

OSIRIS OC-3 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-3 OAU collects all payload data from the backplane and adds the SONET framing and overhead to build the standard STS-1 signal.

OC-3 OAU Technology

The OC-3 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-3 OAU is available in intermediate-reach and long-reach versions. The OAUs require a buffer interface unit (BIU) when installed in an OSIRIS XTD Shelf or in an OSIRIS XTS Shelf. The BIUs are installed in the BIU slots. The OAUs have two connectors for input/output connection to fiber patch cords. ST, SC 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) protection
- Capability to interoperate with other SONET equipment
- Support for concatenated traffic (STS-3c)

DATA SHEET

Technical Specifications

Product Code	800310/4	800318/4	00317/4
Laser type	IR-1	LR-1	LR-2
Receiver			
Connector faceplate	SC, ST, FC	SC, ST, FC	SC, ST, FC
Detector	InGaAs PIN	InGaAs PIN	InGaAs PIN
Input Power (average)			
Maximum	-6 dBm	-6 dBm	-6 dBm
Minimum	-34 dBm	-34 dBm	-34 dBm
Transmitter			
Connector faceplate	SC, ST, FC	SC, ST, FC	SC, ST, FC
Optical source	InGaAs laser (MLM)	InGaAs laser (SLM)	InGaAs laser (SLM)
Output Power (average)			
Maximum	-8 dBm	0 dBm	0 dBm
Minimum	-15 dBm	-6 dBm	-6 dBm
Wavelength center	1310 nm	1310 nm	1550 nm
Wavelength range	1260–1360 nm	1260–1335 nm	1480–1580 nm
Transmitter and Receiver			
Optical link budget	13 dB	28 dB	28 dB
Target distance	20 Km	60 Km	60 Km

Technical Specifications

LEDs	
BIU	1 for card status
OAU	1 for card status and alarm conditions
Power Consumption (maximum)	
Per BIU	4 watts
Per OC-3 OAU	8 watts
Compliance	
Safety	EN60950; UL 1950, 3rd Edition; CSA C22.2, No. 950

Product Code	CPR Code	ECI/Bar Code	CLEI Code	Description	Shelves
800310/4	F70392	225895	SNCBDSGCAA	OAU-IR (1310 nm, 13 dB), OC-3	All
800317/4	K70063	226114	SNC7VYJEA	OAU-LR (1550 nm, 28 dB), OC-3	All
800318/4	K70097	225960	SNC7VZJEA	OAU-LR (1310 nm, 28 dB), OC-3	All
800362	H70669	221636	SNCD5063AA	BIU	OSIRIS XTD, XTS