



Microchip's META-DX2 family of devices are multi-purpose 1.6T Ethernet PHYs supporting rates from 1 GbE to 800 GbE and 112G PAM4 long reach SerDes. These versatile devices support retiming, encryption, port aggregation, Class C/D PTP and hitless 2:1 multiplexing, as well as SerDes crosspoint functionality that enables connectivity to a variety of optical modules, Direct Attach Copper (DAC) cables, packet processors and Ethernet switches.

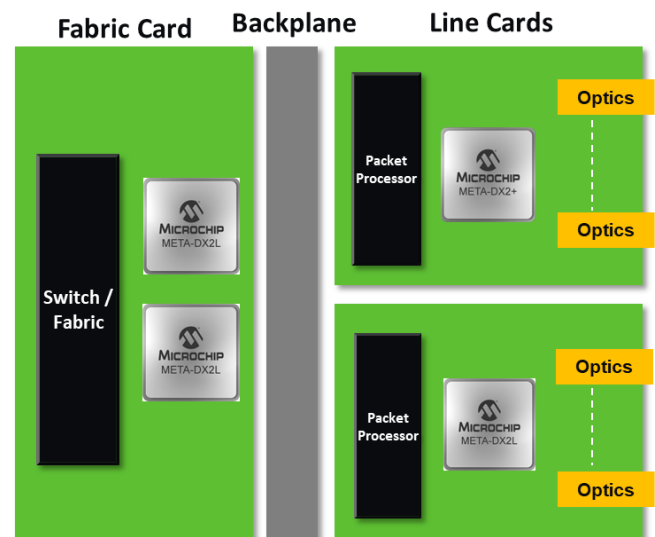
The META-DX2 family offers variants with 48 SerDes and 32 SerDes, enabling up to 1.6T gearbox or hitless 2:1 mux configurations, which is double the capacity of other solutions and cuts the device count in half to enable smaller form factors. Encryption is a key feature of some of the META-DX2 family devices, providing security via MACsec or IPsec at full line rate.

Benefits

- 1.6 Tbps device enables high-density, 112G SerDes based line cards and fixed form factor switches
- Variants with integrated 1.6T MACsec/IPsec encryption engines provides end-to-end security
- Crosspoint enables flexible connection to multiple types of optics or datapaths in a single design
- PTP (IEEE 1588v2) support up to Class C/D for 5G-ready equipment
- FEC termination and conversion capability enables support of a wide range of optical modules
- XpandIO enables port aggregation of low-rate Ethernet clients over higher speed Ethernet interfaces
- Complete set of SDK APIs to reduce development time
- Industrial temperature range support

Applications

- High-density Ethernet fabric or line cards
- Cloud data centers switches
- Service provider routers
- Enterprise routers and switches
- High-availability working/protect switches
- Modular optical transponders and muxponders
- AI/ML acceleration nodes



Learn more about Microchip's META-DX2 family of devices at:
<https://www.microchip.com/meta-dx-family>