

# Data Sheet 1FINITY™ T400 Transport Blade

# 10 GbE to 100G-BaseR Layer 1 aggregator

### T400 Transport Blade at a Glance

- Modular 1RU blade design
- 25 × 40 GbE (QSFP+) client ports providing 100 × 10 GbE via a 4:1 breakout cable
- 10 × 100G-BaseR (QSFP28) network ports
- CLI script, SNMP, RESTCONF, or NETCONF management

#### **Product Overview**

While virtually all modern transport solutions utilize 100G or 200G wavelengths, it is still necessary to accommodate 10 GbE services traversing these systems. The 1FINITY T400 transport blade serves this purpose as a 1 Tbps Layer 1 aggregator providing 10 GbE to 100G-BaseR aggregation. The blade is compliant with the OIF Multi-Link Gearbox (MLG) implementation agreement 3.0.

## Fixed Blade-Based Design

Designed to meet both central office and data center requirements, the fixed 1RU design of the T400 optimizes use of rack space and easily accommodates rapid bandwidth growth. The T400 base system is adaptable, with AC or DC power feeds, redundant replaceable fans, and integrated virtual Managment Control Unit (vMCU) software for control and monitoring. Additionally, the use of copper port types lowers cost.

By using MLG, the T400 supports up to  $100 \times 10$  GbE client interfaces with fixed mapping aggregation into 40 GbE clients, then aggregated into  $10 \times 100$  GbE trunk interfaces.

#### Decoupling Aggregation and Transponding Adds Flexibiity

Since the T400 decouples aggregation from the transponder, the platform is highly flexible to deploy. Growth in the line rate, or changes in the mix of 10 GbE and 100 GbE being transported, are simpler to accomplish with a decoupled unit.



#### **Simplified Network Operations**

The T400 employs a Linux-based operating system and can be managed via command-line interface (CLI), Web GUI, SNMP, RESTCONF and NETCONF. The Web GUI or CLI script can provision numerous service options. Coupled with the YANG-defined protocols, it is easy to use the T400 with open SDN network controllers, including Fujitsu Virtuora® NC.

#### Support for Operational Automation

The 1FINITY T400 is equipped with features that improve data gathering and monitoring and support operational automation:

- Ethernet Link Layer Discovery Protocol (LLDP) snooping
- Zero-touch provisioning
- Streaming telemetry
- Ethernet MAC frame monitoring

#### 1FINITY: A Revolutionary, Disaggregated Platform

For network operators seeking an open, simple, scalable architecture to meet escalating bandwidth demand, 1FINITY from Fujitsu is 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 1FINITY 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.



Up to 10 × 100G-BaseR (QSFP28) service ports

Up to 25  $\times$  40 GbE (QSFP+) client ports with 4:1 fanout for 100  $\times$  10 GbE

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# **Technical Specifications**

Base System	
System Configuration	Fixed 1RU Blade
Local Management Port (LMP)	None
Management Port (LCN)	2 × 10/100/1000 Mbps Ethernet RJ-45
Front LEDs	System Status, Alarm Severity, and Port Blue: "Find Me"
Fans	2 replaceable fans
Power Supply	Dual replaceable AC or DC power supplies
Software OS	Linux
Client Optics	
Client Ports per Blade	25
Optical/Electrical Interface	QSFP+ with 4:1 fanout, 4 × GbE
Supported Interfaces	SR4
Service Ports	
Service Ports per Blade	10
Service Rate	100G-BaseR
Optical Module	QSFP28
Supported Interfaces	CR4, SR4, LR4, CWDM4
Performance Monitoring	
Service PMs	24-hour, 15-minute, 1-week, and 1-month bins
Real-Time Power Usage	Yes
Thresholds and TCA	Supported (fixed values)
Management	
Virtuora NC	Yes
Web GUI	Yes
CLI	Yes
NETCONF/YANG	Yes
RESTCONF	Yes
SNMP	SNMPv2
Communications	SSH, SFTP
Timing	NTP, SNTP R2.1
In Band Management	No
OSMINE Support	CLEI

Physical Characteristics	
Dimensions (H × W × D)	1.75 × 16.85 × 17.72" (44.5 × 428 × 45 mm)
Weight (Blade)	31 lb (14 kg)
Operating Environment	
Operating Temperature	0 to +40 °C
Operating Humidity	5% to 95%
Power	
Power Supply	Dual Replaceable Power Modules
120 V AC	100 V AC to 240 V AC
-48 V DC	-42V DC to -56V DC
Power Consumption	450 W (typical)
Regulatory and Compliance	
FCC	FCC Part 15, Class A
NEBS	NEBS Level 3
UL/CSA	UL/CSA 60950-1
RoHS	RoHS 6



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