



MetaMAX™ Audio Metadata Processor and Generator With Optional AMAS™ Metadata Analysis Software Model LA-5180

Audio Metadata was designed to alleviate issues with loudness and channel image consistency. Measured and set during production, metadata values are designed to flow through the signal chain to the network, then to the local station, and finally to the consumer. Used correctly, metadata can help guide reproduction of audio to match the producers original intent and deliver audio that matches the listening environment.

Faulty or incorrect values can produce the exact opposite of what the system has been designed for. Audio Metadata has proven to sometimes be ineffective and unreliable with errant values allowing commercials or programs to be reproduced by up to 30dB too loud. As these values are normally set during production, what is protecting the broadcaster from unknowingly transmitting these potentially huge loudness shifts? Who will be to blame and who will pay the fine: the program and metadata creator or the licensed station?

The Linear Acoustic LA-5180 Audio Metadata Frame Synchronizer and Generator is an integral part of any facility relying on the successful creation and continuity of metadata for proper audio encoding. Useful in digital television transmission, remote production, and DVD creation environments, the flexible unit accepts professional audio metadata via a standard RS-485 serial input, or as delivered inside the VANC space of an HD-SDI stream. The unit then corrects or replaces bad or missing metadata packets outputting stable metadata via RS-485 and also selectably back into the VANC space of the applied HD-SDI signal.

In many cases, the final emission gear provides little or no ability to alter metadata values, and no indication of metadata errors. If a value is found to be incorrect, in many cases there are no handles to

allow manual correction. For example, if an incoming program shows a dialog level parameter that is dramatically different from what is locally measured with a Dolby® LM100, the LA-5180 allows this value (and any other value in any program) to be changed on the fly in real time prior to emission, acting as a final catch-all preventing serious problems.

The LA-5180 can also be used as a stand-alone audio metadata generator, with eight presets available to store all required parameters for both the professional metadata (also known as Dolby E metadata) and the consumer metadata (also known as the AC-3 metadata).

The LA-5180 can be located in transmission or production areas, remote OB trucks, or anywhere metadata needs to be processed or generated. Standard NTSC or PAL black burst video reference is required.

Advanced AMAS™ metadata analysis package optionally provided by TCP/IP connectivity to a remote PC. AMAS provides detailed display and analysis of critical metadata parameters and user-definable limits for values drives error indication and logging. Interactions between related parameters can also be trapped and alarmed helping to prevent unforeseen interactions that could cause loss or damage to decoded audio. Metadata and logging information can also be recorded for compact storage and future analysis.

A bright LED display, rotary encoder, and four control keys provide for straightforward menu navigation and function adjustment on the unit. The unit features dual, redundant medical-grade power supplies and hard relay bypass of metadata and other signals for trouble-free operation in transmission critical environments.

LA-5180 Specifications:

Serial/Metadata Input/Output

9-pin female D connector, 115 kbps, pinout per SMPTE 207M (RS-485);
Compatible with products from Dolby, Miranda, Evertz, and others.

HD-SDI (SMPTE 292-M) VANC METADATA

Extraction, processing, and selectable re-insertion of audio metadata into vertical ancillary space of applied HD-SDI signal. 75-Ohm BNC female connectors, per SMPTE 292M, compatible with 1080i and 720p formats.

AES Input (Dolby E guard-band position measurement via optional AMAS software)

75-Ohm BNC female with loop-through, signal levels per AES-31D-2001

LTC Input (SMPTE Linear Time Code Input for optional AMAS software timestamp)

BNC female, unbalanced; Signal levels per SMPTE 12M

Video Reference Input

BNC Female with loop-through, NTSC black or program (29.97fps),
or PAL black or program (25fps). Signal levels per SMPTE 154.

Processing

Proprietary analysis and correction of faulty metadata packets, reversion to internal values in case of uncorrectable failure. Unit can also be used as a stand-alone metadata generator.

Parallel Control Port

9-pin female D connector, 0-5V TTL levels, used for forced reversion to internal generator.

Ethernet

100-BASE-T, protocol details available on request

Power Requirements

90-264 VAC, auto-sensing, 35 W maximum

Dimensions and Weight

One rack unit- 1.75"H x 19"W x 24"D (44 x 483 x 610 mm)

Net weight: 6 lbs (2.72 kg), approximate.

Shipping weight: 8 lbs (3.63 kg), approximate.

Environmental

Convection cooled. Operating: 0 to 50 degrees C, non-operating -20 to 70 degrees C.

Regulatory

North America: Designed to comply with the limits for a class A digital device pursuant to Part 15 of the FCC rules (CFR). Designed for U.S. and Canadian listing with UL.

Europe: Designed to comply with the requirements of Low Voltage Directive 73/23/EEC and EMC Directive 89/336/EEC. RoHS compliant product.

Warranty

Standard Linear Acoustic two-year limited parts and labor warranty.

OPTIONS:

Option - 01 - AMAS Metadata Analysis Software package

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