

OSIRIS XTD Shelf

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 XTD is a high-speed OC-3/OC-12/ OC-48 add/drop multiplexer (ADM) shelf that allows access to up to 12 STS-1 of bandwidth. This double-deck, 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 XTD Shelf is ideal for head-end and high-density SONET applications.

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 XTD Technology

The OSIRIS XTD Shelf comes with a pre-installed alarm and craft interface unit (ACIU) in the upper leftmost slot and three tributary interface units (TIUs) in the upper rightmost slot, the bottom left most slot and the bottom right most slot. 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 DC power inputs, as well as three pairs of DS-3/EC-1 BNC data connectors.

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

Key Features

- Up to 12 STS-1 of bandwidth access
- Support for OC-3/OC-12/OC-48 rings
- Slots for up to 23 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, 9-22	8, 23
DS-3	1-3, 5-7, 9-11, 19-21	4, 8, 12, 22
EC-1	1-3, 5-7, 9-11, 19-21	4, 8, 12, 22
Ethernet	1-23; with cover on: 1-8, 15-22	—
Fast Ethernet	1-23; with cover on: 1-8, 15-22	—
OC-3/OC-3c	1-23	—
Multi-service Ethernet (MSE)	1-23	—

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 1, PSCU 2, PSCU 3	Switching between failed and backup DS-1 mappers

Physical	
Dimensions	H: 21" (53.34 cm) or 12 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	61 lbs (27.6 kg), maximum

Environmental (guaranteed)	
Humidity	5% to 95%, non-condensing
Operating temperature	
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 Ethernet 10, E1,V.35, DS-3, and EC-1 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

Power	
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)

Power Consumption	
ACIU	2 watts
Fully loaded OC-3	193.5 watts
Fully loaded OC-12	203.5 watts
Fully loaded OC-48	231.5 watts
TIU	0.5 watts

Product Code	CPR	ECI/Bar code	CLEI code	Description
800108/6	135734	4-30810-6	SNMHCE0BRB	OSIRIS XTD Shelf and mounting brackets
800364/6	H70967	222241	SNCIROVEAA	Spare ACIU
800361/6	F70235	2400588	SNCCLPW3AB	Spare TIU for right side (top and bottom)
800366/6	H70669	2401134	SNCCLPW73AB	Spare TIU for left side

Ordering Information

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