

AUDIO MONITOR

LV 5837 / LV 5838
(AES/EBU) (AES/EBU, Embedded Audio)

LEADER

New



AES/EBU

3G-SDI
LV 5838 only

HD-SDI
LV 5838 only

SD-SDI
LV 5838 only

3U size
(half Rack)



Audio Monitor

The LV5838 is an audio monitor for audio console and master monitoring. It measures audio signals that are embedded in 3G, HD, and SD-SDI signals and AES/EBU signals.

The LV 5837 is an audio monitor designed for use with audio console and master monitoring. It measures AES/EBU audio signals.

It can display loudness measurements, level meters, Lissajous curves, surround sound fields, and audio status independently or in combination.

All errors and events can be logged with local time information or time code information that is embedded in video signals. Logs can be stored in external storage media.

FEATURES

• **Equipped with 8 connectors (16 channels) of AES/EBU signal inputs**

The LV 5837 and LV5838 is equipped with 8 BNC connectors (16 channels).

• **Support for LPCM, Dolby-E, Dolby-Digital, Dolby-Digital Plus**
LPCM audio is supported as standard. Dolby-E, Dolby-Digital, and Dolby-Digital Plus can be supported with a Dolby module (a Dolby option).

• **Headphone output**

A 3.5 mm mini jack is available.

• **Support for various types of scales**

The LV 5838 supports dBFS, Nordic, BBC, and DIN level meter scales. The level scale for loudness measurements supports both absolute values and relative values in reference to a target level.

• **Wide variety of measurement features**

- 1) Audio level meter and peak hold meter capable of showing measurements for up to 16 channels simultaneously
- 2) Lissajous display capable of displaying Lissajous curves and correlation meters of any two channels
- 3) Surround display capable of displaying Lissajous curves and surround sound fields of adjacent channels
- 4) Status display capable of showing measurements for 16 channels simultaneously
- 5) Loudness measurement in two measurement modes of the three available measurement modes: monaural, stereo, and 5.1 channel
- 6) Chart display capable of showing the change in the short-term loudness values and integrated loudness values over time
- 7) Logging of integrated loudness values with local time and time code information

- 8) Channel status analysis display
- 9) User bit display
- 10) Metadata analysis display for Dolby-E, Dolby-Digital, Dolby-Digital Plus (Dolby option)
- 11) Synchronous measurement of audio signals with black burst, tri-level sync, or CW signals received through the EXT REF connector (LV 5838 only)
- 12) Amplitude measurement of signals received through AES/EBU connectors (LV 5838 only)

• **Loudness measurement on/off control from the external control connector (LV 5838 only)**

Signals can be applied to the external control connector to start and stop loudness measurements and clear measurement results.

[Video and audio signal measurement (LV 5838 only)]

• **Frame location when non-PCM data is detected**

Indicates an error when the frame location is outside the specified embedding range

• **Error log with time codes**

Error logs with auxiliary packet time codes

• **Loudness measurement channel switching based on inter-stationary control signals**

Supports loudness measurement channel switching based on the audio mode of inter-stationary control signals

■ **Measurement Display Examples**

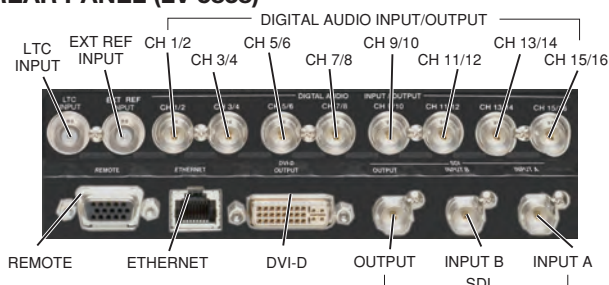


16 channel level meter display





Loudness and level meter display

■ **REAR PANEL (LV 5838)**



Video Signal Input Connectors(LV 5838 only)	
Input Connectors	2 BNC connectors
Compliant Standards	SMPTE ST 259 (SD-SDI), SMPTE ST 292 (HD-SDI), SMPTE ST 296 (HD-SDI), SMPTE ST 424 (3G-SDI), SMPTE ST 425 (3G-SDI)
Video Signal Output Connector(LV 5838 only)	
Output Connector	1 BNC connector
Audio Signal Input Connectors	
Input Connectors	8 BNC connectors, 16 channels
Format ※	LPCM, Dolby-E, Dolby-Digital, Dolby-Digital Plus
Sampling Frequency	32 k to 192 kHz
Quantization	24 bits
Headphone Jack	
Output Connector	One 3.5 mm mini jack
Video Output (LV 5838 only)	
Output Connector	DVI-D 1System
Embedded Audio Playback Format(LV 5838 only)	
Compliant Standards	SMPTE ST 299 (3G-SDI, HD-SDI), ST 272(SD-SDI)
Supported Format※	LPCM, Dolby-E, Dolby-Digital, Dolby-Digital Plus
Quantization	24 bits
External Control Connector	
USB	USB 2.0
Etheret connector	(LV 5838 only)
Remote connector	(LV 5838 only)
Presets	
Number of Presets	5
Display Features	
Display Method	Assign up to 16 audio channels to level meters
Audio Level Meter (Measurements Other Than Loudness)	
Response Model	True-Peak, PPM-Typel, PPM-Typell, VU
Warning Level Range	0 dBFS to 40 dBFS (1 dBFS steps)
Peak Hold Meter	
Response Model	True-Peak, PPM-Typel, PPM-Typell
Peak Hold Time	OFF or 0.0, 0.5 to 5.0 s (0.5 s or 1.0 s steps) / HOLD
Meter Scale	
Compliant Standards	dBFS, Nordic, BBC, DIN
Dynamic Range	dBFS 0 dBFS to -60 dBFS Nordic 12 dB to -42 dB BBC 7 dB to 1 dB DIN 5 dB to -50 dB
Lissajous Display	
Display Method	Displays an audio Lissajous waveform of the two channels that you select
Channel Mapping	Specify 2 channels from among 16 channels
AGC Setting	Can be turned on and off
Correlation Meter	
Display Method	Displays the correlation coefficient between the pair of signals assigned to the Lissajous display using a value between -1 and 1
Surround Display	
Surround Formats	Stereo, 5.1ch
Center Channel Format	Normal, Phantom Center
AGC Setting	Can be turned on and off
Status Display	
Error Detection	Level-over, clipping, mute, silent, parity, validity, CRC, (Dolby CRC, frame location)※
Channel Status Bits	
Analysis Display Information	Format, AudioData, Emphasis, Signal Lock, Sample Frequency, Reference, Channel Mode, Resolution, Alignment, Origin, Destination, Time Code, CRC
Dolby-E Metadata※	
Displayed Contents	Dolby-E Common Metadata Status,AC-3 Metadata Status,AC-3 Extended BitstreamInfo
Dolby-Digital Metadata※	
Displayed Contents	AC-3 Metadata Status,AC-3 Extended Bitstream Info
Dolby Digital Plus	
Displayed Contents	AC-3 Metadata Status Text display
Loudness Measurement	

Audio Modes	Monoaural, stereo, 5.1/ Downmix, custom
Channel Mapping	Assign channels to L, R, C, LFE, Ls, and Rs as you like
Level Meter Display	Momentary, short term, integrated
Chart Display	Displays numerically the change in the momentary, short-term, and integrated responses over time.
Chart Display Time	1 min, 4 min, 10 min, 30 min, 1 hour, 2 hours, 4 hours, 6 hours, 12 hours
Operation Modes	ITU-R BS. 1770-2, ARIB, EBU, ATSC, Custom
Dynamic Range	0 LKFS to -70 LKFS
Custom Mode Settings	Block Size, Overlap, Absolute Gating, Relative Gating, Target Level, A3 Extended, Bit stream info
Operation Control	START/PAUSE key or through the external control connector
Frame Location Measurement Function(LV 5838 only)※	
Display Method	Displays the positions of Pb headers that are defined in SMPTE ST 337 using line numbers and Analyzes Pb headers and displays data types.
Synchronous Measurement Function(LV 5838 only) Function	Measures the synchronous relationship between the audio signal and the signal received through the EXT REF connector or a digital audio signal input connector
Reference Signal	Black burst, tri-level sync, 10 MHz sine, 48 kHz audio word clock, and digital audio signals
Simple Amplitude Measurement of AES/EBU Signals (LV 5838 only)	Measures the amplitudes of the signals received through the digital audio signal input connectors
Measurement Range	200 mV to 6.0 V
LTC Input Connector(LV 5838 only) Standard	SMPTE ST 012
SDI Signal Status Display(LV 5838 only)	Signal Detection,Format Display, Error Count,Count Period, Embedded Audio Channel Display, Embedded Audio Ancillary Packet Error Detection
Logging Feature Function	Records detected errors or integrated loudness values with timestamps
Time Display	
Time Code	ATC (LTC/MITC), D-VITC, LTC, AES EBU
Environmental Conditions	
Operating Temperature	0 to 40°C
Operating Humidity	85 %RH or less (no condensation)
Power Requirements	10 to 18 VDC
Dimensions	215 (W) x 128 (H) x 85 (D) mm(LV 5838) 8 1/2 (W) 5 1/4 (H) x 3 3/8 (D) inch(LV 5838) 215 (W) x 128 (H) x 75 (D) mm(LV 5837) 8 1/2(W) 5 1/4 (H) x 3 (D) inch(LV 5837)
Accessories	Instruction manual 1 AC adapter(SPU40-105) 1 15-pin D-sub 1 D-sub Cover 1 * Dolby-E, Dolby-Digital, and Dolby-Digital Plus (Dolby option) is a factory option.(Dolby is a trademark of Dolby Laboratories.) * The information in this catalog is subject to change without notice due to product improvements.
Option Sold Separately	
Remote controller	 LV 5838-01 (Audio mode switching type)  LV 5838-02 (Measurement control type)
Tilt Stand	LC 2150