

LINEAR ACOUSTIC AERO.2000

Audio/Loudness Manager



Quality, Flexibility, and Convenience

AERO.2000 carries on the tradition of delivering the performance and features television broadcasters have come to expect from Linear Acoustic in a 2RU management platform with the convenience of a color front panel display and controls.

Built around industry-standard AEROMAX[®] processing and UPMAX[®]-II upmixing and downmixing, AERO.2000 delivers a consistent and compliant output level for main channel and SAP audio without compromising audio quality, ensuring both a happy loudness meter and happy viewers. LKFS/LUFS loudness metering and logging is provided for each program.

AERO.2000 hosts either one or two processing instances in your choice of AMX5.1 (5.1+2+2), AMX2.0 (2+2+2), or AMX5x2 (2+2+2+2+2) configurations. AMX5.1 and AMX2.0 configurations offer dual UPMAX[®]-II upmixing to create compelling 5.1-channel audio from 2-channel sources, and a downmix that is nearly indistinguishable from the original source.

The first processing engine of any AMX instance can be optionally configured to include Dolby[®] Digital/Dolby Digital Plus transcoding. This feature provides decoding of any Dolby Digital/Dolby Digital Plus content to PCM for loudness processing, and encoding to Dolby Digital/Dolby Digital Plus for transmission.

The optional Nielsen[®] watermark encoder offers independent watermarking for each processing engine within an instance, including N2, N6, and CBET.

I/O includes 8 audio pairs via HD/SD-SDI and 8 audio pairs via AES-3 with flexible pair shuffling on both the input and output. Compensating video delay (SDI input) and per-pair audio delays ensure A/V sync. Local audio insertion allows an external audio source such as EAS or text-to-speech to be introduced into the main or secondary program audio outputs.

The included NfRemote software provides setup and control of system and processing settings, while a built-in http server allows for automated control and loudness log retrieval.

Failover bypass relays on all I/O maintain signal continuity, while dual auto-ranging power supplies provide redundancy and worldwide compatibility.



Specifications

Processing

One or two instances of AEROMAX® processing in AMX5.1 (5.1+2+2), AMX2.0 (2+2+2), or AMX5x2 (2+2+2+2+2) configurations. UPMAX®-II upmixing/downmixing with automatic detection and automatic downmix replacement

Audio Coding & Watermarking

Available Dolby® Digital/Dolby Digital Plus transcoding. Available Nielsen® watermark encoding, including N2, N6, and CBET

Reference

48kHz reference via AES (including DARS), AES Input 1, SDI, or internal clock (standalone use only)

Sample Rate/Resolution/Frequency Response

48kHz, 24-bit, 20Hz - 20kHz below threshold

AES-3 I/O

Four 2-channel inputs/outputs via 75 Ohm BNC unbalanced female connectors, internally terminated, plus four 2-channel inputs/outputs on a DB-25 connector; signal levels per SMPTE 276M/AES-3ID-2001

SDI I/O

One auto-sensing HD/SD-SDI input (SMPTE 292M/259M), up to 1080i/60/59.94/50Hz, with de-embedding for 8 audio pairs; re-embedding for 8 audio pairs via one SDI output; supports SMPTE 2020 A and B VANC metadata

Parallel GPI/O Control Port

25-pin female D connector, 0-5V TTL levels, for 8 inputs and outputs; controls preset recall plus local audio insertion

Ethernet Connection

Gigabit Ethernet provides TCP/IP remote control, access to http server, and NfRemote software

Front Panel Display and Controls

Rotary encoder and control keys plus color display and headphone output

Power

Dual internal power supplies, each rated at 100-264 VAC, 50/60Hz, auto-sensing, 175W maximum total

Dimensions and Weight

2RU - 3.50"H x 19"W x 17"D (89 x 483 x 432 mm); approximate net weight 13 lbs. (5.9 kg); approximate shipping weight 18 lbs. (8.2 kg)

Environmental

Fan cooled; operating temperature 32 to 122 degrees F (0 - 50 degrees C); non-operating temperature -4 to 158 degrees F (-20 - 70 degrees C)

Regulatory

North America - FCC and CE tested and compliant; power supplies are UL approved

Europe - Complies with European Union Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS), as amended by Commission Decisions 2005/618/EC, 2005/717/EC, 2005/747/EC (RoHS Directive), and WEEE

Warranty

Standard 2-year limited parts and warranty

Specifications are subject to change without notice.