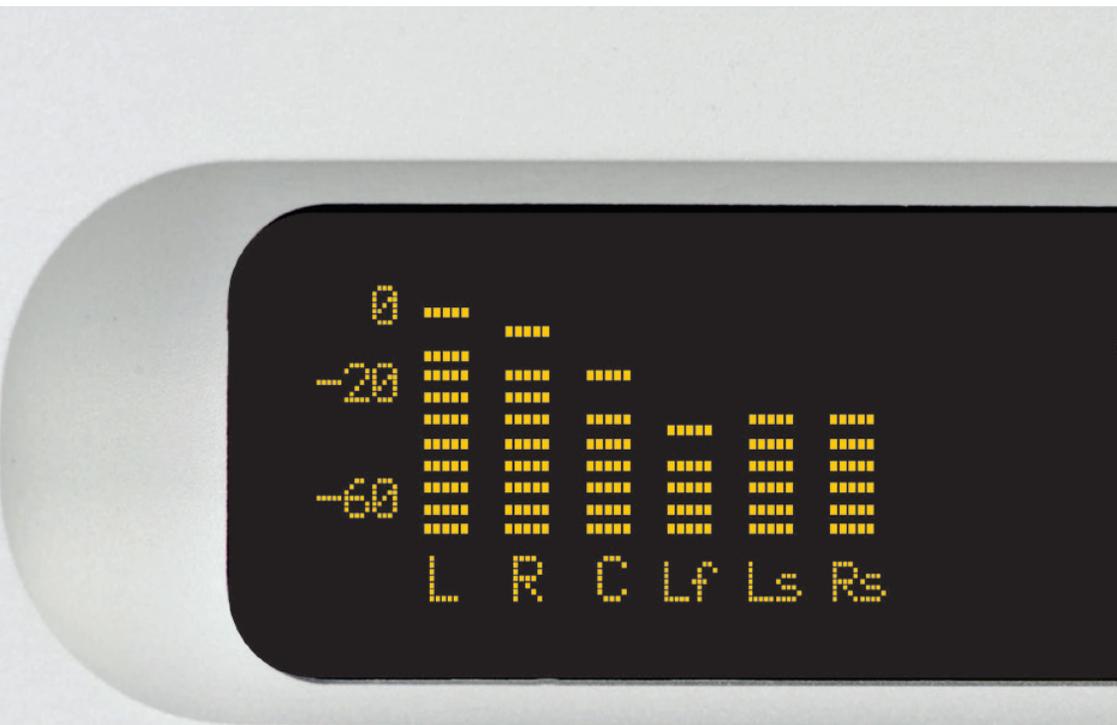LINEAR ACOUSTIC

ITU-R BS.1770 Loudness Meter with Full Decoding & Dolby® Dialogue Intelligence™
AES, SDI, Analogue I/O, DVB-ASI Input; Available Redundant PSU, and SNMP

LQ-1
Loudness Meter

Simple and accurate, the Linear Acoustic LQ-1 supports ITU-R BS.1770 loudness metering standards and includes Dolby Dialogue Intelligence for accurate measurement of wide dynamic range and long-form content.
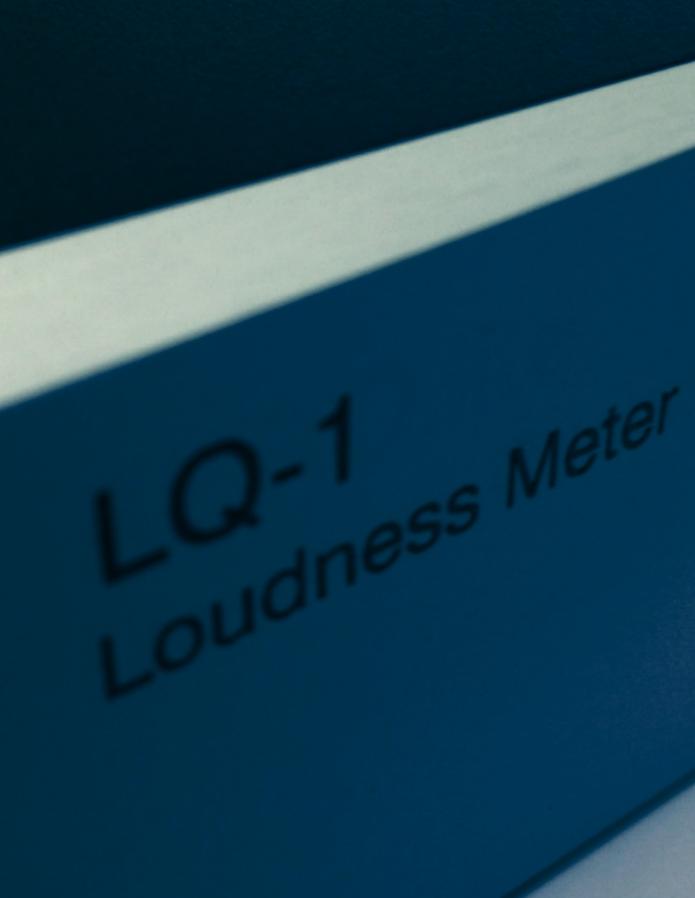
LQ-1
Loudness Meter

Comprehensive SDI, AES, Optical, Analogue and DVB-ASI inputs followed by decoding for PCM or Dolby encoded audio, then loudness measurement per ITU-R BS.1770 with selectable Dolby Dialogue Intelligence automatic gating. The result is a metered value that agrees with standards and recommended practices such as ATSC A/85 and EBU R128 as well as accurately reflecting listener perception.

LQ-1 features:

- Dolby Digital (AC-3), Dolby Digital Plus, Dolby E decoding

- ITU-R BS.1770 meter with Dolby Dialogue Intelligence

- HD/SD-SDI and DVB-ASI Inputs, re-clocked output

- Discrete AES inputs supports 8 channels

- TOSLINK optical input

- Downmixed AES output

- LTC and ATC (SDI) timecode inputs for timestamped logging

- +4dBu Analogue I/O with headphone output

- GPI/O Alarms and Control

- Redundant PSU (option)

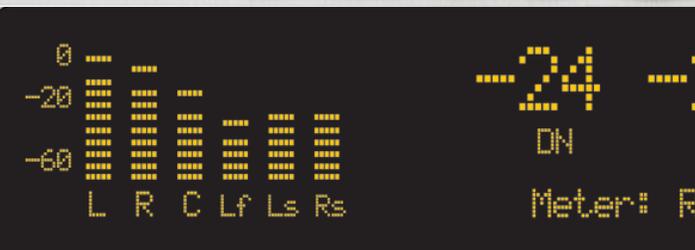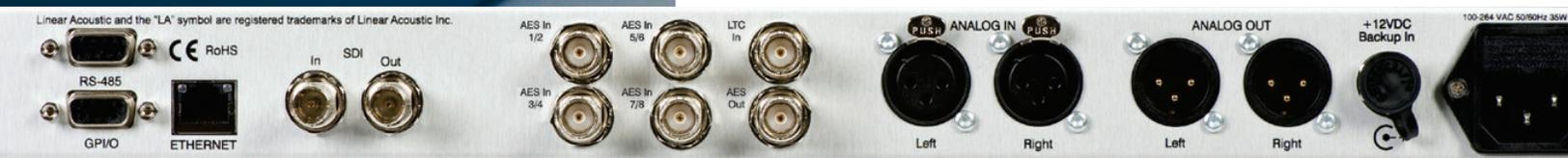- Ethernet for Logging and SNMP (option)

LQ-1

Input and output signal levels are displayed alongside ITU-R BS.1770 measured LKFS loudness and dialnorm metadata to give instant verification of loudness compliance.

Audio can be extracted from any pair of an applied HD/SD-SDI signal, AES, optical or balanced analogue inputs and routed to the decoding and metering core. In DVB-ASI mode, audio can also be sourced from a selected PID and then decoded and measured.

A selectable LtRt or LoRo downmixed output is provided simultaneously via the front panel 6.3mm (1/4") headphone connector, and rear panel AES and stereo +4dBU balanced analogue outputs. Functions such as metadata emulation and Associated Dialogue (AD or Visual Descriptive) mixing can also be auditioned on the downmixed output.

Designed and assembled in the USA, the lightweight and rugged 1RU aluminum chassis is durable enough for installation in challenging environments like OB trucks and cramped edit bays. Built on a broadcast quality Linear Acoustic platform, the LQ-1 is professional grade equipment.

A bright yellow OLED display and integrated rotary navigation cluster provide straightforward menu navigation and function adjustment. Failover bypass relays on all I/O maintains signal continuity. Auto-ranging power supply for worldwide compatibility, and sealed, locking 2.5mm DC input connector for available redundant power supply.

The LQ-1 is backed by the world-class support and expertise of Linear Acoustic. Assistance is just a phone call away.

LQ-1 Specifications:

Metering

ITU-R BS.1770-1/2/3 with Dolby Dialogue Intelligence and support for EBU R128.

Decoding

Dolby Digital (AC-3), Dolby Digital Plus, and Dolby E; Support for Associated Dialogue (AD) via 8-channel Dolby Digital Plus

Sample Rate/Resolution

48kHz, 24-bit

AES I/O

Eight main input channels via four 75-Ohm BNC female connectors, internally terminated; Two-channel downmix AES output; Signal levels per SMPTE 276M/AES-3ID-2001.

Optical Input

Female TOSLINK connector for stereo or encoded input

SDI I/O

Auto-sensing HD/SD-SDI (SMPTE 292M/259M) inputs, up to 1080i/60/59.94/50Hz, access to all 16 audio channels.

DVB-ASI Input

DVB-ASI (ETSI TR 101 891 v1.1.1) Transport Stream Input (via SDI connector). Audio PID can be selected for decoding and measurement.

Analogue I/O

10K Ohm balanced XLR female stereo inputs, +4dBu nominal, +24dBu Max.; Balanced XLR male outputs, +4dBu nominal, +24dBu Max into 600 Ohms.

Parallel GPI/O Control Port

9-pin female D connector, 0-5V TTL levels

Ethernet

10/100 BASE-T via RJ45 for external logging and SNMP reporting

Front Panel Controls and Indicators

Rotary navigation cluster plus graphical OLED display

Headphone Output

6.3mm front panel connector, +12 dBu max into 600-Ohms

Power Requirements

90-264 VAC, 50/60Hz, auto-sensing, 35W maximum; Backup redundant DC Input 12VDC, 2.5A maximum via 2.5mm sealed, locking connector with protective cover

Dimensions and Weight

One rack unit- 1.75"H x 19"W x 11.5"D (44 x 483 x 293 mm) Net weight: 6 lbs (2.72 kg) approximate

Shipping Dimensions and Weight

22"W x 17"D x 7"H (178 x 559 x 432 mm) Net weight: 11 lbs., (5 kg), approximate.

Environmental

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

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 Telos Alliance 5-year warranty

Options

Option 01 - Redundant (backup) PSU (external)
Option 02 - SNMP for logging via Ethernet

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