

# OSIRIS OC-12 Optical Access Unit

## 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 multi-service traffic such as data, voice and video.

The Optical Access Unit (OAU) provides the multiplexing and demultiplexing for all mapper units in SONET networks. It also provides electrical-to-optical conversion of the associated signals. The OC-12 OAU collects all payload data from the backplane and adds the SONET framing and overhead to build the standard STS-1 signal.

## OC-12 OAU Technology

The OC-12 OAU performs all necessary synchronization, pointer and overhead processing. To provide traffic protection, two OAUs can be installed. One OAU, installed in the OAU-A slot, provides the optical interface to the working ring. The other OAU, installed in the OAU-B slot, provides the optical interface to the protection ring.

The OC-12 OAU is available in intermediate-reach and long-reach versions. The standard versions of the OC-12 OAU can be mounted in the OSIRIS STD Shelf, the OSIRIS Micro Shelf and the OSIRIS Micro Wallmount Unit (WMU). For the OSIRIS XTD and XTS shelves, the OAUs are mechanically coupled with buffer interface units (BIUs) via a slider system. The OAUs have two connectors for input/output connection to fiber patch cords. SC, ST and FC connectors are available.

## Key Benefits

- Capability to achieve wide-range distances and operate in a multi-vendor network
- Cost-effective and compact units
- Easy in-service capacity upgrade
- Multi-ring interconnection capability
- No requirement for external synchronization modules
- Robust SONET-based protection

## Key Features

- Various optical budgets and wavelengths available
- One-step multiplexing allowing time slot assignment
- Single OAU faces both east and west directions in a ring
- Drop-and-continue support
- Built-in synchronization circuitry
- Full support of unidirectional path switched ring (UPSR)
- Capability to interoperate with other SONET equipment
- Ability to drop any STS-1 from OC-12 line
- Support for concatenated traffic (STS-3c)

## Technical Specifications

Product Code	800510/2 800513/2	800511/2 800514/2	800512/2 800515/2
Laser type	IR-1	LR-1	LR-2
<b>Receiver</b> Connector faceplate Detector	SC, ST, FC InGaAs PIN	SC, ST, FC InGaAs PIN	SC, ST, FC InGaAs PIN
<b>Input Power (average)</b> Maximum Minimum	-8 dBm -28 dBm	-8 dBm -28 dBm	-8 dBm -28 dBm
<b>Transmitter</b> Connector faceplate Optical source	SC, ST, FC InGaAs laser (MLM)	SC, ST, FC InGaAs laser (MLM)	SC, ST, FC InGaAs laser (SLM)
<b>Output Power (average)</b> Maximum Minimum Wavelength center Wavelength range	-8 dBm -15 dBm 1310 nm 1274–1356 nm	2 dBm -3 dBm 1310 nm 1280–1335 nm	2 dBm -3 dBm 1550 nm 1480–1580 nm
<b>Transmitter and Receiver</b> Optical link budget Target distance	13 dB 20 Km	25 dB 60 Km	25 dB 60 Km

### General Data Summary

<b>LEDs</b> BIU OAU	1 for card status 1 for card status and alarm conditions
<b>Power Consumption (maximum)</b> Per OC-12 OAU Per OC-12 OAU coupled with BIU	20 watts 25 watts
<b>Compliance</b> Safety	EN60950; UL 1950, 3rd Edition; CSA C22.2, No. 950

Product Code	CPR	ECI/Bar Code	CLEI Code	Description	Shelves
800510/2	K70477	225506	SNC7V20EAA	OAU-IR (1310 nm, 13 dB), OC-12	OSIRIS STD, Micro, Micro WMU
800513/2	K70483	225512	SNC7V50EAA	XTD/OAU-IR (1310 nm, 13 dB), OC-12	OSIRIS XTD, XTS
800511/2	K70479	225508	SNC7V30EAA	OAU-LR (1310 nm, 25 dB), OC-12	OSIRIS STD, Micro, Micro WMU
800514/2	K70484	225513	SNC7V60EAA	XTD/OAU-LR (1310 nm, 25 dB), OC-12	OSIRIS XTD, XTS
800512/2	K70481	225510	SNC7V40EAA	OAU-LR (1550 nm, 25 dB), OC-12	OSIRIS STD, Micro, Micro WMU
800515/2	K70486	225514	SNC7V70EAA	XTD/OAU-LR (1550 nm, 25 dB), OC-12	OSIRIS XTD, XTS

### Ordering Information

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