FSU7100 Series EPON OLT

SUMITOMO ELECTRIC LIGHTWAVE

DPoE™1.0 Qualified

Product Overview

The FSU7100 Series OLT (Optical Line Terminal) is an IEEE802.3ah and 802.3av standards compliant product offering 1Gbps and 10Gbps symmetrical Ethernet transmission over an ODN (Optical Distribution Network) while supporting both DOCSIS and manual (CLI) provisioning methods.

- Simultaneously Supports 1G and 10G line cards
- 1G and 10G ONU 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 GEPON x 10 ports per PON card (FCM7121)
  - 10 GEPON x 8 ports per PON card (FCM7133)
- High Throughput and Reliability
  - 720 Gbps Switching Capacity per Switch Card
  - 1.44 Tbps Switching Capacity per system (Active/Active)
  - 160 Gbps up-link (10 Gbps x 8 ports x 2 switch cards)
  - L2/L3 capable
  - Upgrade path to higher switching and uplink capacities

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

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

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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 (Dynamic Bandwidth Allocation)
Maximum Number of ONUs	128 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 (Dynamic Bandwidth Allocation)
Maximum Number of ONUs	128 per port

Certificates	
EMI	FCC Part15 Class A, ICES-003 Class A
Safety	UL/CSA 60950-1, IEC 60950-1 & 60825-1
MEF	10.3125Gbs
DPoE™	9 & 14
DPoE™	1.0 Qualified

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
    - IPv4/31 bit mask interface addressing
    - RIPv2, OSPFv2
  - IPv6
    - M-ISIS
  - DHCP relay agent (Option82)
- L2 switching
  - Link Aggregation (LAG) with LACP (802.3ad)
  - DPoETM 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
    - Maximum 8 LLIDs per ONU
  - Maximum 128 ONUs per PON with FCM7133 line card
    - 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

For more information

To learn more about Sumitomo Electric Lightwave, contact your Sumitomo representative or visit:
www.sumitomoelectric.com

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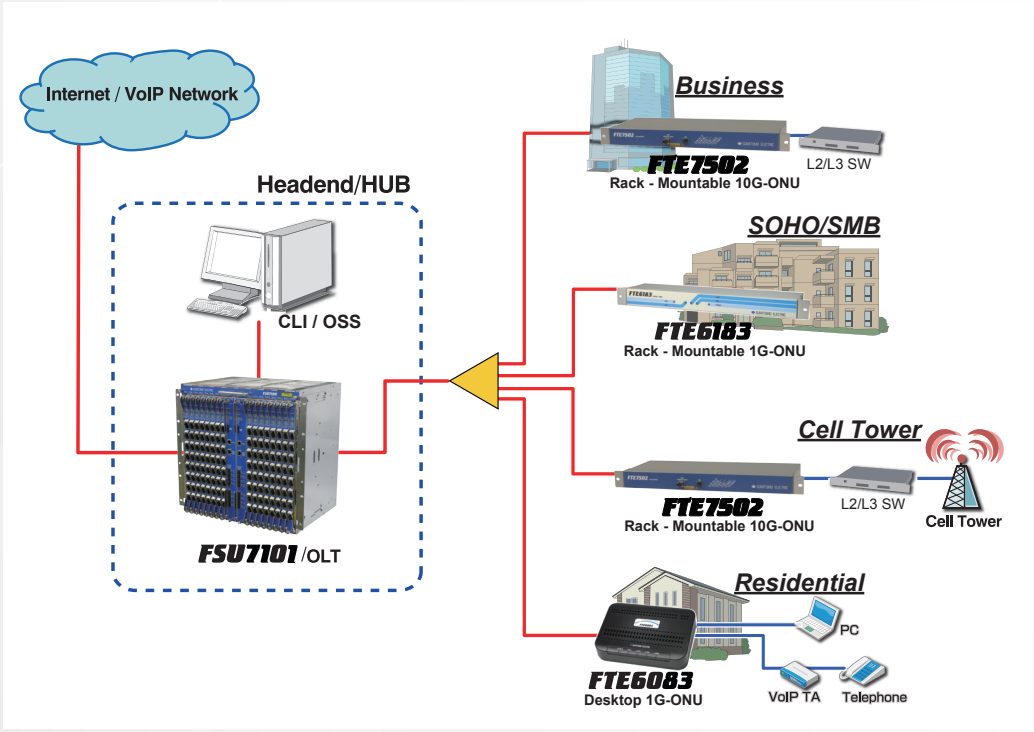
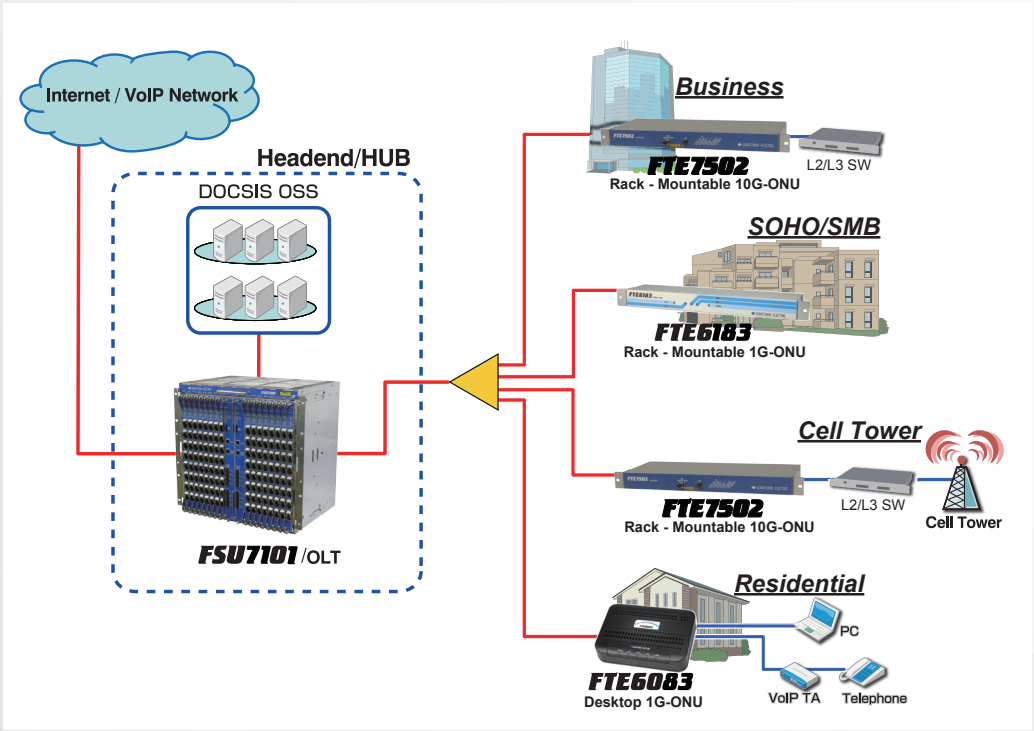
System Architectures

Normal EPON Depoyment Case



DPoE Deployment Case



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