

# Data Sheet

## 1 FINITY S900 Switch

### Layer 2 Carrier Ethernet aggregation and switching

#### 1 FINITY™ S900 Blade at a Glance

- 10 Gbps Layer 2 Ethernet aggregation switch
- Compact, modular 1RU half-rack-width platform
- 120 Gb bidirectional packet switching capacity
- 12 interface ports supporting a combination of 10G SFP+ or 1G SFP rates
- Managed via CLI scripts and SNMP
- Web GUI for initial turn-up and status

#### Product Overview

The 1 FINITY S900 Layer 2 switch is a versatile, compact Ethernet aggregation blade. The 1RU blade supports any combination of 12 × 1 GbE or 10 GbE SFP+ configurations, and simplifies operations with Y.1731 OAM and link aggregation (LAG) for facility protection. The blade's small footprint, high port density, and low power consumption work together to solve various operational challenges and reduce operating costs.

As one of the 1 FINITY family of blades, the S900 switch shares the advantages of the 1 FINITY platform architecture. The S900 form factor is 1RU high but only a half-rack width. This design allows network operators to efficiently scale their networks by adding two S900 blades per rack unit as needed, or by deploying other blades in the 1 FINITY portfolio, such as the 1 FINITY S100 Switch.

#### Business Service Applications

The 1 FINITY S900 is ideal for low-cost 1 GbE to 10 GbE aggregation in business service applications, and is compatible with other members of the 1 FINITY S-Series. The S900 can be deployed up to 80 km away from an S100 ring to gather a number of 1 GbE services and return them as a 10 GbE service. Furthermore, combining the S900 and S100 blades with a DWDM optical transport device, such as the 1 FINITY L100 family or FLASHWAVE 9500, forms a Packet Optical Transport Platform (POTP) network. This network efficiently transports 1 GbE, 10 GbE, and 100 GbE services on 100G/200G optical wavelengths.

Zero-touch provisioning (ZTP) automates the service turn-up process, reducing turn-up-time and eliminating the need to schedule an on-site technician. The feature automates configuration of the S900 and



eliminates the need for manual provisioning, leaving installation technicians free to just plug and cable the device for service activation. However, when needed, a technician can intervene to remotely alter device configuration or provisioning at any time.

#### Layer 2 Switching

The 1 FINITY S900 provides Layer 2 switching, making it ideal for networks that require 1 Gb to 10 Gb aggregation. The 1RU blade provides 120 Gb of bidirectional packet switching capacity with 12 ports capable of supporting either 10G or 1G interfaces.

#### Simplified Network Operations

The 1 FINITY S900 has a Linux-based operating system managed through CLI scripts and SNMP management. A web-based GUI or CLI scripts are used for the initial provisioning of services on the S900, and for viewing the status of the ports. The blade supports Y.1731 OAM and delay measurements.

#### 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, and open software control.

# Technical Specifications

<b>Base System</b>		
System Configuration	1RU blade	
Ports per Blade	12	
Local Management Port (LMP)	RJ-45	
Management Port (LCN)	RJ-45	
Front LEDs	System Status, Severity, Port	
Fans	None	
Power Supply	Fixed DC power supply	
Software OS	Linux	
<b>Service Ports</b>		
	1 GbE	10 GbE
Service Ports per Blade	Up to 12 per PIU	Up to 12 per PIU
Optical/Electrical Interface	SFP	SFP+
Supported Interfaces	SX, ZX, LX10, BX10U/D, BX40U/D, BX80U/D, LH, 100Base-TX, 1000Base-T	SR, LR, BR40 U/D
<b>Performance Monitoring</b>		
Service PMs	24-hour, 15-min, and 5-minute bins	
Thresholds & TCA	Support	
Ethernet SLA PMs (Y.1731)	<ul style="list-style-type: none"> <li>• Frame Delay</li> <li>• Delay Variation</li> <li>• Loss Ratio</li> </ul>	
Ethernet Port PMs	<ul style="list-style-type: none"> <li>• Rx, Tx and error statistics</li> <li>• Input and output rate per port</li> <li>• Input and output utilization per port</li> </ul>	
<b>Ethernet Switching</b>		
Switch Fabric	240 Gbps	
MAC Address Table	<ul style="list-style-type: none"> <li>• 16,000 table entries</li> <li>• Enable/disable learning per port</li> </ul>	
Jumbo Frames	Up to 9600 (1526 default)	
VLAN Tagging 802.1Q	4094 VLANs	
Tagging	<ul style="list-style-type: none"> <li>• CVLAN translation</li> <li>• Double tagging</li> <li>• Tagging, de-tagging, swapping</li> <li>• Virtual untagged</li> </ul>	
<b>Traffic QoS</b>		
Priority Queues	8 per port	
Traffic Classification	IEEE 802.1Q, Port, VLAN, ToS, DSCP	
Bandwidth Meters	<ul style="list-style-type: none"> <li>• Bandwidth profiles</li> <li>• Ingress and egress filters</li> <li>• Per service in 64 kbps increments</li> </ul>	
<b>Ethernet OAM</b>		
Fault Management	<ul style="list-style-type: none"> <li>• IEEE 802.1ag</li> <li>• Loopback and link trace</li> <li>• Ethernet fault propagation shutdown</li> </ul>	
Loopbacks	<ul style="list-style-type: none"> <li>• Station loopback</li> <li>• Loopback based on Layer 2 filter</li> </ul>	
<b>Network Protection</b>		
Link Aggregation	<ul style="list-style-type: none"> <li>• 2 ports per LAG</li> <li>• LACP/STATIC</li> </ul>	
Security	<ul style="list-style-type: none"> <li>• Layer 2 loop monitoring</li> <li>• Layer 2 loop protocol</li> <li>• Filtering</li> </ul>	
<b>Management</b>		
Virtuora NC	No	
Web GUI	Yes	
CLI	Yes	
Netconf/YANG	No	
SNMP	SNMP v2c, SNMP3	
Communications	SSH, SFTP, FTP, Telnet, HTTP, HTTPS, TFTP	
Timing	NTP	
In-Band Management	MVLAN	
<b>Physical Characteristics</b>		
Blade Physical Dimensions (H × W × D)	1.75 × 7.68 × 12.4" (44 × 195 × 315 mm)	
Rack Compatibility	19" and 23", 2-post	
Weight	7.72 lbs (3.5 kg)	
<b>Operating Environment</b>		
Operating Temperature	-10 to +55 °C	
Operating Humidity	5–95%	

# Technical Specifications

---

## Power

Power Supply	Fixed DC power supply
120 V AC	No
-48 V DC (range)	-40 V DC to -57 V DC
Power Consumption	45 W

## Regulatory and Compliance

FCC	FCC Part 15, Class A
NEBS	NEBS Level 3
UL/CSA	UL/IEC60950-1, UL/IEC62368-1
RoHS	2015/863 RoHS Directive
CE	CE
CISPR	CISPR 32
ETSI	EN 300-019, EN 300-132, EN 300-753, EN 300-386
WEEE	WEEE
RCM	RCM
CDRH	FDA CDRH

**LASER SAFETY  
CLASSIFICATION & CAUTION**  
Compliant with IEC/EN  
60825-1, -2 Laser standards

**CLASS 1 CAUTION**  
*Invisible laser radiation: Class 1 laser product  
Do not view directly with optical instruments*  
**HAZARD LEVEL 1 CAUTION**  
*Hazard level 1 laser radiation  
Do not view directly with non-attenuating optical instruments*

---

**Fujitsu Network Communications, Inc.**  
2801 Telecom Parkway, Richardson, TX 75082  
Tel: 888.362.7763

[us.fujitsu.com/telecom](http://us.fujitsu.com/telecom)