

OVERVIEW

The QuantumWave™ 10G Tunable Optical Transceiver is a state-of-the-art tunable optical transceiver designed specifically for Dense Wavelength Division Multiplexing (DWDM) networks within Cable MSO environments. With its self-tuning capabilities, this SFP+ device streamlines PON and FTTH deployments, providing a robust solution for expanding broadband services.

Monolithic MZM Tunable TOSA: QuantumWave integrates a monolithic MZM TOSA ensuring precise and reliable wavelength tuning.

- *Benefit:* Facilitates seamless DWDM integration, ensuring Cable MSOs can easily upscale their broadband network capabilities without complex adjustments.

Support for ITU-T C-band 50GHz DWDM Grid: Designed to align with the ITU-T C-band 50GHz DWDM grid standards.

- *Benefit:* Guarantees compatibility within existing Cable MSO network infrastructures, minimizing setup complications and promoting plug-and-play functionality.

Up to 80 km Link Length: Achieves signal reliability over extended distances.

- *Benefit:* Perfect for Cable MSOs planning to expand their reach in suburban and rural areas, ensuring consistent service delivery for PON and FTTH deployments.

Digital Diagnostics Monitoring (DDM): Equipped with advanced DDM capabilities for real-time operational insights.

- *Benefit:* Allows Cable MSOs to proactively maintain network health, ensuring optimal service uptime for end-users.

Self-tuning Wavelength Functionality: Incorporates self-tuning technology to autonomously adjust wavelength configurations.

- *Benefit:* Simplifies and accelerates Cable MSO network deployments, reducing labor hours and eliminating potential manual configuration errors, leading to quicker FTTH rollouts.



Specifications		
Parameter	Units	
Form Factor	-	Tunable DWDM SFP+
Wavelength	nm	C-band Tunable 1528.77nm to 1563.86nm
Max Distance	km	80
Transmitter Power	dBm	-1 to 3
Receiver Sensitivity	dBm	-24
Operating Temperature	°C	-40 to 85
Data Rate	Gbps	9.95 to 11.3

Specifications		
Parameter	Units	
Fiber Type	-	SMF
Connector Type	-	Duplex LC Connector
Monitoring	-	Digital Diagnostic
Voltage	V	3.3
Compliance	-	RoHS SFF-8432: Improved Pluggable Form Factor SFF-8690: Tunable SFP+ Memory Map SFF-8472: Diagnostic Monitoring Interface SFF-8419: Power and Low Speed Interface