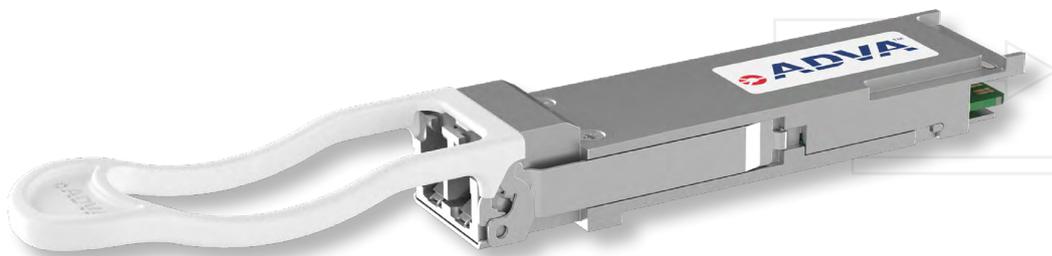


Coherent 100ZR

Cost-efficient, low-power 100G coherent QSFP28 for the optical edge

The ever-increasing growth in data traffic is forcing network operators to upgrade their edge aggregation infrastructure to 100Gbit/s rates. This can be a cumbersome and costly process. Operators need a solution that enables simple and cost-efficient upgrades without having to tear out existing equipment. With a low-cost and low-power QSFP28 design, our Coherent 100ZR pluggable transceiver slots directly into existing head-end devices, facilitating the adoption of 100Gbit/s coherent technology at the network edge without major changes in existing infrastructure, and at edge price levels.

Our Coherent 100ZR pluggable module is designed to simplify the deployment of 100Gbit/s services at the optical edge, where 10Gbit/s services are currently operating. With a new purpose-built DSP co-developed by ADVA and II-VI Incorporated, a standards-compliant QSFP28 form factor and 5W power consumption, it empowers any device with a standard QSFP28 port to directly transport 100Gbit/s services on unamplified as well as amplified DWDM links. Our Coherent 100ZR pluggable module uses the same design rules as 10Gbit/s optical interfaces, and therefore enables overlays of 100Gbit/s services without the need to re-engineer links. With its full C-band DWDM tunability and automatic wavelength tuning technology, it minimizes operational complexity and inventory. Furthermore, both C-temp and I-temp variations are available, enabling deployment in central offices as well as in outdoor locations, such as street cabinets. Engineered to meet optical edge demands, our Coherent 100ZR facilitates the adoption of 100Gbit/s coherent technology at the edge, and enables a smooth and cost-efficient upgrade of existing 10Gbit/s-based edge aggregation networks.



Your benefits

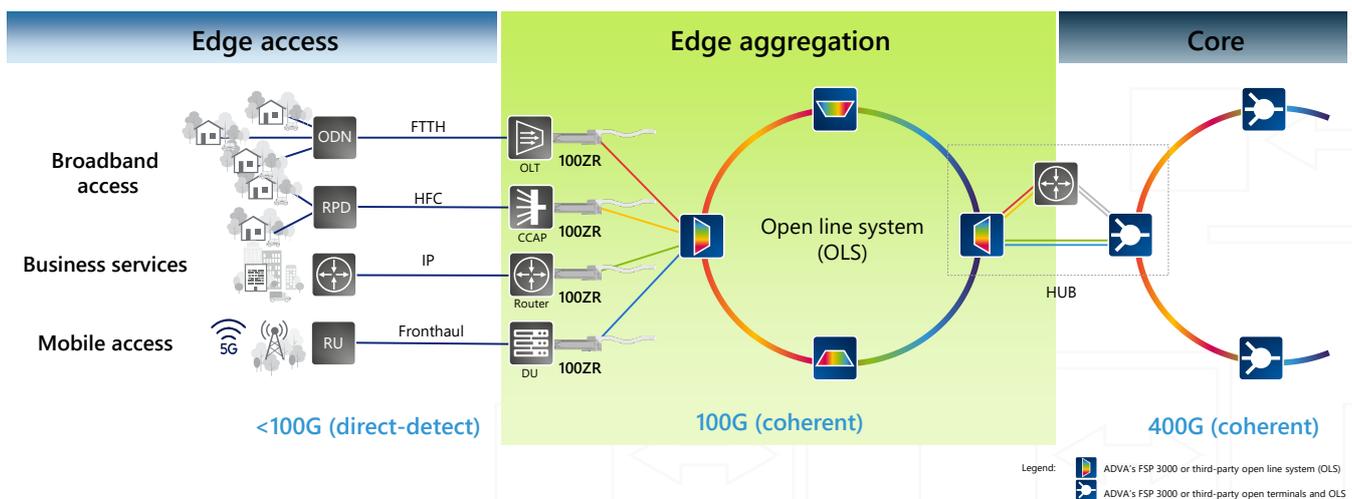
- ✔ **Cost-efficient upgrade to 100Gbit/s**
Plugs directly into existing devices (e.g., DUs, OLTs, routers) and empowers legacy network elements to drive 100Gbit/s signals across long distances
- ✔ **100GBASE-ZR compliant**
100GBASE-ZR interface compliant with the IEEE Std 802.3ct™-2021
- ✔ **Wavelength auto-tuning**
Fully C-Band tunable interface with self-tuning process for automated commissioning without manual intervention
- ✔ **QSFP28 with 5W power consumption**
Hot-swappable QSFP28 pluggable module electrically and mechanical compliant to QSFP28 standard cages and dissipating 5W maximum
- ✔ **100Gbit/s flexible coherent interface**
Supports 50GHz, 100GHz and flexgrid frequency grids and is compatible with any open line system
- ✔ **Hardened design for outdoor deployments**
I-temp variant supports industrial operating temperature ranges

High-level specifications

Parameters	Minimum	Maximum
Operating frequency range	196.1THz	191.25THz
Channel grid	6.25GHz (1)	100GHz
Optical output power	-8dBm	-4dBm
Line format	100Gb/s dQPSK @27.952GBd 7% SC-FEC or GFEC	
Reach	300km (120km unamplified)	
Optical return loss tolerance	30dB	
Receiver input range (total)	-30dBm	3dBm
Receiver damage threshold	10dBm	
Chromatic dispersion compensation		5500ps/nm (1dB penalty)
Min OSNR sensitivity		
7% SC-FEC		15.5dB
7% SC-FEC @-18dBm		16.5dB
7% GFEC @-18dBm		20.5dB
Min receiver input sensitivity		-28dBm
PDL tolerance @3dB penalty	4dB	
PMD tolerance range	10ps	
Case temperature range	0°C	70°C
Power consumption		5W
Optical interface	IEEE 802.3ct for 100G ZR and ITU G.709.2	
Electrical interface	1xOTL4.4, 1xCAUI-4 with KR FEC, 1x100GAUI-4 with KP4 FEC	
Management interface	CMIS v5.0	

Applications in your network

Cost-efficient and smooth upgrade of edge aggregation optical infrastructure to coherent 100Gbit/s



For more information please visit us at www.adva.com
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Product specifications are subject to change without notice or obligation.

