

Data Sheet

1FINITY™ T300 Transport Blade

10 × 100G client transponder optimized for 100G/200G metro applications

T300 Transport Blade at a Glance

- Pluggable 1RU blade design
- 10 × 100 GbE/OTU4 (QSFP28) client ports
- 5 × 100G/200G (CFP2-ACO) network plug-in units
- DP-QPSK and DP-16QAM modulation
- Web GUI, CLI script, SNMP or NETCONF management



Product Overview

The 1FINITY T300 transport blade offers a scalable, cost-effective, energy-efficient transponder solution for providing up to 1 Tbps transport for 10 × 100G client services. The T300 offers pluggable optics on both client and network side, in addition to advanced Digital Signal Processor (DSP) functions, including network modulation options. As a result, the platform supports highly dense, metro-optimized transport. The T300 meets global compliance standards, including NEBS level 3, and is Open ROADM MSA-compliant.

Modular Blade-Based Design

Designed to meet both central office and data center requirements, the modular 1RU design of the T300 optimizes the use of rack space and provides an open, simple, and scalable network architecture that easily accommodates rapid bandwidth growth.

The T300 provides coherent optical transport and supports dual power feeds, redundant replaceable fans, and an integrated virtual Management Control Unit (vMCU) software for control and monitoring.

To reduce power consumption and increase density, the T300 supports the following pluggable optical transceivers:

- Ten low-power QSFP28 modules for 100 GbE/OTU4 client interfaces
- Five CFP2-ACO analog coherent optics for 100G/200G wavelengths

Flexible Transport Features

The T300 offers software-selectable multimodulation modes so that you can select the optimal density and optical span performance per wavelength for specific applications. The ability to select DP-QPSK or DP-16QAM modes enables a trade-off in optical reach versus capacity. Additionally, pluggable CFP2-ACO network optics provide flexibility and full C-band support at an attractive price point.

1FINITY: A Revolutionary, Disaggregated Platform

For network operators seeking an open, simple, scalable architecture to meet escalating bandwidth demand, Fujitsu provides 1FINITY, a revolutionary disaggregated platform that delivers unprecedented flexibility, scalability, and efficiency. Unlike traditional converged systems, the programmable, blade-centric design of 1FINITY 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.

Scalable 100 GbE Support

For Metro to Long-Haul Applications

The T300 transport blade supports all metro and some regional transport applications and configurations. Dispersion compensation reach of up to 3000 km for DP-QPSK and 2300 km for DP-16QAM over standard SMF is supported. Auto-tuning between the network optics and the DSP ensure maximum OSNR for the network while taking advantage of the cost points of network pluggable optics.

Versatile Configurations

The T300 blade can be deployed in different 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 networks—or as alien wavelengths on other ROADM networks

- As part of an open optical network per standards with a different transponder at each end
- As a stackable transponder in an open ROADM platform, in combination with the 1FINITY Lambda blade, 1FINITY Communications Integrator series, and 1FINITY Housing

Simplified Network Operations

The T300 employs a Linux-based operating system and can be managed via Web GUI, CLI script, SNMP, or NETCONF interface. The GUI or CLI script can provision numerous service options. The NETCONF interface makes it easy to use the T300 with SDN network controllers, such as Fujitsu Virtuora® Network Controller (NC).



Up to 5 × 100G/200G (CFP2-ACO) network ports

10 × 100 GbE/OTU4 (QSFP28) client ports

Technical Specifications

Base System		Management	
System Configuration	1RU blade	Virtuora NC	Yes
PIU per Blade	5 line side	Web GUI	Yes
Local Management Port (LMP)	1 × 10/100 Mbps Ethernet RJ-45	CLI	Yes
Management Port (LCN)	2 × GbE SFP (T, SX, LX, EX, ZX)	NETCONF/YANG	Yes
Front LEDs	System Status, Alarm Severity, and Port	SNMP	SNMP v2
Fans	3 replaceable fans	Communications	SSH, SFTP, FTP, Telnet, HTTP, HTTPS
Power Supply	Dual-feed, fixed DC power supply	Timing	NTP
Software OS	Linux	In-band Management	GCCO (client and network ports)
Line Optics		OSMINE Support	CLEI
Line Ports per Blade	5	Physical Characteristics	
Line Rate	100G, 200G	Dimensions	1.75 × 19 × 17.72" (44.45 × 483 × 450 mm)
Optical Module	CFP2-ACO	H × W × D	W = 19" or 23" with mounting rails D < 23.6" (600 mm) with fiber management
Optical Interface	96 C-band tunable ITU channels (50 GHz) 128 C-band tunable ITU channels (37.5 GHz)	Rack Compatibility	19" and 23", 2- and 4-post
Modulation	DP-QPSK DP-16QAM	Weight	Blade: 10.94 lb (4.96 kg)
Chromatic Dispersion	±55,000 ps/nm	Operating Environment	
Minimum Required OSNR	11 dB 19 dB	Operating Temperature	5 to +40 °C
Tx Wavelength	1528.77–1566.72 nm	Operating Humidity	5% to 85%
Rx Wavelength	1528.77–1566.72 nm	Power	
AVG Reach w/ SMF-28 ULL Fiber (terrestrial)	3000 km 2300 km	Power Supply	Dual-feed, fixed DC power supply
Client Optics		120 V AC	No
Client Ports per Blade	10	–48 V DC	–40 V DC to –57 V DC
Optical/Electrical Interface	QSFP28	Power Consumption	365 W (typical)
Client Options	100 GbE, OTU4	Regulatory & Compliance	
Supported Interfaces	SR, LR, ER	FCC	FCC Part 15, Class A
Performance Monitoring		NEBS	NEBS Level 3
Service PMs	24-hour, 15-minute, untimed bins	UL and CB Safety	UL 60950-1 and IEC 60950-1
OTN PMs	Yes	CE	CE
Thresholds and TCA	Support (user assignable)	RoHS	RoHS
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		ETSI	EN 300-019, EN300-132, EN 300-753, EN 300-386
		WEEE	WEEE
		RCM	RCM
		CDRH	FDA CDRH



Fujitsu Network Communications, Inc.
 2801 Telecom Parkway, Richardson, TX 75082
 Tel: 888.362.7763
us.fujitsu.com/telecom



Walker and Associates, Inc.
 PO Box 1029, 7129 Old Hwy 52
 Welcome, NC 27374
 Tel: 800.925.5371
www.walkerfirst.com