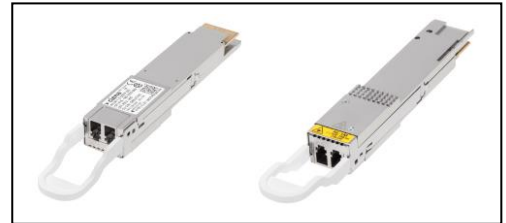
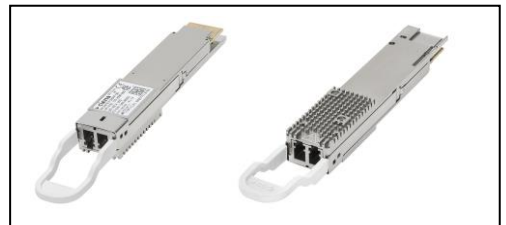


At **OFC 2024**, Ciena takes part in OIF's interoperability demonstrations in the following areas: 400ZR, 400ZR+, OpenROADM/ITU-T and Common Management Interface Specification (CMIS), supporting the demos with both 81xx Coherent Routers and WaveLogic™ 5 Nano 100G-400G Coherent Pluggable Transceivers.

**Ciena's WaveLogic 5 Nano 100G-400G Universal QSFP-DD** transceiver includes embedded amplification, enabling ease of deployment across a wide range of applications, over all types of photonic line systems. With support for both interoperable modes (400ZR, 400ZR+ and OpenROADM), as well as leading 70Gbd PKT-MAX and OTN-MAX performance-enhanced modes for extended reach-capacity in pluggable form, users have maximum flexibility with WL5n Universal QSFP-DD.



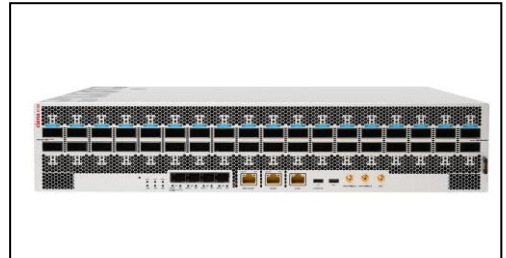
**Ciena's WaveLogic 5 Nano 100G-400G Enhanced QSFP-DD** supports interoperable transport such as 400ZR and 400ZR+ as well as Ciena high-performance PKT-MAX mode for extended 400G reach.



**Ciena's WaveLogic 5 Nano 100G-400G Standard CFP2-DCO** is a coherent pluggable transceiver that delivers space and power-efficient, interoperable 400 Gb/s for multiservice metro ROADM, as well as 100G/200G for legacy network modernization.

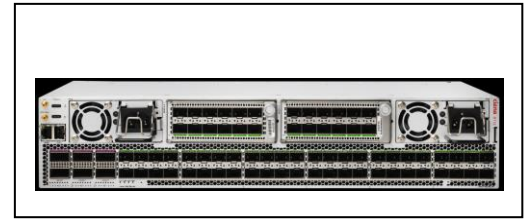


**Ciena 8190 Coherent Metro Router** is a dense 14.4Tb/s switching platform in a compact 2RU footprint with 36 x 400/200/100GbE ports. With dense 100/200/400GbE any-to-any port Wide Area Network (WAN) aggregation and the option of full fill WaveLogic 5 Nano (WL5n) 400ZR, 400ZR+ as well as enhanced performance modes for extended reach, the 8190 addresses the need for dense, any-to-any high-capacity routing and switching metro applications.



**400ZR, 400ZR+ and OpenROADM interoperability.** Ciena's 8190 Coherent Metro Router is hosting 8 different 3rd party 400ZR and 400ZR+ QSFP-DD transceivers in this demo. WL5n Standard QSFP-DD, housed in 3<sup>rd</sup> party router, is demonstrating 400ZR multi-vendor line interop. Both the WL5n Enhanced QSFP-DD (-10dBm Txout) and WL5n Universal QSFP-DD (+4dBm Txout) are demonstrating 400ZR+ line interoperability with 3<sup>rd</sup> party pluggables. Highlighting the flexibility of the product, WL5n Universal QSFP-DD is also used to demonstrate OpenROADM line interoperability in a compact QSFP-DD form factor with 3<sup>rd</sup> party vendor transceivers.

**Ciena's 8114 Coherent Aggregation Router** is purpose-built for 1/10/25/100GbE services and 100/200/400 Gb/s transport. As a 2.4 Tb/s, 2RU central aggregator and distribution point, it perfectly balances high-density 1/10/25GbE and 6x100GbE fixed ports—supporting 10G PON micro-Optical Line Terminal (uOLT) pluggables—and two 800 Gb/s Field-Replaceable Units (FRUs) modular ports. Each modular port can support Ethernet or coherent modules, including the option of 100, 200, and 400 Gb/s coherent pluggables (both QSFP-DD and CFP2-DCO form factors), in a compact, extended-temperature and energy-efficient form factor.



**CMIS:** Ciena and other OIF members are demonstrating how third-party hosts can provision optical modules from various vendors based on the module's advertised applications. The 8114 coherent router will show plug and play provisioning of 3<sup>rd</sup> party plugs for custom applications. WL5n 400G Enhanced QSFP-DD is demonstrating how it advertises standard interoperable modes in a third-party router using CMIS to enable plug-and-play provisioning.

## OFC 2024 Multi-Span Interoperability Demo

