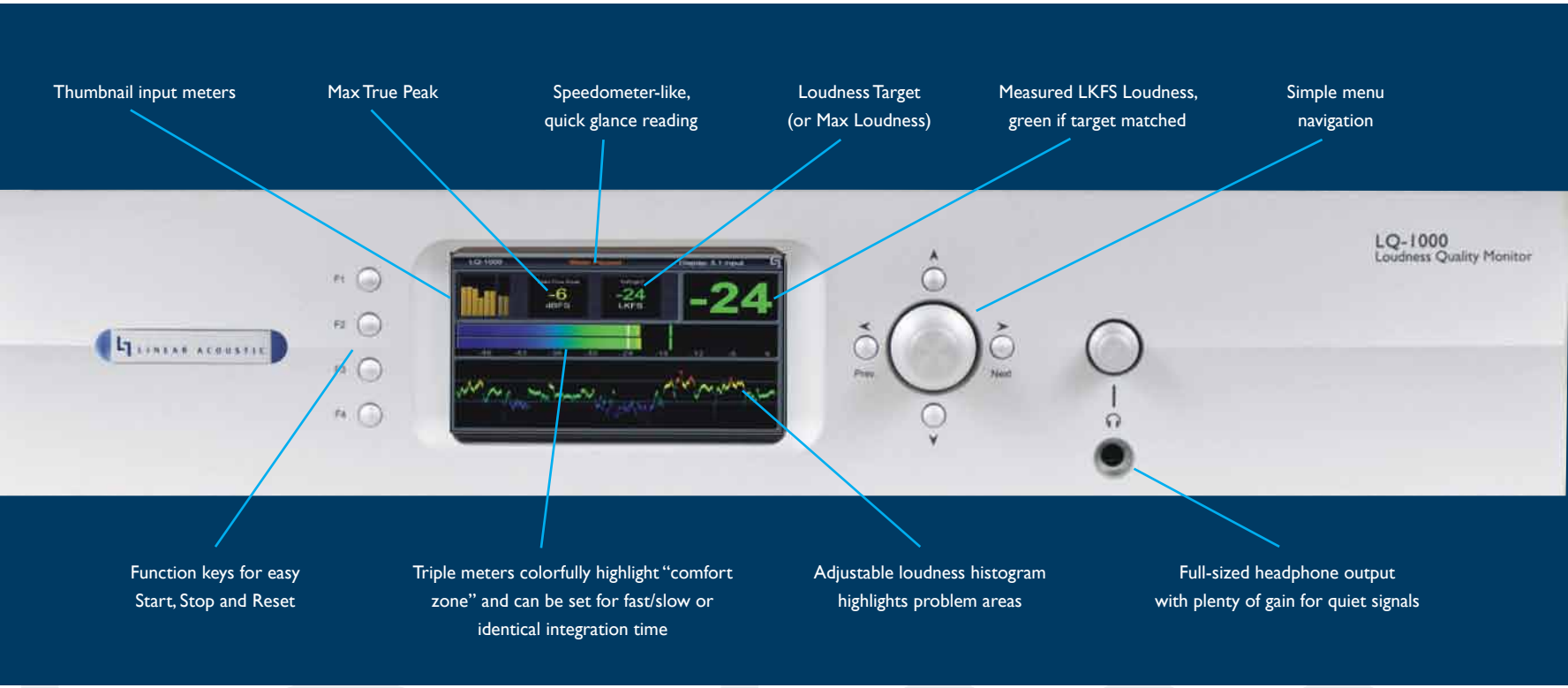
Fully Featured, Simple and Cost Effective Loudness Metering

LQ-1000
Loudness Quality Monitor

LQ-1000™ gives vibrant clarity to loudness quality metering. Supporting the latest ITU-R standards, LQ-1000 now also features Dolby® Dialogue Intelligence. Results are displayed in a logical, colorful, "Loudness Speedometer" format.



A buffered VGA output is included to allow display on an external monitor or for integration into a multiviewer. Rear panel USB and Ethernet connections provide access to control and logging capabilities. GPI/O enables simple remote control of functions assigned to the F1-F4 front panel buttons.

AES and auto-sensing HD/SD-SDI I/O are standard. De-embedded audio channels are used for metering and are also available on the Main AES Outputs.

Optional Dolby® Digital (AC-3), Dolby Digital Plus, and Dolby E decoding can be applied to any AES or SDI input signal and the decoded outputs are also available on the Main AES Outputs and for re-embedding. Redundant power supply is optionally available.

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 two sets of meters to simultaneously measure a 5.1-channel program and a 2.0-channel program. The second meter can alternatively display an internally created LoRo or LtRt downmix. The meters can also respond to metadata applied as serial data or from the VANC space of an applied HD-SDI signal, showing the effects of dialnorm and coding mode.

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.

Dolby Dialogue Intelligence is included. This advanced gating method pauses the measurement during dialogue absence and switches to standard ITU-R BS.1770-2 if no dialogue is detected for long periods of time resulting in repeatable loudness measurements for all content – whether it contains dialogue or not.

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.

LQ-1000 Specifications:

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 or re-embed of selected audio channels

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

Dolby E/Dolby Digital/Dolby Digital Plus Decoding (Option)
Internal Decoder auto-senses and switches between PCM, Dolby E, Dolby Digital, and Dolby Digital Plus decoding. Discrete decoded audio via Main 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: 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 (CE). Designed for RoHS and WEEE compliance.

Warranty
Standard Linear Acoustic two-year limited parts and labor

Available Factory Installed Options
Option 01 - Dolby decoding
Option 03 - Dual power supply (second PSU)

LINEAR ACOUSTIC®
a member of the Telos Alliance

Linear Acoustic
108 Foxshire Drive
Lancaster, PA 17601
www.LinearAcoustic.com
sales@LinearAcoustic.com
+1.717.735.3611