

LV 5750

Portable Multi SDI Monitor



The LV 5750 is a new paradigm in portable digital testing. This multiformat HD-SDI and SD-SDI monitor features a color XGA (1024 x 768) LCD screen waveform monitor for signals. SDI inputs support auto detection of twenty* standard formats. Selected SDI input signals are reclocked and output to an active serial output. Complete digital processing of SDI signals enables highly accurate measurements. Test modes include waveform, vector, picture, audio, and status displays with time code. Displays and sub-displays can be viewed in various combinations side by side or as a four in one multi-display. A composite signal conversion converts SDI component signals into pseudo-composite waveform or vector for NTSC or PAL.

Vector shows chrominance difference signals in vector format with the amplitude settable as variable, IQ-MAG, or x5 times. Line selection with strobe of the same line can be displayed in picture, waveform, vector and data dump with values in hex or binary notation eases analysis. Complete protocol test and analysis functions are provided. Variable vector gain includes onscreen readout for optimizing digital camera CCU set up with Chroma Du Monde chip charts.

Features

- **Frame Capture**
Captures screen to users' compact flash memory cards as BMP and/or BSX for continuity. Internal memory allows display of superimposed held vs. live waveforms to match cameras and for exact timing adjustments.
- **Status**
Screen shows error detection of digital protocols for CRC, EDH, BCH, checksum, parity, GBR gamut, and pseudo-composite gamut errors. etc.
- **Embedded Audio**
Monitors surround sound, bargraphs displaying up to eight channels at a time. Reference levels or digital noise floors can be displayed as numerical values to confirm system conditions.
- **Stereo Headphone**
Monitoring of selected audio channels output to the headphone output connector.
- **Event Log**
Selected/detected errors and events are stored to compact flash memory card. The log can be transferred as text data to a PC via the network by using FTP.
- **Digital Data Dump**
Displays in hexadecimal or binary notation. This can be stored to a compact flash memory card and transferred as text data to a PC via the network by using FTP.
- **Embedded Audio Essence**
Displays voice control packets, channel status, and other packets in the AES/EBU signal.
- **Presets**
Stores up to 30 sets of frequently used front panel settings.
- **External Synchronization**
Auto detects tri-level sync signals or B.B signals of NTSC/PAL.
- **Front Panel**
Buttons have LEDS' and can be illuminated.
- **Tripod Stand Mount**
Allows the 5.5 lb monitor to be attached to a tripod or camera
- **Compact Flash Card**
Standard CF Module can be replaced with optional Ethernet or Remote Control plug-in modules.
- **Option**
Includes a dedicated rack mount and sun hood is also available.

Leader Instruments Corporation

Toll Free: 1 (800) 277-7490
Test Equipment Depot
99 Washington Street
Melrose, MA 02176-6024

www.testequipmentdepot.com
800-517-8431
781-665-0780 FAX

LV 5750 Portable Multi SDI Monitor

Specifications

Video Formats and Corresponding Standards

Video Signal Standards

	Format	Standard Supported
1	1080i/60	SMPTE 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	SMPTE RP211, 292M
10	1080PsF/29.97	
11	1080PsF/25	
12	1080PsF/24	
13	1080PsF/23.98	
14	720p/60	SMPTE 296M, 292M
15	720p/59.94	
16	720p/50*	
17	720p/24*	
18	720p/23.98*	
19	252i/59.94	SMPTE 259M
20	625i/50	

* Will be available in the future

Other Standards

- Ancillary data standard: SMPTE 291M
- Embedded audio standard: HD-SDI SMPTE 299M
SD-SDI SMPTE 272M

Format Setting

- SDI Signal: Auto setting or manual setting from the supported formats
- Sampling Frequency: 74.25 MHz (HDTV),
74.25/1.001 MHz (HDTV)
13.5 MHz (SDTV)
4:2:2 Y_CB_CR signal
- External Synchronization: Auto setting from supported formats

Input/Output Connector

SDI Input

- Input Connector: 2 BNC connectors 2 systems
(A/B switching type)

External Synchronization Input

- Input Signal: Tri-level or NTSC/PAL black burst
- Input Connector: 1 system 2 BNC loop through connectors

SDI Output

- Output Connector: 1 BNC connector

Headphone Output

- Output Signal: Separates and outputs the embedded audio signal in the SDI signal

IF Slot

- Installable Units: One of the following can be installed:
compact flash memory card unit (standard),
remote control unit (sold separately), and
Ethernet unit (sold separately)

Compact Flash Memory Card Unit

- Function: Saves screen captures, error logs, preset data, and data dumps

Remote Control Unit (Sold Separately)

- Function: Recalls presets and outputs alarms
- Control connector: D-sub 25 pin 1 connector (female)
- *If you install this unit, you will not be able to use the compact memory card unit that comes standard or the Ethernet unit that is sold separately

Ethernet Unit (Sold Separately)

- Function: Remote control from an external computer
- Type: 10BASE-T/100BASE-TX Auto switching, one connector
- *If you install this unit, you will not be able to use the compact memory card unit that comes standard or the Ethernet unit that is sold separately

Display Format

- Display Format: XGA Effective area 1024 x 768 dots
- Display:
- 1 Screen Display: Waveform display, vectorscope display, picture display, audio display, or status display
- 2 Screen Display: Waveform and vectorscope display, waveform display and picture display, or waveform display and audio level display
- 4 Screen Display: Select audio display or status display in addition to waveform display, vectorscope display, and picture display

Waveform Display

Waveform Operation

- Display Mode: Overlay display: Displays component signals in overlay
Parade display: Displays component signals side by side
- Timing Display: Displays by calculating Y-C_B and Y-C_R
Uses bowtie signals (authorized by Tektronix, Inc.)
- EAV-SAV Period: Select show or hide
- G, B, R, Conversion: Converts YC_BC_R signals into RGB or YRGB and displays the result
- Pseudo-Composite Display: Artificially converts component signals into composite signals and displays the result
- Channel Assignment: Select G, B, R order or R, G, B order during G, B, R conversion display
Displays the selected line

Line Select:

Vertical Axis

- Gain: Select x1, x5, or variable (up to x10)
- Amplitude Accuracy: $\pm 0.5\%$

Horizontal Axis

- Line Display: Display format Overlay: 1H, 2H
Parade: 1H, 2H, 3H
Timing: 2H
- Magnification Select x1 or x10
- Display Format: Overlay: 1V, 2V
(2V display not allowed for progressive)
Parade: 1V, 2V, 3V
- Magnification Select x1, x20 or x40
 $\pm 0.5\%$

Field Display:

Time Base Accuracy:

Cursor Measurement

- Configuration: Horizontal: 2 cursors (REF and Δ)
Vertical: 2 cursors (REF and Δ)

Leader Instruments Corporation

Test Equipment Depot
Toll Free: 99 Washington Street
WMelrose, MA 02176-6024

www.testequipmentdepot.com
800-517-8431 | 527-7490
781-665-0780 FAX m

LV 5750 Portable Multi SDI Monitor

Specifications Continued

Vectorscope Display

Gain: Select x1, x5, IQ-MAG, or variable
 Amplitude Accuracy: < ± 0.5%
 IQ Axis: Select show/hide

Simple Picture Display

HDTV Display: Displayed by sampling the pixels
 SDTV Display: Displayed by interpolating pixels
 Display Frame Rate: Converts the frame rate using the internal synchronization signal and displays the result

Audio Level Display

Audio Signal: Select two arbitrary groups from embedded audio signals in the SDI signal

Level Meter

Display Channel: Simultaneous 8 ch display
 Meter: 60 dB peak level or 90 dB peak level
 Reference Level: Select -20dB, -18dB, or -12dB
 Scale: Select absolute dB display or reference level 0 dB display

Status Display

SDI Signal Status Display

Signal Detection: Detects the presence or absence of SDI signals
 CRC Error: Transmission error of HD-SDI signals
 EDH Error: Transmission error of SD-SDI signals
 BCH Error: Transmission error of embedded audio signals in the HD-SDI signal

Checksum Error: Transmission error of ancillary data

Gamut Error: Detects gamut errors
 Detection Range: Upper limit: 90.0 % to 109.4%
 Lower limit: -7.2% to +6.0%
 0.1% steps

Composite Gamut Error: Monitors the level error when the component signal is converted into composite signal

Detection Range: Upper limit: 90.0% to 135.0%
 Lower limit: -40% to -20%
 0.1% steps

Audio Information Detection: Detects the presence or absence of audio on each channel

Error Count: Up to 100,000 errors

Data Dump Display

Display Format: Displayed separately by serial data sequence or channel

Event Log

Number of Logs: Up to 1,000 events

Audio Status

Voice Control Packets: Analyzes and displays the voice control packets of the SDI signal

EDH Display

EDH: Displays the status of the EDH packets

Screen Capture

Capture: Captures the displayed screen
 Media: Internal memory (RAM) or compact flash card

Presets

Number of Presets: 30

Environmental Conditions

Operating Environment: Indoor/outdoor use (no rain water)
 Operating Altitude: Up to 2000 m
 Overvoltage category: 1
 Pollution Degree: 2

Power Requirements:

12 VDC (10 to 18 V), 30 W max.

Dimensions (W x H x D)

8½ x 5¼ x 4 in., 215 x 133 x 103 mm (excluding protrusions)
 8¾ x 5⅝ x 6⅛ in., 221 x 143 x 168 mm (including protrusions)

Weight:

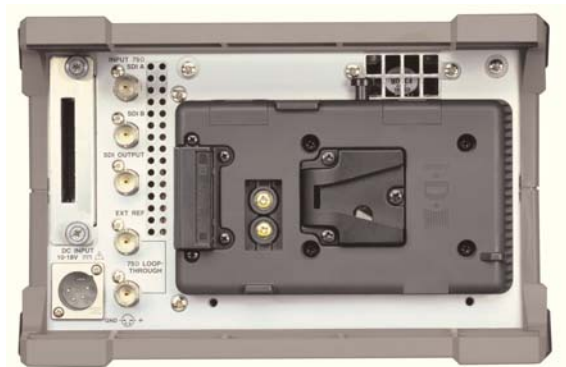
5.5 lbs., 2.5 kg

Accessories:

Instruction manual.....1



LV 5750 Side View



LV 5750 Rear Panel