ADTRAN

FSU7100 SERIES

Multi-Gigabit Optical Platform

10 Gbps

DPoE Capable

Benefits

- **Simultaneously Supports 1G/10G Line Cards**

- **1G/10G ONU Coexistence on 10G PON**

- **160G Uplink Capacity**

- **DPoE 1.0 Qualified**

- **MEF 9 and 14 Certified**

- **Investment Protection**
  - Up to two 80Gbps Per PON Slot (for Redundancy)
  - Up to 2.56Tbps Backplane Capacity
  - Redundant 100 Mbps Control Channels
  - Upgradeable Switching Modules
  - Dual Function Slot Design Supports Use of Multipurpose Line Cards

- **High Throughput and Reliability**
  - 128 1G or 10G-EPON Interfaces
  - 160 Gbps Uplink (10 Gbps x 8 Ports x 2 Switch Cards)
  - L2/L3 Capable
  - Upgrade Path to Higher Switching and Uplink Capacities

Overview

The FSU7100 Series Optical Platform supports the delivery of symmetrical multi-gigabit (1G/10G) Ethernet services. It can be utilized as an integrated, modular or hybrid optical access platform.

It supports IEEE802.3ah/av standards compliant EPON/10G-EPON modules while supporting both DOCSIS (DPoE) and manual (CLI) provisioning methods.

The ADTRAN FSU7100 series consists of the FSU7101 OLT and the FSU7104 Compact OLT. The FSU7101 provides up to 128 10G-EPON ports to support up to 16,384 Optical Network Units (ONUs) making it ideal for headend or hubsite deployments. The FSU7104 Compact OLT provides up to 24 10G-EPON ports to support up to 3,072 ONUs and is designed for use in small hubs, indoor cabinets, and multi-dwelling units (MDUs).

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Product Specifications

Chassis (FSU7101)

- **Dimensions**: 17.5 in. x 17.1 in. x 13.2 in. (444mm x 434mm x 334mm) (H x W x D)
- **Weight**: ~100lb (45kg)
- **Height**: 19-inch, 10RU (excluding air baffles)
- **Mount**: Flush or Middle
- **Input Voltage**: -42V DC to -57V DC
- **Power Consumption**: 3kW Max
- **Operating Temperature**: 32°F-104°F (0°C-40°C)
- **Operating Humidity**: 10 ~ 90% RH (non-condensing)
- **Number of Line Card Slots**: 16

Chassis (FSU7104)

- **Dimensions**: 6.7 in. x 17.35 in. x 15.22 in (177mm x 440.7mm x 386.6mm) (H x W x D)
- **Weight:** 17.4 lbs (7.9 kg)
- **Height:** 19-inch, 4RU
- **Mount:** Front or Middle
- **Input Voltage:** -42V DC to -57V DC
- **Power Consumption:** 1440W Max
- **Operating Temperature:** 32°F-104°F (0°C-40°C)
- **Operating Humidity:** Up to 93% (non-condensing)
- **Number of Line Card Slots:** 3

Switch Card (FSW7112)

- **Remote Access:** I/F RJ-45 10/100/1000BASE-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

10G Line Card (FCM7133)

- **Line Rates:** 1/1G; 10/1G; 10/10G 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**: 10.3 Gbps
- **Bandwidth Control**: 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 9 and 14
- DPoE 1.0 Qualified

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; BGPv2
- IPv6
  - M-ISIS, Single Topology ISIS, BGPv6
- DHCP Relay Agent (Option82)

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)
- Eight Priority Queues for Each Line Card and Uplink Port
- Policing with Two Rate Triple Color Markers (trTCM)

DPoE/EPON

- Maximum 128 ONUs Per PON with FCM7133 Line Card
  - Maximum 16 LLIDs Per ONU
- 1G - 8 LLIDS Per ONU
- 10G - 16 LLIDs Per ONU

Security

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

Diagnostic

- Statistics counters
- Ping and Traceroute
- ONU Loopback
- Optical Monitoring
- Optical Shutdown

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Ordering Information

Equipment	Part No.
ADTRAN FSU7101 Optical Platform	4757101FSUDCF1
ADTRAN FSU7104 Compact OLT	4757104FSUDCF1
Switch Card FSW7112	1757112FSWF2
10G Line Card FCM7133	1757133FCMF1