LINEAR ACOUSTIC

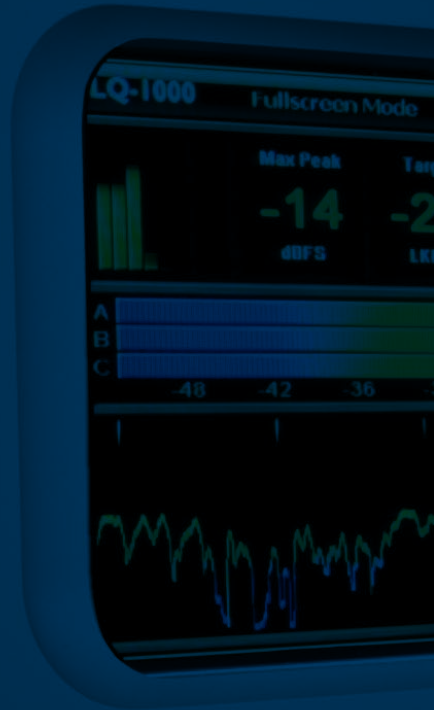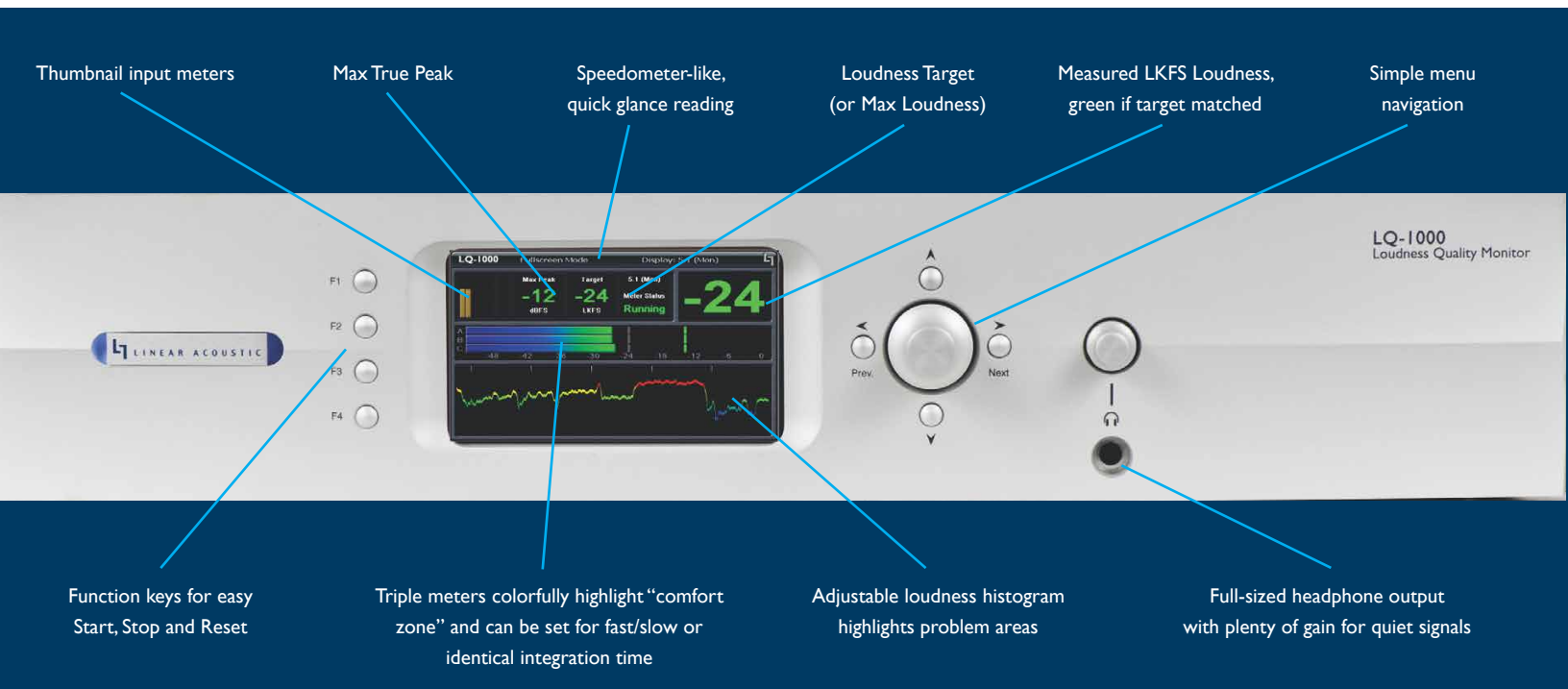*Fully Featured, Simple and Accurate Loudness Metering*

LQ-1000
Loudness Quality Monitor

LQ-1000™ gives vibrant clarity to loudness quality metering. Supporting the latest ITU-R BS.1770-3 and EBU R128 loudness measurement standards, results are displayed in a logical, colorful, "Loudness Speedometer" format.

Thumbnail input meters

Max True Peak

Speedometer-like, quick glance reading

Loudness Target (or Max Loudness)

Measured LKFS Loudness, green if target matched

Simple menu navigation

LQ-1000
Loudness Quality Monitor

Function keys for easy Start, Stop and Reset

Triple meters colorfully highlight "comfort zone" and can be set for fast/slow or identical integration time

Adjustable loudness histogram highlights problem areas

Full-sized headphone output with plenty of gain for quiet signals

LQ-1000 accepts PCM, Dolby Digital (AC-3), Dolby Digital Plus, and Dolby E signals via AES and HD/SD-SDI. De-embedded audio used for metering is also available on AES outputs.

A VGA output allows viewing on an external monitor or multiviewer while an Ethernet connection provides remote contol, monitoring, and access to loundess logs. GPI and front panel buttons control meter presets and user log measurements.

Metering is ITU-R BS. 1770-3 compliant with selectable LKFS or EBU R128 metering. Dual redundant internal power supplies are standard.

LQ-1000

The LQ-1000 difference is in the display. A colorful long-life OLED groups critical loudness parameters like short, medium and long term loudness, loudness history, current peak level, maximum peak level, and the loudness target.

Color is employed to represent the roughly 16dB wide loudness "comfort zone" which is aligned around the adjustable target level. The visual is simple: blue is too quiet, green is just right, yellow is getting loud, and red is too loud. The large LKFS loudness number also changes color to better indicate if the number matches the chosen target.

The LQ-1000 includes metering for one 5.1-channel and one 2-channel (stereo) source plus a downmix of the 5.1 program.

AES inputs for dual
5.1+2 measurements

AES outputs of de-embedded
or decoded audio

Ethernet for NfRemote control and access
to HTTP server for log retrival

VGA output for multiviewer
or external screen

Serial metadata Input

HD/SD-SDI input and re- clocked
output supports 16 channel audio
and VANC data

Eight GPIs plus four front panel
buttons to control meter presets
and user log measurements

Dual redundant internal power
supplies standard

Loudness history is an essential part of useful loudness measurement, especially for long form programming. The LQ-1000 loudness histogram allows loudness trends to be easily seen, and immediately highlights problem sections.

Common functions such as measurement Start, Stop, and Reset are controlled by dedicated front panel buttons- no need to dig through menus. A powerful, high quality 6.3mm (1/4") headphone output is provided. Loudness logs from each program source and the program 1 downmix are saved to the internal solid state drive in the universal .csv format and can be retrieved via the built-in HTTP server. Logs for the past 24 hours, 48 hours, 7 days, and for a user-defined time period are maintained and include 3s, 10s, and 30s integrated LKFS values, True Peak, dialnorm, and acmod data once per second. New is a 70-minute log that stores 1770-2 100ms measurements every 100ms.

Four front panel buttons control meter presets and user log measurements. A powerful high-quality 6.3mm (1/4") headphone output is provided.

LQ-1000 Specifications:

Metering Standards

ITU-R BS.1770-3 compliant with selectable LKFS or EBU R128 metering

AES I/O (signals per SMPTE 276/AES-3ID-2001)

Four 75-Ohm AES inputs and outputs via female BNC connectors;
Outputs of selected inputs: AES, De-embedded SDI, Dolby decoded

SDI Input

Auto-sensing HD/SD-SDI (SMPTE 292M/259M) inputs, up to 1080i/60/59.94/50Hz, access to all 16 audio channels plus VANC metadata per SMPTE 2020M methods A and B.

SDI Output

Re-clocked HD/SD-SDI

Headphone Output

1/4" (6.35mm) front panel connector with volume control

Standard Dolby® Decoding

Internal decoder auto-senses and switches between PCM, Dolby Digital (AC-3), Dolby Digital Plus, and Dolby E signals; discrete decoded audio via main AES outputs

VGA Output

640x480 for connection to external monitor or multi-viewer

Metadata Input (Serial)

9-pin female D connector, 115 kbps, per SMPTE 207M (RS-422/485);
Directly interfaces with Dolby metadata (SMPTE RDD6)

Ethernet

Gigabit Ethernet via RJ45

Power Requirements

100-240 VAC, auto-ranging, 100 W maximum. Redundant PSU option available.

Dimensions and Weight

3.5"H (2RU) x 19"W x 17"D; (89 x 483 x 432mm). Net weight 10.8 lbs (4.9 kg), approximate.

Regulatory

North America: Tested to comply with the limits for a class A digital device pursuant to Part 15 of the FCC rules (CFR). Power supplies are UL tested and approved.

Europe: Tested to comply with the requirements of harmonised Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC as indicated by the affixed CE marking; RoHS and WEEE compliant.

Warranty

Standard Linear Acoustic two-year limited parts and labo

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