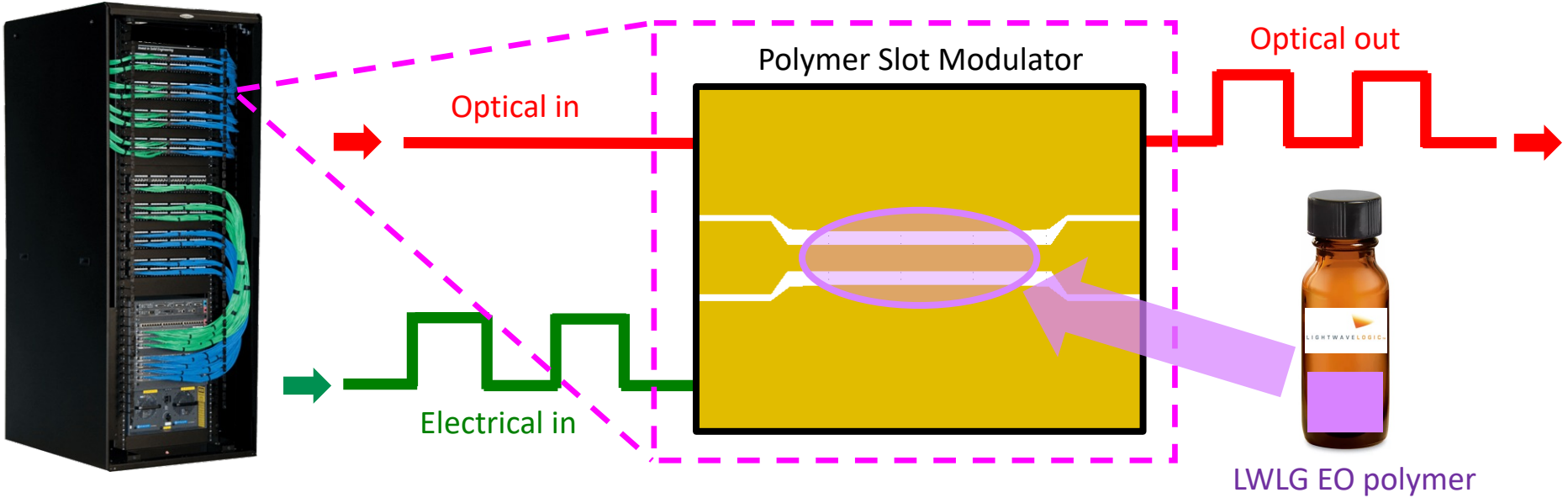
- High material-level thermal and photostability
- Long-term storage and operational durability
- >3x faster modulation than existing products
- ~10x lower power than existing products

EO polymers → Fast, stable, reliable, low power consumption, and very small in size



What is a Polymer Slot Modulator?

- A modulator combines a Photonic Integrated Circuit (PIC) with radio-frequency (RF) electronics and an Electro-Optic Polymer (EOP)
- When voltage is applied to the modulator, the intensity of the optical output changes, converting electrical data (1's and 0's) into optical data
- There can be millions of modulators in a single data center
- *EO Polymer slot* modulators allow for *faster data rates, smaller sizes, and lower power...*

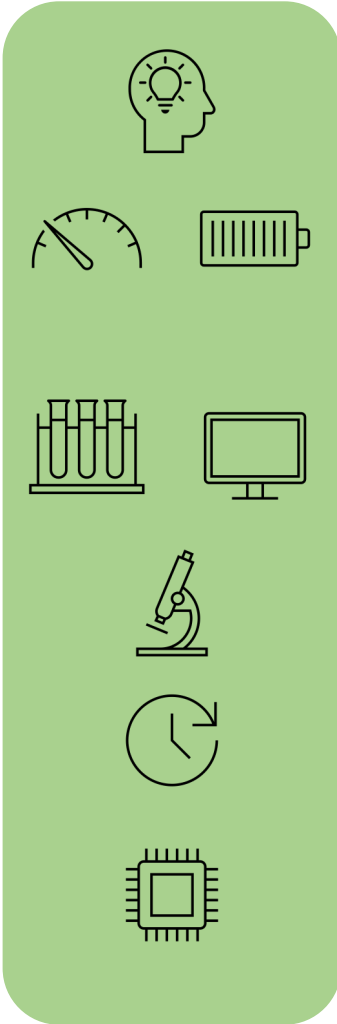


A high-performance engine for optical networking



We solve the problem...for the next decade...

- We create our own materials with a *strong IP/patent portfolio*
- Our materials modulate light *very fast*
 - (much faster than Liquid Crystals in displays) → ideal for a faster, lower power internet
- Our materials are *polymers*
 - (like OLEDs – Organic LEDs used for TVs where their polymers generate light: ours switch light)
- Our modulators are *very small*
 - so small that they fit easily into pluggable transceivers
- Polymer modulators have *transformational* performance headroom *for the next decade!*
- We can *integrate* other devices with our polymer modulators
 - adding to existing silicon photonics as well as multi-channel solutions for higher aggregate speeds



Polymer technology extends speeds, reduces power consumption...for the next decade...

A server room with rows of black server racks. The scene is illuminated by vibrant, glowing light trails in shades of blue, orange, and purple that swirl and streak across the floor and racks, creating a sense of motion and data flow. The text "Back in 2017..." is centered in a bold, white, sans-serif font.

Back in 2017...

- We had unique chemistry
- Few believed in polymers
- Polymer modulators had potential
- Industry was not interested...

A digital illustration of a server room. The room is filled with rows of black server racks. The floor is a light gray, and the ceiling is a white grid. The scene is illuminated by a series of vibrant, glowing light trails in shades of blue, orange, and purple. These trails curve and swirl through the air, creating a sense of motion and data flow. The text "Today..." is centered in the middle of the image in a large, white, sans-serif font.

Today...

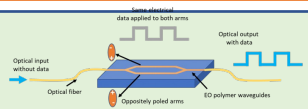
- We *have* unique chemistry
- *Many* believe in polymers
- Polymer modulators *have huge* potential for networking
- Industry *is very* interested...



Market dynamics and potential



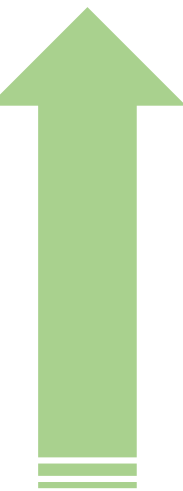
Industry macro demand drivers...



...Will require next-gen components including LWLG modulators



...Will necessitate next-gen switches, racks & transceivers



Switch Density
Real Estate Efficiency

“Need For Space...”

AI Computing
Quantum Computing
Cloud Services
Streaming/gaming

“Need For Speed...”

Energy Usage
Water Demand

“Need For Green...”

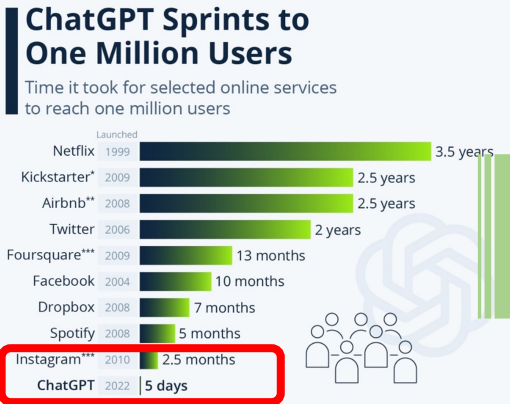
The need to seek an *optimal balance* for macro demand drivers will drive system and sub-assembly vendors to utilize next gen components such as polymer modulators

LWLG modulators are: Small, Fast, and Low power

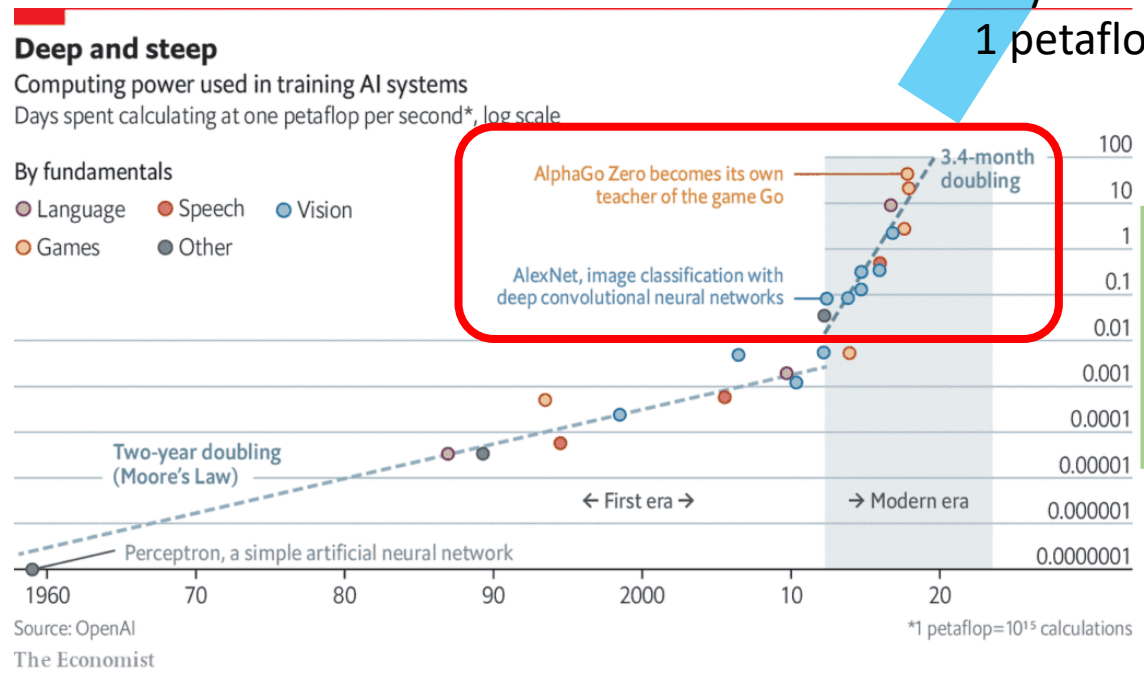
Industry micro drivers increase traffic...

Computing power used in AI systems

Days: calculating 1 petaflop/sec



5 days for 1m users

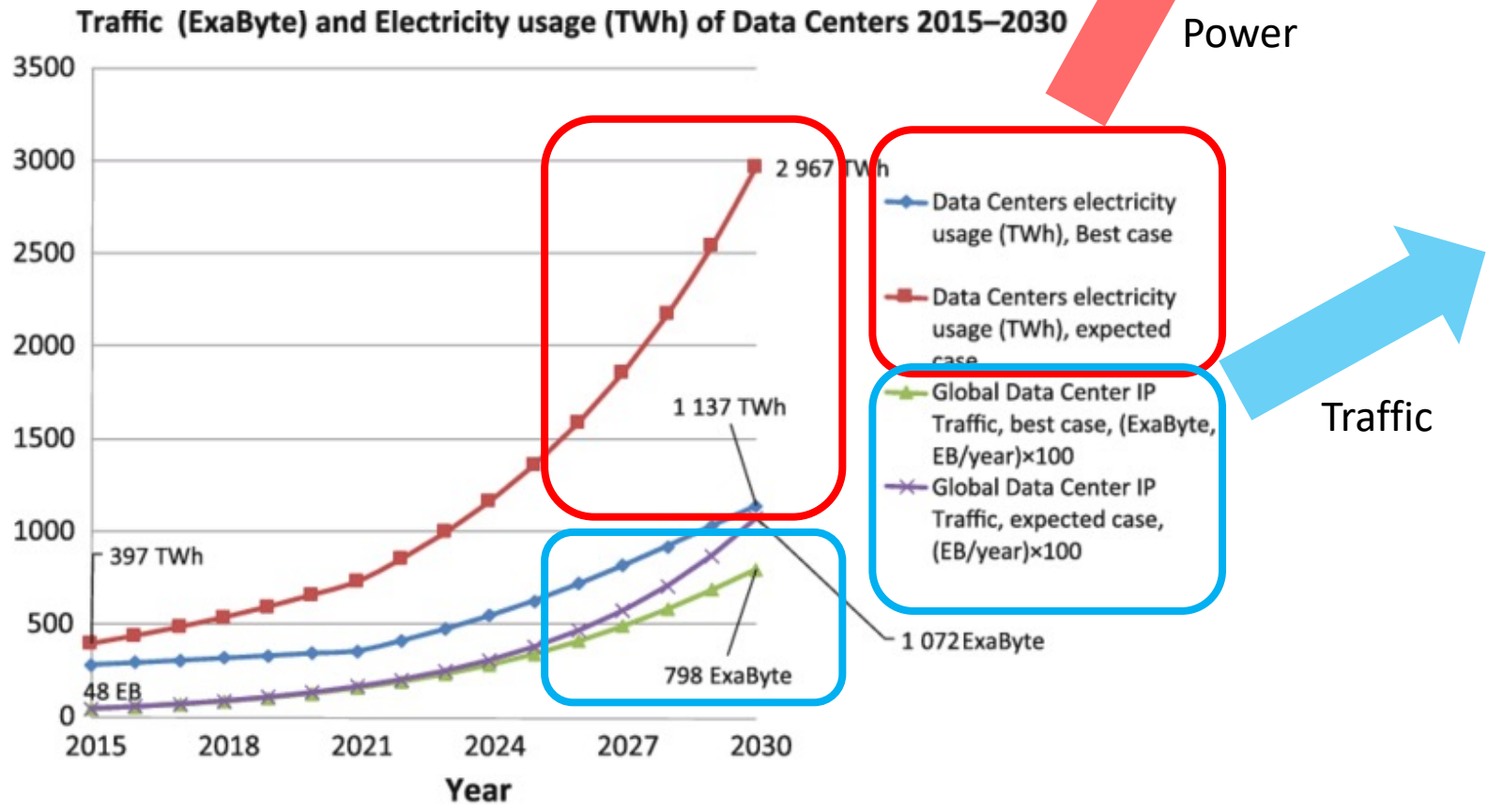


Computing power required to train and utilize AI systems has been doubling *every 2-4 months...*

Traffic and computing power is driving power consumption in datacenters...



Creates this Achilles Heel....



Major challenge for datacenters and service providers

Power is growing exponentially with increased traffic levels...it is the Achilles Heel...



Where we enter the market...

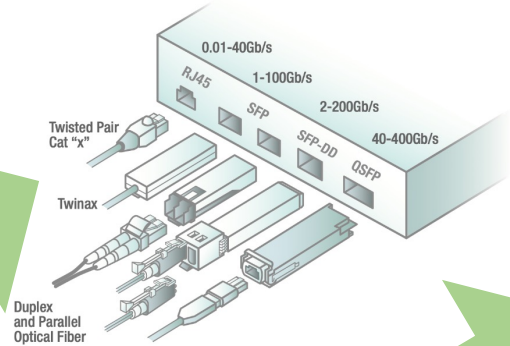
FORM FACTORS

This diagram shows the most common form factors used in Ethernet ports. Hundreds of millions of RJ45 ports are sold a year while tens of millions of SFP and millions of QSFP ports ship a year.

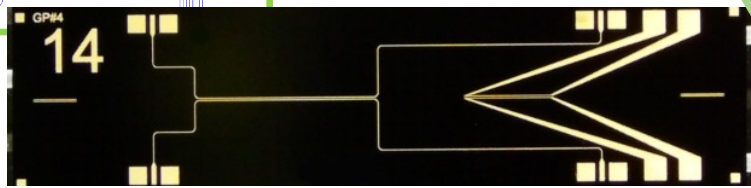
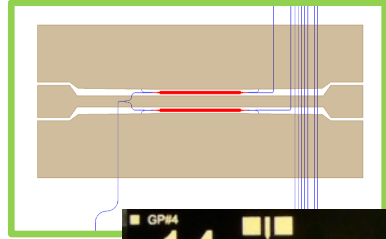
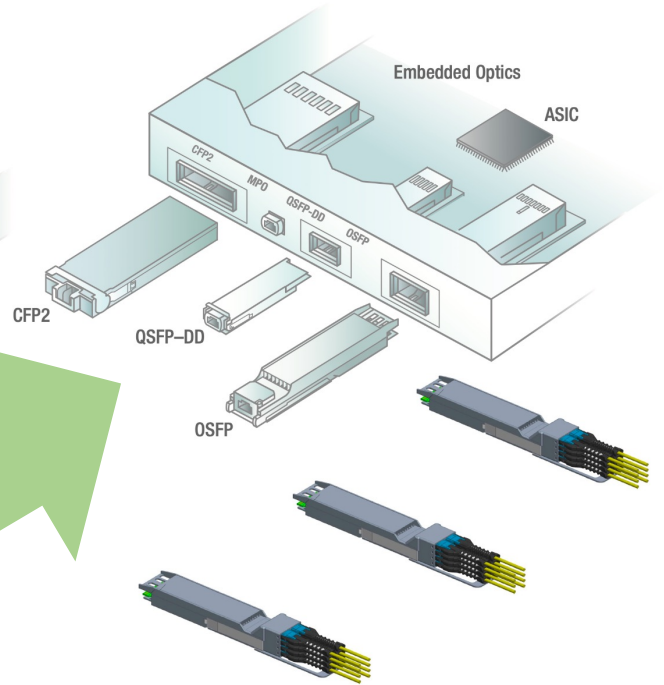
This diagram shows new form factors initially designed for 100GbE and 400GbE Ethernet ports.

Polymer modulators
PIC engines fabricated
in silicon foundries

1-4 Lane Interfaces



4+ Lane Interfaces



OSFP pluggable transceiver

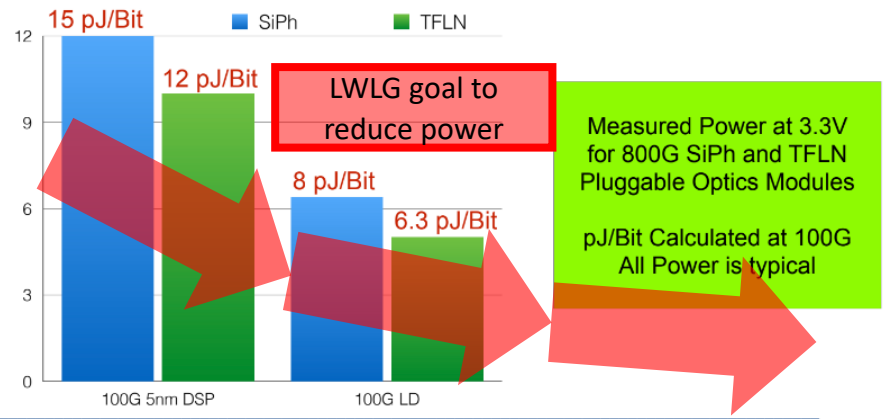
Polymer engines for pluggable transceivers



800G/1600G transceiver modules

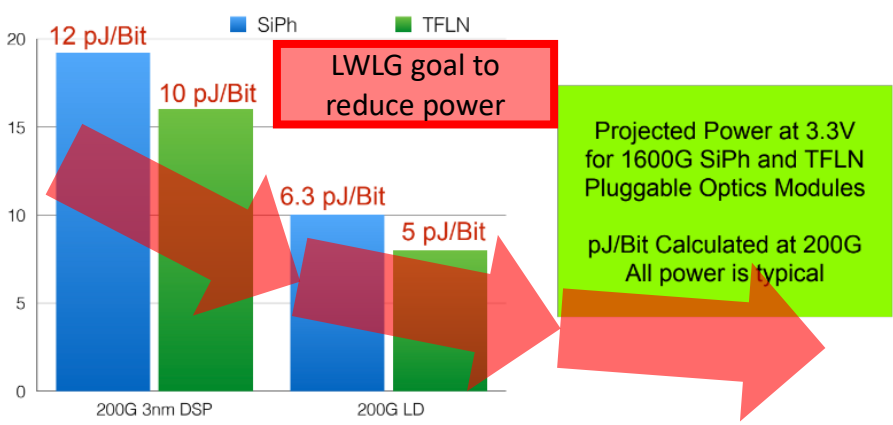
- *Power efficiency is key*
- Macro demand will mean a *rapid adoption* of higher speed interconnects starting with 800 Gbps over the next 24 mons followed by 1.6Tbps (or 1600Gbps)
- This adoption will need to be mindful of any corresponding customer power requirements...
- *Polymers fit the profile...*

800G Pluggable Optics Power Evolution



Source: Datacenter Optics for AI Clusters, Andreas Bechtolsheim, Arista Networks, Optica 2023

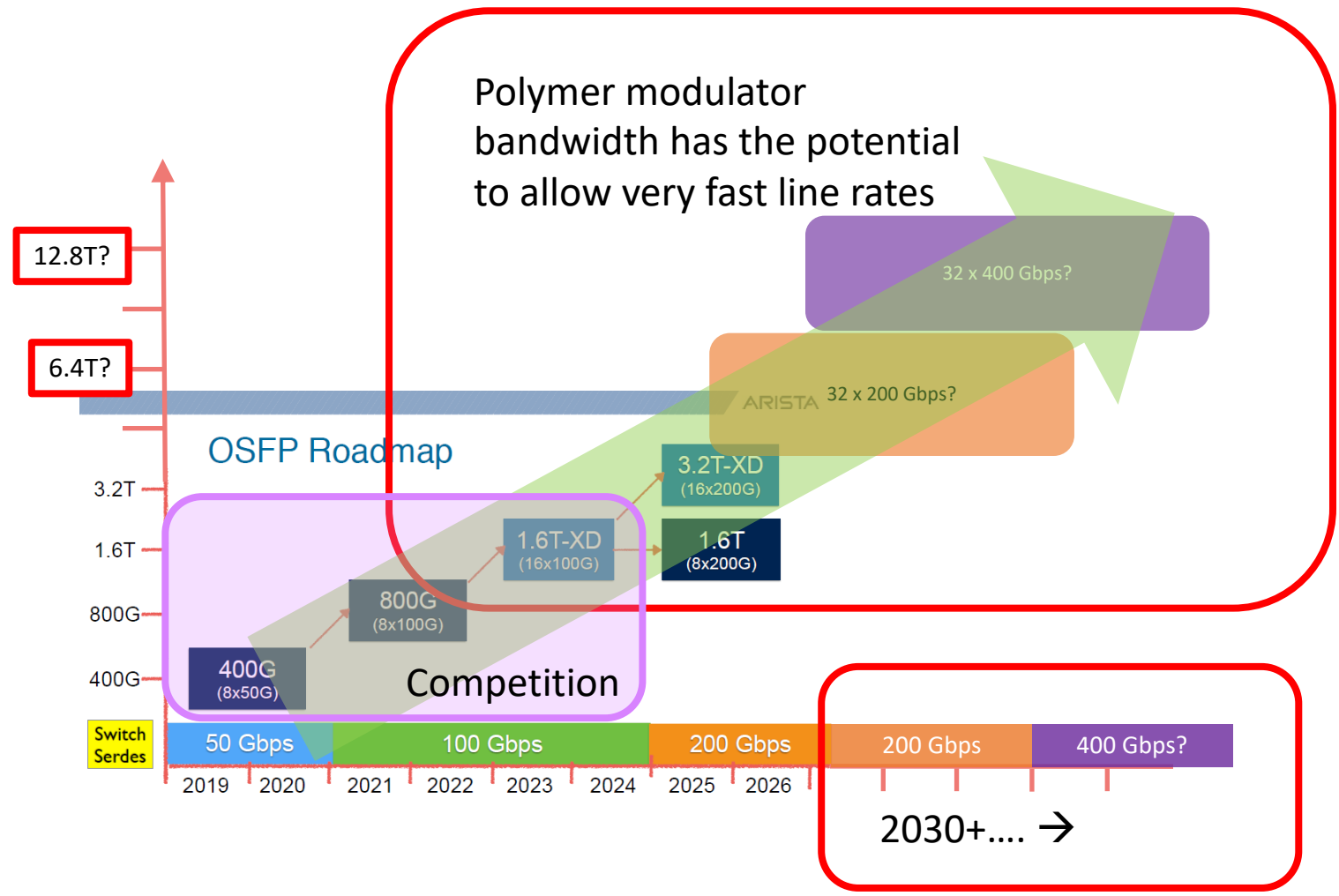
1600G Pluggable Optics Power Evolution



Rapid growth of power efficient 800G/1600G modules → key micro drivers for polymers...



Polymers have headroom in performance



Roadmap enabled by high speed, low power, tiny footprint polymers...

Source: Adapted from Arista (2022), Lightwave Logic (LWLG), OSFP MSA (2022)

A server room with rows of black server racks. The scene is illuminated by vibrant, glowing light trails in shades of blue, orange, and purple that swirl and flow through the aisle, creating a sense of dynamic energy and data movement. The text "Market opportunity" is overlaid in the center in a bold, white, sans-serif font.

Market opportunity



Market definitions (for first application)

- Polymer modulators/PIC engines

TAM (Total Addressable Market) –
how big is the largest market...

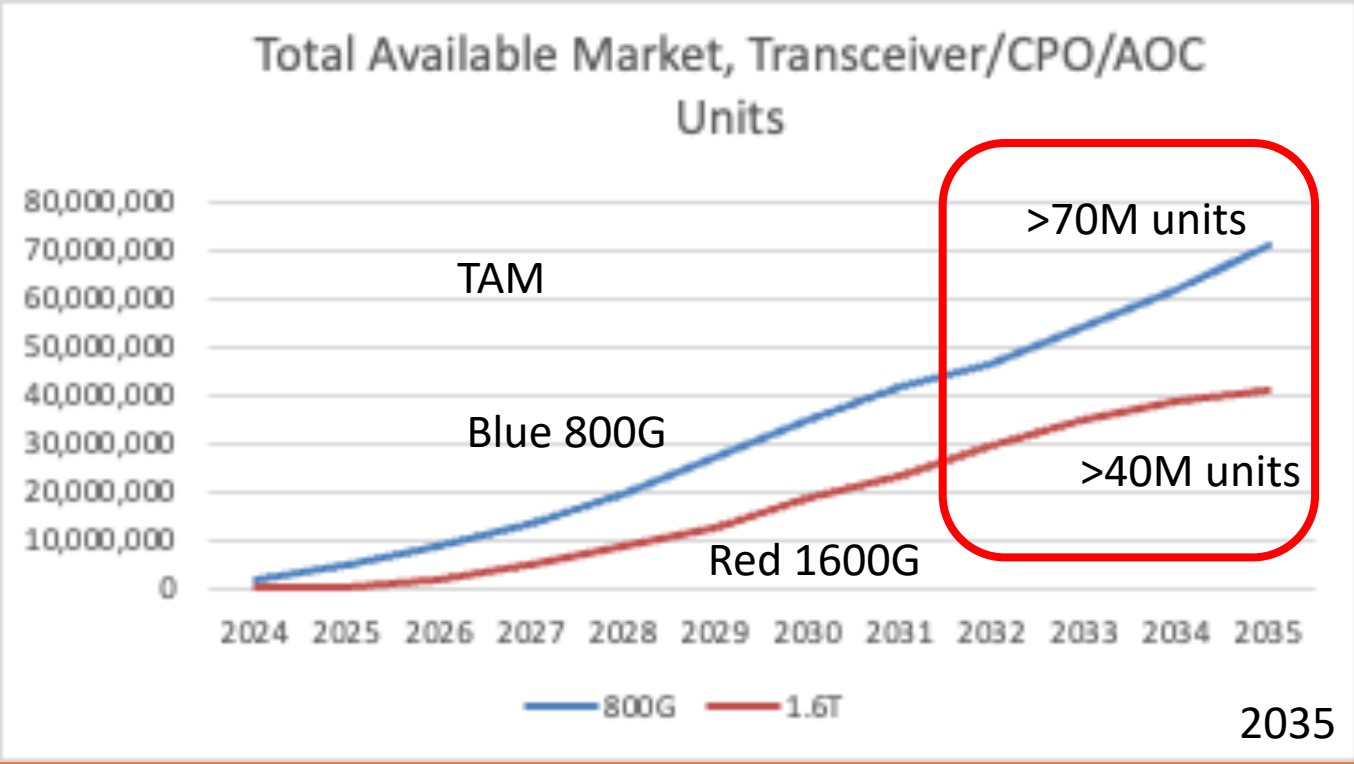
SAM (Serviceable Addressable Market) –
how big is the market we can reach...

SOM (Serviceable
Obtainable Market) –
with our available
resources...

TAM → SAM → SOM opportunities for first applications...



Polymer modulator TAM (not telecom)

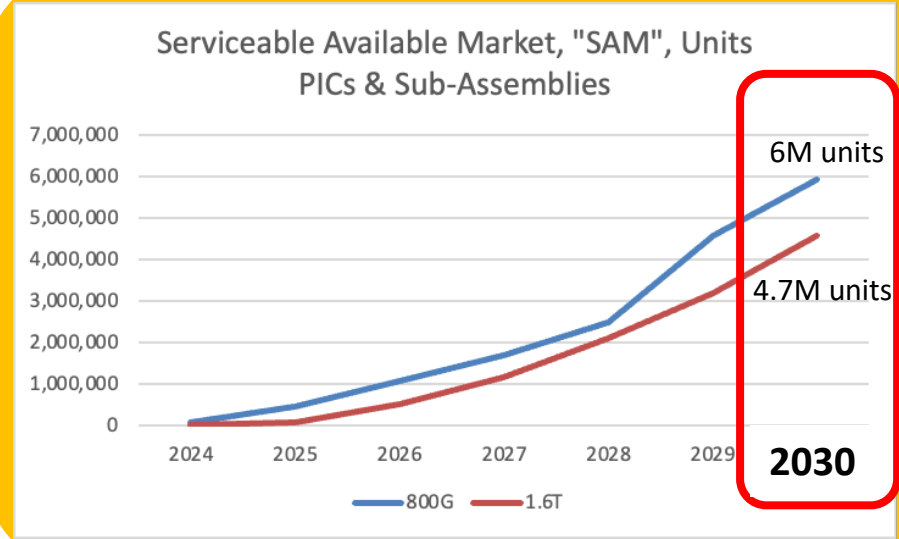


NB:
Telecom,
AOC etc.,
are upside

Source: <https://www.lightcounting.com/newsletter/july-2021-mega-data-center-optics-104>

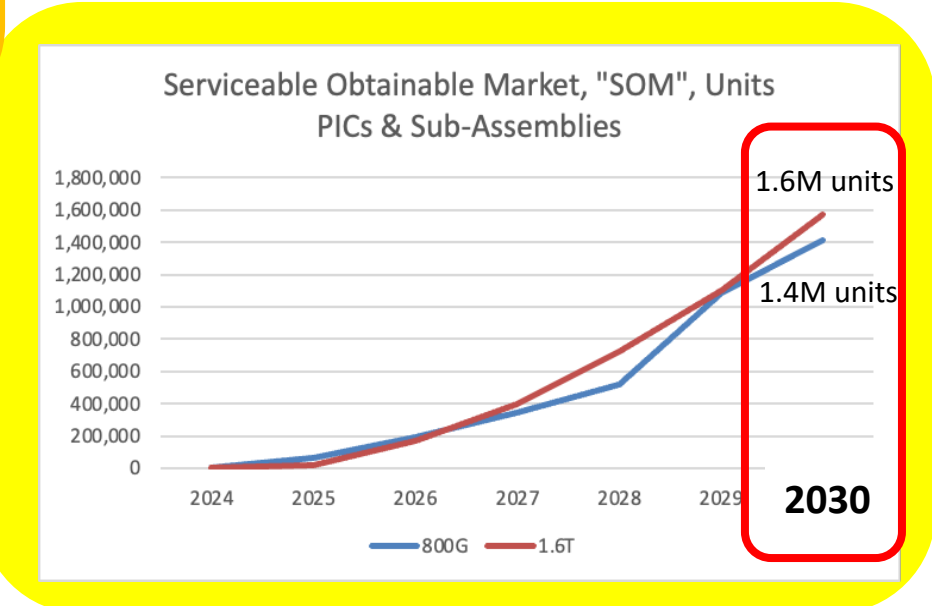
TAM is for 800 & 1600 only, others such as telecom, AOC etc., are upside...

Polymer modulator SAM and SOM



- SAM Assumptions (7 years period):**
- 800G (blue): ~15% of TAM
 - 1600G (red): ~25% of TAM*

- SOM Assumptions (7 years period):**
- 800G (blue): ~20% of SAM
 - 1600G (red): ~33% of SAM*



TAM is for 800 & 1600 only, others such as telecom, AOC etc., are upside...



Summary of market potential

	2024	2025	2026	2027	2028	2029	2030
TAM 800G Modules ('000)	1,590	4,618	8,590	13,585	19,811	26,905	34,922
TAM 1.6T Modules ('000)	59	512	2,050	4,655	8,414	12,780	18,284
SAM 800G ('000)	79	462	1,074	1,698	2,476	4,574	5,937
SAM 1.6T ports ('000)	3	51	512	1,164	2,104	3,195	4,571
SOM 800G ('000)	7	61	196	342	521	1,087	1,411
SOM 1.6T ports ('000)	0.9	17	174	400	724	1,099	1,573

- The market size for LWLG components indicates the potential for a *substantial business opportunity* – even with conservative assumptions (only 800 & 1600G; *others → telecom/AOC upside*)
- This is a reflection of the combined effect of positive demand for *higher traffic* and *lower power consumption* drivers...

TAM → SAM → SOM opportunity is exciting

A server room with rows of black server racks. The room is dimly lit, with a grid ceiling. Overlaid on the scene are vibrant, glowing light trails in shades of blue, orange, and purple, suggesting data flow or network activity. The word "Competition" is written in a large, white, sans-serif font across the center of the image.

Competition



Modulator target attributes vs competition

Modulator technology	Silicon (SiPh)	Indium Phosphide (InP)	Lithium Niobate (LiNbO3)	TFLN (Lithium Niobate)	BTO (Barium Titanate)	Polymer Plasmonics (MZM)	Polymer Slot
Speed (in 3dB bandwidth)	25-30GHz Commercial incumbent	40-50GHz Commercial; 50-70GHz* dev	20-25GHz Waning incumbent	50-70GHz development	~60-70GHz development	>250GHz under dev	Over 100GHz
Voltage V _{pi} (V)	2-5V	2-7V	5-40V	1-5V	1-3V	1-3V	0.4-1V
Loss (dB)	4-20dB	5-10dB	4-12dB	5-15dB	6-12dB	5-8dB	3-8dB
Relative Size/footprint (1=best, smallest)	3	1	5	4	3	1	1
Energy consumption (based on NRZ)	~10-20pJ/bit	10-40pJ/bit	>100pJ/bit	~10-20pJ/bit	~10-20pJ/bit	<1pJ/bit	1-5pJ/bit
Stability (1 = best)	1	1	1	2	4	1	1
Compatibility with silicon foundry	Standard PDK fabrication	Requires InP foundry	Requires LN foundry	Requires LN foundry or Si custom PDK	Requires Silicon PDK integration	Standard Si PDK fabrication	Standard Si PDK fabrication
Requires driver IC chip (more \$ for customer)	Yes	Yes	Yes	Unclear	Unclear	No	No

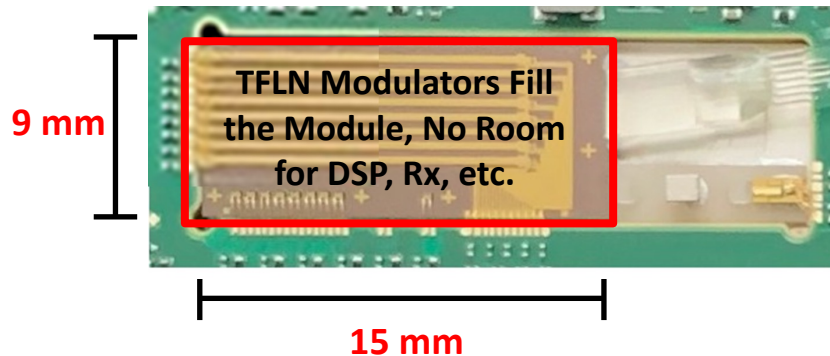
LWLG

Outperforms

Polymer modulators outperform competitive semiconductor technologies

Competitive transceiver

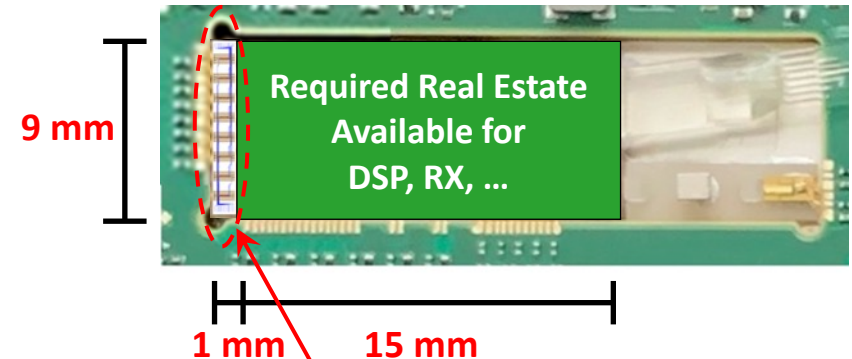
TFLN 800G-DR8 Module



TFLN Modulators Fill the Module, No Room for DSP, Rx, etc.

8 modulators x 100G = 800G or 0.8T
Occupies Most of Module

Polymer Slot™



Required Real Estate Available for DSP, RX, ...

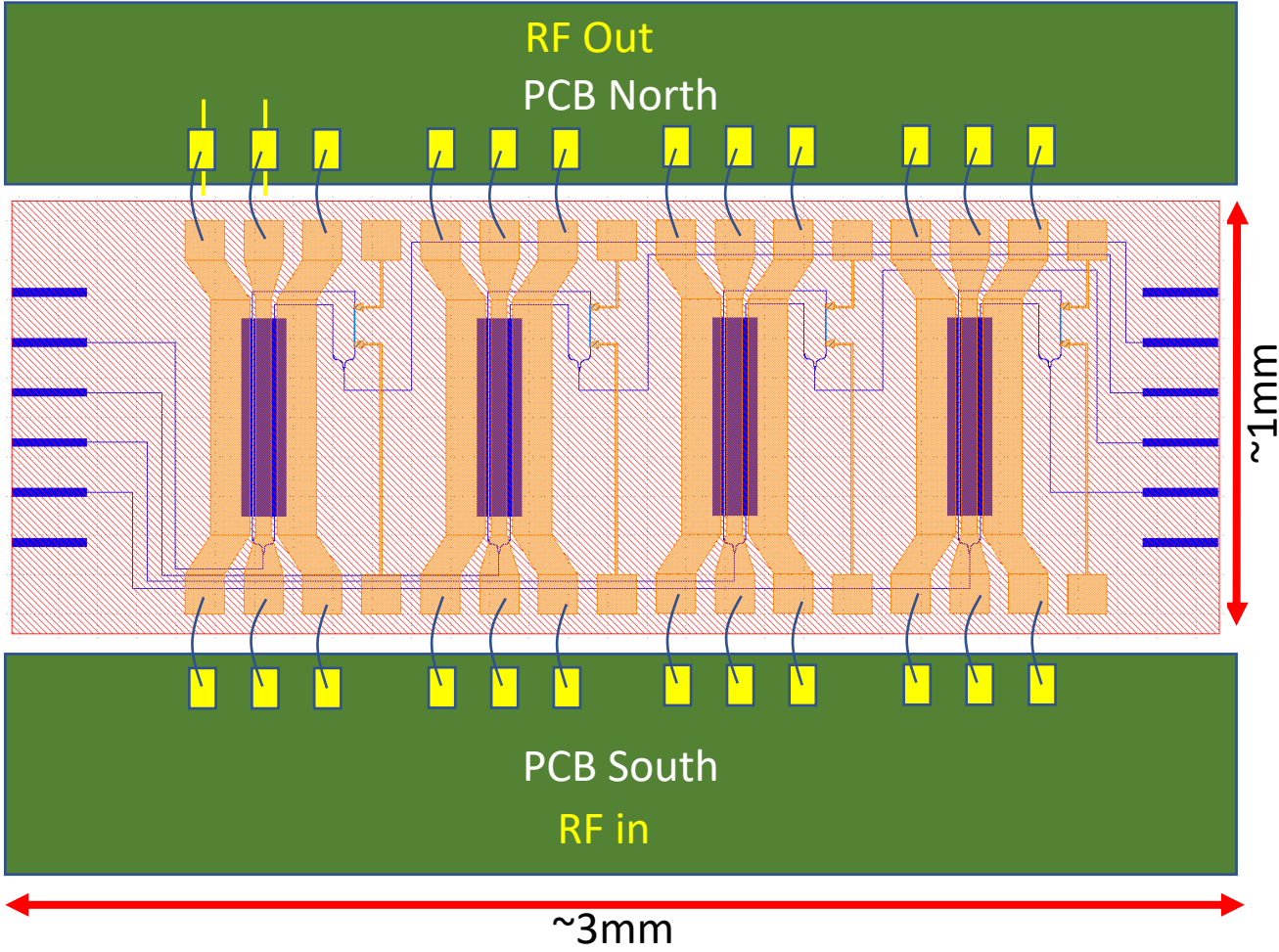
8 Polymer Slot™ Modulators
2X Capacity in 7% As Much Space

Over 10X more capacity than competition...



Integrated polymer modulators in a PIC

- Optical
 - 4 channel Polymer PIC layout
 - Mach Zehnder Interferometers (MZI) arrays
 - Fiber array to be connected on both East and West side
 - Edge couplers on each side
- Electrical
 - CPW transmission length ~1mm



4 Channel polymer PIC chip as part of our P²IC™ platform

A server room with rows of black server racks. The room is dimly lit, with a grid ceiling. Overlaid on the scene are vibrant, glowing light trails in shades of blue, orange, and purple, suggesting data flow or network activity. The word "Partnering" is written in a large, white, sans-serif font across the center of the image.

Partnering



Competitive polymer positioning

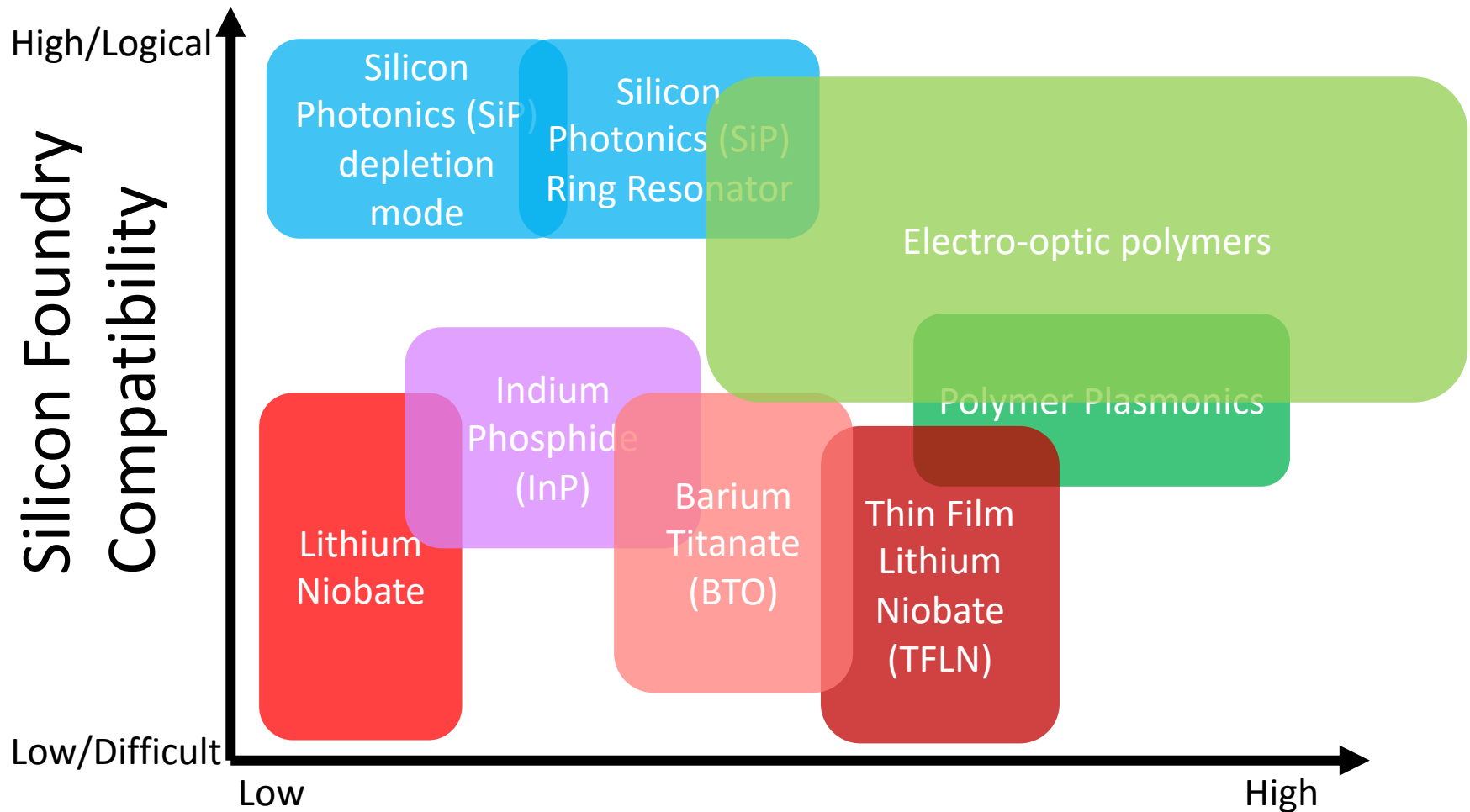
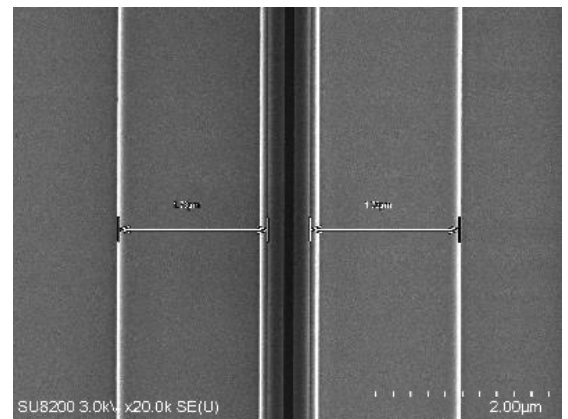
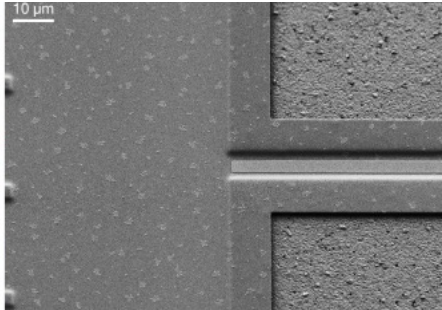
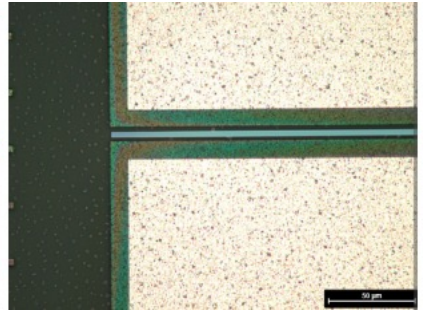
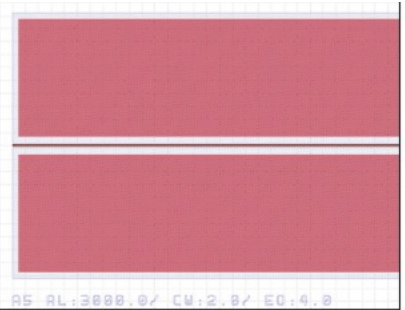
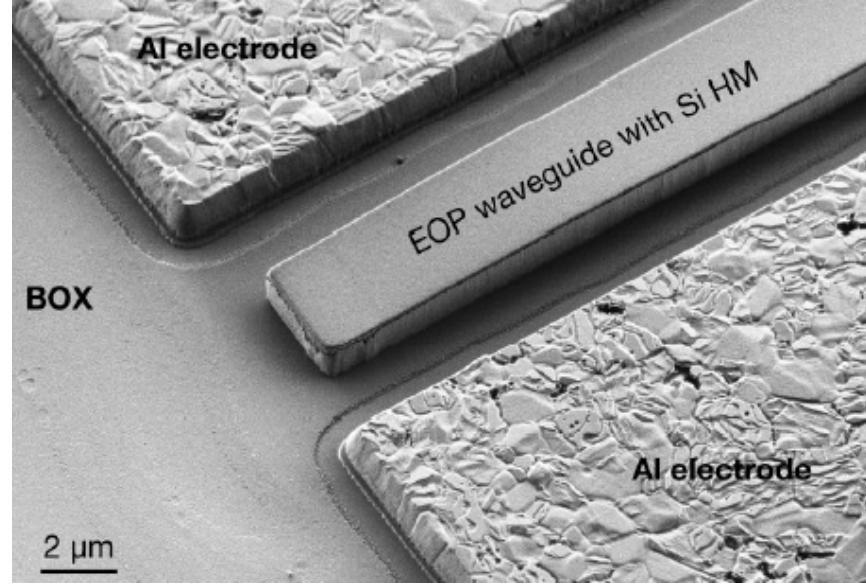
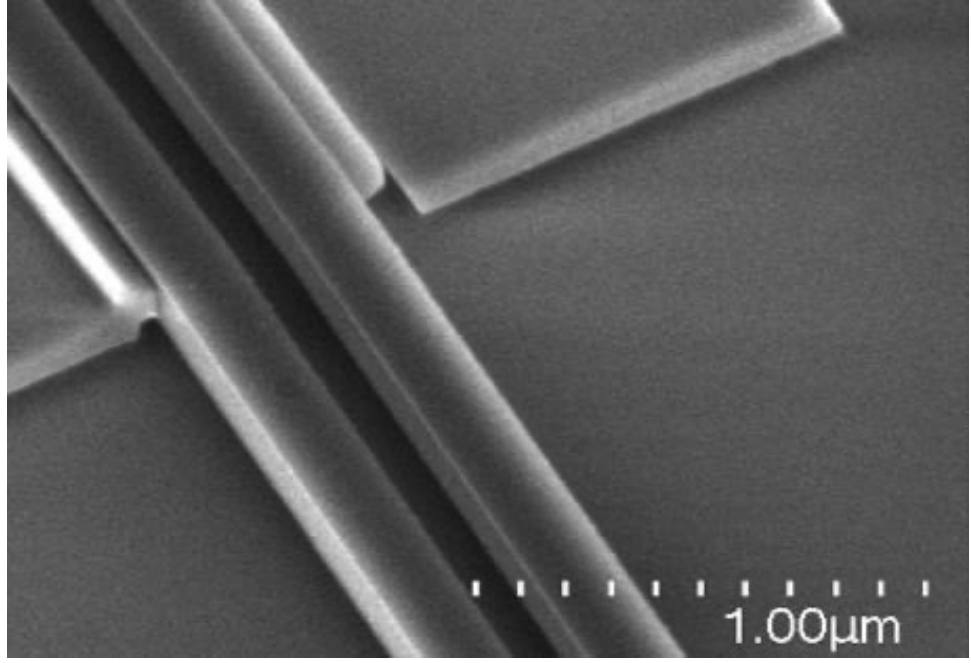


Figure of Merit (low V, high Bandwidth, small size)

Polymer modulators outperform competitive semiconductor technologies



Results from foundry PDK

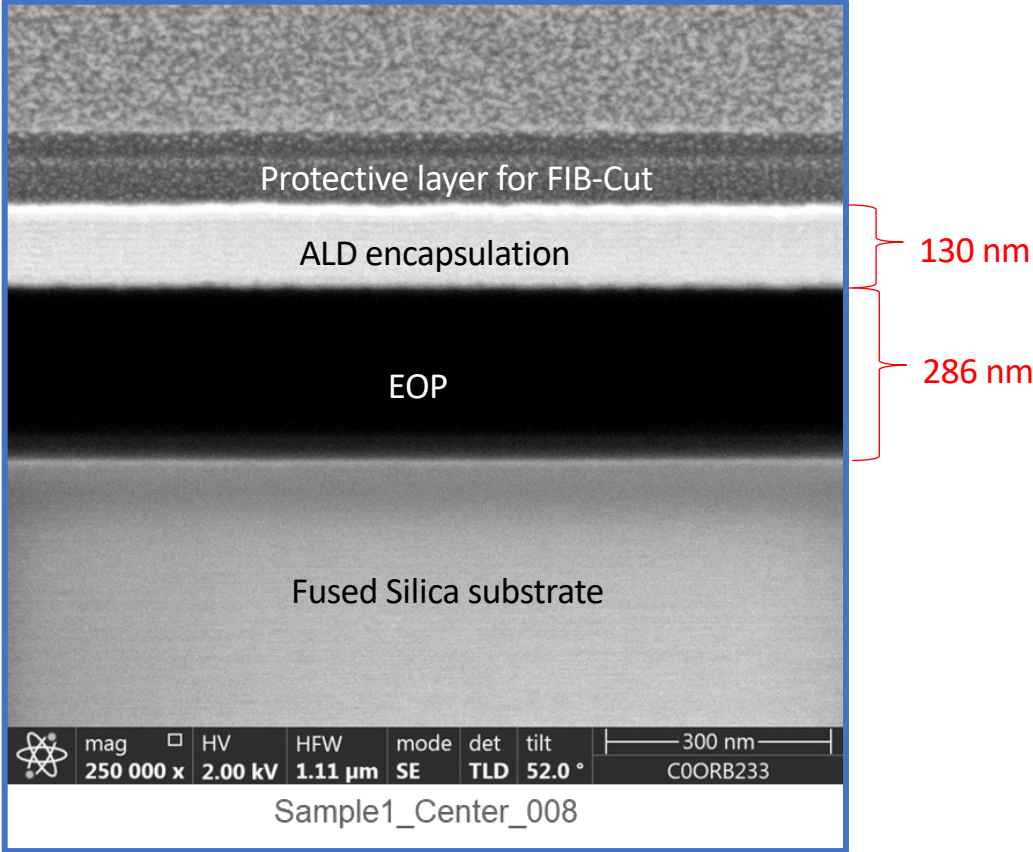


Standard silicon fabrication components...



Atomic Layer Deposition

- *Core skills increased* with IP/Patent & know-how from Chromosol acquisition
- FIB (Focused Ion Beam) cross-sectional analysis
- 130nm ALD encapsulation
- Chip scale packaging platform
- *Clean, high-quality interface*



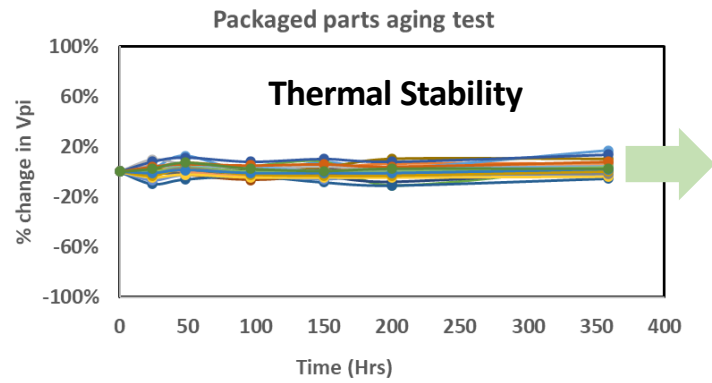
Clean interface of ALD encapsulation of EO polymer onto fused silica



Polymer stability

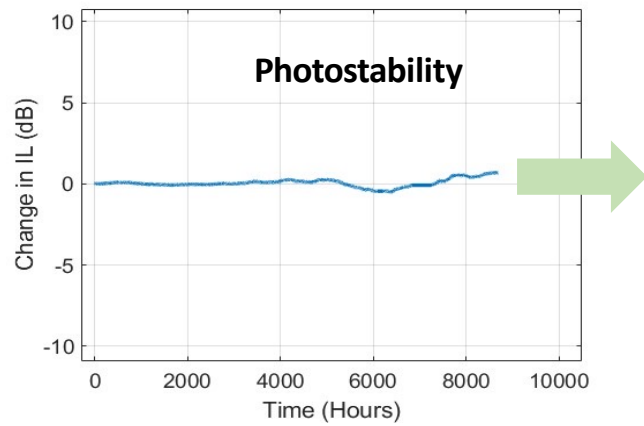
• Thermal stability Test

- Stress: 85°C
- *Minimum shift* in V_{π} on all parts with time.
- Observed shift is within measurement error.



• Photostability

- *~9000hrs test*
- Wavelength=1550 nm
- Optical intensity = 500kW/cm²
- Chart shows shift in Insertion Loss (IL) with time
- *Minimum photodegradation* (indicated by reduction in IL due to bleaching of chromophore)
- Observed shift is within measurement error



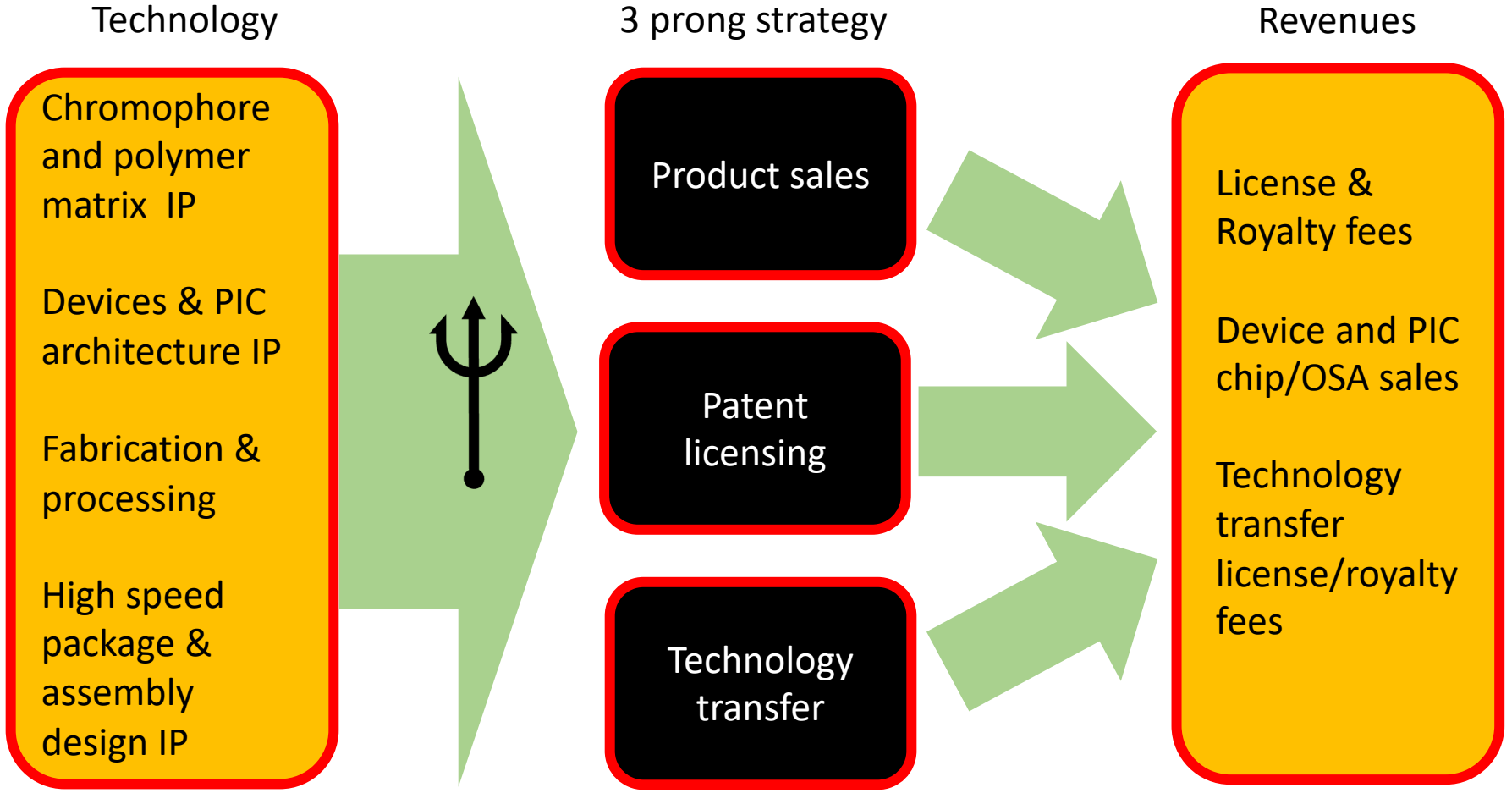
Reliability data set is being built for end-user evaluation

A server room with rows of black server racks. The scene is illuminated by vibrant, glowing light trails in shades of blue, orange, and purple that swirl and flow through the space, creating a sense of dynamic activity and data flow. The text "Commercial strategy & activity" is overlaid in the center in a bold, white, sans-serif font.

Commercial strategy & activity



Business model

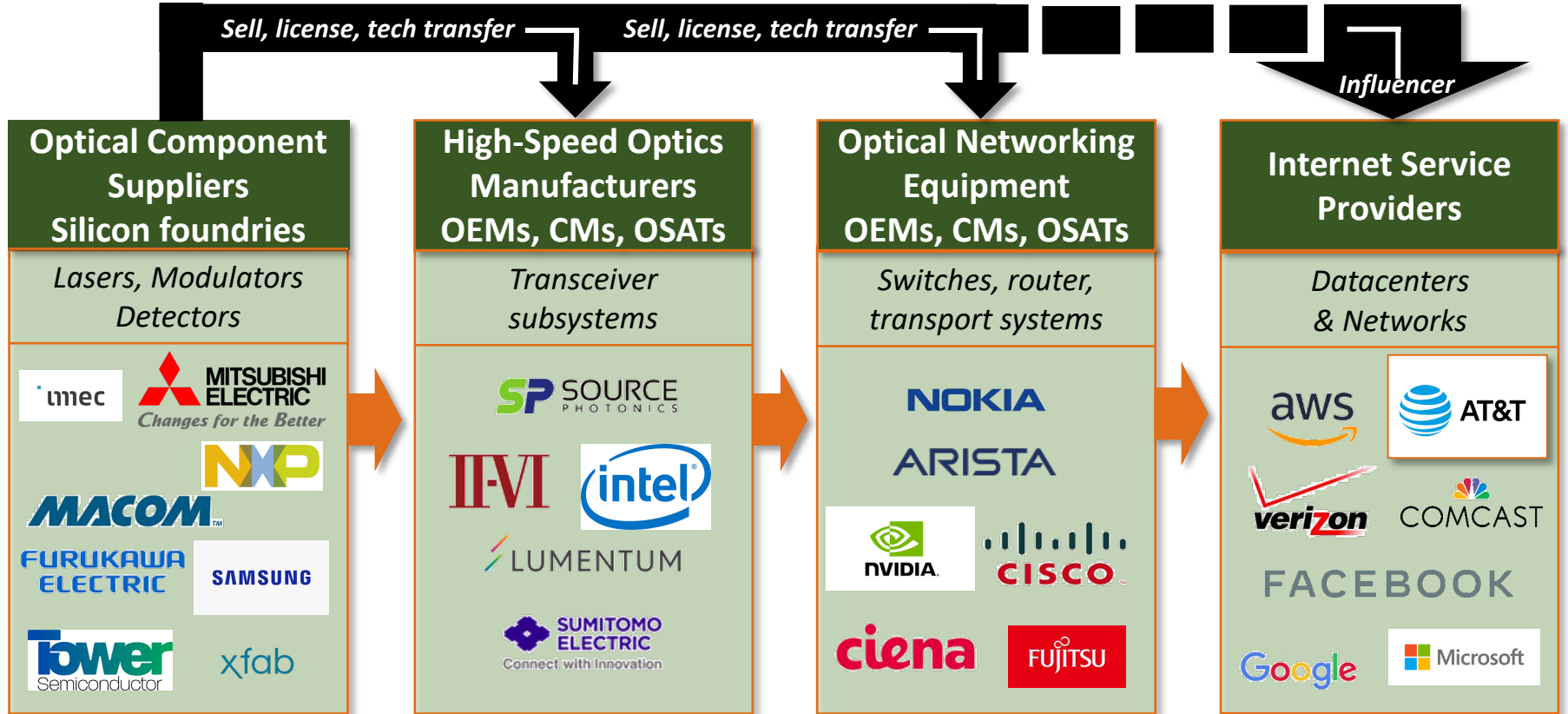


To become a leader in the engineering and manufacturing of electro-optic organic polymers...



Representative interactions at all levels of value chain LIGHTWAVELOGIC®

As an 'optical engine' supplier, our plan is to sell, license, or technology transfer into OEMs, CMs, foundries as well as direct to manufacturers

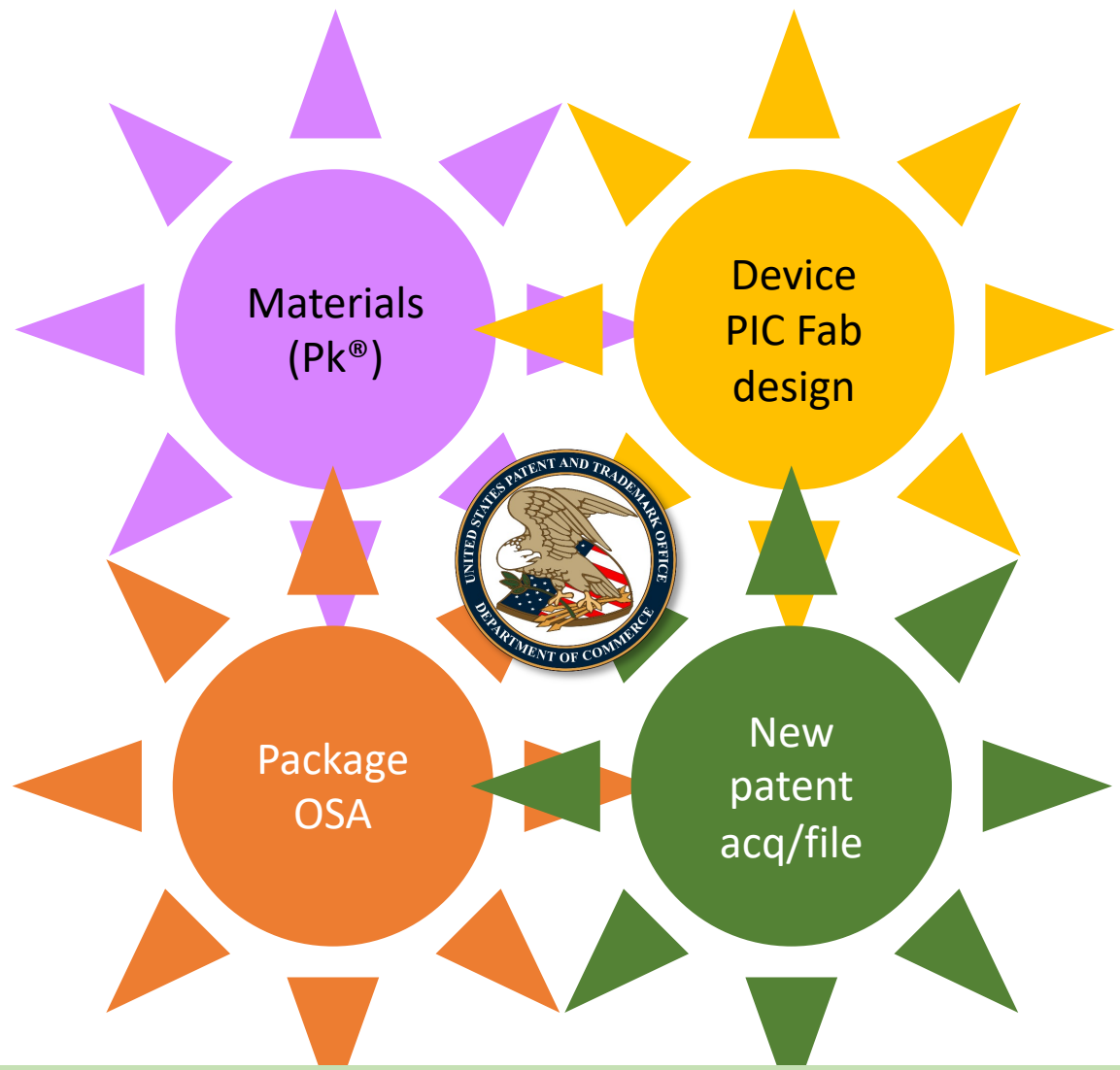


Many verticals both direct and indirect (via OEMs, CMs, OSATs, foundries)

NB: Typical actors in the market verticals; OSAT = Outsourced Semiconductor assembly and test; CM = contract manufacturer



Patents drive licensing opportunities...



- We develop and *license* polymer-based technologies that are engines for the internet, optical networking, datacenters
- Our patent IP portfolio creates a *strong moat* and know-how to carve leadership in high speed, low power modulators
- *Unique polymers* that we design and create continually strengthen our patent moat to over 70 patents issued and pending

IP portfolio enables licensing & tech transfer for long term revenue generation



Commercial activity demands more space...

- Expanded Lightwave Logic Facility

- Acquiring almost 10,000 sq ft *adjoining current* facility
- 72% increase addition to current space

- LWLG takes possession June 1 and will occupy in July/August when renovations and lab utility installation complete

- Will be used:

- For production device test and evaluation center
- For production reliability center
- For laser characterization center
- For an SEM analysis center
- Expansion of our *chemical synthesis production line*
- For office and meeting space for new staff

- New space will support *11 recent hires*:

- 2 Organic Chemists
- 1 Computational Chemist
- 2 Material Science Engineers
- 2 PIC Engineers
- 2 Device Engineers
- 1 Packaging Engineer
- 1 Director of Reliability Engineering



Front and existing facility

Front End view Back

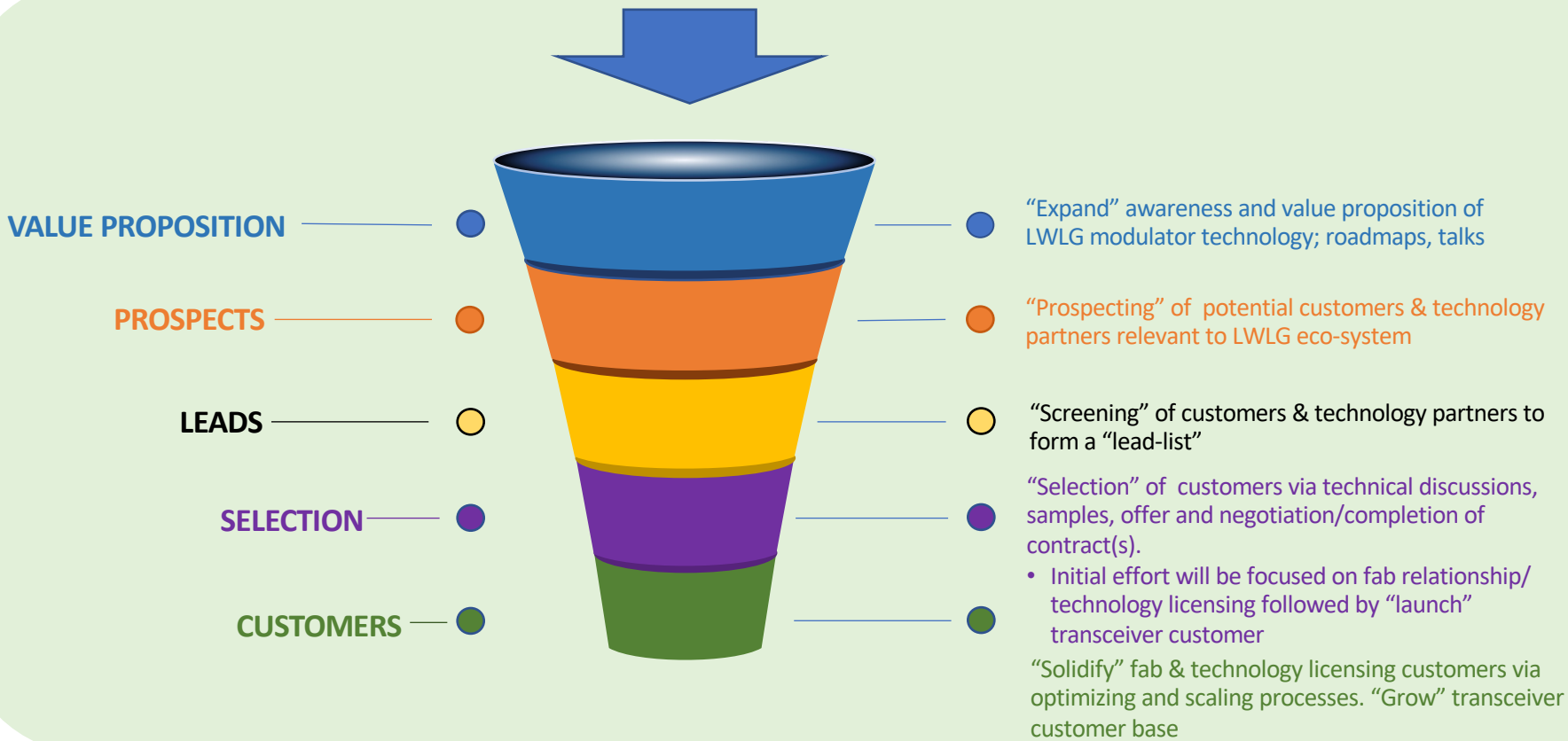


Expansion (back and adjoining)

We now have the team and the *production* facilities to make polymers ubiquitous



Growth Funnel – Internal Roadmap



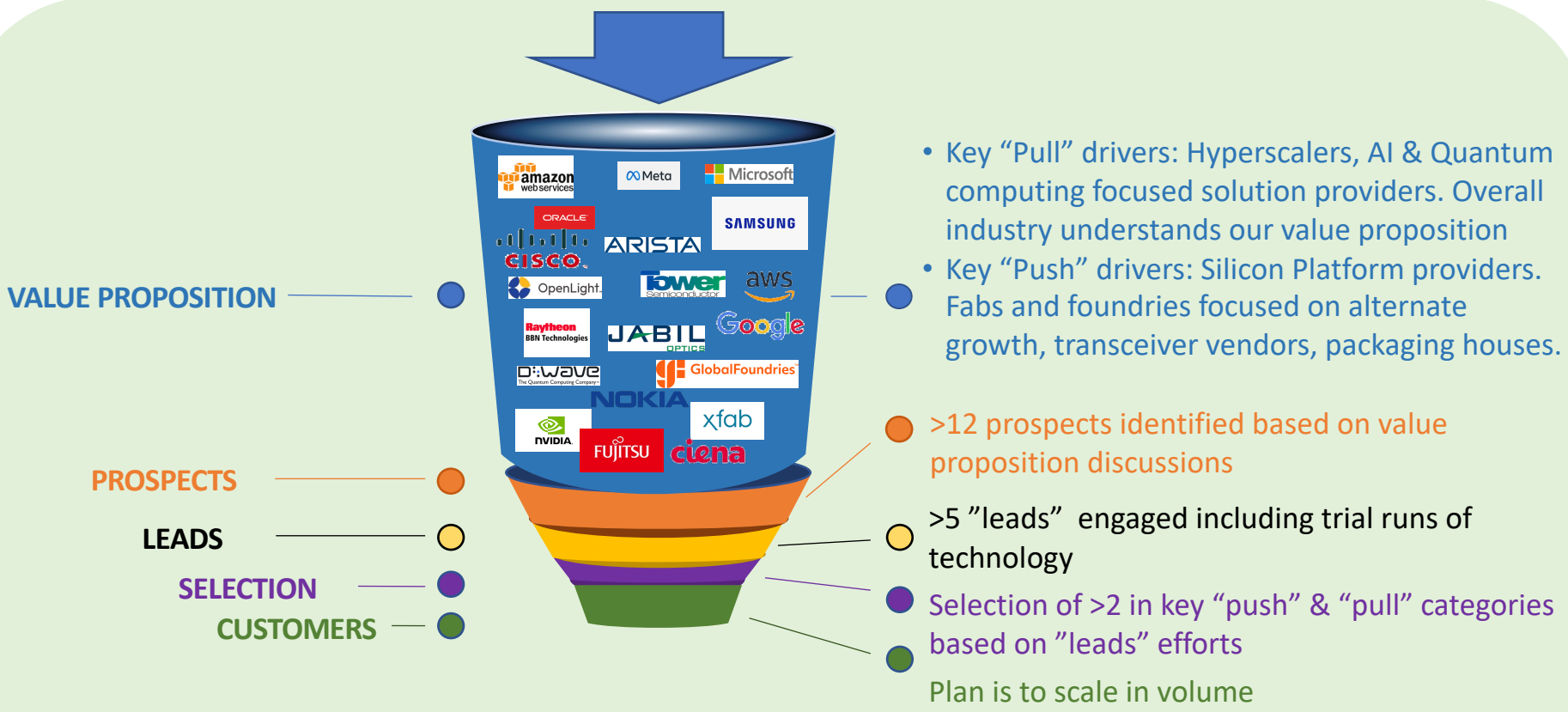
We are undertaking multi-level and cross-functional engagements with the goal of establishing revenue generating clients

Commercial planning...



Near term external activities & goals

Typical expected cycle from “value proposition to customer” is ~18 months



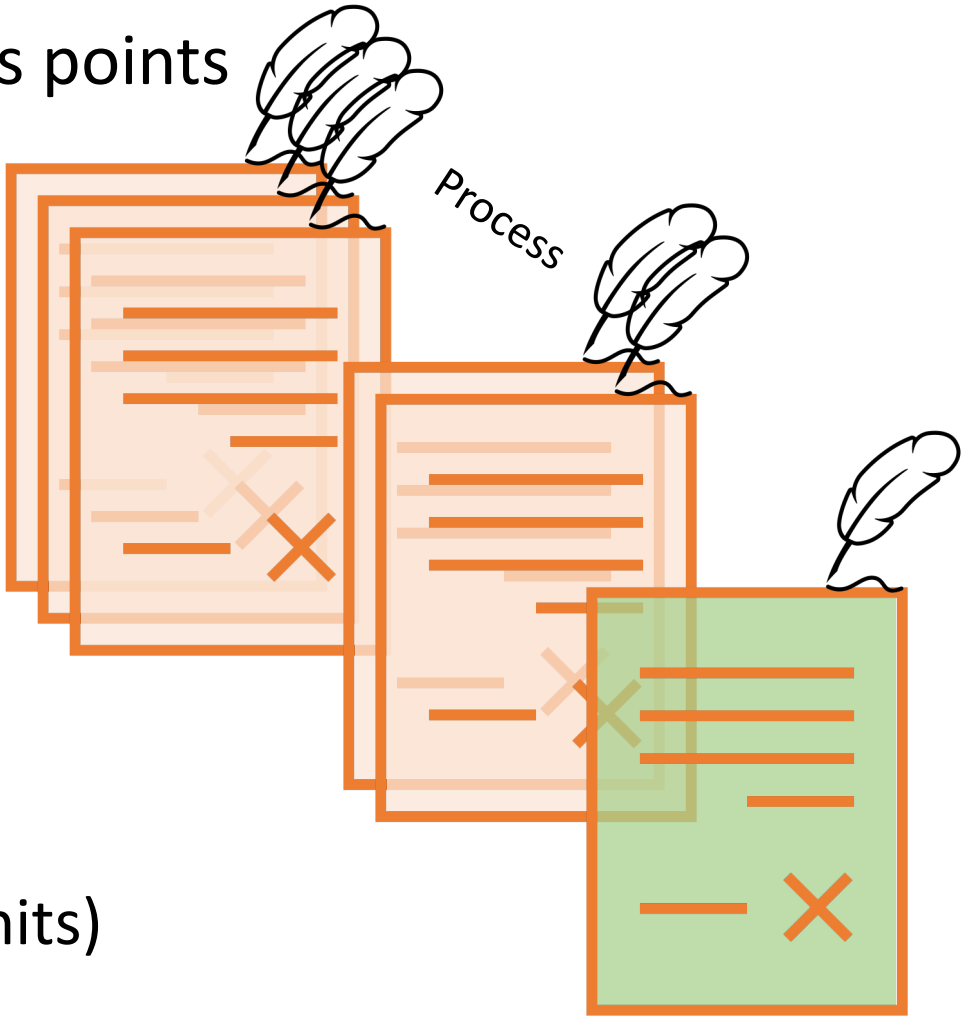
Commercial activity developing well during 2023



License agreement template

Salient commercial business points

- Supply EO material
- License initiation fee
- Royalties (% per unit)
- Minimum royalty
 - 1st year
 - 2nd year
 - 3rd year
 - 4th and succeeding years
- Minimum sales volume (units)





Perkinamine[®] Series-2 Data Sheet

Perkinamine[®] Series-2 Material Datasheet

Perkinamine[™] Series-2 materials are a set of high-performance, high-stability Electro-Optic (EO) Polymers designed for active optical components at both 1310 nm and 1550 nm.

Applications for EO polymers

- High-speed optical communications
- RF and Terahertz photonics
- Optical and quantum computing
- Beam steering
- Electro-optic sampling

Device types

- Channel waveguide
- Ridge waveguide
- Silicon-organic hybrid
- Plasmonic-organic hybrid
- Electro-optic overlay

Material Properties

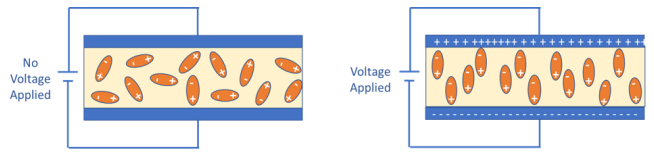
- *Electro-optic activity of up to 215 pm/V*
- *High thermal stability*
- *Stable through typical storage, fabrication, and operation conditions*

Perkinamine[®] Series-2 materials can be used in dielectric waveguides or Si waveguide systems for integration into Si photonics platforms and photonic integrated circuits (PIC). The strong linear electro-optic response allows conversion of electric signals to optical signals with high efficiency and high signal integrity.

Typical Usage

This guest-host formulation is shelf-stable until ready for use. It can be dissolved into a variety of solvents for spin-coating onto wafers or application by other standard methods of liquid deposition. After baking to remove the solvent, the resulting thin film can be patterned by standard photolithography and etching techniques.

Poling (shown below): Activation of the Pockel's Effect (linear electro-optic effect) is done by means of poling, or aligning, the active chromophore molecules. Poling is achieved by heating the material to its glass transition temperature and applying voltage. The material is then cooled, the alignment is locked in place, and the voltage can be removed.



Faster by Design

Table 1
General Characteristics of Pk[®] Series-2 Materials

Symbol	Parameter	Condition	MIN	AVG	MAX	Unit
r_{33}^{1310}	EO coefficient at 1310 nm	Notes 1,2,3	125	170	215	pm/V
r_{33}^{1550}	EO coefficient at 1550 nm	Notes 1,2,3	105	115	125	pm/V
T_g	Glass transition temperature	Note 1	165	173	180	°C
TS	Thermal Stability	Note 5	88	92.5	95	%
n_o^{1310}	Unpoled TM mode refractive index at 1310 nm	Notes 1,4	N/D	N/D	N/D	
n_p^{1310}	Poled TM mode refractive index at 1310 nm	Notes 1,4	1.797	1.838	1.879	
n_o^{1550}	Unpoled TM mode refractive index at 1550 nm	Notes 1,4	N/D	N/D	N/D	
n_p^{1550}	Poled TM mode refractive index at 1550 nm	Notes 1,4	1.734	1.784	1.833	

- Notes:**
- 1 Dependent on chromophore loading and polymer matrix.
 - 2 Dependent on poling conditions.
 - 3 Measured by Teng-Man method.
 - 4 Optical E-field in direction of poling field.
 - 5 Percentage of chromophore remaining after baking at 180°C for 90 minutes.

About Lightwave Logic, Inc.
Lightwave Logic is a wholly U.S.-based company with in-house materials synthesis, device and package design, wafer fabrication and testing capabilities.

369 Inverness Pkwy., Suite 350
Englewood, CO 80112
www.lightwavelogic.com

Please contact us at info@lightwavelogic.com

Faster by Design

High activity, high stability chromophores now in Limited Availability



Chromophore commercial plan

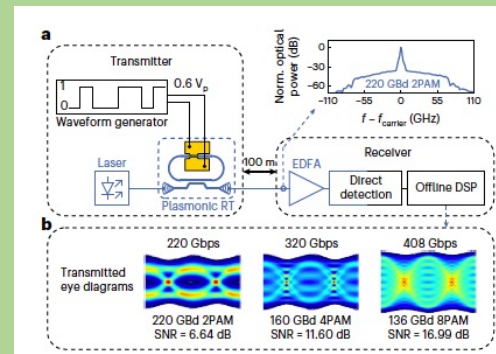
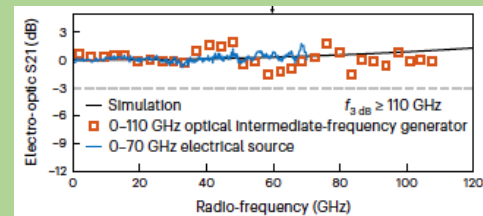
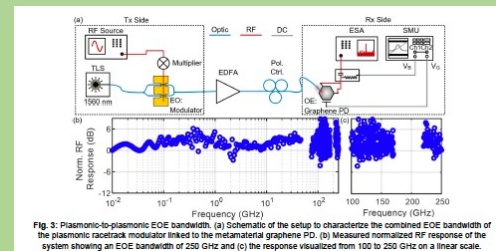
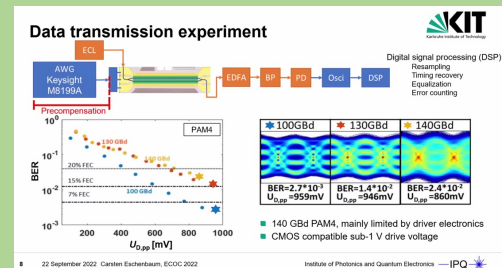
	2023	2024
Perkinamine® 2	License	License
Perkinamine® 3	License	License
Perkinamine® 5	License	License
Perkinamine® 6	In development	License

A server room with rows of black server racks. The scene is illuminated by vibrant, glowing light trails in shades of blue, orange, and purple that swirl and curve through the aisles, creating a sense of dynamic energy and data flow. The text "3rd party verification..." is overlaid in the center in a bold, white, sans-serif font.

3rd party verification...

3rd party use of Perkinamine[®]

- *EO polymer* used in different device designs
- Silicon slot, plasmonic slot, plasmonic ring resonator
- All produced *world class* results*
- Presentations at *industry* conferences



Sources*: Nature Photonics: Resonant plasmonic micro-racetrack modulators with high bandwidth and high temperature tolerance (ETH Zurich, Polariton and LWLG EO polymer material)

Sources*: KIT, SilOriX, EU Horizon 2020, ETH Zurich, Polariton, CAU University Kiel (post deadline paper published at ECOC2022 using LWLG EO polymers)



Sample market reactions...

High speed

- “Lightwave Logic’s polymers *fill the industry gap* for this and future generations”

Low Power

- “Sub-1V modulators give us architectural freedom to *reduce power consumption*”

Optical networking/internet

- “*We want* to get onto a list for a prototype”
- “*We’d love* to run live traffic with your polymer devices”

Implementing modulators into silicon photonics...

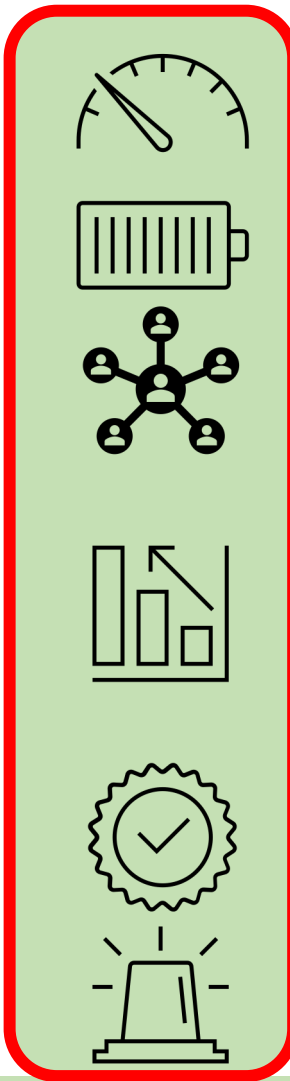
- “At our foundry we are worried about the investment into TFLN: it may only be for one generation – with polymers *our investment would be worthwhile* and better ROI”
- “*We like* the fact that polymers can be spun on or deposited in droplets in the fab”
- “Hybrid PICs with polymers combine the *best performance of polymers with semiconductors*”
- “It does not make sense to build your own fab – using a foundry makes *solid business sense*”

Reliability and robustness

- “*We want* to see standard reliability results for the polymers.”
- “Show us some stability data for polymers, we already like the *incredible performance*”

New opportunities

- “LIDAR and sensing are *very interesting* opportunities for electro-optic polymers”



Feedback strong and constructive

A server room with rows of black server racks. The room is dimly lit, with a grid ceiling. Overlaid on the scene are vibrant, glowing light trails in shades of blue, orange, and red, creating a sense of motion and data flow. The text "Investor Relations" is centered in a bold, white, sans-serif font.

Investor Relations



Investor Relations with MZ Group

Past 12 Months Since 2022 ASM

10

**Investor Conferences
Attended¹**

In-Person & Virtual

26

**Press Releases
Distributed¹**

+146%

**30 Day Average
Volume**

From 217K to 533K
at May 1, 2023

81

**Buy-Side &
Sell-Side Meetings¹**

+154%

**Institutional
Ownership¹**

10.5M to 26.6M shares as of 12/31/22

Added to Russell 2,000 Index



Extremely active in the investor community for meetings, conferences, interviews and general IR work

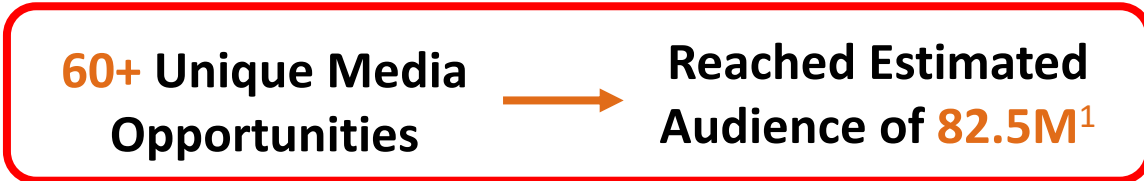
Extremely active cadence of meetings with Institutional Investors, Research Analysts, etc.

1) As sourced and referenced by MZ Group



Public Relations with MZ Group

Past 12 Months Since 2022 ASM



While some key articles were shared among multiple media outlets, these are largely original articles and independent of syndicated press release pickup (which measured separately expands the audience reach by an *estimated 333.5 million*)

Media exposure across financial, business, and industry news outlets including online text and video podcasts:




Regular activity for articles, interviews, webcasts, radio shows and general public relations work

Tier-1 Industry and Financial Media Presence for a Small-Cap Public Company

1) As sourced and referenced by MZ Group

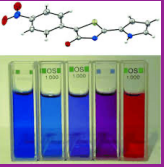
A digital illustration of a server room. The room is filled with rows of black server racks. The floor is a light gray, and the ceiling is a white grid. The scene is illuminated by vibrant, glowing light trails in shades of blue, orange, and purple that swirl and flow through the space, creating a sense of dynamic energy and data movement. The word "Summary" is prominently displayed in the center in a clean, white, sans-serif font.

Summary

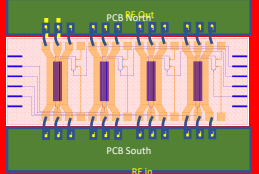


Summary...

Material Science



Polymer PIC design



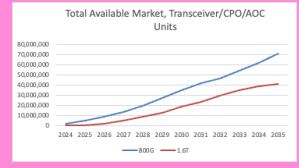
High speed device design & packaging



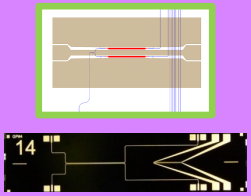
Powerful patent portfolio



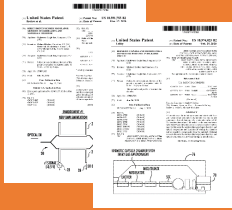
Huge \$B markets



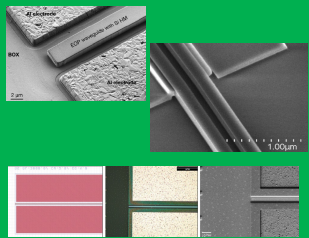
Selling components



Licensing polymer materials



Partnering foundries (for scale)



Material & device data sheets

Polymer Slot® O-Band Modulator

Lightwave Logic's O-Band Polymer Slot® O-Band Modulator is a high speed device designed to provide a cost-effective, high performance solution for high speed transceiver applications. The high speed and low loss device is designed for high speed transceiver applications. The high speed and low loss device is designed for high speed transceiver applications.

Parameter	Value
Operating Wavelength	1260-1360 nm
Insertion Loss	< 1.0 dB
Return Loss	> 20 dB
Extinction Ratio	> 15 dB
Bandwidth	> 100 GHz
Temperature Range	-40 to 85 °C
Power Handling	> 100 mW
Reliability	> 10,000 hours

World class BoD, TAB & IR/PR



- Our technology is *competitively superior and unique*...
- We continue to increase our *commercial progress*...
- With our partners, we are positioned to have *polymers scale* for optical networking...
- We have the team, resources, and plans in place to *make polymers ubiquitous*...

Lightwave Logic Begins Commercialization of its Electro-optic Polymer Materials

Company signs its first material supply and license agreement for its Perkinamine® series materials

ENGLEWOOD, Colo., May 25, 2023 -- Lightwave Logic, Inc. (NASDAQ: LWLG), a technology platform company leveraging its proprietary electro-optic polymers to transmit data at higher speeds with less power, today announced the company's first commercial material supply license agreement for its Perkinamine® chromophore materials.

This initial commercial material supply license agreement will provide Perkinamine® chromophore materials for polymer based photonic devices and photonic integrated circuits (PICs). Supplying licensed materials is one prong of the Company's three-prong revenue model and business strategy that includes polymer modulator products as well as technology transfer. The license agreement represents tangible commercial progress for electro-optics polymers as part of the company's business plan.

The supply license agreement terms include supply of electro-optic polymer material, license initiation fee, per unit royalties, minimum royalty levels that increase annually, and minimum sales volume in units.

Dr. Michael Lebby, Chairman and Chief Executive Officer of Lightwave Logic, commented: "As our first commercial agreement, this material supply license agreement for our Perkinamine® chromophores recognizes market acceptance and competitive advantage of our technology and validates the first prong of our business model. All of us at Lightwave Logic have worked very hard for this milestone, and as we enter into this exciting new phase for our company, we look forward to advancing our commercial business plans."

About Lightwave Logic, Inc.

Lightwave Logic, Inc. (NASDAQ: LWLG) is developing a platform leveraging its proprietary engineered electro-optic (EO) polymers to transmit data at higher speeds with less power. The company's high-activity and high-stability organic polymers allow Lightwave Logic to create next-generation photonic EO devices, which convert data from electrical signals into optical signals, for applications in data communications and telecommunications markets. For more information, please visit the company's website at lightwavelogic.com.

Safe Harbor Statement

The information posted in this release may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. You can identify these statements by use of the words "may," "will," "should," "plans," "explores," "expects," "anticipates," "continue," "estimate," "project," "intend," and similar expressions. Forward-looking statements involve risks and uncertainties that could cause actual results to differ

Investor Relations Contact

Lucas A. Zimmerman
MZ Group - MZ North America
949-259-4987

LWLG@mzgroup.us

www.mzgroup.us

Company address

369 Inverness Parkway, Suite 350
Englewood, CO 80112

lightwavelogic.com

Thank you!

