

FSU7101 OSP

FSU7101 Optical Services Platform (OSP)



DPoE™ 1.0

PRODUCT OVERVIEW

The FSU7101 Optical Services Platform (OSP) supports the delivery of symmetrical gigabit Ethernet services. It can be utilized as an integrated, modular or hybrid optical access platform. It supports IEEE802.3ah/av standards compliant EPON and P2P Ethernet(CWDM/DWDM) modules, while supporting both DOCSIS and manual (CLI) provisioning methods.

When paired with the FCM7151 Ethernet Access Line Card (EALC) and FSR7142/43 Remote Optical Services Device (ROSD), it creates a modular access architecture that conserves fiber and increases the reach of the platform beyond the typical 20km reach of PON. This modular architecture increases the density of the OSP platform 4 to 8 times over.



MAIN FEATURES

**Simultaneously Supports EPON(1G & 10G), P2P Ethernet, ROSD
1G and 10G ONUs Coexistence on 10G PON
DPoE™ 1.0 Qualified
MEF 9 & 14 Certified**

Investment Protection

- 80Gbps x 2 (for redundancy) per PON slot
- 2.56Tbps Backplane Capacity Control Channels Upgradeable Switching
- Redundant 100 Mbps Control Channels
- Upgradeable Switching Modules
- Dual Function Slot Design allows for use of multi-purpose line cards

High density

- 1 GEAPON x 10 ports per PON card (FCM7121)
- 10 GEAPON x 8 ports per PON card (FCM7133)
- Ethernet Access Line card (FCM7151)

High Throughput and Reliability

- 160 Gbps up-link (10 Gbps x 8 ports x 2 switch cards)
- L2/L3 capable
- Upgrade path to higher switching and uplink capacities

SPECIFICATIONS

Chassis (FSU7101)	
Dimensions(W × D × H)	W: 434 x D: 334 x H: 444mm (excluding protrusions)
Weight	45kg (fully populated)
Height	19-inch, 10RU (excluding air baffles)
Mount	Flush or Middle
Input Voltage	-42V DC to -57V DC
Power Consumption	3kW max
Operating Temperature	0~40°C (32-104°F)
Operating Humidity	10~90% RH (non-condensing)
Number of Line Card Slots	16



SPECIFICATIONS

Switch Card (FSW7112)

Remote Access I/F	RJ-45 10/100/1000 BASE-T x 1 (Auto-Negotiation)
Serial Interface	RJ-45 (RS232C) x 1
Uplink Interface	SFP/SFP+ (1000B/10GBASE-SR/LR) x 8
Uplink Capacity	160G (Active/Active)
SD Card Slot	SDHC
Number of Supported Line Cards	Maximum 16

1G Line Card (FCM7121)

PON I/F	SFP x 10, 1000BASE-PX20E-D
Wavelength	upstream 1260~1360nm/downstream 1480~1500nm
Transmission Rate	1.25Gbps
Bandwidth Control	DBA (Dynamic Bandwidth Allocation)
Maximum Number of ONUs	64 per port

10G Line Card (FCM7133)

PON I/F	XFP x 8; 10GBASE-PR-D3, 10/1GBASE-PRX-D3, 1000BASE-PX30-D
Wavelength	upstream 1260~1280nm/downstream 1575~1580nm
Transmission Rate	10.3125Gbs
Bandwidth Control	DBA (Dvynamic Bandwidth Allocation)

Ethernet Access Line Card (FCM7151)

Number of Ports	8
Transceiver	SFP+ (10 Gbps) or SFP (1 Gbps)
Standard	10GBASE-R or 1000BASE-X

Chassis (FSU7101)

Dimensions(W × D × H)	W: 434 x D: 334 x H: 444mm (excluding protrusions)
Weight	45kg (fully populated)
Height	19-inch, 10RU (excluding air baffles)
Mount	Flush or Middle
Input Voltage	-42V DC to -57V DC
Power Consumption	3kW max
Operating Temperature	0~40°C (32-104°F)
Operating Humidity	10~90% RH (non-condensing)
Number of Line Card Slots	16



Major Features

Management

- SNMPv1/v2c/v3
- CLI (SSH/Telnet)
- TFTP/SFTP client
- Syslog
- SNTP client
- RADIUS/TACACS+ AAA client
- L2/L3/L4 based ACL
- Remote Firmware upgrade (OLT & ONU)
- Remote ONU Control

Routing

- ECMP
- Static IPv4/6 Routing
- IPv4/v6
- RIPv2
- OSPv2
- MP-BGP (IPv4/v6 addresses only)
- DHCP relay agent (Option 82)
- Single and Multiple Topology ISIS

L2 switching

- Link Aggregation (LAG) with LACP (802.3ad)
- DPoE™ 1.0 compliant EPL service with Provider Bridging(Q in Q)
- ELINE/ELAN

QoS

- DBA of EPON (Hierarchical Weighted Round Robin)
- 8 priority queues for each line card and uplink port
- Policing with two rate Triple Color Markers (trTCM)

DPoE/EPON

- Maximum 64 ONUs per PON with FCM7121 line card
 - o Maximum 8 LLIDs per ONU
- Maximum 128 ONUs per PON with FCM7133 line card
 - o Maximum 16 LLIDs per ONU

Security

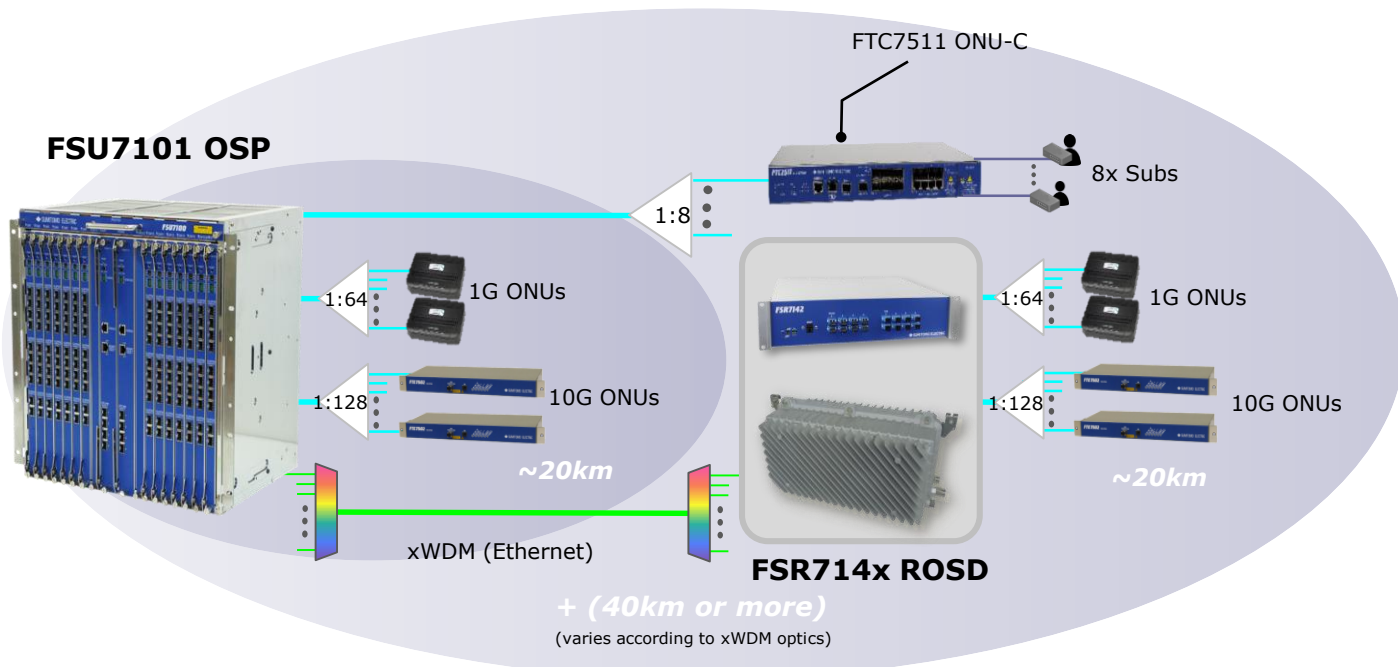
- PON Encryption (AES128 CFB mode)
- ONU Authentication
- Secure Software Download(SSD) via DOCSIS

Diagnostic

- Statistics counters
- Ping & Traceroute
- ONU loopback
- Optical monitoring
- Optical shutdown

System Architectures/Application

PON Optics (—) xWDM Optics (—)



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