LINEAR ACOUSTIC®
by THE TELOS ALLIANCE®

LINEAR ACOUSTIC AERO.100

DTV Audio Processor

Quality, Flexibility, and Value

AERO.100 provides all of the performance and features television broadcasters have come to expect from Linear Acoustic in a compact, 1RU loudness management platform.

Built around industry-standard AEROMAX® processing and UPMAX®-II upmixing and downmixing, AERO.100 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.100 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 4 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.

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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; 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 Indicators
Graphical OLED display for system software, host name, and IP address

Power
Dual internal power supplies, each rated at 100-264 VAC, 50/60Hz, auto-sensing, 150W maximum total

Dimensions and Weight
1RU – 1.75"H x 19"W x 15.5"D (44 x 483 x 395 mm); approximate net weight 9 lbs. (4 kg); approximate shipping weight 15 lbs. (6.80 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.

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