

AO 10GbE 1+1

Description

AO 10G 1+1 is a module with multiple applications, from media converter (Infiniband/multimode/single mode) to 1+1 protection element for 10G LAN backbones, including xWDM designs. Another typical application is the network terminator, allowing to separate 10G transmission network operator providing the customer's network, if desired, 1+1 redundancy.

Redundant interface

AO 10G 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) 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 route in recovery), non-reversible (stays in the switched path until an event occurs that causes a new switching to another route) and forced commutation.

Digital Diagnosis

The Optical adapter AO 10G 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 Protection Network Interface

Optical Adapter with three XFP modular 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 modular optics

Available a wide range of XFP modules, from 30m (Infiniband) to 300m (multimode) or 80K (singlemode), including DWDM and CWDM optics.

Low latency and compatibility

AO 10G 1 +1 introduces minimal latencies in the 10GbE channel. This module is compatible with the IEEE specification and interoperable with major providers of LAN equipment.

Hot Insertion and extraction

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

Technical Specifications

General features

- 1+1 Network Interface Protection
- Convergence time less than 50ms.
- Allows the realization of loops in the user interface and network interfaces.
- Includes 3R clock recovery in the three optical 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 LAN 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 for 10G LAN services through two different fibers or lambdas.
- Demarcation point between SDH services network of operator and customer.
- Low-latency 10G channel regenerator.
- 10G service integration in CWDM and DWDM networks.

Optical XFP modules options

	10G BASE-CX4 30m	10GBASE- SR/SW 300m	10GBASE- LR/SW 10Km	10GBASE- ER/EW 40Km	DWDM CWDM
Emitted power (Pout)	—	-7.3dBm	-6 dBm	-4.7 dBm	Consult available lambdas and dynamic ranges
Sensibility (S)	—	-9.9dBm	-13.5 dBm	-15.8 dbm	
wavelength	—	850nm	1310 nm	1550 nm	



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