

## FSP 3000 open optical line system and Coherent 100ZR+ pluggable transceiver showcased in OIF interoperability demonstrations at OFC 2025

At OFC 2025, Adtran is participating in demonstrations at the **OIF booth**, showcasing **800Gbit/s, 400Gbit/s and 100Gbit/s ZR/ZR+** transceiver interoperability over a disaggregated **Adtran FSP 3000 open optical line system (OLS)**. The demos also highlight the **Adtran Coherent 100ZR+ QSFP28** pluggable transceiver.

The Adtran FSP 3000 OLS configuration showcased in this demonstration belongs to the FSP 3000 family of open and scalable optical networking solutions. With a compact, modular architecture, a wide range of component options, and integrated monitoring and diagnostic functions, the FSP 3000 enables customized configurations that offer high-performance transport and a high level of automation and operational simplicity. Moreover, with open and standardized APIs, the FSP 3000 easily integrates into software-controlled networks.

The OLS configuration featured in this demonstration is designed to transport coherent interfaces over a 300km link with three spans and SMF-28 fibers. It supports the interfaces featured in this demo and can transport other coherent signals up to 1.6Tbit/s. The configuration, illustrated in Figure 1, includes:

- Two terminal nodes with high-resolution flexgrid and colorless ROADMs, plus pre- and booster optical amplification in a 2RU chassis
- Two bidirectional in-line amplifiers (ILAs) in a 1RU chassis

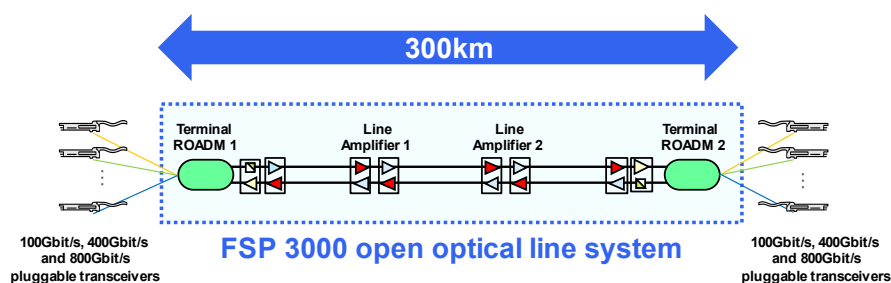


Figure 1: Multi-span Adtran FSP 3000 OLS configuration for OIF interop demos at OFC 2025

### FSP 3000 terminal ROADM

Equipped with a 12-degree WSS ROADM (RD-12RS) and a dual EDFA (AM-2S20L) providing pre- and booster amplification, OSC and optional XFP-based OTDR



FSP 3000 terminal ROADM in a 2RU chassis

### FSP 3000 ILA node

Equipped with two EDFA (AM-S23) providing bidirectional in-line amplification, OSC and optional XFP-based OTDR



FSP 3000 ILA node in a 1RU chassis

Key FSP 3000 components used in this demonstration:

- **RD-12RS** - a reconfigurable optical add-drop multiplexer (ROADM) that supports up to 13 degrees and provides 12 client ports for add/drop services in a dual-slot card
- **AM-2S20L** – a dual EDFA-type amplifier with auto-span equalization, optional XFP-based OTDR monitoring and an optical supervisory channel (OSC) in a single-slot card. The AM-2S20L dual amplifier is used in the terminal nodes for compact pre- and booster optical amplification
- **AM-S23** - an EDFA-type optical amplifier with auto-span equalization, optional XFP-based OTDR monitoring and optical supervisory channel (OSC) in a single-slot card. The AM-S23 EDFA can function as a pre-amplifier, booster or in-line amplifier and is used in the ILA nodes for inline amplification

The demonstrations at the OIF booth also showcase the **Adtran Coherent 100ZR+**. This coherent 100ZR+ QSFP28 pluggable transceiver delivers cost-effective, low-power 100Gbit/s transport (GbE and OTU4) over distances spanning up to 120km without amplification and up to 300km with optical amplification.

The Adtran Coherent 100ZR+ is host-agnostic and compatible with standard QSFP28 ports, supporting both SFF and CMIS management interface options. Offered in C- and I-temp variations, this coherent 100ZR+ QSFP28 transceiver meets a broad range of deployment options, including outdoor installations such as street cabinets. This demo showcases the C-temp, **CMIS-managed variation with 0dBm output power**.

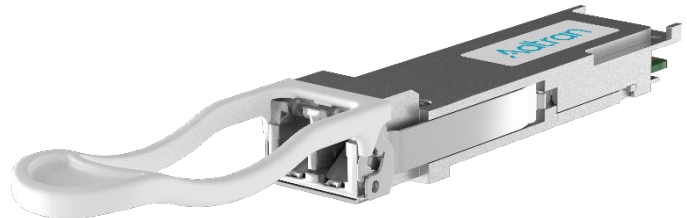


Figure 2: Coherent 100ZR+ QSFP28

### About Adtran

Adtran has the industry's most comprehensive fiber networking toolbox that empowers operators to build a converged infrastructure from the network core to the customer premises. The company's solutions serve a wide range of networking applications including residential, business, wholesale and mobile. In 2022, Adtran merged with ADVA. Learn more at [adtran.com](https://www.adtran.com).