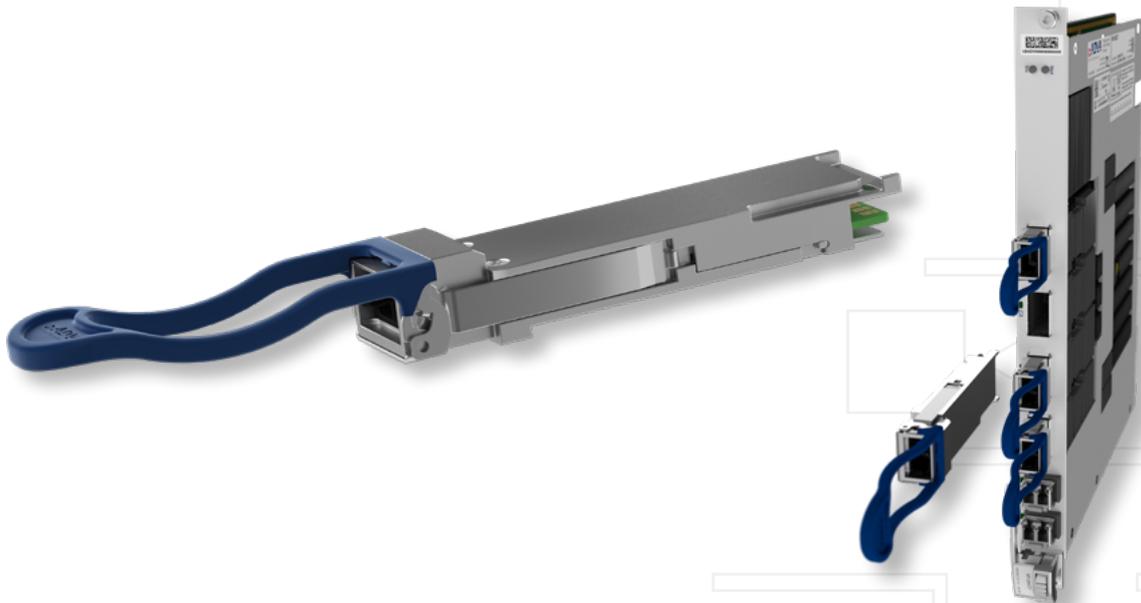# MicroMux™

Convert 100GbE ports into 10x 10GbE ports with zero footprint increase

With massive and ever-increasing traffic growth, network operators are having to upgrade transport network infrastructure to support data rates of 100Gbit/s and above. However, there is still a large demand for lower data rate services. Internet and cloud service providers are struggling to balance current need with future demand. Our MicroMux™ solves this problem.

Our MicroMux™ is an active QSFP28 interface that converts 100 Gigabit Ethernet (GbE) client ports into ten 10GbE ports without compromising power, space or spectral efficiency. By simply adding this small form-factor pluggable, a 100Gbit/s-based device can support 10GbE services. There's no need for additional costly aggregation devices that add operational complexity and consume rack space. Our MicroMux™ also increases flexibility. Service providers can seamlessly mix 10GbE and 100GbE clients into 100Gbit/s-based switches, routers or optical terminals without any footprint increase. Our MicroMux™ module provides highest client port flexibility with minimum operational complexity.

Your benefits

- ✓ **Support 10GbE on 100GbE ports**
  Convert a 100GbE QSFP28 client port into ten 10GbE ports with just a pluggable QSFP28

- ✓ **Zero footprint increase**
  MicroMux™ fits existing QSFP28 cages without modification and with unchanged energy efficiency

- ✓ **Support legacy infrastructure**
  Serve legacy 10GbE links with your newest 100Gbit/s-based infrastructure without additional aggregation devices

- ✓ **Highest flexibility**
  Single-mode and multi-mode variants; configurable for 100GBase-SR10 or breakout into ten 10GBase-SR

- ✓ **Save cost and operational complexity**
  Reduce cost, points of failure and operational complexity with less equipment in the network

- ✓ **10GbE services on demand**
  Easily increase or decrease the number of 10GbE ports in your 100Gbit/s-based switch, router or optical terminal

High-level specifications

Parameters	Multi-mode variant	Single-mode variant
Operating wavelengths	840nm to 860nm	1260nm to 1355nm
Optical output power per channel	-7.3dBm to -1dBm	-8.2dBm to 0.5dBm
Extinction ratio	3dB	4dB
Transmitter dispersion penalty	3.9dB	3.2dB
Side-mode suppression ratio	N/A	30dB
Eye mask {X1, X2, X3, Y1, Y2, Y3} Hit ratio of 5e-5 per IEEE	{0.25, 0.4, 0.45, 0.25, 0.28, 0.40}	{0.25, 0.4, 0.45, 0.25, 0.28, 0.40}
Receiver sensitivity per channel (BER 5e-5)	-9.9dBm	-14.4dBm
Maximum receiver input	3.4dBm	1dBm
Clock accuracy	+/-100ppm	+/-100ppm
Maximum link length	150m OM4 for 100GBase-SR10 400m OM4 for 10GBase-SR	10Km
Case temperature range	0℃ to 70℃	0℃ to 70℃
Power consumption	6W	6W
Optical interface	MPO24 MM	MPO24 SM
Electrical interface	CAUI-4	CAUI-4

Applications in your network

Enable 10Gbit/s client support to 100Gbit/s-based switches, routers or optical terminals

MicroMux™ converts a 100GbE port into ten 10GbE ports with zero footprint increase

⊙ADVA™