MT2000
Multichannel Bitstream Analyzer
DOLBY.

Linear Acoustic MT2000

	Loudness	LKFS
0		
-20	Integrated	−120.0
-60	10 Second	−120.0
lₙcslₙLR 10S	3 Second	−120.0

LINEAR ACOUSTIC

Next Generation PCM and Dolby® Encoded Audio Generation and Analysis. Includes ITU-R BS.1770 Loudness Tools with Dolby Dialogue Intelligence™

MT2000
Multichannel
Bitstream Analyzer

Introducing MT2000 -

Next Generation PCM and Dolby® Encoded Audio Generation and Analysis.

The Linear Acoustic MT2000 Multichannel Bitstream Analyzer is an efficient tool for end-to-end system testing and is the ideal next generation replacement for the original Dolby® DM100.

The Linear Acoustic MT2000 Bitstream Analyzer is a portable, handheld diagnostic tool that can monitor and generate Dolby Digital, Dolby Digital Plus, Dolby E, and PCM bitstreams.

With its built-in test-signal generator, the MT2000 allows audio system integrators and service engineers to quickly monitor and check the integrity and composition of Dolby encoded and PCM signals routed through production, broadcast, cable, and satellite facilities, or even a home theater system.

MT2000

The Linear Acoustic MT2000 accepts signals via AES, TOSLINK™ optical, 3GHz SDI, or HDMI connectors. The unit identifies the format of the selected input signal and activates the appropriate built-in decoder. Monitoring capabilities include error detection at the AES3 layer and within the coded audio layers, including SMPTE 337 formatting information and Dolby E guard band position.

In addition to displaying audio signal statistics and metadata, the MT2000 includes ITU-R BS.1770-1/2/3 loudness measurement with selectable Dolby Dialogue Intelligence™ to support ATSC A/85 and EBU R128.

The MT2000 is capable of generating two-channel PCM test signals. In this mode, the user can select the output waveform type (white noise, pink noise, sine wave), amplitude, and frequency. Test signals and analysis are also provided for latency and basic lip sync. Additionally, an extensive set of useful Dolby Digital, Dolby Digital Plus, and Dolby E test bitstreams is stored internally. The MT2000 can generate the selected test signal or bitstream simultaneously on all output connectors, even while receiving and decoding an input signal.

Signals are output simultaneously via the AES and TOSLINK optical connections and can be re-embedded into any of the SDI pairs. Output can be the original input signal, a PCM decoded version of the input signal, test signals, or, in the case of the SDI output, a combination of all of these. Inputs can be used as sources for embedding even if not used for decoding, thus channel shuffling can be easily accomplished.

A bright yellow OLED display and integrated rotary navigation cluster provide straightforward menu navigation and function adjustment. A standard 1/8-inch stereo headphone jack can be switched to monitor any two decoded channels or a downmix of the whole program. A digitally amplified speaker provides a surprisingly loud output useful for quick checks and for emulating sound systems found in portable devices.

The MT2000 is powered by an internal NiMH rechargeable battery pack or from its DC power port via an included universal power supply. It ships with a carrying case and multiple adapters.

Designed and built in the USA, the MT2000 is backed by the world-class support and expertise of Linear Acoustic. Assistance is just a phone call away..

MT2000 Specifications:

Audio Formats

Dolby Digital, Dolby Digital Plus, and Dolby E inputs and output of test bitstreams; Stereo (AES/TOSLINK optical) and multichannel PCM (SDI and HDMI) input; Generation of PCM waveforms such as white noise, pink noise, and sine waves, latency test signal, A/V sync test pulse (beep/flash)

Metering

ITU-R BS.1770 loudness measurement with Dolby Dialogue Intelligence; Error detection at the AES3 layer and within the coded audio layers, including SMPTE 337 formatting information and Dolby E guard band position

AES I/O

All connectors are 75-Ohm BNC female; Main inputs with 75-Ohm internal termination; Signal levels per SMPTE 276M/AES-3ID-2001. Compatible with consumer S/PDIF connections

MADI I/O

AES-10 signals accepted via the 75-Ohm, internally terminated, BNC female connection used for AES

SDI I/O

Auto-sensing 3GHz HD/SD-SDI (SMPTE 292M/259M/424M), up to 1080p/60/59.94/50Hz, access to audio and VANC metadata

DVB-ASI (Option)

DVB-ASI (ETSI TR 101 891 v1.1.1) Transport Stream Input (via SDI connector).

Audio PID can be selected for decoding and measurement

HDMI Input (Option)

Multichannel baseband or encoded audio can be demultiplexed and analyzed from HDCP and non-HDCP signals

TOSLINK Optical I/O

Supports consumer IEC 61937 input and output

Front Panel Controls and Indicators

Rotary joystick navigation cluster plus graphical OLED display

Ethernet

10/100BT via RJ45. Functionality reserved for future use

USB

Connection for Software/firmware updates and option key install

Headphone Output

3.5mm (1/8-inch) side connector, +12 dBu maximum into 600-Ohms

Power Requirements

Internal NiMH rechargeable battery which can be field replaced if necessary; Power and charge via dedicated DC input

Dimensions and Weight

7.9"H x 4"W x 1.6"D (200 x 100 x 41 mm), 3 lbs (1.36 kg) approximate

Shipping Dimensions and Weight

14"H x 11"W x 6"D (356 x 280 x 153 mm); 8 lbs (3.7 kg) approximate

Environmental

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

Regulatory

North America: FCC and CE tested and compliant, power supply is UL approved

Europe: Complies with the 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 Linear Acoustic two-years limited parts and labor; 90 days for battery

Supplied Accessories

Auto-ranging DC power supply/charger, reference video adapter, USB Metadata adapter, high-strength hard carrying case

Options

SNMP Monitoring

DVB-ASI Input

HDMI Input

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Specifications subject to change.