



NEWS RELEASE

# Adtran sets intra-data center benchmark with all-new ultra-low-power LiteWave800™ LPO module

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News summary:

- AI clusters and GPU fabrics demand massive capacity, yet traditional 800G optics increase energy consumption, heat and cost burdens
- Adtran's LiteWave800™ introduces a new class of ultra-low-power, low-latency DR8 LPO modules built on a fully re-engineered design
- Breakthrough energy efficiency of 1pJ/bit enables greener, scalable intra-data center links for next-generation AI and cloud workloads

HUNTSVILLE, Ala.--(BUSINESS WIRE)-- Adtran today launched LiteWave800™, an ultra-low-power 800Gbit/s DR8 linear pluggable optics (LPO) module engineered to help data centers address the power, latency, thermal and bandwidth demands of modern AI and machine-learning (ML) workloads. As GPU clusters grow and short-reach links scale across dense server racks, operators need 800Gbit/s optics that deliver higher capacity within strict power and cooling limits. [LiteWave800™](#) answers this challenge with a fully re-engineered architecture that significantly reduces energy consumption. Operating at just 1pJ/bit and consuming only 0.8W, it establishes a new power class for 800Gbit/s optics, delivering far lower energy per bit than today's first-generation LPOs and mainstream DSP-based pluggable transceivers. Adtran will showcase LiteWave800™ at OFC 2026 in Los Angeles from March 17 to 19.

Adtran's LiteWave800™ sets a new benchmark for intra-data center connectivity. Operating at just 1pJ/bit, it creates an entirely new power class for 800G optics.

“Data center operators are hitting a wall on power and thermal budgets as AI workloads continue to

scale,” said Christoph Glingener, CTO of Adtran. “LiteWave800™ breaks through that barrier. It sets a new benchmark for 800Gbit/s optics by delivering dramatically improved energy efficiency, reducing the power and cooling envelope and giving operators a practical way to expand AI clusters without expanding their energy footprint. Instead of forcing data center operators to choose between performance and sustainability, LiteWave800™ enables both. It empowers our customers to build denser, lower-latency fabrics, unlock valuable thermal headroom and scale with confidence as AI demand accelerates, all while protecting their long-term infrastructure investments.”

Adtran's LiteWave800™ is engineered for the high-density, latency-sensitive links that underpin AI and ML fabrics. Its innovative LPO design combines single-mode VCSEL technology with Adtran's in-house low-power electronics and integration expertise to streamline the signal path, reduce latency and deliver exceptional energy-per-bit performance. By owning both the optics and the electronics, Adtran optimizes LiteWave800™

holistically at the module level, enabling efficiency gains that aren't possible with discrete component designs. LiteWave800™ supports the LPO MSA specification, based on a standardized 100Gbit/s-DR-LPO optical interface and OSFP form factor, ensuring broad compatibility with existing host devices and enabling integration across multi-vendor environments.

"As operators invest heavily in next-generation AI infrastructure, energy efficiency is becoming the dominant constraint," commented Ross Saunders, GM of optical engines at Adtran. "Simply adding bandwidth with DSP-based optics isn't sustainable at 800Gbit/s and beyond. Our new LiteWave800™ enables customers to scale performance without escalating energy costs or operational complexity. It builds on Adtran's proven optical expertise and vertical-integration innovation, ensuring consistent performance, link stability and reliability as AI environments grow. And with power dissipation approximately 12 to 18 times lower than DSP-based optics and 6 to 10 times lower than first-generation LPOs, LiteWave800™ raises the bar for efficiency in AI data-center fabrics. This will be key to enabling operators to expand capacity while keeping energy and cooling overheads firmly under control."

Further information on Adtran's LiteWave800™ can be found in these [slides](#).

### **About Adtran**

ADTRAN Holdings, Inc. (NASDAQ: ADTN and FSE: QH9) is the parent company of Adtran, Inc., a leading global provider of open, disaggregated networking and communications solutions that enable voice, data, video and internet communications across any network infrastructure. From the cloud edge to the subscriber edge, Adtran empowers communications service providers around the world to manage and scale services that connect people, places and things. Adtran solutions are used by service providers, private enterprises, government organizations and millions of individual users worldwide. ADTRAN Holdings, Inc. is also the majority shareholder of Adtran Networks SE, formerly ADVA Optical Networking SE. Find more at [Adtran](#), [LinkedIn](#) and [X](#).

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