AES/EBU Access Module Access

AES/EBU Audio Transport Module for Nimbra 300

MODULE

AES/EBU transport for audio production, postproduction, contribution and distribution environments that require superb quality audio.

The 8-port AES/EBU Access Module provides high-quality transport for audio production, contribution and distribution over a Nimbra multi-service network.

The 8-port AES/EBU Access Module for the Nimbra 300 series enables transport of AES/EBU (AES3) digital audio signals at various sampling rates with a guaranteed quality of service, independent of network load and topology.

Multi-service networking
The Nimbra system offers a one-box multiservice solution for all your professional video, audio and data transport requirements. Installed in a Nimbra 300 series chassis, the AES/EBU Access Module adds cost efficient audio transport in a networked environment. With support for multicast it is viable also for point-to-multipoint distribution of high quality content.

The AES/EBU Access Module is ideal for use in audio production, post-production, contribution and distribution environments. It allows audio channels on any of the standard sample rates to be transported in bandwidth tailored and secured logical channels with guaranteed QoS.

Unique Nimbra synchronization
The audio interface provides a transparent transport service without the need for external synchronization in order to present a jitter-free audio signal transport. Due to the unique timing properties of a Nimbra network it is possible to keep the buffering delay at the output to a minimum, which provides for a very low end-to-end latency

Industry leading cost-per-channel transport
Each port can be configured as In or Out and any port can be monitored through the monitor port. The AES/EBU Access Module provides a very high-density audio transport solution and together with its extensive fault and performance monitoring options it offers industry leading OPEX and CAPEX.

Unprecedented availability
Availability is a key requirement for all professional audio applications. With built-in automated network restoration and support for per service sub-50ms 1+1 protection, the AES/EBU Access Module offers a flexible protection switching solution. Open-ended 1+1 protection adds extra flexibility by allowing two independent sources to terminate on the same output port. The module is hot-swappable for carrier class availability.

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KEY FEATURES

8 independent AES/EBU ports.
Each port can be individually configured as In or Out.

Full range of sample rates.
Each port can independently be configured to handle an audio channel of any of the standard sample rates.

Guaranteed QoS transport.
Each audio channel is transported in a bandwidth tailored secure channel with guaranteed QoS properties, independent of network load.

Full transparency.
The transport is fully transparent with respect to all the bits of the AES3- 2003 blocks/frames/sub-frames. Thus alternative/compressed formats are also supported, e.g. Dolby® E and Dolby® Digital.

Highest availability.
Supports both network redundancy and sub 50 ms 1+1 protection. Automated network rerouting mitigates link failure and support for in-service module replacement further improves availability.

Low delay.
The low jitter, wander and delay properties of the Nimbra system allows for very small play-out buffers. Hence transit delay can be kept to a minimum.

Multicast support.
The module supports QoS guaranteed multicast of audio channels in any fan-out.

Performance monitoring.
Standard performance metrics with G.826 style presentation of performance for a consolidated service performance view.

Hot swap.
Supports in-service replacement of the module for high availability.

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 300 series, 1 slot

Ports: 8 x Digital Audio In or Out, individually configurable. 1 monitor, BNC 75 ohm, to AES-3id-2001

Interface:
Standards: AES3/5/11-2003, AES-3id-2001
Sample rates: 32/48/96/192/44.1/88.2/176.4 kHz
Input freq toler: ± 10 ppm
Return loss: >20 dB
Reach: 330 m (1000 feet), Belden 1694AMapping:

Mapping:
DTM: ETSI ES 201 803-11

Jitter:
Output intrinsic: < 0.025 UI pp @ 48 kHz
Input tolerance: 0.25 UI @ >8kHz
Latency: < 1 ms through board

Fault management:
RX: LOS, LOF, DOF, LOL
TX: AIS, DUF, DOF

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

Maintenance:
Hardware: Hot swap
Firmware: Remote upgrade
Power consumption: <12W

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

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 Part 15 sub-part B
EN 300 386
CE marking: 93/68/EEC
Environmental: RoHS directive 2002/95/EC

Ordering information:
NPS0050-3001 8 x AES/EBU Access Module (Nimbra 300 series)

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