Asia Photonics Expo (APE) 2026

Photonics on Fire, AI Fuels the Blaze

By Cheow Ming Liang I cheowml@kenanga.com.my / Tan Woon Pin / woonpin@kenanga.com.my

Following our participation in the Asia Photonics Expo 2026 in Singapore, our key takeaway is that the global Datacom market is poised for robust growth, with Lightcounting projecting a 20%+ CAGR, reaching USD46b by 2030. The dominant driver for this growth is AI networking, pushing hyperscale data centers to scale compute and interconnect for both training and inference. From various discussions at the expo, it is evident that pluggable optics will continue to lead transceiver roadmaps due to their maintainability and cost-efficiency, while silicon photonics is gaining traction, emerging as the next-gen platform for integration and scalability. Bridging between the former and the latter technologies is Co-Packaged Optics (CPO), which is expected to ramp up where meaningful adoption is likely to occur from 2028.

The shift toward integrated photonics, advanced packaging, and automation is opening new avenues for investment, particularly in areas such as fiber attach, alignment precision, and reliability testing. From a supply chain perspective, Malaysia stands to benefit from the "China+1" strategy, with more production volume being moved to the region. Companies like NationGate (MP, TP RM0.85), Inari (OP, TP RM2.05), and EG (non-rated) are already involved in the assembly of pluggable optical transceivers, in which we see the longer shelf life of pluggable transceivers could further benefit them. Moreover, we expect the growth in this space to benefit Malaysia's OSATs through increased demand for optical transceiver packaging and testing, while automation and equipment providers will capitalize on the rising need for advanced testing solutions, micro-alignment, and high-precision assembly.

We recently attended Asia Photonics Expo 2026 (APE 2026), held on 4–6 February 2026 at the Sands Expo and Convention Centre in Singapore, where the event is positioned as a regional meeting point for the photonics value chain under the theme “Driving Innovation Where Photonics Meets Semiconductors.” In practice, the show is less about a single “breakthrough product” and more about triangulating where capital spending and R&D are converging and, importantly, where manufacturing bottlenecks are emerging, particularly across datacentre optical connectivity, higher-speed transceivers, packaging/test execution and automation. The relevance to investors is becoming clearer as AI infrastructure build-outs push bandwidth density and power efficiency towards binding constraints, shifting the conversation from “compute only” to “compute plus interconnect”, where network architecture and optical connectivity increasingly influence overall system performance and cost.

Exhibit 1: APE 2026

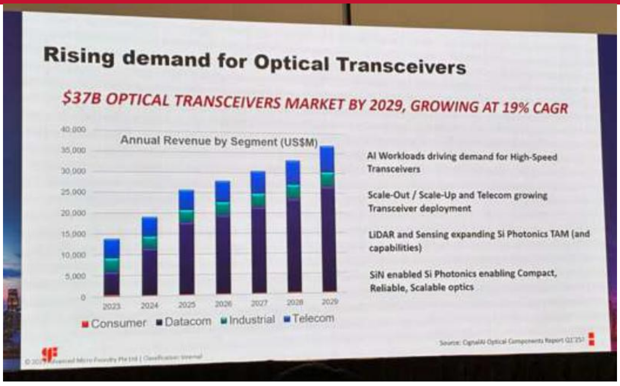
Source: APE, Kenanga Research

Exhibit 2: APE 2026 Floor Plan

Source: APE, Kenanga Research

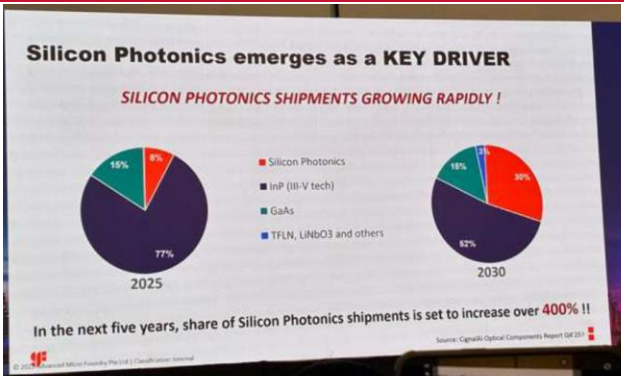
Global Datacom Market Projected to Grow 20%+ CAGR by 2030… Photonics, in simple terms, is the use of light (photons) to generate, transmit, modulate, detect and process information, or to sense the physical world. Commercially, the largest and most visible pools remain optical communications (datacentre and telecom optics), industrial lasers and sensing/imaging, while the “next wave” (integrated photonics platforms, and packaging-led approaches such as co-/near-packaged optics) is strategically important but still limited by scale manufacturing readiness. According to Lightcounting, the Datacom market is expected to grow at a 20%+ CAGR, from USD17b in 2025 to USD46b in 2030, with 800G and above driving the growth at a 40% CAGR during the same period. We view these figures as useful signposts for breadth, but the more actionable investor framing is where profit pools are monetising today (communications optics, lasers and sensing), versus where value is building for the next cycle (platformisation and manufacturability in integrated photonics).

Exhibit 3: Rising Demand for Optical Transceivers



Source: APE, Global Foundries, Kenanga Research

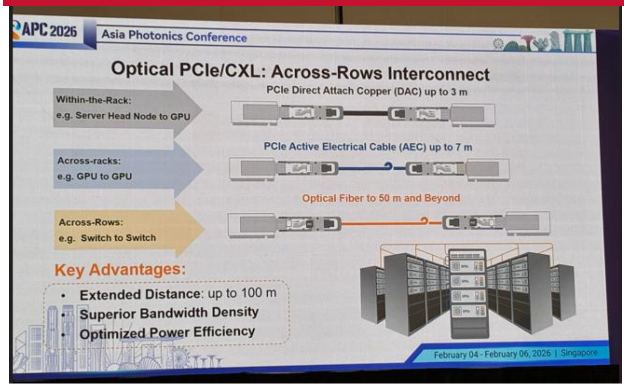
Exhibit 4: Silicon Photonics



Source: APE, Global Foundries, Kenanga Research

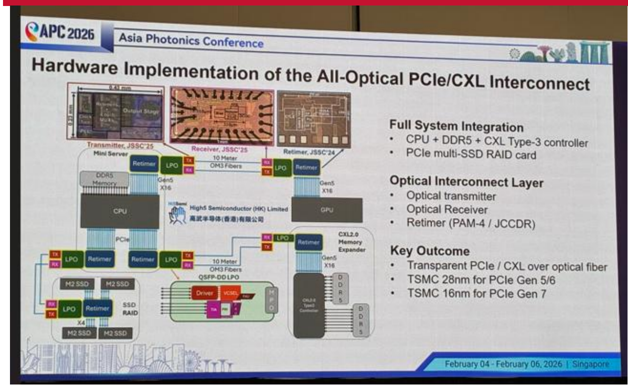
…**driven by AI applications and scaling demands.** Across vendor engagements, the dominant message was that AI networking remains the structural driver, with hyperscale AI datacentres continuing to scale both compute and interconnect for training and inference, and the upgrade cadence shortening as deployments expand. The key tone is that many conversations are now less about "discovering new materials" and more about executing at scale—yield learning, thermal stability, reliability qualification and test throughput—because these factors increasingly determine whether next-generation optics can be industrialised economically. In parallel, we found it helpful to frame demand expansion through a "scale-up / scale-out / scale-across" lens: scale-up within racks and clusters (more accelerators and higher bandwidth per link) increases ports and speeds; scale-out within the datacentre (larger clusters) drives more switches, more ports and higher-speed optical modules to connect racks; and scale-across between datacentres (distributed AI workloads) lifts the need for high-capacity, longer-reach optical networking.

Exhibit 5: Optical PCIe/CXL: Across Rows Interconnect



Source: APE, Global Foundries, Kenanga Research

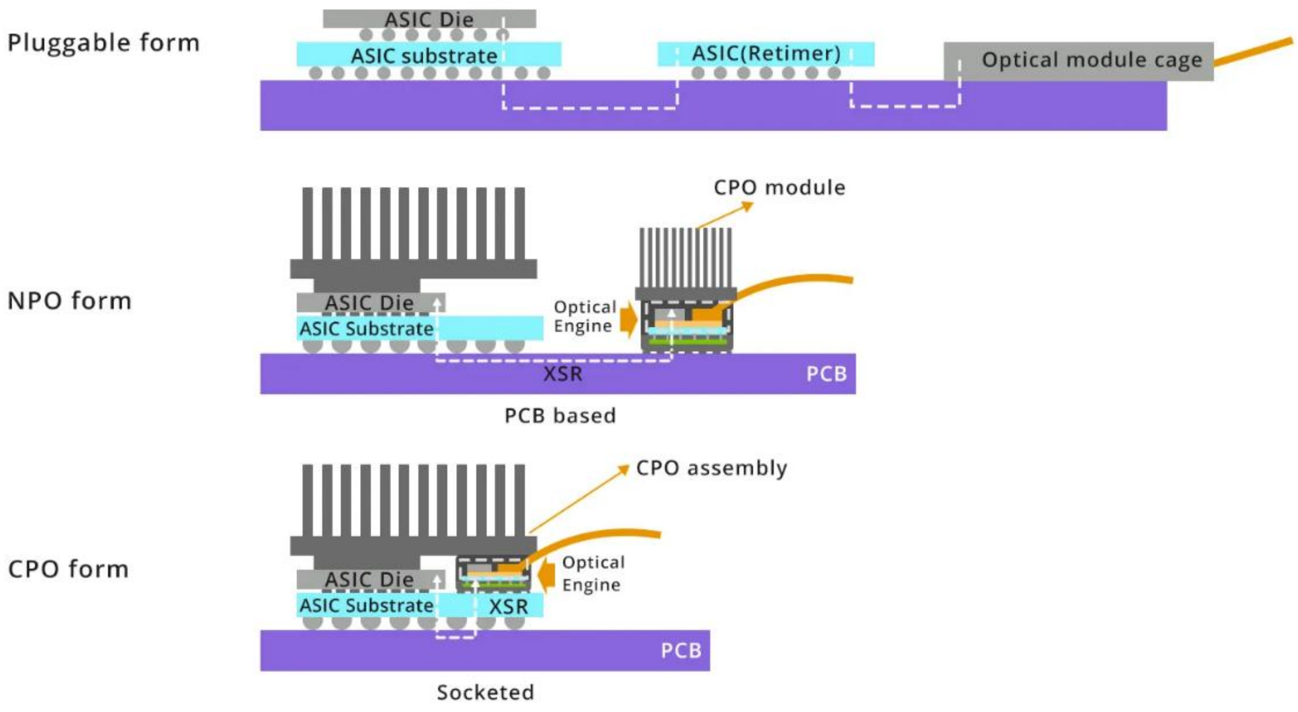
Exhibit 6: Hareware Implementation of the All-Optical PCIe/CXL Interconnect



Source: APE, Global Foundries, Kenanga Research

CPO's Ramp Likely to Be More Meaningful in 2028… On transceiver roadmaps, pluggable optics (see Exhibit 7) remain the mainstream due to their maintainability and cost-efficiency, while silicon photonics is increasingly recognized as the next-gen platform for its integration advantages and scalability. As optical transceiver technology advances, the industry faced a challenge that has called for a temporary solution. CPO was the logical next step, integrating optical transceivers directly onto the ASIC to enhance performance and reduce power consumption. This year is expected to be the initial ramp-year for CPO; however, we believe a more meaningful ramp is likely to occur in 2028 and beyond, as the technology faces limitations in scalability and flexibility. To address these challenges, we learned about a new innovation at the expo called Near-Pack Optics (NPO), introduced as an interim solution. NPO seeks to provide similar power and performance benefits by positioning optical transceivers closer to the switch ASIC, reducing electrical trace length and improving signal quality. The key difference between NPO and CPO lies in design: NPO retains a pluggable optical engine, whereas CPO directly integrates optics onto the ASIC, which can make the system more rigid and harder to replace in case of failure.

Exhibit 7: Transceiver Roadmap



Source: LINK-PP, Kenanga Research

…hence, pluggable optics are here to stay longer. Our engagement with experts at the expo revealed that end-users remain cautious about adopting CPO technology. Their primary concern is that if an optical component fails, the entire module may need to be replaced, as the optics are directly mounted onto the ASIC. This design limitation means that if the optics fail, they cannot be replaced independently, which could result in significant costs and disruptions to operations. This hesitation has allowed pluggable optics to maintain its market dominance, offering the necessary flexibility and reliability while enabling continued industry progress. Until CPO can meet the stringent demands of hyperscalers, we expect pluggable transceivers to remain the preferred solution for the foreseeable future.

Manufacturability and the shift in investment focus naturally shifts the "profit pool debate" towards manufacturability. As integrated photonics and packaging-led architectures progress, recurring chokepoints are fibre attach and alignment precision (coupling efficiency and yield sensitivity), thermal management, reliability qualification, and optical test methodologies and throughput (often time-consuming and a line-rate limiter). The investment opportunity therefore widens beyond traditional optical component suppliers to the enabling ecosystem: advanced packaging processes and equipment, passive/active alignment solutions, automated optical test, high-precision assembly, and design-for-test methodologies—areas where improvements directly translate into better yields, faster ramps and more predictable unit economics. Separately, sensing and wearables (including smart-glasses-related modules) remain a parallel theme, reinforcing that photonics demand is broadening beyond communications, but we still see AI networking optics as the nearer-term driver of material capex and volume scaling.

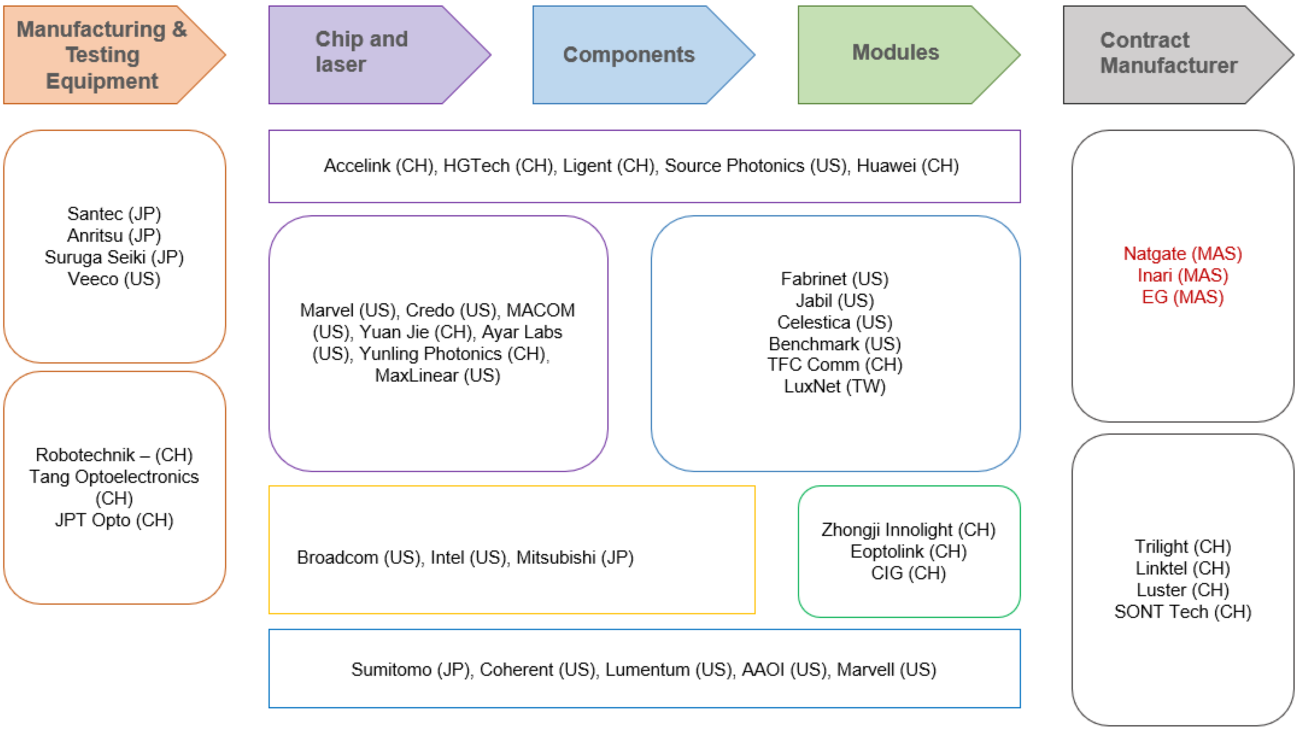
China+1" Strategy Drives Selective Supply Chain Shifts. From a supply-chain footprint perspective, "China+1" appears real but selective, with incremental rebalancing into SEA (notably Thailand and Malaysia) rather than wholesale relocation. In practice, we continue to see a consistent pattern where selected sub-assemblies migrate first, followed by integration/support ecosystems (instrument distributors, service/maintenance and reliability screening capability), while upstream displacement moves more slowly given ecosystem sluggishness and qualification burdens. This matters because it implies that near-term winners are likely those closest to the manufacturing bottlenecks—test, reliability, precision assembly and automation—rather than commoditised assembly alone.

Broader Read-through to Malaysia's Tech Space

For Malaysia, photonics is becoming more "OSAT-like," with value increasingly tied to high-precision assembly, reliability qualification, and test throughput, rather than component performance alone. If more of the optical module ecosystem continues to outsource assembly and test in stages, Malaysia's OSATs could participate in incremental capacity and capability build-out, particularly where customers prioritise quality systems, yield discipline, traceability and reliability screening. The key factors to monitor are whether photonics packaging flows become repeatable enough to outsource at scale (vs. remaining bespoke/high-touch) and whether module owners are willing to qualify SEA partners for higher-complexity steps (fibre attach/alignment, advanced packaging and optical test). Assuming a 10% OSAT share of the datacom market forecast by Lightcounting, the opportunity is projected to grow from USD1.7b in 2025 to USD4.6b in 2030, representing a CAGR of 22%.

For automation, players are directionally leveraged to the industry's pain points that are increasingly automation-able—micro-alignment, vision/AOI, handling/logistics around burn-in and test integration—supporting a constructive medium-term setup for integrators that can deliver end-to-end cells (such as motion + vision + handling + test + traceability). Finally, the AI networking theme is supportive for Malaysia's broader AI infrastructure adjacency and we expect value capture to skew towards bottlenecks (packaging/test/automation) unless specific customers migrate higher-value scope into Malaysia.

Exhibit 8: Optical Transceiver Value Chain



Source: Kenanga Research

Malaysia's Growing Role in Optical Transceiver Manufacturing

Exhibit 9: Optoelectronic/ Networking Revenue Breakdown (FY25 & FY26F)

Company	FY25 Revenue (RM)	% revenue	FY26 Revenue (RM)	% revenue
NATGATE	500m	7%	570m	10%
Inari	392m	29%	406m	33%
EG	~630m	~45%	N/A	N/A

Source: Company Report, Kenanga Research

Within the optical value chain, Malaysia's involvement is primarily in contract manufacturing, particularly the final assembly and box build of optical transceivers. The extended lifespan of pluggable optics is expected to benefit local players in the EMS space. For example, NATIONGATE (NATGATE), which serves a U.S.-based vertically-integrated optics customer, is actively working on qualifications with two major U.S. optical component suppliers, positioning itself to capture this growing demand. We observed strong ramp-up and demand from vendors, as seen in the high volume of tester orders received. Additionally, at least three vendors serving a U.S.-based vertically-integrated optics company from China have moved operations to Malaysia, likely to take advantage of the ongoing shift out of China.

For INARI, the group plays a significant role in the final assembly of optical modules, integrating sub-assemblies such as laser diodes, photodiodes, and drivers into fiber receiver form factors. These completed modules are then shipped back to the component suppliers for further integration or sale. Meanwhile, some of the higher-value processes are being done in-house in Thailand by their customers. EG's exposure to transceivers comes through its work with China-based CIG, an approved vendor for major global tech companies. Currently, EG handles PCBA and box build assembly for 400-800G optical transceivers, and while they're also exploring CPO products, we believe this will have limited impact as CPO technology is still in its early stages.

Malaysian Technology Peers Comparison

Name	Rating	Last Price @ 9 Mar (RM)	Target Price (RM)	Upside	Mkt Cap (RM m)	Shariah Compliant	Current FYE	Core EPS (sen)		Core EPS Growth		PER (x) – Core Earnings		PBV (x)	ROE	Net. Div. (sen)	Net. Div. Yld
								1-Yr. Fwd.	2-Yr. Fwd.	1-Yr. Fwd.	2-Yr. Fwd.	1-Yr. Fwd.	2-Yr. Fwd.	1-Yr. Fwd.	1-Yr. Fwd.	1-Yr. Fwd.	1-Yr. Fwd.
D&O GREEN TECHNOLOGIES BHD	MP	0.445	0.470	5.6%	551.6	Y	12/2026	2.1	2.3	132.7%	39.9%	21.0	19.5	0.8	3.8%	1.0	2.2%
INARI AMERTRON BHD	OP	1.21	2.05	69.4%	4,604.2	Y	06/2026	5.7	7.5	-14.6%	30.6%	21.1	16.1	1.6	7.2%	5.0	4.1%
KELINGTON GROUP BHD	OP	4.76	6.15	29.2%	3,742.8	Y	12/2026	20.5	21.9	23.4%	6.8%	23.2	21.8	5.3	26.1%	13.0	2.7%
LGMS BHD	OP	0.490	0.580	18.4%	223.4	Y	12/2026	2.9	3.6	30.4%	21.8%	16.8	13.8	1.7	10.5%	2.0	4.1%
MALAYSIAN PACIFIC INDUSTRIES	MP	29.04	35.30	21.6%	5,790.5	Y	06/2026	104.4	120.3	35.2%	15.2%	27.8	24.1	2.6	9.7%	35.0	1.2%
NATIONGATE HOLDINGS BHD	MP	0.580	0.850	46.6%	1,312.3	Y	12/2026	4.7	5.7	7.8%	21.1%	12.3	10.2	1.2	10.2%	2.0	3.4%
OPPSTAR BHD	MP	0.235	0.280	19.1%	150.7	Y	03/2026	(1.6)	1.0	-184.7%	-40.0%	N.A.	23.9	1.2	-8.0%	0.0	0.0%
PIE INDUSTRIAL BHD	MP	1.24	1.40	12.9%	476.2	Y	12/2026	8.1	8.8	37.6%	8.0%	15.3	14.2	0.7	4.8%	0.0	0.0%
SKP RESOURCES BHD	MP	0.425	0.530	24.7%	664.0	Y	03/2026	5.7	4.4	-24.4%	-22.5%	7.5	9.7	0.6	8.0%	0.0	0.0%
UNISEM (M) BHD	UP	2.64	2.22	-15.9%	4,258.5	Y	12/2026	7.6	9.2	94.1%	21.8%	34.9	28.6	2.0	5.8%	6.0	2.3%
UWC BHD	OP	3.95	4.38	10.9%	4,357.4	Y	07/2026	10.0	13.9	172.6%	38.8%	39.4	28.4	7.3	22.6%	0.0	0.0%
PENTAMASTER CORP BHD	OP	3.18	4.25	33.6%	2,262.0	Y	12/2026	12.1	13.1	39.0%	8.1%	26.2	24.3	2.6	10.4%	2.0	0.6%
INFOMINA BHD	OP	1.08	1.90	75.9%	649.4	Y	05/2026	5.6	7.6	60.7%	34.8%	19.2	14.2	3.3	18.3%	1.0	0.9%
SECTOR AGGREGATE					**29,043.0**					**22.7%**	**19.2%**	**23.8**	**20.0**	**2.4**	**10.0%**		**1.7%**

Source: Kenanga Research

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Stock Ratings are defined as follows:

Stock Recommendations

OUTPERFORM	: A particular stock's Expected Total Return is MORE than 10%
MARKET PERFORM	: A particular stock's Expected Total Return is WITHIN the range of -5% to 10%
UNDERPERFORM	: A particular stock's Expected Total Return is LESS than -5%

Sector Recommendations***

OVERWEIGHT	: A particular sector's Expected Total Return is MORE than 10%
NEUTRAL	: A particular sector's Expected Total Return is WITHIN the range of -5% to 10%
UNDERWEIGHT	: A particular sector's Expected Total Return is LESS than -5%

*******Sector recommendations are defined based on market capitalisation weighted average expected total return for stocks under our coverage.***

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KENANGA INVESTMENT BANK BERHAD (15678-H)
Level 17, Kenanga Tower, 237, Jalan Tun Razak, 50400 Kuala Lumpur, Malaysia
Telephone: (603) 2172 0880 Website: www.kenanga.com.my E-mail: research@kenanga.com.my