

Data Sheet

1 FINITY™ T200 Transport Blade

4 × 100G client transponder optimized for 100G/200G regional and long-reach applications

T200 Transport Blade at a Glance

- Pluggable 1RU blade design
- 4 × 100 GbE/OTU4 (CFP4) client ports
- 2 × 100G/200G (fixed ACO) network plug-in units
- DP-QPSK and DP-16QAM modulation
- Web GUI, CLI script, or NETCONF management



Product Overview

The 1 FINITY T200 Transport blade is an improved-reach platform that delivers long-haul 100G services into an existing or new network. Pluggable client optics, combined with transmission options including multi-modulation, high dispersion, and non-linear compensation, allow universal transport without modifications to existing infrastructure. Services can be transported over the metro network, handed off to other carriers, or carried across a global network, including undersea transmission.

Modular Blade-Based Design

Designed to meet both central office and data center requirements, the modular 1RU design of the T200 optimizes the use of rack space and provides an open, simple, and scalable network architecture that easily accommodates rapid bandwidth growth.

The T200 provides coherent optical transport and supports dual power feeds, redundant replaceable fans, and integrated virtual Management and Control Unit (vMCU) software for control and monitoring.

To minimize transport cost-per-bit and optimize operational efficiency, the T200 supports the following pluggable optical units:

- Four CFP4 modules for 100 GbE/OTU4 client interfaces
- Two fixed ACO analog coherent optics for 100G/200G wavelengths

Flexible Transport Features

The T200 is equipped with software-selectable multimodulation modes that make it possible to select the appropriate density and optical span performance per wavelength for specific applications. Based on your metro or long-haul optical network, DP-QPSK and DP-16QAM modes can be selected, allowing a trade-off in optical reach versus capacity. Pluggable network optics support full C-band operation.

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 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.

Improved Reach with Enhanced SD-FEC

Metro to Long-Haul Applications

The universal T200 supports multiple transport network configurations. A primary application is long-haul or ultralong-haul transport using 100G DP-QPSK network provisioning per port, non-linear compensation, and enhanced soft-decision FEC. In this configuration, distances greater than 6,000 km over SMF-28 fiber can be achieved without regeneration. Enabling either DP-QPSK or DP-16QAM makes it possible to trade capacity for reach.

The DSP selection of the T200 also allows transmission over existing DCM based networks—something that is not possible with most coherent transponders.

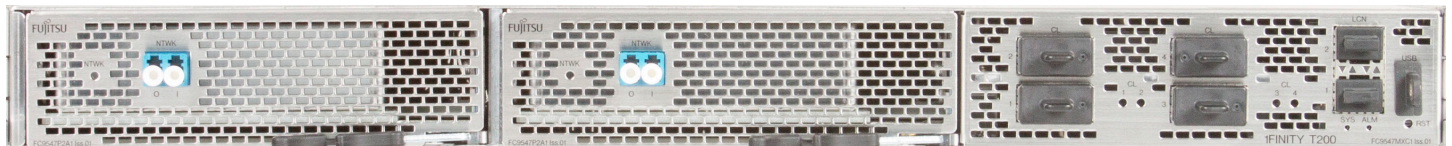
Versatile Configuration Options

The versatile T200 can be deployed in three equipment scenarios:

- As a point-to-point standalone transponder
- As a stackable transponder for adding wavelengths beyond 100G to existing FLASHWAVE® 9500 or FLASHWAVE 7500 ROADM systems— or as alien wavelengths on other ROADM networks
- As a stackable transponder in an open ROADM platform, including the 1FINITY L100 Lambda blade series

Simplified Network Operations

The T200 employs a Linux-based operating system and can be managed with a Web GUI, a CLI script, or a NETCONF interface. The GUI or CLI script can provision numerous service options. The NETCONF management API makes it easy to use the T200 with SDN network controllers, including the Fujitsu Virtuora® NC.



Up to 2 × fixed ACO 100G/200G line ports

Up to 4 × CFP4 100 GbE/OTU4 client ports

Technical Specifications

Base System	
System Configuration	1RU blade
PIU per Blade	2 line-side
Local Management Port (LMP)	1 × 10/100 Mbps Ethernet RJ-45
Management Port (LCN)	2 × GbE SFP (T, SX, LX, EX, ZX)
Front LEDs	System Status, Alarm Severity, and Port
Fans	3 replaceable fans
Power Supply	Dual fixed DC power supply
Software OS	Linux
Line Optics	
Line Ports per Blade	2
Line Rate	100G, 200G
Optical Module	Fixed ACO
Optical Interface	96 C-band tunable ITU channels (50 GHz) 128 C-band tunable ITU channels (37.5 GHz)
Modulation	DP-QPSK DP-16QAM
Chromatic Dispersion	±120,000 ps/nm ± 60,000 ps/nm
Minimum Required OSNR	10.2 dB 18.5 dB
Tx Wavelength	1528.77–1566.72 nm
Rx Wavelength	1528.77–1566.72 nm
AVG Reach w/ SMF-28 ULL Fiber (terrestrial)	6,000 km 2,500 km
Client Optics	
Client Ports per Blade	4
Optical/Electrical Interface	CFP4
Services	100 GbE, OTU4
Supported Interfaces	SR4, LR4
Performance Monitoring	
Service PMs	24-hour, 15-minute, untimed bins
OTN PMs	Yes
Thresholds and TCA	Support (user assignable)
Management	
Virtuora NC	Yes
Web GUI	Yes
CLI	Yes
NETCONF/YANG	Yes
Communications	SSH, SFTP, FTP, Telnet, HTTP, HTTPS
Timing	NTP
In-band Management	GCCO
OSMINE Support	CLEI
Physical Characteristics	
Dimensions H × W × D	1.75 × 19 × 17.72" (44.45 × 483 × 450 mm) W = 19" or 23" with mounting rails D < 23.6" (600 mm) with fiber management
Rack Compatibility	19" and 23", 2- and 4-post
Weight	Blade: 16.93 lb (7.68 kg)
Operating Environment	
Operating Temperature	+5 to +40 °C
Operating Humidity	5% to 85%
Power	
Power Supply	Dual-feed, fixed DC power supply
120 V AC	No
-48 V DC	-40 V DC to -57 V DC
Power Consumption	560 W
Regulatory and Compliance	
FCC	FCC Part 15, Class A
NEBS	NEBS Level 3
UL and CB Safety	UL 60950-1 and IEC 60950-1
CE	CE
RoHS	RoHS
ETSI	EN 300-019, EN300-132, EN 300-753, EN 300-386
WEEE	WEEE
RCM	RCM
CDRH	FDA CDRH

CLASS 1M CAUTION

Invisible laser radiation: Class 1M laser product
Do not view directly with optical instruments

HAZARD LEVEL 1M CAUTION

Hazard level 1M laser radiation

Do not view directly with non-attenuating optical instruments

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