

## OSIRIS STD Shelf

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### Overview

The Positron OSIRIS multi-service Platform (MSP) is an integrated access solution for the rapidly expanding synchronous optical network (SONET) broadband markets. It delivers the most cost-effective, compact and simple-to-deploy solution for multiservice traffic such as data, voice and video.



The OSIRIS STD is a high-speed OC-3/OC-12/OC-48 add/drop multiplexer (ADM) shelf that allows access to up to three STS-1 of bandwidth. This 14" wide shelf is mountable in a 19" rack, in a 23" rack, on a wall, or in a cabinet.

Alarm and craft interfaces, as well as power and traffic-carrying signals, are located on both the left and right sides of the shelf, providing convenient access. The OSIRIS STD Shelf is an ideal product for medium- to low-fill SONET access applications, including corporate center and campus systems.

### Key Benefits

- Flexibility in choice of line rate and bandwidth usage/segmentation
- Easy and flexible installation and maintenance
- Low risk of power loss
- Optimal use of equipment
- 1:N protection
- No fans necessary; better mean time between failure (MTBF)

## OSIRIS STD Technology

The OSIRIS STD Shelf comes with a pre-installed alarm and craft interface unit (ACIU) in the leftmost slot and a tributary interface unit (TIU) in the rightmost slot. Both of these cards can be ordered separately as replacements.

The ACIU includes front alarm LEDs for critical, major, minor, remote, power, active, fuse A and fuse B (power source) alarms. The ACIU also provides the interface to the system's operations, administration, maintenance and provisioning (OAM&P).

The OAM&P interface provides a user input/output (I/O) port, an operating system (OS) port, a network element (NE) LAN port, a craft port and an alarms port. In addition, there are redundant DC power inputs.

The TIU acts as the main data interface for the shelf, including DS-1, DS-3/EC-1 and external primary and secondary clock connections. It also has an emergency power input connection, which supplies temporary power for maintenance.

## Key Features

- Up to 3 STS-1 of bandwidth access
- Support for OC-3/OC-12/OC-48 rings
- Slots for up to 9 mappers
- Convenient side access to most connections
- Up to two separate power inputs
- Emergency power feed input
- Mixed mapper schemes
- Mapper protection slots
- Convection-cooled design
- Various mounting configurations

## Technical Specifications

Plug-in Mapper Units	Mapper Slots	Protection Slots
DS-1	1-7	9
DS-3	5,6,7	8
EC-1	5,6,7	8
Ethernet	1-9	—
Fast Ethernet	1-9	—
OC-3/OC-3c	1-9	—
Multi-service Ethernet (MSE)	1-9	—

Additional Plug-in Units	Slot(s)	Description
Auxiliary card (AUX2)	AUX	Monitoring and control of other user devices
Network monitor and control unit (NMCU)	MCU	Processing unit, OAM&P
Buffer interface unit (BIU)	BIU-A, BIU-B	Signal amplifying
Optical access unit (OAU)	OAU-A, OAU-B	Multiplexing and demultiplexing for SONET, electrical-to-optical conversion
Protection switching control unit (PSCU)	PSCU	Switching between failed and backup DS-1 mappers

Physical	
Dimensions	H: 8.75" (22.23 cm) or 5 mounting spaces (mtg sp); W: 14" (35.56 cm); D (without shelf door): 10.125" (25.72 cm); D (with shelf door): 10.375" (26.35 cm)
Required space for separation from other equipment	2 mtg sp
Weight	26 lbs (11.8 kg), maximum

Environmental (Guaranteed)	
Humidity	5% to 95%, non-condensing
Operating temperature	-40° F to +149° F (-40° C to +65° C)
General	-40° F to +149° F (-40° C to +65° C)
With OC-12/OC-48 OAUs and/or VPR, Ethernet and Fast Ethernet	32° F to 122° F (0° C to 50° C)
Storage Temperature	-40° F to +185° F (-40° C to +85° C)

Compliance	
Earthquake	Telcordia GR-63-CORE, Zone 4
EMI emissions)	FCC Part 15, Class A, with DS-1 and DS-3 mappers
Safety	EN60950; UL 1950; CSA C22.2, No. 950
Technical Compliance Requirements	Telcordia GR-253; ITU-T G.707, G.708, G.709, G.957, G.958

<b>Power</b>	
Distribution	Point-of-use power supply (PUPS)
Fuses	60 Vdc GMT 7.5 Amp
Grounding	Dedicated ground cables
Input redundancy	VA and VB power cable feeds and emergency power input on TIU
Isolation	Signal, logic, frame and battery return
Operating Voltage	-20 Vdc to -60 Vdc (-40 Vdc to -60 Vdc for OC-48 and VPR)

<b>Power Consumption</b>	
ACIU	2 watts maximum
Fully loaded OC-3	81.5 watts maximum
Fully loaded OC-12	91.5 watts maximum
Fully loaded OC-48	119.5 watts maximum
TIU	0.5 watts maximum

<b>Product Code</b>	<b>CPR</b>	<b>ECI/Bar Code</b>	<b>CLEI Code</b>	<b>Description</b>
800101/6	467777	430806-9	SNMDBA0ARB	OSIRIS STD Shelf and mounting brackets
800360/6	C72599	211978	SNCIRPOEAA	Spare ACIU
800361/6	F70235	2400588	SNCCLPW3AB	Spare TIU

## Ordering Information

[www.positronaccess.com](http://www.positronaccess.com) | Toll Free: 1-888-577-5254 | Tel: 514-345-2220 | Email: [info@positronaccess.com](mailto:info@positronaccess.com)