

HIGH DENSITY 3G/HD/SD-SDI MODULE FOR THE NIMBRA 600 SERIES

8 x 3 Gbps Video Access Module

The 8-port 3 Gbps video access module for the Nimbra 600 series multiservice switches enables transport of full uncompressed 1080p high definition video with guaranteed quality of service in studio and contribution networks. The same board may also be used for 1.5 Gbps HD and 270 Mbps SD-SDI.

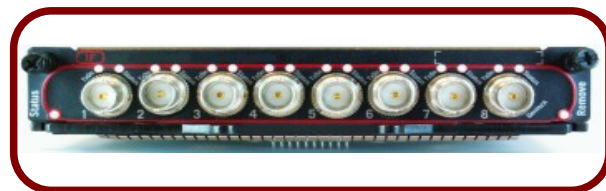
Today the most commonly used HDTV formats are 720p or 1080i. However, 1080p brings higher picture quality and the broadcast industry is likely to transition to this format moving forward. 1080p transport requires twice the bandwidth as the current 1.5 Gbps HD-SDI interface. Although the standard also allows for dual link 1.5 Gbps transport of 1080p, Net Insight's implementation with a single-link serial digital interface at 3 Gbps offers a cost-effective and inherently synchronized solution.

Installed in a Nimbra 600 Series modular switch chassis, the 8 x 3 Gbps Video Access Module enables cost-efficient multiservice video transport with up to three 3G streams multiplexed onto a 10 Gbps wavelength or OC-192/STM-64 carrier together with other services such as IP/Ethernet. Unlike other solutions only offering point-to-point transport of 1080p content, the Nimbra platform enables routing and multicasting of 3G services in any network topology.

Each BNC port on the board may be individually configured as In, Out or Monitor. With all traffic interface slots in the Nimbra 600 series chassis supporting up to 10 Gbps bidirectional traffic, up to 3 in + 3 out 3 Gbps streams may be carried per board. A mixture of 3G, HD and SD-SDI signals is also fully supported. The different streams are transported independently in tailored and secured logical channels to ensure maximum quality of service.

Availability is a key issue for all professional video services and media networks. With built-in network restoration, integrated sub-50ms 1+1 protection and seamless support for external 1+1 protection, the 8 x 3 Gbps Video Access Module together with the Nimbra 600 Series switch offers a flexible protection switching solution in which the level of protection is free of choice.

Network management features include end-to-end service provisioning, performance management end-to-end and at access and trunk interfaces, as well as flexible monitoring and loopback capabilities.



8-PORT ACCESS MODULE ALLOWING FULLY FLEXIBLE MIX OF UNCOMPRESSED VIDEO RANGING FROM 270M SD TO 3G HD SDI



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KEY FEATURES

The most important characteristics of the 8 x 3 Gbps Video Access Module are:

- > **8 configurable ports.** 8 ports for uncompressed video are accommodated on a single board. Each port can be independently configured as 3G/HD/SD and In/Out/Monitor.
- > **European and US formats.** Both 2.97 and 2.97/1.001 Gbps as well as 1.485 and 1.485/1.001 Gbps frequency options are supported.
- > **High frequency tolerance.** Input interfaces support frequency deviations 4 times above standards. This is important when interfacing e.g. to camera equipment.
- > **Guaranteed QoS transport.** Each video stream is transported in a bandwidth-tailored secure channel with guaranteed QoS properties, independent of network load.
- > **Multicast support.** The module supports guaranteed QoS multicast of uncompressed 3G/HD/SD-SDI streams in any fan-out.
- > **Extremely low jitter and wander.** The module utilizes the unique synchronous timing performance of the Nimbra switches in order to deliver video streams with extremely low jitter, wander and latency.
- > **Carrier class.** The Nimbra 600 Series switches and its modules are designed to meet NEBS level 3 specifications for trouble-free operation.
- > **Backwards compatible.** The module is fully interoperable with the HD and SD-SDI interfaces of the Nimbra One/300 series.
- > **Performance monitoring.** Standard performance metrics to ITU-T G.826 both at each video input interface and for individual services end-to-end.
- > **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 for Nimbra 600 Series switches,
1 interface slot

Interface, common:
Ports 8 x BNC, 75 ohm, configurable 3G/HD/SD-SDI,
In/Out/Monitor
Return loss >15 dB

Interface, 3G SDI:
Standard SMPTE 424M 3 Gbps SDI
Frequency 2.97 or 2.97/1.001 Gbps

Interface, HD SDI:
Standard SMPTE 292M HD-SDI
SMPTE 348M HD-SDTI
Frequency 1.485 or 1.485/1.001 Gbps

Interface, SD SDI:
Standard SMPTE 259M SD-SDI
SMPTE 305M SD-SDTI
Frequency 270 Mbps

Mapping:
DTM ETSI ES 201 803-11

Performance management:
ITU-T G.826 based
Bins 24h, 15min
Parameters ES, SES, BBE, UAS

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

Maintenance:
Hardware Hot-swap
Firmware Remote download
Monitoring Any port can monitor any other port
Loopback Far end (Near end through monitor port)

Power consumption:
<40W

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
EN60950
EMC FCC 15 Class A
EN 300 386
CE marking 93/68/EEC
Environment RoHS directive 2002/95/EC

Ordering information:
NPS0051-6001 8 x 3 Gbps Video Access Module

NET INSIGHT - FOR SCALABLE MULTISERVICE NETWORK SOLUTIONS

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 30 countries. Net Insight is quoted on the OMX Nordic Exchange Stockholm. For more information, visit: www.netinsight.net

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