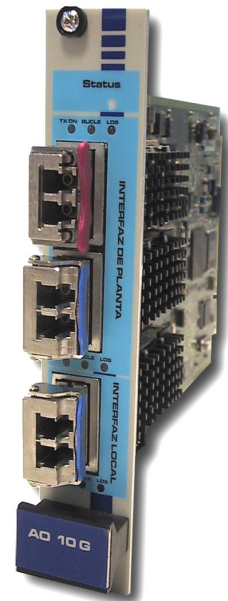


# AO STM-64 1+1



## Description

STM AO-64 1+1 dispatch STM64 SDH and 10GbE WANs traffic. It is a module with multiple applications, from optical adapter (multimode/singlemode / short/long-range) to 1+1 protection element for SDH STM64/10GbE WAN backbones, including xWDM designs. Another typical application is as network terminator, allowing to separate SDH/10GbE WAN operators transport network from the customer's network, providing if desired, 1+1 redundancy.

### Redundant interface

AO STM-64 1+1 has three optical interfaces: the two upper interfaces are for the network link and can be configured with different optical scope (1+1 and 1+0) according to the XFP module inserted, depending on the route of fiber available for redundancy.

Once it is defined a default route several policies are available of redundancy in case of fail of the main fiber: reversible switching (back to the main road in recovery), non-reversible (stays in the path switched until an event occurs that causes a new switching to another route) and forced switching.

### Digital Diagnosis

The Optical adapter AO STM-64 1+1 can be inserted into standalone chassis or into managed chassis (MicroSAE with SNMP module, MiniSAE, MetroSAE or chassis TriSAE). Using the facilities of remote management it is possible to monitor the following parameters:

- Received optical power
- Optical power emitted
- Current polarization
- Operating Temperature

In addition, it allows the execution of loops on both XFP interfaces, helping to detect failures in the network

## Features

### 1+1 Network Interface Protection

Optical Adapter with three modular XFP interfaces that enables the protection of the path of 10Gbps network routes.

### Loops support

Allows the realization of loops in the user interface and network interfaces.

### Digital Diagnostics

Supports additional without diagnostic digital instrumentation. From the management console you can monitor the optical power of the circuit, the bias voltage and temperature.

### XFP optical modules

Available a wide range of XFP modules, from 300m (multimode) to 80K (single-mode), including DWDM and CWDM optics.

### Low latency and compatibility

AO STM-64 1+1 introduces minimal latencies in the SDH/10GbE WAN channel. This module is compatible with the ITU-T specification and interoperability with the leading suppliers of SDH equipment.

### Hot Insertion and extraction

This module is compatible with the entire family of SAE chassis: MicroSAE, TriSAE, and Metro-SAE MiniSAE, supporting hot insertion and extraction.

## Technical Specifications

### General features

1+1 Network Interface Protection

Allows the realization of loops in the user interface and network interfaces.

3 optical interfaces. 2 for operator and 1 for client.

Modular XFP modules.

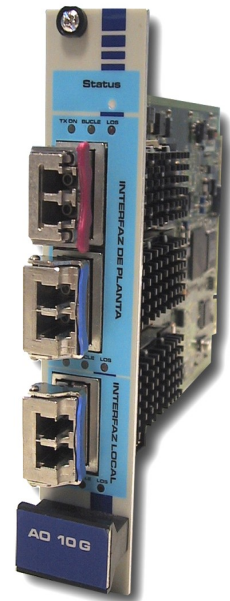
Monitoring via SNMP parameters of optical power emitted, received, temperature and current polarization of the lasers.

Low latency and compatibility with the IEEE specification and interoperable with major providers of SDH/ 10GbE WAN equipment.

In band management with WDM (AO100 1+0/ MUX-DEMUX WDM) solution.

Supports hot insertion and extraction.

Supported chassis: MicroSAE, TriSAE, MiniSAE y MetroSAE.



### Applications

Economic protection of STM-64/ 10GbE WAN services through two fibers or different lambdas.

Demarcation point between carrier's STM-64/ 10GbE WAN network services and customers.

Low-latency regenerator for SDH STM-64 and 10GbE WAN channels

Integration of STM-64 services in CWDM and DWDM networks

### Optical XFP modules options

	I.64.1r 500m MM	I.64.1 10 Km	S.64.2 40Km	L.64.2 80Km	CWDM DWDM
Emitted power (Pout)	-6 dBm	-6 dBm	-5 dBm	-2 dbm	Consult available lambdas and dynamic ranges
Sensibility (S)	-11 dBm	-14 dBm	-18 dBm	-26dBm	
Wavelength	1310 nm	1310 nm	1550 nm	1550 nm	

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