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Greater China Technology Hardware | Asia Pacific

2026 OCP Global Summit Takeaways

CPO/NPO and micro VCSEL based optical solutions are the focus for networking, while HVDC takes center stage for power.

Higher bandwidth and better power efficiency: In the networking space, the migration into higher bandwidth continues, as players like Accton and Celestica showcased their 1.6T network switches. We think a bigger theme is the effort to improve the power efficiency of current mainstream pluggable optical solutions. First off, one well-discussed approach is the adoption CPO or NPO, and it seems the latter is gaining more attention due to the technical challenges in the former. Spec standardization, such as CPX connectors, could further accelerate the proliferation, in our view. Secondly, copper could still help, as Credo has its 1.6T AEC cables for inter-tray transmission while many other vendors (Amphenol, TE Connectivity, Molex, etc.) have their 448G CPC solutions for in-tray transmission. Lastly, the micro VCSEL based optical modules from Credo and ALAB represent another power efficient solution (12W/end at 1,6T), which has reliability comparable to copper (100M hours of MTBF/MTBI) for a transmission distance of 50-100m. We believe this micro VCSEL based solution could potentially replace the AEC for shorter distance transmission when copper hits the physical limit in the medium term and be integrated with the CPO architecture in the longer term. In sum, we believe the above-mentioned solutions are likely to co-exist for different use cases.

800VDC for power delivery taking the center stage: While the Vera Rubin NVL72 rack already has the in-rack power shelf reference design (110KW/shelf at 3+1 redundancy), Nvidia unveiled another reference design this time, using one 660KW 800VDC power rack to support two Vera Rubin NVL72 racks. Moreover, we also saw a few ±400VDC reference designs as well. Our conversations with companies on the exhibition floor indicate that the HVDC adoption should start from late 2026, but likely at a small scale extending into 2027. The next checkpoint will be Vera Rubin Ultra racks, where increasing power consumption and more hardware devices for inter-rack scale-up network might take up more pace on the rack, though the liquid cooled power shelf should ease the space budget a bit. We believe both solutions are progressing and will closely monitor the dynamics.

Stock picks: We believe that **Bizlink (3665.TW)** should be a beneficiary of the proliferation of the micro VCSEL based optical solution, as it is the assembly partner for Credo and potentially others as well. **Chroma (2360.TW)** should see drivers from power testing, CPU/GPU/TPU SLT/FT, and photonics testing (pluggable/CPO)tools. **Delta((2308.TW)** and **Lite-On (2301.TW)** should continue to grow with the increasing power consumption of AI clusters, but more meaningful growth upside probably will depend on the penetration of HVDC power racks.

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Industry View **In-Line**

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2026 OCP Global Summit

Networking dealing with higher bandwidth and better power efficiency

1.6T network switch and 1.6T transceiver/AEC

CPO remains one of the focus in the networking space during the OCP Global Summit. Edgecore and Celestica showcased its 1.6T network switches based on Tomahawk 6 ASIC, both for the regular model and the CPO model. Moreover, Edgecore also had its OCS switch model in the booth, which is based on its own LCOS technology. These demonstrate that both have the capability to accommodate the customer demand for network switches based on the optical architecture in the future.

On the cable side, Credo showcased its 1.6T AEC, but did not comment on the roadmap of its 3.2T AEC. Our checks in the exhibition with industry players indicate that the 3.2T AEC might be a very challenging project, though efforts are still in place.

Exhibit 1: Edgecore - 1.6T liquid cooled network switch

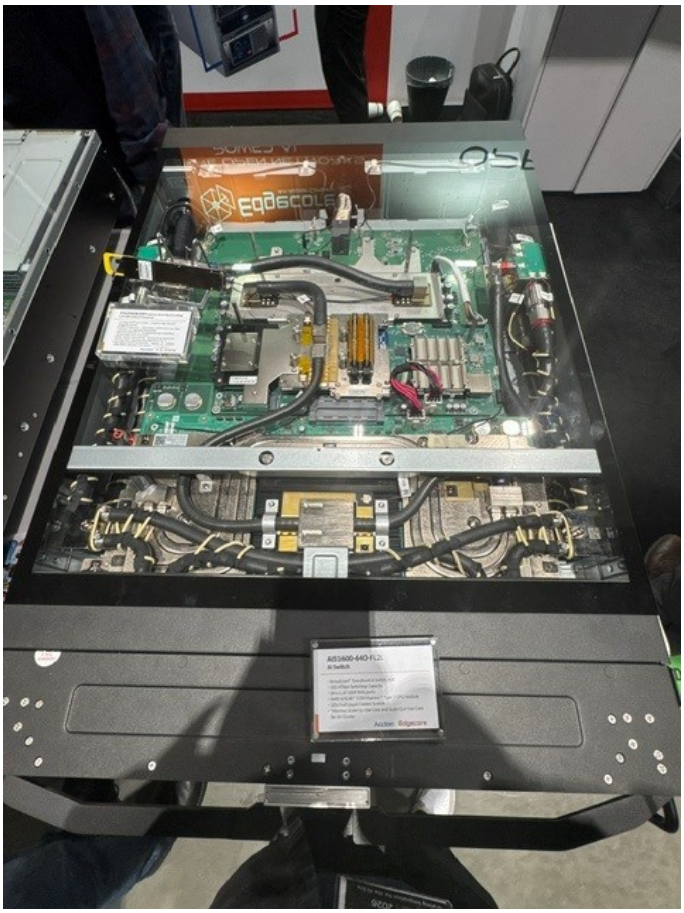


Exhibit 2: Edgecore - 1.6T liquid cooled switch spec



Exhibit 3: Credo - 1.6T AEC

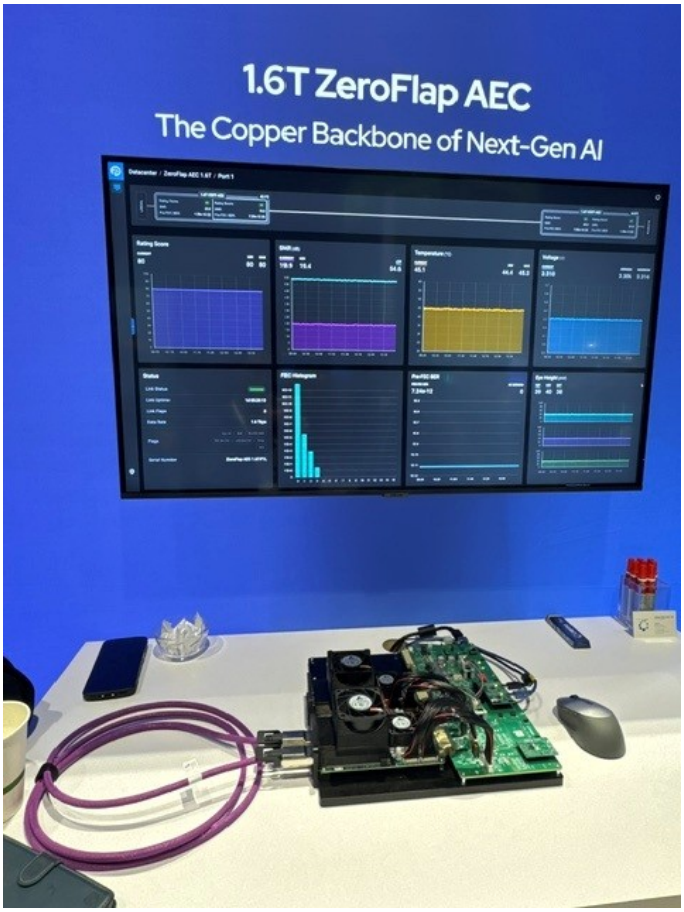
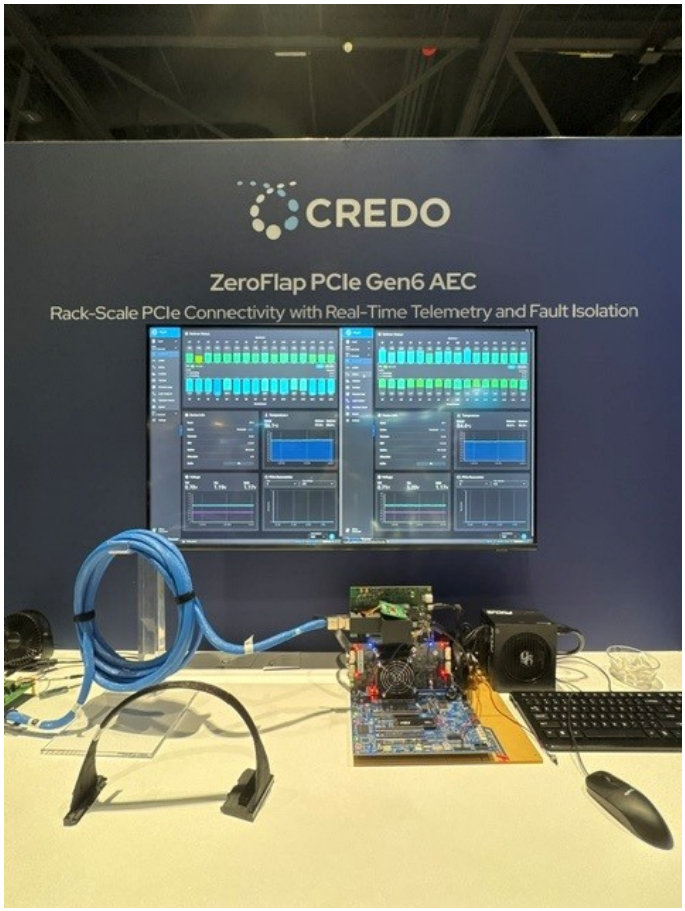


Exhibit 4: Credo - PCIE Gen 6 AEC

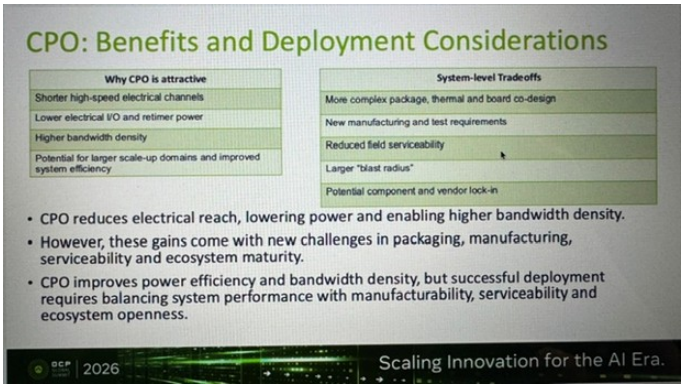


CPX and NPX all marching forward

Though CPO remains as the holy grail in the space, its yield issue and lower serviceability still present challenges to the wider adoption in the near term. We believe that the efforts will continue, but the industry is simultaneously pursuing other more practical solutions to sort out the power consumption issue of the existing pluggable transceivers, including NPO (near-packaged optics), CPC (co-packaged copper) and NPC (near-packaged copper)

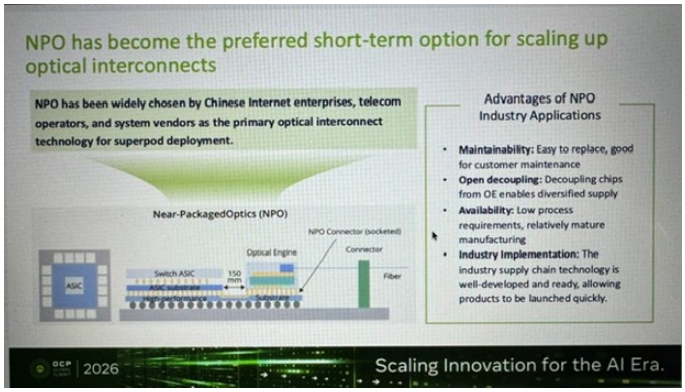
Compared to CPO, NPO compromises on the power consumption, but in exchange it eases the stringent requirement on alignment and serviceability. Given its better technology readiness and more mature supply chain, we think it might see good traction in the coming years.

Exhibit 5: CPO - pros and cons



Source: Nvidia

Exhibit 6: NPO - advantages



Source: Huawei

CPC is also becoming a popular design in the networking space. While the 448G server copper lane is limited to less than 1m of effective transmission distance, it still fits well into the use case of intra tray interconnects. We have seen many suppliers showcase the adoption of CPC for between the front panel and chip.

Exhibit 7: Molex- CPC

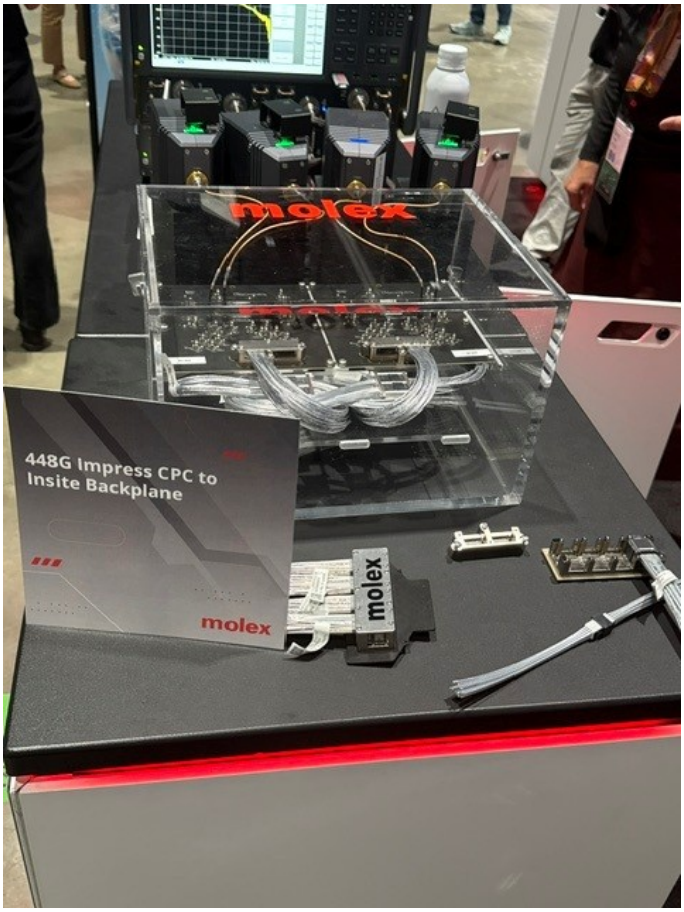


Exhibit 8: TE Connectivity - CPC



Besides, the initiative at Open CPX MSA is aiming at standardizing the connectors that could enable a pluggable architecture for CPO/CPC, though we think the structure looks

more like NPO/NPC.

Samtec's SI-FLY and Ciena's Vesta are both manufactured based on the CPX spec. moreover, Alpha Networks had a switch based on this CPX enabled pluggable optical modules

We believe this could further improve the serviceability of the NPO/NPC.

Exhibit 9: Samtec - SI-FLY CPX



Exhibit 10: Ciena - Vesta CPX

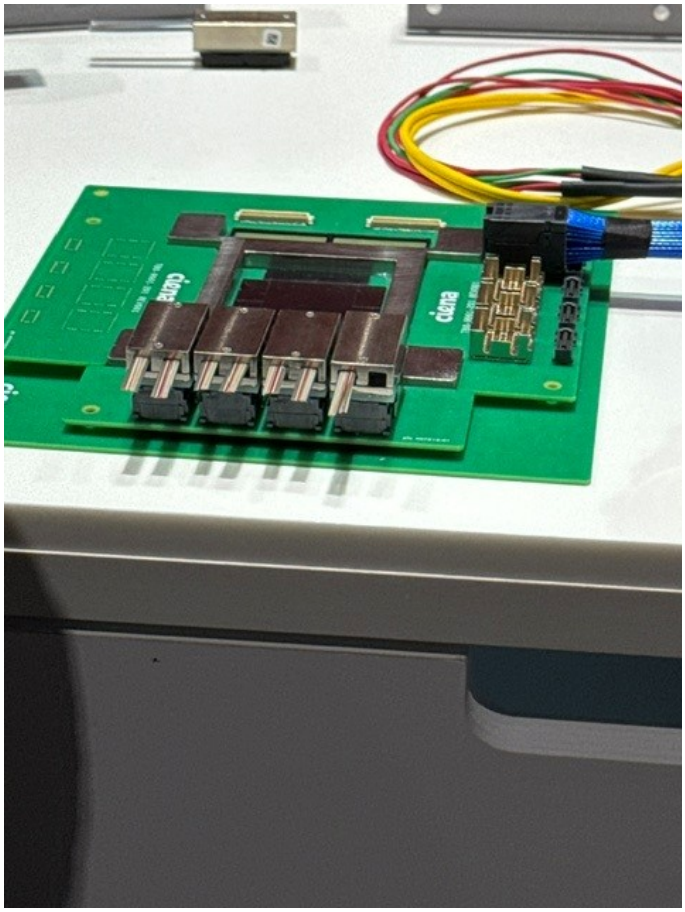


Exhibit 11: Alpha Networks - CPX in network switch



VCSEL based optical solutions gaining more attention

In addition to CPO/NPO/CPC/NPC designs, we see the micro VCSEL based optical solutions are gaining more attention too. The value proposition is to leverage the wide and slow architecture for a relatively short transmission distance of 50-100m. It can achieve 1-2 pJ/bit of power consumption vs. 5-10pJ/bit for CPO and NPO architecture. The current generation can enable 32Gbps of bandwidth per lane and the 100-200Gbps of bandwidth per lane is in the roadmap.

Exhibit 12: ALAB - PCIE over VCSEL NPO

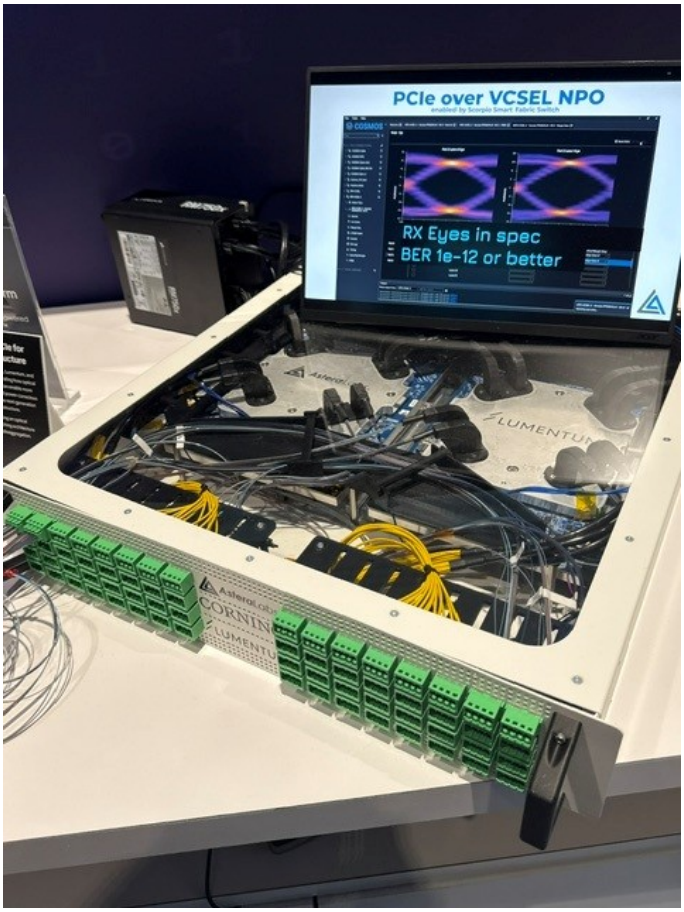


Exhibit 13: ALAB - PCIE over VCSEL NPO



Credo is among one of the most aggressive promoters of this emerging architecture. It has been talking about its ALC cable for mor ethan one year, and this time we saw more concrete specs of its 1.6T ZeroFlap ALC, which comes in at the power consumption of 12W/end to support 50m of transmission distance with the copper level reliability (100m hours of MTBF/MTBI)

Exhibit 14: Credo - ALC cable

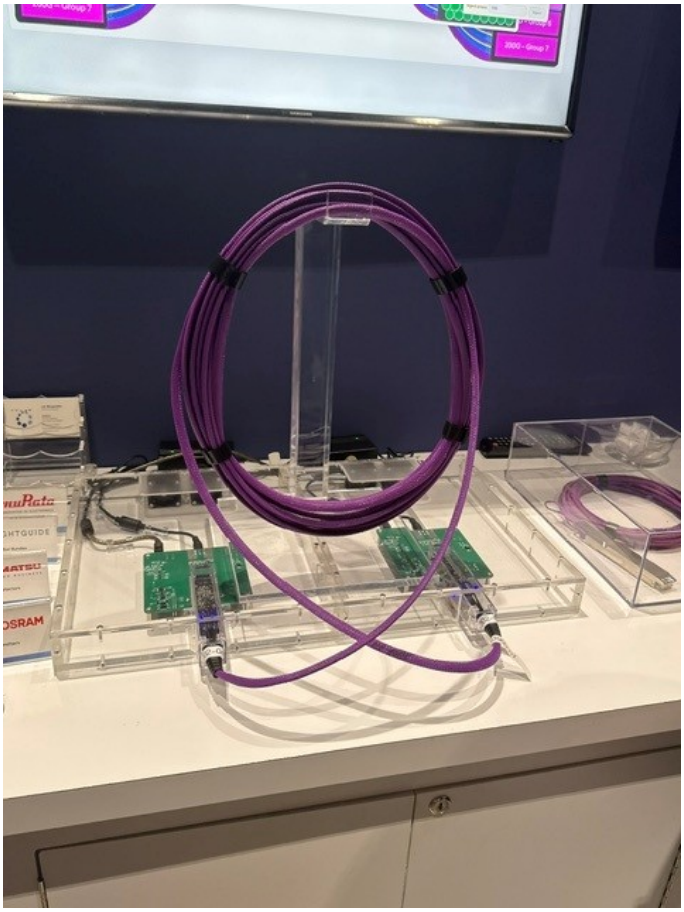
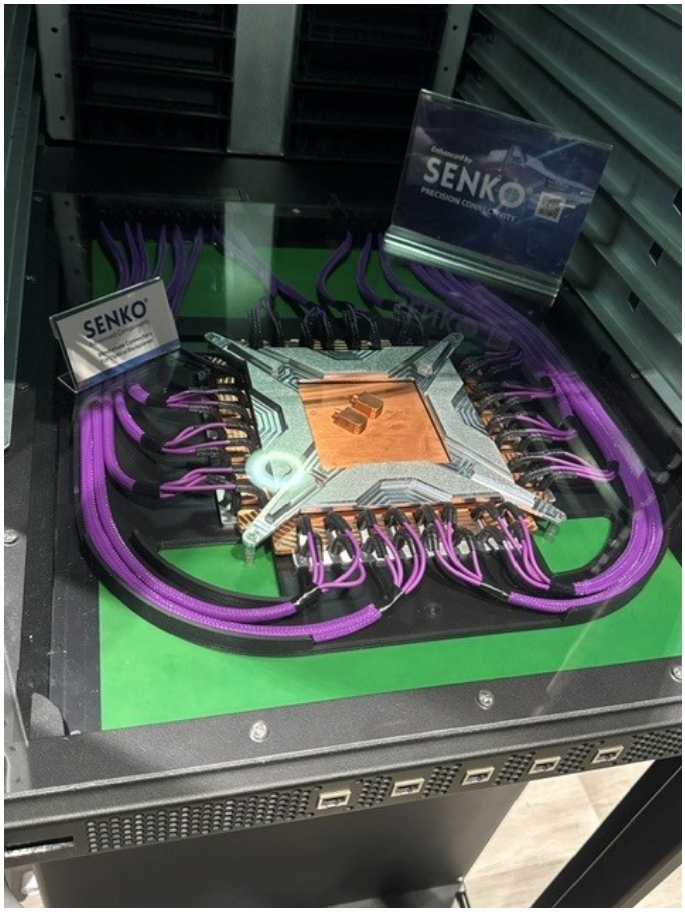


Exhibit 15: Credo - ALC in NPO configuration



Bizlink is another active player in the micro VCSEL optical module space. It has been partnering with Credo for many years in the AEC cable assembly and we believe that it will also collaborate with Credo on its ALC cable. Back in late September 2026, Bizlink had announced to partner with ams-OSRAM on the micro VCSEL based optical module (see the report). Longer term, we believe that these initiatives, along with the shuffle box and FA alignment process, should help its diversify its data interconnect exposure more into the optical space, vs. current concentration on copper.

Exhibit 16: Bizlink - shuffle box

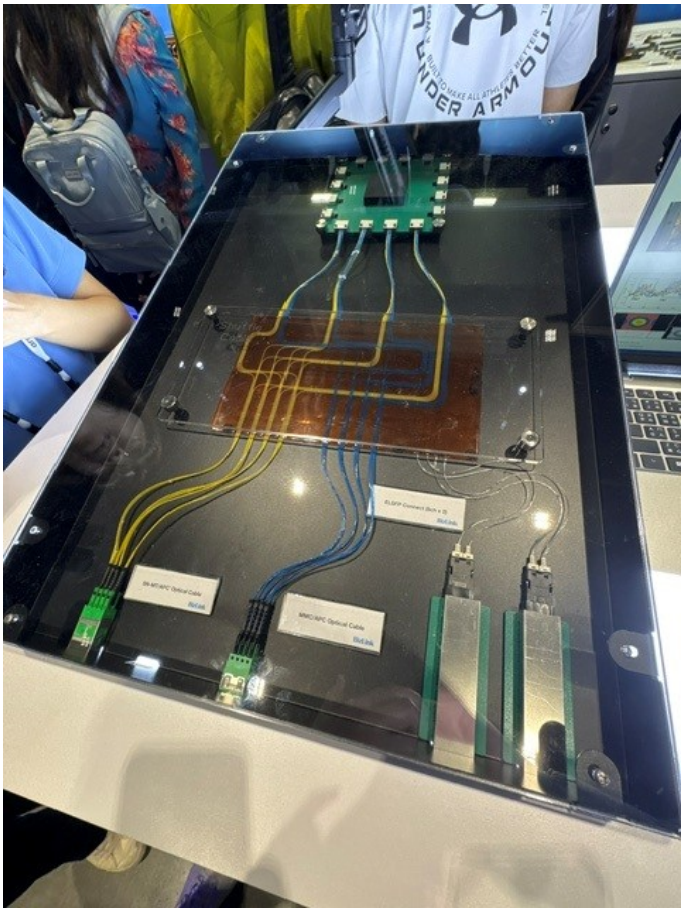
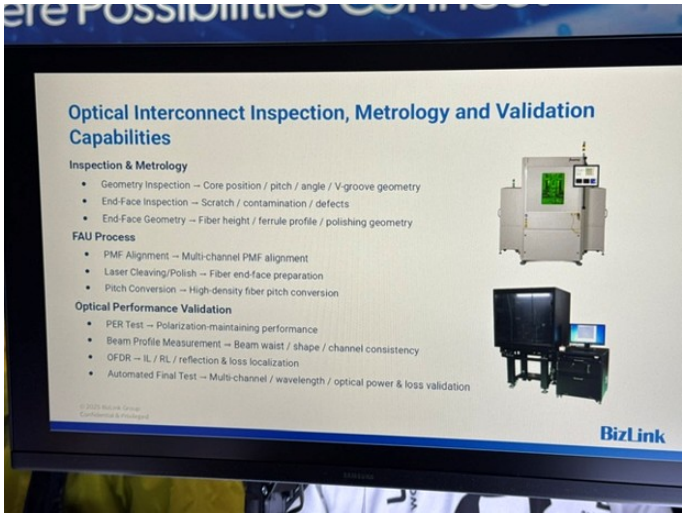


Exhibit 17: Bizlink - FAU alignment and validation



Source: Bizlink

In sum, different solutions of data transmission are emerging, trying to improve the power consumption of the currently mainstream pluggable transceivers. We believe that these solutions will probably co exist for a while, as different use case could need different combination of cost and benefits.

Power becoming another bottleneck in the AI deployment

HVDC adoption emerging from Vera Rubin

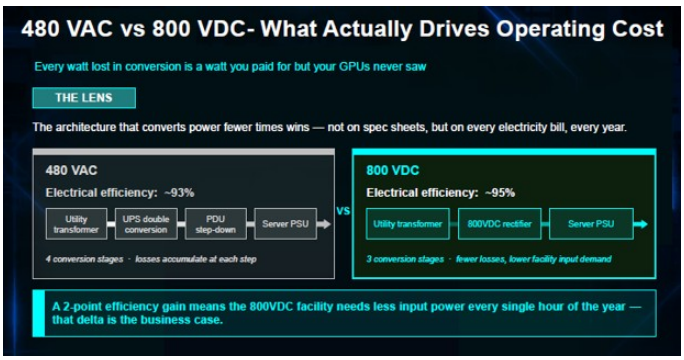
In the power space, HVDC has been one of the key focuses in the AI cluster, as the rapid increase in AI rack power density is creating growing challenges for conventional power-distribution architectures. As rack-level power consumption rising from tens of kilowatts to several hundreds of KWs, electrical losses, cable size, thermal management requirements, and overall system complexity increase significantly. Under traditional low-voltage power architectures, delivering larger amounts of power requires proportionally higher current, which increases resistive losses and places greater stress on cables, connectors, busbars, and power-conversion equipment.

At the same time, every power-conversion stage introduces efficiency losses and generates additional heat. As AI deployments scale into multi-megawatt and eventually gigawatt-level campuses, even small efficiency improvements can translate into

meaningful reductions in operating costs, cooling requirements, and infrastructure investment. Consequently, the industry is increasingly focused on power architectures that can reduce conversion stages, lower current levels, and improve overall power-delivery efficiency.

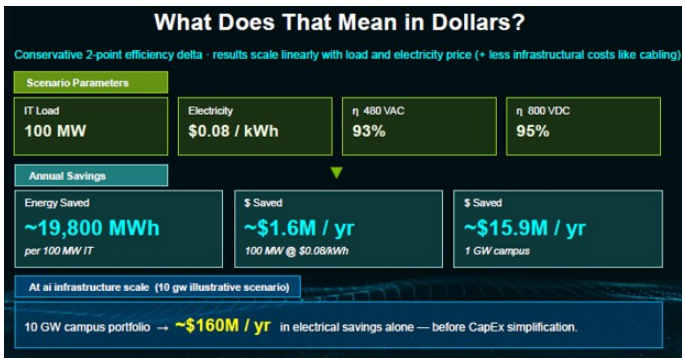
Against this backdrop, high-voltage direct current (HVDC) is emerging as one of the most important architectural upgrades for next-generation AI infrastructure. By increasing distribution voltage, HVDC allows the same amount of power to be delivered at a lower current, reducing conduction losses and improving system efficiency. Higher-voltage architectures also improve scalability for ultra-high-density rack deployments by alleviating some of the physical and thermal constraints associated with conventional power-distribution systems.

Exhibit 18: Better power efficiency for 800VDC architecture



Source: Delta

Exhibit 19: Better efficiency leads to cost savings



Source: Delta

In a joint keynote speech by Delta and Nvidia, the roadmap illustrates the industry's gradual migration toward higher-voltage power architectures. Earlier AI server generations primarily utilized conventional power-delivery schemes centered around rack-level 48V distribution. As rack power requirements increased with Blackwell-generation systems, industry participants began evaluating higher-voltage architectures capable of supporting substantially greater power density. Looking ahead, the industry is increasingly converging around 800VDC as a potential next-generation standard for large-scale AI deployments, particularly as rack-level power consumption approaches several hundred kilowatts. The transition reflects the need to improve power-distribution efficiency while supporting the continued growth of AI computing infrastructure.

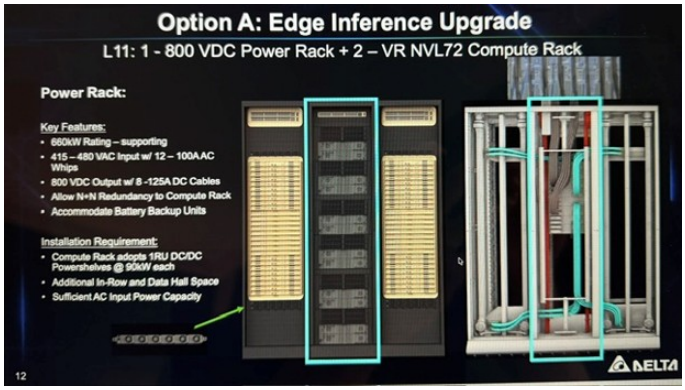
Though we also saw the 800VDC power rack reference design for the Vera Rubin rack in a 1-to-2 configuration (one 660KW power rack supporting two Vera Rubin racks), we think the adoption of this solution might be relatively low, since the Vera Rubin rack also has a reference design for the in-rack power shelf design

Exhibit 20: 800VDC roadmap



Source: Delta

Exhibit 21: 800VDC reference design for VR

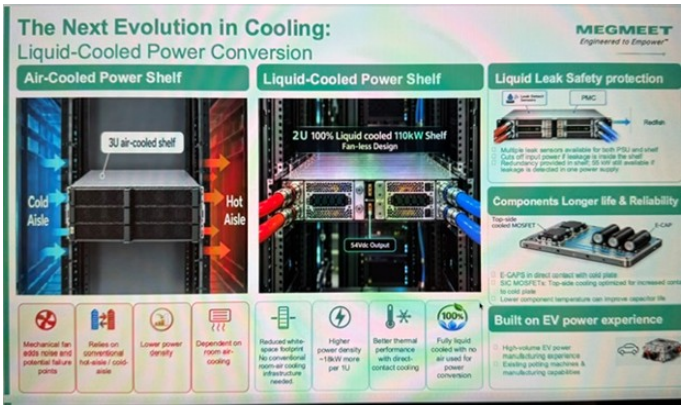


Source: Delta

Liquid cooled power shelf on the horizon

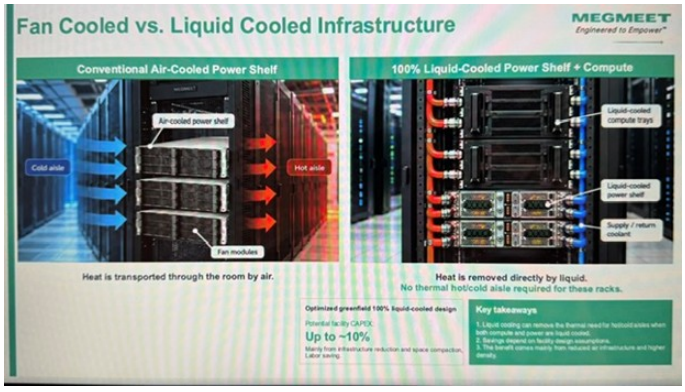
The next key check point to watch should be the Vera Rubin Ultra generation, as the power consumption per rack shall continue to increase and there might be more hardware devices to enable the inter-rack scale up network, both could take up more space on the IT rack. That said, the power shelf will shift from air cooling into liquid cooling, which could narrow the power shelf height by 1U to free up some space as well. Our checks indicate that both the in-rack power shelf and 800VDC power rack solutions are ongoing now, and we believe that rack space, power redundancy and system reliability are all the factors being considered. We'll closely monitor developments on this front.

Exhibit 22: Liquid cooled power shelf



Source: Megmeet

Exhibit 23: Liquid cooled power shelf in rack



Source: Megmeet

Solid state transformers on the Nvidia RVL for the first time

In the MGX ecosystem board, where Nvidia usually list the recommenced vendor lists and product samples, we saw SST this time. Delta, Heron. DG Matrax, Sungrow, Solaredge, Megmeet, Luxshare, etc.

Exhibit 24: SST vendors on the Nvidia MGX ecosystem board

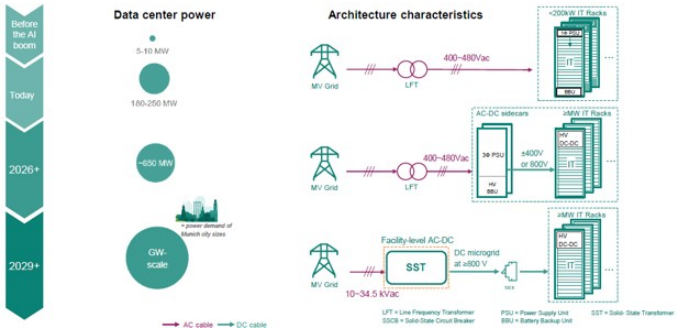


Looking further ahead, Solid-State Transformers (SSTs) represent a potential next-generation evolution of power infrastructure. Unlike traditional transformers that operate primarily as passive devices, SSTs leverage power electronics to provide voltage conversion, power conditioning, and bidirectional energy management within a single platform. This enables greater controllability and flexibility while supporting increasingly digitalized power networks.

Although SSTs remain at an early stage of commercialization and face challenges related to economics, reliability, and large-scale deployment, the technology aligns well with long-term data center trends. As AI campuses evolve into utility-scale power consumers incorporating energy storage, distributed generation, and advanced power management, SSTs could eventually become a key enabling technology.

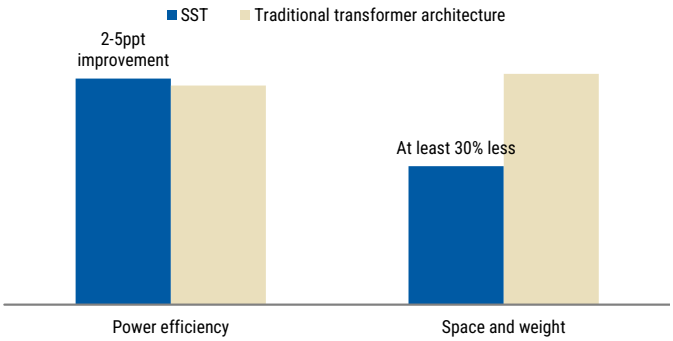
Therefore, while HVDC is expected to drive the next phase of power architecture upgrades, SSTs represent a longer-term technology roadmap that could further transform how future data centers distribute and manage electricity.

Exhibit 25: SST enabling more efficient power delivery architecture



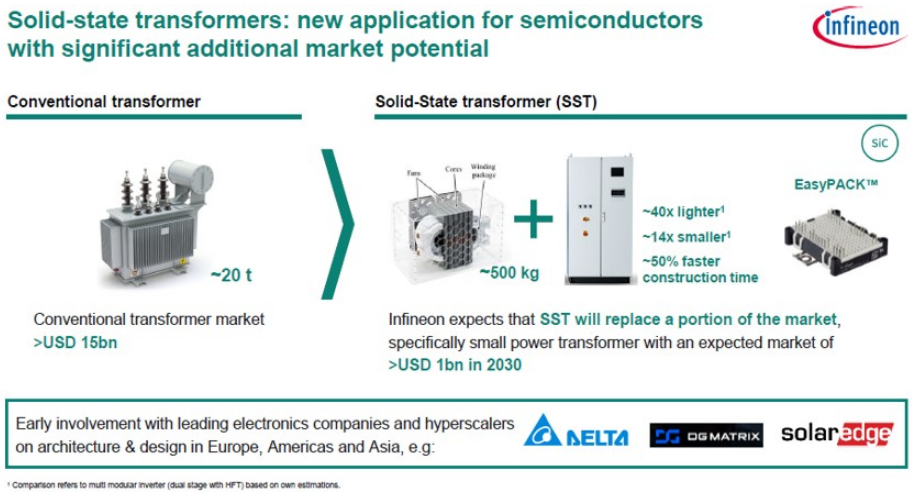
Source: Infineon

Exhibit 26: SST offers better power efficiency with at least 30% less space/weight



According to Infineon, SST could represent an emerging >$1bn market opportunity by 2030, as the technology begins to replace a portion of the >$15bn conventional transformer market, particularly in smaller-power applications. While SST penetration is expected to remain relatively modest versus the overall transformer market, the opportunity is significant for relevant players in the longer term.

Exhibit 27: SST to see initial adoption in 2030



Source: Infineon

Valuation Methodology and Risks

Lite-On Technology (2301.TW)

Base case: P/E multiple of 17x based on average 2027-28 EPS. We believe our target multiple is justified by the 47% earnings CAGR we estimate for 2025-28, implying a PEG of 0.4, versus the stock's 16x P/E and 2% earnings CAGR during 2022-25, which implied a PEG of 7.2.

Risks to Upside

- Stronger optical business growth
- Stronger data center/server demand
- PC/NB demand growth
- Downtrend in raw material prices

Risks to Downside

- Macro demand weakness
- Weaker data center/server demand
- PC/NB demand slowdown
- Uptrend in raw material prices

Delta Electronics Inc. (2308.TW)

Base case: P/E multiple of 30x based on average 2027-28 EPS. We believe our target multiple is justified by the 63% earnings CAGR we estimate for 2025-28, implying a PEG of 0.5, versus the stock's ~23x P/E and 23% earnings CAGR during 2022-25, which implied a PEG of 1.0.

Risks to Upside

- Faster-than-expected global economic growth
- Falling raw material prices
- Margin improvement

Risks to Downside

- Global economic slowdown
- Ongoing component supply tightness
- Rising raw material prices
- Margin contraction as a result of higher operating expenses or faster ASP erosion

Chroma Ate Inc. (2360.TW)

Base case, 45x 2027e P/E. We use P/E as our valuation methodology because we think it better captures Chroma's earnings growth momentum. The stock traded at an average valuation of ~19x P/E during 2014-25 with an operating profit CAGR of 20%, implying a PEG of 1.0. We think our target multiple of 45x is justified by the 61% operating profit CAGR we project for 2025-28.

Risks to Upside

- Better-than-expected macro conditions
- Stronger semi and photonics and power testing demand

- Margin improvement via better product mix
- Better opex control

Risks to Downside

- Macro slowdown
- Softer-than-expected AI capex
- Slower progress in the advanced packaging capacity expansion
- Weaker consumer electronics and automobile related demand
- Margin contraction arising from lack of revenue scale and increasing opex

Bizlink (3665.TW)

Base case, derived from 30x 2027e P/E. We think our target P/E multiple is justified by an earnings CAGR of 46% seen over 2025-28e, which implies a PEG of around 0.7. This is in line with the average of 0.7 in 2019-24, when the stock was trading at an average 13x P/E for a 19% earnings CAGR.

Risks to Upside

- Faster and wider AEC adoption
- Data center and semi equipment capex increases that drive stronger HPC and semi-cap business
- Stronger recovery for automotive business

Risks to Downside

- Lower-than-expected AEC adoption
- Intensifying competition
- Softer-than-expected AI capex
- Slower-than-expected growth in the semi capital equipment market
- Continued weakness in the auto industry

