

# Data Sheet

## 1 FINITY™ T300 Transport

Carrier-grade platform delivers dense 100 Gbps to 1 Tbps transponding

### T300 Transport Blade at a Glance

- Modular 1RU blade design
- 10 × 100 GbE client interfaces and 5 × 100G/200G network plug-in units
- DP-QPSK and DP-16QAM modulation modes
- Web-based GUI, CLI script, or NETCONF API management



To minimize cost-per-bit transport and optimize operational efficiency, the T300 supports pluggable optical units—ten 100G QSFP28 client ports and five 100G/200G network plug-in unit (PIU) channels.

### Product Overview

Service providers, data center operators, and large enterprises continually look for ways to better utilize their networks. The 1 FINITY T300 transport blade, a universal 1Tbps transponder with multimodulation capabilities, offers a scalable solution for providing up to 1Tbps transport. With high-density 100G integration and advanced DSP support, you can scale 100 Gbps services up to 1Tbps, resulting in higher line capacity. And, by using super-channels, you gain added spectral efficiency, providing better cost per bit transport, added network life, and future expansion capabilities.

Designed to meet both central office and data center requirements, the T300 provides coherent optical transport and supports dual power feeds, redundant replaceable fans, and integrated virtual management control unit (vMCU) software for control and monitoring.

### Modular Blade Design

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.

### Flexible, feature-Rich Transport

The T300 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 or DP-16QAM modes can be selected, allowing a trade-off in optical reach versus capacity.

Additionally, 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 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.

# Scalable 100 GbE Support

## For Metro to Long-haul Applications

The universal T300 supports multiple transport network configurations. Applications include selecting 100G DP-QPSK or 200G DP-16QAM network provisioning per port and enhanced soft decision forward error correction (FEC). Distances greater than 3000 km for DP-QPSK configurations and 2300 km for DP-16QAM configurations, can be achieved over SMF-28 fiber without regeneration.

## Versatile Configurations

The versatile T300 can be deployed in different equipment scenarios:

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

## Simplified Network Operations

The T300 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 T300 with SDN network controllers, including the Fujitsu Virtuora® NC.



Up to 5 x CFP2-ACO 100G/200G line ports

10 x QSFP28 100GbE client ports

# Technical Specifications

<b>Base System</b>	
System Configuration	Modular 1RU blade
PIU/FRU per Blade	2 line side
Local Management Port (LMP)	10/100 Mbps Ethernet RJ-45 x 1
Management Port (LCN)	2 x Gigabit Ethernet SFP (T, SX, LX, EX, ZX)
Front LEDs	System Status, Severity, and Port
Fans	3 replaceable fans
Power Supply	Dual feed, fixed power supply
Software OS	Linux
<b>Line Optics</b>	
Line Ports per Blade	5
Line Rate	100 Gbps, 200 Gbps
Optical Module	CFP2-ACO
Optical Interface	96/128 C-band, 6.25 GHz flex-grid tunable ITU channels (50/37.5 GHz)
Modulation	DP-QPSK      DP-16QAM
Chromatic Dispersion	±55,000 ps/nm      ± 55,000 ps/nm
Minimum Required OSNR	11 dB      19 dB
Tx Wavelength	1528.72 – 1566.77 nm
Rx Wavelength	1528.72 – 1566.77 nm
Tx Output Power Range	Min: –5dBm, Max: 0dBm
Rx Input Power Range	Min: –18.0dBm, Max: 0dBm
PMD Tolerance	150 ps (Outage Probability 1.0e-5)
AVG Reach w/ SMF-28 ULL Fiber (terrestrial)	3000 km      2300 km
<b>Client Optics</b>	
Client Ports per Blade/PIU	10
Optical/Electrical Interface	QSFP28
Supported Interfaces	LR, ER, CWDM, DWDM, SR
<b>Performance Monitoring</b>	
Service PMs	24-hour, 15-minute, untimed bins
OTN PMs	Support (Section, Path, etc.)
Thresholds and TCA	Support (user assignable)
<b>Management</b>	
Virtuora NC	Yes
Web GUI	Yes
CLI	Yes
NETCONF/YANG	Yes
SNMP	SNMP v2 - Alarm and TCA
<b>Communications</b>	
Timing	Telnet, SSH, FTP, SFTP, SFTP R1.1, NTP
In-band Management	GCCO
OSMINE Support	CLEI
<b>Physical Characteristics</b>	
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
Rack Compatibility	19 and 23"
Weight	T300 chassis: 10.944 lb (4.964 kg) 1-port PIU w/o CFP2-ACO: 1.290 lb (0.585 kg) F3A1: 0.443 lb (0.201 kg) F031: 0.529 lb (0.24 kg)
<b>Operating Environment</b>	
Operating Temperature	5 to +40 °C
Short-Term Temperature	–5 to +50 °C
Humidity – Normal Operating	5% to 85%
Humidity – Short Term	5% to 93%
<b>Power</b>	
Power Supply	Dual feed, fixed power supply
120 V AC	No
–48 V DC	–40 V DC to –57 V DC
Power Consumption	365.6 W (typical)
<b>Regulatory and Compliance</b>	
FCC	FCC Part 15, Class A
NEBS	NEBS Level 3
UL/CSA	UL/CSA 60950-1
CE	CE
RoHS	RoHS
IEC/EN	IEC/EN 60825-1, 60825-2
WEEE	WEEE
RCM	RCM
CDRH	FDA CDRH

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