Optical engines

Data sheet

AccessWave25™

Seamless migration from 10G to 25G with DWDM tunability

Benefits

- **Tunable SFP28 pluggable transceiver for the native transport of 25Gbit/s Ethernet and eCPRI services over DWDM links with up to 40km reach**
- **Adtran's patented distance-optimization and signal-shaping technology**
- **G.metro wavelength auto-tuning technology eliminates set-up time and human errors**
- **Health and status monitoring of remote-end plug through G.metro out-of-band communication channel**
- **Electrically and mechanically compliant to SFP28 standard cages**
- **Hardened design supports outdoor deployment, including radio units**
- **Easily overlays existing 10Gbit/s infrastructure, offering a significant capacity increase with minimal investment**

Overview

Rising demand for cable access and mobile fronthaul capacity is driving the need for 25Gbit/s line rates at the network edge. To keep up, operators are often forced into costly and disruptive upgrades. Our AccessWave25™ offers a simple, innovative alternative, enabling 25Gbit/s Ethernet (25GbE) DWDM connectivity over distances of up to 40km from any SFP28-enabled device. Its optical performance supports deployment using the same design rules as optical 10Gbit/s links, offering a seamless upgrade path.

AccessWave25™ combines a standards-compliant SFP28 form factor with PAM4 modulation and direct detection, delivering plug-and-play connectivity to DWDM infrastructure for devices such as routers, switches and radio units. Our patented distance-optimization technology supports reach up to 40km, while full compatibility with 10Gbit/s-based optical infrastructure avoids the need for major network changes.

With full C-band tunability and G.metro wavelength auto-tuning, AccessWave25™ also simplifies operations. Setup is fast and error-free, with no manual wavelength adjustments required. Inventory is reduced thanks to a universal tunable design, and the G.metro out-of-band communication channel enables remote monitoring, regardless of transmission protocol.

Ideal for cable access, mobile X-Haul or DWDM business services, AccessWave25™ makes it easy to scale to 25Gbit/s with minimal cost and complexity.

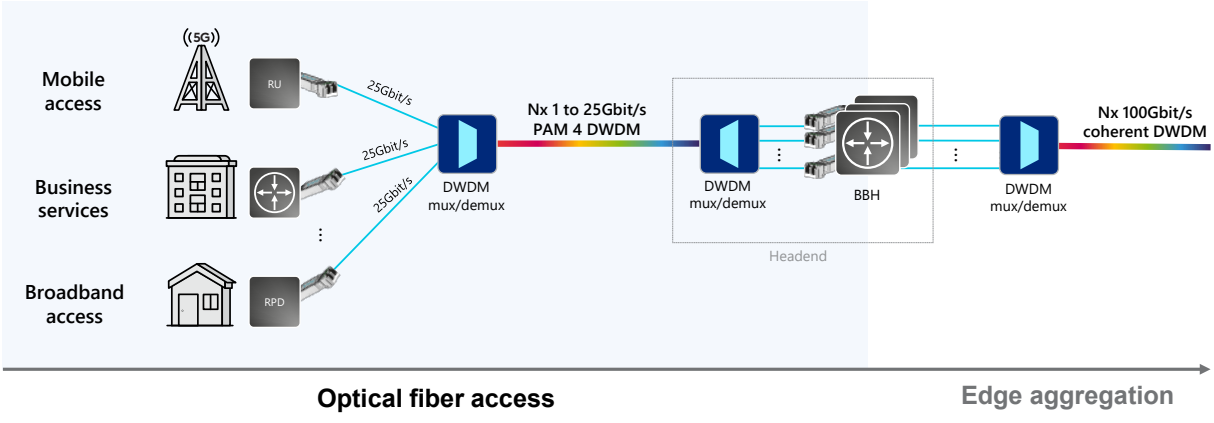
AccessWave25™

High-level technical specifications

Parameter	Minimum	Maximum
Operating wavelengths	1529.55nm	1567.5nm
Operating frequencies	191.25THz	196.0THz
Optical output power	-1dBm	3dBm
Line format/rate	PAM4 25.8Gbit/s (25G Ethernet)	
Reach		40km NDSF (with host-side FEC)
Side mode suppression ratio	35dB	
Optical reflectance	27dB	
Receiver input wavelength range	1260nm	1620nm
Receiver sensitivity		-21dBm (with host-side KR4-FEC and up to 40Km distance)"
Receiver overload	-7dBm	
Receiver damage threshold		-4dBm
CD tolerance	0ps/nm	1200ps/nm
Maximum DGD tolerance		30ps
Clock accuracy	+/-100ppm	
Power consumption		3W
Case temperature range	-40°C	85°C
Interface compliance	SFF-8402	
Optical connector	Duplex LC	
Mechanical compliance	SFF-8432 Rev. 5.2a	
Management/electrical interfaces	SFF-8472 Rev 10.2, SFF-8690 Rev 1.4, SFF-8431	

Applications in your network

25Gbit/s DWDM connectivity with up to 40km reach from any device with an SFP28 port



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