

2 x OC-48 / STM-16 X-ADM INTERFACE FOR NEXT GENERATION NETWORKS

OC-48/STM-16 X-ADM

The OC-48/STM-16 X-ADM Modules provide 2.5 Gbps Add-Drop functionality for the Nimbra One and Nimbra 300 series products, enabling guaranteed Quality of Service transport in Next Generation Networks.

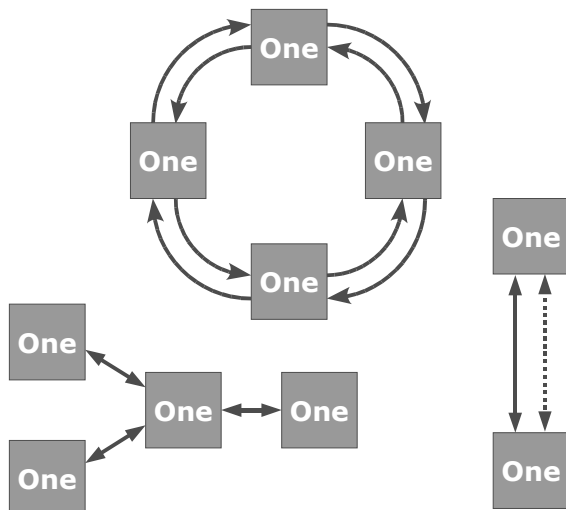
With the X-ADM board it is possible to scale Nimbra networks to large rings and mesh structures in a cost-efficient way. The fully non-blocking on-board switch matrix can add and drop traffic onto a ring or bus network. For mesh network applications the two ports are treated as independent. For point-to-point applications the second port will serve as an optional 1+1 protection interface.

The board has two SFP (Small Form-factor Pluggable) ports that can be fitted with optical modules for various distances.

In any topology, the OC-48/STM-16 X-ADM will increase the usability of the Nimbra platform for broadband and multi-service applications.



**COST-EFFECTIVE 2-PORT OC-48/STM-16
X-ADM MODULE FOR THE NIMBRA ONE
AND 300 SERIES**



**The OC-48/STM-16 X-ADM Module used in ring,
mesh and point-to-point topologies.**



NET INSIGHT AB

Box 42093, SE-126 14
Stockholm, Sweden
Tel +46-8-6850400
Fax +46-8-6850420
info@netinsight.net
www.netinsight.net

KEY FEATURES

The most important characteristics of the OC-48/STM-16 X-ADM Module are:

- > **Standards compliant.** The ports comply to applicable SONET / SDH standards.
- > **Pluggable optics.** The two OC-48/STM-16 ports are Small Form-factor Pluggable (SFP) compatible and can be fitted with SFP modules for different distances and wavelengths.
- > **Non-blocking switch.** The X-ADM module is equipped with a strictly non-blocking switch matrix with 7.5 Gbps capacity in order to handle all switching between West-Node-East.
- > **Very high utilization.** Each trunk port can carry up to 2359 Mbps payload. This corresponds to a link overhead of only 1.5% as compared to for example the ATM cell tax of 10%. Non-hierarchical switching and multiplexing of services enhances utilization significantly.
- > **Any topology.** The X-ADM module supports any network topology; point-to-point, rings and mesh.
- > **Multiservice support.** Supports all the services in the Nimbra platform: Ethernet, SDH, PDH, DVB-ASI, SDI, and HD-SDI.
- > **QoS Multicast support.** Supports multicasting of layer 2 services such as Video over Ethernet or ASI and Audio over E1, with guaranteed QoS for each stream.
- > **Extremely low jitter and wander.** The module has on-board circuitry to eliminate jitter and wander impairments e.g. from pointer justifications in the underlying transport layer.
- > **Performance monitoring.** Standard performance metrics with presentation of G.826 15 min and 24 h statistics.
- > **Hot swap.** Supports in-service swapping of the module for low unavailability.
- > **Ease of handling.** Managed by CLI, Web GUI or SNMP. Can also be managed by Nimbra Vision™ NMS.

TECHNICAL SPECIFICATIONS:

Form factor:	Plug-in unit to Nimbra One and 300 series, uses 1 slot
Laser options:	STM-16 I-16 / OC-48 SR-1 (SM,1310nm, 2 km) STM-16 S-16.1 / OC-48 IR-1 (SM,1310nm, 15 km) Small Form-factor Pluggable (SFP) STM-16 L-16.1 / OC-48 LR-1 (SM,1310nm, 40 km) STM-16 L-16.2 / OC-48 LR-2 (SM,1550nm, 80 km) CWDM 8 wavelengths (SM, 1470-1610nm, 80km)
Framing:	OC-48 STS-48c, ANSI T1.105 STM-16 STM-16; ITU-T Rec G.707
Mapping:	SONET STS-48c SPE SDH VC-4-16c DTM VC synchronous; ETSI ES 201 803-4
Fault management:	SONET/SDH LOS, LOF, LOP, SF, AIS, RDI (LED and Element Manager)
Performance management:	ITU-T G.826 parameters (ES, SES, BBE, UAS)
Maintenance:	Hardware Hot-swap Firmware Remote upgrade Loopback Line side, System side
Power consumption:	<15W

Network Management:

SNMP	v1/v2c/v3
Element Manager	Web GUI, CLI

Timing and Synchronization :

Timing modes:	
Locked	OC-48/STM-16; DTM network sync
Hold-over	
Free-running	<4.6 ppm
Built-in oscillator	Stratum 3 / G.813 option 1

Environmental conditions:

Operating temp.	5 to 40 °C (41 to 104 °F)
- short term	-5 to 55 °C (23 to 131 °F)
Storage temp.	-40 to 70°C (-40 to 156 °F)
Relative humid.	10% to 90% (non-condensing)

Regulatory compliance:

Safety	UL60950-1 EN60950-1
Laser safety	CFR 21 1040.10/11
EMC	FCC 15 Class A EN 300 386
CE marking	93/68/EEC

Ordering information:

NPS0022-XS31	OC-48/STM-16 X-ADM Module - Nimbra One
NPS0022-3S31	OC-48/STM-16 X-ADM Module - Nimbra 300 series
NPA0022-LS11	SFP-module OC-48/STM-16 SR1
NPA0022-LJ11	SFP-module OC-48/STM-16 IR1
NPA0022-LL11	SFP-module OC-48/STM-16 LR1
NPA0022-VL21	SFP-module OC-48/STM-16 LR2

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Net Insight delivers the world's most efficient and scaleable optical transport solution for Broadcast and Media, Digital Terrestrial TV, Mobile TV and IPTV/CATV networks.

Net Insight products truly deliver 100 percent Quality of Service with three times improvement in utilization of bandwidth for a converged transport infrastructure. Net Insight's Nimbra™ platform is the industry solution for video, voice and data, reducing operational costs by 50 percent and enhancing competitiveness in delivery of existing and new media services.

World class customers run mission critical video services over Net Insight products for more than 100 million people in more than 20 countries. Net Insight is quoted on the OMX Nordic Exchange Stockholm. For more information, visit: www.netinsight.net

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