



New

RoHS

Compact, Slim & Lightweight Multi-SDI Test Monitor

The LV 5330 is a compact and lightweight multi-SDI test monitor specifically designed for on-camera and portable applications. Picture, waveform, vector, audio and status screens can be displayed individually or in multi-screen representations. The instrument is also equipped with on-picture measurement functions, Cinelite and Cinezone, and helps facilitate measurements that are easily understood by both technical and operations personnel. High-accuracy measurement and monitoring facilities also include settable error level monitoring and alarms as well as extensive data analysis. A screen capture function facilitates communication between production and post production personnel and aids in project documentation.

FEATURES

• Two Serial Digital Inputs

Two SDI input connectors (channels A and B) support HD-SDI and SD-SDI signals. The selected SDI input is passed through an SDI output connector to facilitate switched monitor output operation.

• Display

A built-in 6.5-inch XGA TFT LCD (1,024x768) provides brilliant and clear representations of waveforms, vectors, pictures, audio level meters, status, etc. The multi-screen feature allows these displays to be shown simultaneously in tiled windows.

• Picture display

Brightness, contrast, and saturation is adjustable and aspect ratio, safe action and safe title markers can be displayed. The edge enhancement feature provides visual assistance with focus.

• Cinelite II (Cinelite and Cinezone)

The Cinelite on-picture measurement feature displays the luminance of any three user definable points and provides luminance measurements in %, RGB levels (or %) as well as in f-stops. The Cinezone feature uses false-colors to represent luminance values on the display enabling quick confirmation of the luminance distribution levels on the display.

• Waveform Monitoring

Parade, overlay, Y C_b C_r, RGB, and pseudo-composite displays are available.

• Vectorscope

Vectorscope display is available and accommodates both 75 % and 100 % saturation levels; pseudo-composite vectorscope display is also available.

• 5 Bar Display

The 5 Bar display enables simultaneous monitoring of component and composite gamut.

• Line Selector

Selects any line of the video signal to be displayed and provides waveform, vector and 5-bar representations of the selected line. A line marker on the picture facilitates visual selection of the appropriate line.

• Audio Level Meter

Up to 8 channels of embedded audio signals can be displayed using audio bar level meters.

*The SD-SDI audio quantization precision is up to 20 bits.

• Viewfinder

The camera's composite video output (in NTSC or PAL) can be shown on the picture display. The edge enhancement feature assists you in focusing the camera.

• Screen Capture

The displayed screen can be captured and saved to internal memory or USB memory.

• Extensive Analysis Features

- Various types of error detection
- SDI signal event log
- Digital data dump

• Flexible Control

- Instrument can be remote controlled from a PC over an Ethernet network.
- Internal memory holds up to 30 presets allowing quick access to your favorite instrument setups. Personalize your LV 5330 by loading your own custom presets via USB thumb-drive.

• External Synchronization

Accepts tri-level sync or NTSC/PAL black burst signals.

• Stereo Headphone Output

Extracts embedded audio signals and sends 2 user selectable audio channels to the headphone jack.

• Panel LED Illumination

You can illuminate all of the panel keys; a useful feature when working in a dark environment.

• Power Supply

XLR DC input connector is provided; accepts 12Vdc- 18Vdc. A V-mount battery adapter is also available as a factory option.

• Tripod Mounting

A Screw(1/4.in) hole attaching a camera tripod is provided on the bottom panel of the LV 5330.

• Battery Mount (Factory Option)

A battery adapter can be installed on the rear panel as a factory option.

- BATTERY MOUNT IDX (V-MOUNT)*1
- BATTERY MOUNT ANTON (AntonBauer)

*1 To be supported in the future

The design is subject to change.

Video Formats and Corresponding Standards	Format		Corresponding Standard		
	1	1080i/60	SMPT 274M, 292M		
2	1080i/59.94				
3	1080i/50				
4	1080p/30				
5	1080p/29.97				
6	1080p/25				
7	1080p/24				
8	1080p/23.98				
9	1080Psf/30	SMPT 274M, 292M			
10	1080Psf/29.97				
11	1080Psf/25				
12	1080Psf/24				
13	1080Psf/23.98				
14	720p/60			SMPT 296M, 292M	
15	720p/59.94				
16	720p/50				
17	720p/30				
18	720p/29.97				
19	720p/25				
20	720p/24				
21	720p/23.98				
22	525i/59.94	SMPT 259M			
23	625i/50				
Other Standards	SMPT 291M				
Ancillary Data Standard	SMPT 299M (HD-SDI), SMPT 272M (SD-SDI)				
Embedded Audio Standard					
Format Setting	Auto or manual setting from the supported formats				
Format Setting	74.25 MHz (HDTV), 74.25/1.001 MHz (HDTV), 13.5 MHz (SDTV)				
Sampling Frequency	Auto setting from supported formats				
External Synchronization					
Input/Output Connectors					
SDI Input	Two BNC connectors (switching between A and B)				
Input Connector					
External Reference Input	Tri-level sync or NTSC/PAL black burst				
Input Signal	One pair of BNC connectors (15 kΩ passive loop-through)				
Input Connector	*Phase difference accuracy between external reference and internal signal is ±1 clock cycle.				
SDI Output					
Output Connector	One BNC connector (reclocks and transmits the selected SDI input signal)				
Output Voltage	800 mVp-p±10 % outputs (75 Ω)				
Headphone Output					
Output Signal	Extracts and outputs the embedded audio signal.				
Sampling Frequency	Supports 48 kHz (must be synchronized to the video signal)				
Output Connector	One stereo miniature jack, 32 Ω (16 to 600 Ω)				
USB Memory					
Function	Stores screen captures, error logs, preset data, and data dumps. Also used for Firmware update.				
Remote Control					
Function	Recalls presets, transmits errors, controls the tally indicator				
Connector	D-sub 15-pin female				
Ethernet					
Function	Enables remote control from an external computer and data transmission				
Type:	10BASE-T/100BASE-TX auto switching, one RJ-45 jack				
Viewfinder Input					
Function	Monitors composite video signals, picture only.				
Input Signal	NTSC/PAL VBS signal				
Input Connector	One BNC connector				
Picture Display					
HDTV Display	Displays by sampling pixels				
SDTV Display	Displays by interpolating pixels				
Display	Color or black and white selectable				
Frame Rate	Displays by converting the frame rate using the internal sync signal				
Marker Display	Center marker, aspect marker, safe title marker, safe action marker				
Adjustment:	Brightness, contrast, chroma, aperture				
Cinelite Display					
f-STOP:	Measures relative brightness in f-stops				
Measurement points	Three points specified using the cursor				
Reference	Uses an object with an 18 % reflectance as reference				
%DISPLAY	Displays luminance percentage (LEVEL%), RGB percentage (RGB%), and RGB numeric values				
Measurement points	Three points specified using the cursor				
Measurement areas	1x1, 3x3, 9x9				
GAMMA	Reference gamma				
0.45	User-defined gamma				
USER 1-3	Gamma downloaded from USB memory				
USER A-E	Gamma downloaded from USB memory				
On Picture Level Indicator	Switches the screen to black and white and displays the set luminance level in green				
Cinezone Display					
Screen	Maps colors based on luminance levels. Linear or step selectable.				
UPPER	Can be set from -6.3 % to 109.4 %. Displays white when the level is above the set level.				
LOWER	Can be set from -7.3 % to 108.4 %. Displays Black when the level is below the set level.				
Display Form					
Display Size	6.5-inch color XGA. Effective area 1024 x 768 dots				
1 Screen Display	Picture display, Cinelite display, Cinezone display, waveform display, vectorscope display, status display, viewfinder display				
2 Screen Display	Picture and waveform displays, waveform and vectorscope displays, waveform and picture displays, waveform and audio level displays, audio numeric and bar displays				

4 Screen Display	Audio level display or status display selectable in addition to waveform display, vectorscope display, and picture display
Waveform Display	Overlay and parade Displays by calculating Y-C ₂ and Y-C ₃ Uses bowtie signals (authorized by Tektronix, Inc.) Show or hide selectable Converts Y, C ₂ , C ₃ signals into G, B, R and displays the result Digitally converts component signals into composite signals and displays the result The G, B, R order or R, G, B order selectable for G, B, R conversion display x1, x5, or variable selectable x0.2 to x2.0 at the x1 setting, x1.0 to x10.0 at the x5 setting ≤ ±0.5 % ≤ ±0.5 % 1 to 30 MHz ≤ ±0.5 % 0.5 to 15 MHz ≤ ±0.5 % 1 to 5.75 MHz ≤ ±0.5 % 0.5 to 2.75 MHz x1 or x10 selectable x1, x20, or x40 selectable 2 (REF and DELTA) 2 (REF and DELTA) Measures in % or V Measures in usec or msec Displays the frequency by assuming the interval between the cursors to be one period Indicates the value corresponding to the peak chrominance signal of the 75 % color bar. 75 % or 100 % selectable x1, x5, IQ-MAG, or variable selectable x0.2 to x2.0 at the x1 setting, x1.0 to x10.0 at the x5 setting ≤ ±0.5 % Show or hide selectable Digitally converts component signals into composite signals and displays the result
Waveform Operation	
Display Modes	
Timing Display	
EAV-SAV period	
G, B, R Conversion	
Pseudo-Composite Display	
Channel Assignments	
Vertical Axis	
Gain	
Variable Gain	
Amplitude Accuracy	
Frequency Characteristics HDTV	
Y Signal	
C ₂ , C ₃ signals	
Frequency Characteristics SDTV	
Y Signal	
C ₂ , C ₃ signals	
Horizontal Axis	
Line Magnification	
Field Magnification	
Cursor Measurement	
Horizontal Cursors	
Vertical Cursors	
Amplitude Measurement	
Time Measurement	
Frequency Display	
Marker Display	
75 % Marker	
Vectorscope Display	
Scale	
Gain	
Variable Gain	
Amplitude Accuracy	
IQ Axis	
Pseudo-Composite Display	
5 Bar Display	
Bar Display	Displays the peak levels of Y, R, G, B, and composite
Embedded Audio Display	
Display Channels	8-channel simultaneous display
Meter	60 dB peak level or 90 dB peak level
Group Selection	Select any two groups from groups 1, 2, 3, and 4
Channel Mapping	Mapping to L, R, SL(S), SR, C, LFE, RL, RR
Viewfinder	
Display Size	Full-screen display
Adjustment	Brightness, contrast, chroma, aperture
Status	
Data Dump Display	Dumps data by serial data sequence or by channel
Event log	Stores up to 1,000 events
Data output	To USB memory or over an Ethernet network
Screen Capture	Captures the displayed screen
Waveform Comparison	Superimposes the input signal over an image from memory.
Presets	30
Other Display Features	
LCD	6.5-inch color LCD
Backlight brightness	High or low selectable
Screen Display	Format, color system, date, time
Panel LED Illumination	Illuminates all keys
Environmental Conditions	
Operating Temperature	0 to 40 °C
Operating Humidity Range	≤ 85 %RH (no condensation)
Operating Environment	Indoors, or outdoors with no rain
Overvoltage Category	1
Pollution Degree	2
Power Requirements	12 VDC (10 to 18 V), 18 Wmax.
Dimensions and Weight	215 (W) x 128 (H) x 63 (D) mm (excluding projections), 1.3 kg 8 1/2 (W) x 5 3/64 (H) x 2 31/64 (D) in. 2.9 lbs
Accessory	Instruction manual1
Option Sold Separately	AC adapter LP 1960

Cinelite II



Cinelite



Cinezone