

X86 - OTDT

1x100G Transponder



APPLICATIONS

- Long-haul and ultra-long-haul DWDM optical networks
- Data Center Interconnect (DCI)
- Carrier and telecom backbone networks
- 100GbE service transport over coherent optical infrastructure
- Metro and core optical transport networks
- Enterprise and cloud connectivity
- High-capacity wavelength division multiplexing (DWDM) deployments

DESCRIPTION

The 1x100G Transponder Service Board provides 1x100G client service access with electrical-layer multiplexing and demultiplexing, converting client traffic into a standard 100G DWDM optical wavelength for high-capacity transport networks. Utilizing advanced coherent transmission technologies, including PDM-QPSK modulation and CFP2-DCO coherent optics, it delivers outstanding optical performance with enhanced OSNR sensitivity, chromatic dispersion (CD) tolerance, and polarization mode dispersion (PMD) tolerance. These capabilities enable ultra-long-haul transmission of 100G services over distances exceeding 1,200 km without electrical regeneration. The line-side interface features tunable C-band operation across up to 96 DWDM channels with 50 GHz spacing, providing flexible wavelength allocation for modern optical transport networks.

FEATURES

- Supports 1 × 100G client service access
- Electrical-layer multiplexing and demultiplexing
- Converts 100G client traffic to a standard DWDM optical wavelength
- Advanced coherent transmission using PDM-QPSK modulation
- CFP2-DCO coherent optical interface
- Ultra-long-haul transmission exceeding 1,200 km without electrical regeneration
- Excellent OSNR sensitivity for reliable long-distance transmission
- High tolerance to chromatic dispersion (CD)
- High tolerance to polarization mode dispersion (PMD)
- Mitigates optical transmission impairments and non-linear effects
- Tunable C-band operation
- Supports up to 96 DWDM wavelengths with 50 GHz channel spacing
- Flexible wavelength provisioning for scalable optical networks

PRODUCT SPECIFICATION

Parameter	Description
Product model	OTDT
Interface	Client-side interface: 1, based on QSFP28 pluggable Line-side interface: 1, based on CFP2-DCO pluggable, coherent PDM-QPSK
Line mode	Support 1*100G service optical signal multiplexed into 1*100G rate DWDM standard wavelength optical signal
Relay mode	Support 100G wavelength electric relay
Support service type	100GE, 100GE_FEC, OTU4
WDM technology	Support DWDM: C-band 50GHz 96-wave tunable
FEC technology	SDFEC support
Number of occupied slots	Support OTNS8600 full series chassis, occupy 2 slots
Network management function	Support real-time monitoring of port working status, including: transmitting optical power, receiving optical power, temperature, etc. Support port loopback function
Maximum power consumption	30W (including optical module)
MTBF	>100,000 hours

Notes

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