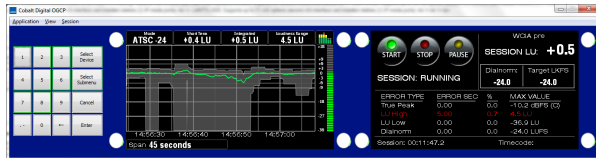
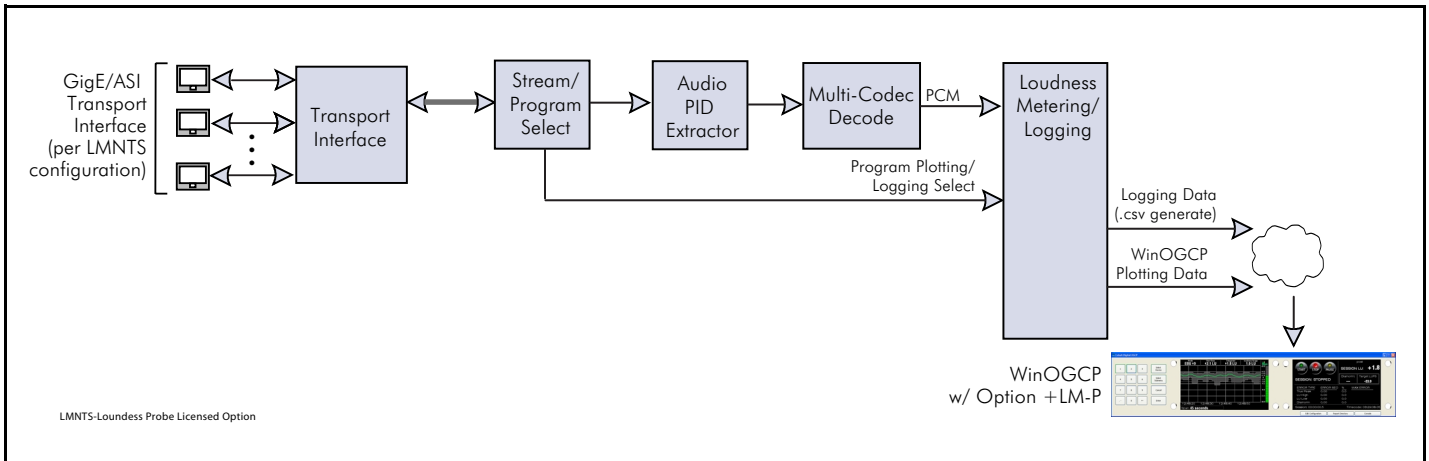


# LMNTS-PROBE • LMNTS Loudness Probe License Option



The **LMNTS Loudness Probe License Option** provides an easy to use, economical solution for loudness probing selected audio PIDs on transport stream-based programming. Loudness Probe can monitor numerous programs within various streams and readily monitor a selected audio PID with a real-time graphical loudness display via WinOGCP - the easy to use software application that provides a virtual desktop that displays loudness in both graphical and numeric formats.

An intuitive control interface offers simple "pushbutton" session start and stop along with clear-cut clear pass/fail loudness assessment. Operating at the MPEG transport layer, it provides a practical loudness monitoring solution for MVPD operators without the need or complexity of external codecs transferring between baseband and MPEG interfaces.



LMNTS Loudness Probe functions as a monitoring/logging only system and not a loudness processor. It purely monitors a buffered copy of the program data and extracts selected audio PIDs for loudness measurement/monitoring; the stream remains "untouched" and is fed to downstream systems completely unaltered.

Using a easy to use menu, the desired program is selected and a running real-time loudness plot is immediately displayed. Session start and stop controls allow the segmenting of programming into organized segmented sessions. The loudness measurement plot (which continually displays compliance or over/under loudness segments) is fully ITU BS.1770, ATSC A/85, and EBU R128 compliant. Loudness Probe also generates high-precision .csv loudness log files that can substantiate loudness compliance and help find offending segments. The well-organized layout of the files allows ready records of any segment logged, and includes a detailed analysis showing individual channel loudness levels, peak levels, and other loudness-related criteria.

Various licensing options allow this option to be tailored for various audio codecs as desired.

## FEATURES

Economical, high-density solution for real-time checking and logging transport stream program loudness.

Full ITU BS.1770, ATSC A/85, and EBU R128 compliant loudness plotting and logging

Intuitive user interface with easy to use menus

Flexible monitoring modes include configurable dBFS bar graph meters, loudness displays and error thresholds

Available for all popular transport stream audio codecs - AC-3, E-AC-3, MPEG 1 Layer 2, AAC

Uses WinOGCP virtual control panel application which is easily installed on any Windows® computer - Execute loudness monitoring and logging from any point on your network.

Easy to use single point of control - simply select the program to be monitored and the program loudness plot is displayed.

EBU +18, EBU +9, and A/85 measurement modes as well as instantaneous loudness display and audio level bars confidence display

.csv log can be downloaded as desired for any program being monitored

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## SPECIFICATIONS

### Measurement Standards

ITU BS.1770, ATSC A/85, and EBU R128 using loudness gating. Custom mode allows configurable LKFS target, gating threshold and enable/disable.

### dBFS Scale Range

0 to -70 dBFS; absolute or configurable relative

### LKFS Scale Range

0 to -70 LKFS

### Averaging

Simultaneous session (infinite) and short-term; configurable short-term averaging period

### Audio Channel Complement

5-Ch (L, R, C, Ls, Rs) LKFS assessment per ITU 1770 and ATSC A/85 and EBU R128

### Audio Codecs Supported

Dolby® Digital (AC-3), Dolby® Digital Plus(TM) (E-AC-3), MPEG 1 Layer 2, AAC

## ORDERING INFORMATION

**LMNTS-LICENSE-PROBE-UNIVERSAL** Universal audio probe for 1 PID (supports EAC-3 SURROUND/STEREO, AC-3 SURROUND/STEREO, HE-AACv1 SURROUND/STEREO, AAC-LC, MP1L2)

**LMNTS-LICENSE-PROBE-E-AC3-SURROUND** Surround audio probe for 1 PID (supports EAC-3 SURROUND/STEREO and AC-3 SURROUND/STEREO)

**LMNTS-LICENSE-PROBE-E-AC3-STEREO** Stereo audio probe for 1 PID (supports EAC-3 STEREO and AC-3 STEREO)

**LMNTS-LICENSE-PROBE-AAC-SURROUND** Surround audio probe for 1 PID (HE-AACv1 and AAC-LC)

**LMNTS-LICENSE-PROBE-AAC-STEREO** Stereo audio probe for 1 PID (supports HE-AACv1 STEREO and AAC-LC)

**LMNTS-LICENSE-PROBE-MP1L2** Stereo audio probe for 1 PID of MPEG 1 LAYER II

**Note:** A 5.1 (surround) license can be used to process a 2.0 (stereo) stream of the same codec type.

**Note:** LMNTS-LICENSE-PROBE requires the following display/measurement options:

**WinOGCP** Virtual desktop-based Remote Control Application. (Application provides remote control and graphical display of loudness plots; requires PC with:  
 Intel® Pentium 4® processor; Microsoft® XP SP2 (or later)  
 128 MB RAM  
 32 MB of hard-disk space  
 256 minimum-color video adapter card)

**+LM-P** Audio Loudness Meter Software Option for WinOGCP