



# STM - 1/4 Optical Access MUX

## Product Features

- Carrier-class STM - 1/4 SDH multiplexer in a compact (2U high), full capacity arrangement
- Two chassis options: MX at 445 mm wide and SMX at 216 mm wide
- Single or double ended deployment into many SDH multiplexers
- Ethernet over SDH capability, GFP ITU-T G.7041 compliant
- Supports high- and low-order VCAT
- DSI and IP/PPP over DCC
- Optional auto in-service for network and trib connections
- E1, DS3, and Ethernet transport services with optional redundancy
- No stranded capacity – capital savings are immediate – all capacity is available for revenue producing services
- Range of up to 80 km using 1310/1550 nm one or two fiber
- Comprehensive maintenance capabilities – TL1, SNMP, craft menus; Total Access EMS support; alarm and event log
- Management functions and alarms over the DCC for manageability within the TMN framework
- Up to 63 E1s fed directly from the system
- Up to 12 DS3s fed directly from the system
- Both  $\pm 24$  and  $-48$  VDC powering; optional AC kit
- Extended temperature hardened
- Remote menu via Telnet

## OPTI-6100 SDH Multiplexer

Service providers are faced with capital constraints and the continuing need to incrementally expand existing infrastructures in a cost-effective manner. They frequently face challenges posed by the limited electrical range of DS3s and E1s and the cost of converting optical to electrical interfaces for transport through expensive high-capacity network elements.

The ADTRAN® OPTI-6100™ delivers all the versatility and functionality that today's service providers need for cost-effective network expansion. This compact, state-of-the-art unit seamlessly integrates with and modernizes existing networks. The OPTI-6100 consolidates discrete optical and multiplexer network elements into one small 2U (89 mm) high chassis. Two chassis options are available, the MX (445 mm wide) and the SMX (216 mm wide). The MX mounts in a standard 483 mm rack. The SMX is wall or rack mountable with the option to mount two units side by side in a 483 mm rack.

The feature set, small footprint, low cost, and diverse deployment options of the OPTI-6100 make it a powerful tool for optical delivery of E1, STM-1, DS3 and Ethernet. It supports all of the maintenance and administration tools necessary for service providers to administer their networks efficiently. Its fully integrated design provides the management and redundancy features expected of carrier-class broadband multiplexers.

OPTI-6100 is the industry's first STM-1/4 multiplexer to deliver a combination of E1, DS3, and Ethernet drops. ADTRAN provides the ability to utilize all of the bandwidth in an optical network interface for customer services

without stranded bandwidth. Its compact design is significantly smaller than similar products and it delivers superior functionality at a fraction of the price.

### Topology

- Terminal mode, subtended off an SDH compliant multiplexer
- End-to-end OPTI-6100 (MX or SMX)
- SNCP ADM ring, STM-1/4 Architecture
- Very low card count, high degree of integration, compact design
- Optional protection of high-speed interfaces
- Optional protection of low-speed interfaces, E1, DS3

### Services OPTI-6100 (SMX Chassis)

- E1 (1 to 21 with redundancy)
- DS3 (1 to 6 with redundancy)
- Ethernet (1 to 16)

### Services OPTI-6100 (MX Chassis)

- E1 (1 to 63 with redundancy)
- DS3/EC-1 (1 to 12 with redundancy)
- Ethernet (1 to 48)

The OPTI-6100 consists of a common equipment module (the OMM), a maintenance interface module (the SCM), and line cards (tributary modules). The common equipment module contains a high-speed interface and cross-connect circuitry.





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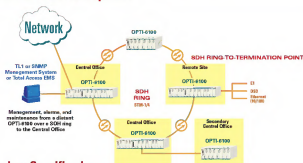


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# STM-1/4 Optical Access MUX

## OPTI-6100 SDH Multiplexer



## Product Specifications

### Front Panel Features

- **SCM module:** Status and Alarm LEDs
- **OMM, DS3, E1 Trib modules:** Status, Alarm, Online, and Test LEDs
- **Ethernet 10/100 modules:** Status, Link, and Activity LEDs

### Mechanical

- **Dimensions MX:** 89 mm H X 445 mm W X 293 mm D
- **Dimensions SMX:** 89 mm H X 216 mm W X 293 mm D
- **Weight MX:** Chassis 3.9 kg, 6.4 kg fully loaded
- **Weight SMX:** Chassis 2.1 kg, 3.2 kg fully loaded
- **Mounting MX:** Rackmount
- **Mounting SMX:** Rackmount or wallmount
- **Fiber connectors:** SC, LC
- **Coax connectors:** BNC
- **E1 connectors:** Champ
- **Fan assembly:** IU high with integrated alarming

### Interfaces

#### Network Interfaces

- **STM-1 LR, IR (Terminal or SNCP), 1310,1550 nm**
  - **STM-4 LR, IR (Terminal or SNCP), 1310,1550 nm**
- Note: STM-1/4 SNCP modules have integrated any-to-any VC12 and VC3 cross connect capabilities

#### Tributary Interfaces

- **E1**
- **DS3**
- **STM-1 IR, LR, MM**
- **STM-4 IR, LR, MM**
- **Ethernet 10/100/1000**

#### Ethernet over SDH

- **10/100BaseT, H/L/O VCAT**
- **GFP (G.7041)**
- **X.86**
- **Bridge, L2 switch modes**

### Protection

- **Network:** 1+1 (Linear MSP or SNCP) (optional)
- **Tributary:** 1:1 (optional)

### Regulatory Standards

- **NEBS Level 3**
- **ETS 300 386**
- **EN 60950**
- **EN 55022**
- **ETS 300 019**
- **CE Mark**

### Technical Standards

- **ITU-T G.703**
- **ITU-T G.707**
- **ITU-T G.957, G.958**
- **ITU-T G.813**
- **ITU-T G.783**
- **ITU-T G.784**
- **ITU-T G.7041**

### Electrical

- **=20 to 60 VDC, optional AC power supply is available**

### Management

- **Local:** Craft port on front panel
- **Remote:** TL1 (DCC), SNMP, Telnet, Ethernet
- **Environmental alarms:** 19 inputs (with EFANM)

### Environmental

- **Operating temperature:** -40°C to +85°C
- **Storage temperature:** -40°C to +85°C
- **Relative humidity:** 5 to 95 percent, noncondensing

## Ordering Information

For equipment ordering information visit:  
<http://www.adtran.com/opti-6100>

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