

Data Sheet

1 FINITY™ T210 Transport

Carrier-grade platform delivers 200G undersea transponding

T210 Transport Blade at a Glance

- Modular 1RU blade design
- 100 GbE/OTU4 transponding
- DP-QPSK modulation
- 2 x 100 GbE/OTU4 client interfaces and 2 x 100G network plug-in units
- Non-linear compensation
- Web-based GUI, CLI script, or NETCONF API management



Product Overview

Service providers, data center operators, and large enterprises can implement subsea applications with the 1 FINITY T210 transport blade. The modular 1RU design of the T210 optimizes the use of rack space and provides an open, simple, and scalable network architecture that easily accommodates rapid bandwidth growth.

Modular Blade Design

Designed to meet demanding optical requirements of subsea communications, the T210 provides coherent optical transport and supports dual power feeds and redundant replaceable fans. To minimize cost-per-bit transport and optimize operational efficiency, the T210 supports pluggable optical units—two 100G CFP4 client ports and two 100G network plug-in unit (PIU) channels.

Feature-Rich Transport

The T210 is equipped with the DP-QPSK modulation format and nonlinear compensation that make it possible to achieve optical span performance per wavelength for subsea applications. Pluggable network optics support full C-band operation.

SubSea Applications

The primary application of the T210 is long-haul or ultralong-haul subsea transport using 100G DP-QPSK network provisioning per port and enhanced soft-decision forward error correction (SD-FEC). In a dispersion-managed fiber configuration, distances over 13,000 km can be achieved without regeneration.

The T210 can be deployed as a stackable transponder for adding 100G wavelengths to existing subsea FOADM networks.

Simplified Network Operations

The T210 employs a Linux-based operating system and can be managed with a Web-based GUI, a CLI script, or a NETCONF API. The GUI or CLI script can provision numerous service options. The NETCONF management API makes it easy to use the T210 with SDN network controllers, including the Fujitsu Virtuora® NC

1 FINITY: A Revolutionary, Disaggregated Platform

For network operators seeking an open, simple, scalable architecture to meet escalating bandwidth demand, Fujitsu provides 1 FINITY, a revolutionary disaggregated platform that delivers unprecedented flexibility, scalability, and efficiency. Unlike the traditional converged systems other vendors provide, the programmable, blade-centric design of 1 FINITY offers operators a pay-as-you grow approach with low initial investment. Additional benefits include high rack space utilization, evergreen technology design, operational convergence, open pluggable optics, open APIs, and open protocols.

Technical Specifications

Base System		Management	
System Configuration	Modular 1RU blade	Virtuora NC	No
PIU/FRU per Blade	2 line side	Web GUI	Yes
Local Management Port (LMP)	10/100 Mbps Ethernet RJ-45 x 1	CLI	Yes
Management Port (LCN)	2 x Gigabit Ethernet SFP (T, SX, LX, EX, ZX)	NETCONF / YANG	Yes
Front LEDs	System status, severity, and port	SNMP	No
Fans	3 replaceable fans	Communications	SSH, SFTP
Power Supply	Dual feed, fixed power supply	Timing	No
Software OS	Linux	In Band Mgmt	GCCO
Line Optics		OSMINE Support	CLEI
Line Ports per Blade	2	Physical Characteristics	
Line Rate	100 Gbps	Blade Physical Dimensions (H x W x D)	1.75 x 19 x 17.72" (44.45 x 483 x 450 mm) W = 19" or 23" with mounting rails D < 23.6" (600 mm) with fiber management
Optical Module	Fixed ACO	Rack Compatibility	19" and 23"
Optical Interface	96/127 C-band, 6.25 GHz flex-grid tunable ITU channels (50/37.5 GHz)	Weight	T210 chassis: 7.68kg (16.932 lb), discrete ACO for ULH PIU: 1.7kg (3.748 lb), F011: 0.38kg (0.838 lb)
Modulation	DP-QPSK	Operating Environment	
Chromatic Dispersion	± 250,000 ps/nm	Operating Temperature	+5 to 40 °C
Minimum Required OSNR	10.2 dB	Humidity - Normal Operating	5 to 85%
Tx Wavelength	1528.72–1566.77 nm	Altitude	<50m
Rx Wavelength	1528.72–1566.77 nm	Power	
Tx Output Power Range	Min: -2.7dBm, max: 7.6dBm	Power Supply	Dual feed, fixed power supply
Rx Input Power Range	Min: -18.0dBm, max: -6dBm	120 V AC	No
PMD Tolerance	150ps (outage probability 1.0e-5)	-48 V DC	-40V DC to -57V DC
Reach	7,000 km w/SMF-28 ULL fiber 13,000 km w/ D+ fiber	Power Consumption	560 W (typical)
Client Optics		Regulatory and Compliance	
Client Ports per Blade/PIU	2	FCC	FCC Part 15, Class A
Optical/Electrical Interface	CFP4	NEBS	No
Supported Interfaces	LR, CWDM, DWDM, SR	UL/CSA	UL/CSA 60950-1
Performance Monitoring		CE	CE
Service PMS	24-hour, 15-minute, untimed bins	RoHS	RoHS
OTN PMS	Support (section, path, etc.)	IEC/EN	IEC/EN 60825-1, 60825-2
Real-Time Power Usage		WEEE	WEEE
Thresholds and TCA	Support (user assignable)	RCM	RCM
		CDRH	FDA CDRH

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