



PATENTED:
Equivalent cable length measurement
The cabinet is sold separately.

HD-SDI/SD-SDI Color LCD Waveform Monitor

The LV 5700 is a waveform monitor with XGA TFT color LCD for HD-SDI and SD-SDI signals. (the LV 5710 only supports HD-SDI signals)

The functions of waveform monitor, vectorscope, audio lissajous, and simple picture monitor are achieved with a single unit.

The signals are processed digitally enabling highly accurate measurements. In addition, extensive error detection functions and analysis functions are provided which allows SDI signals to be monitored.

FEATURES

• Input

Receives either HD-SDI signals or SD-SDI signals. Supports multiformat, and automatic and manual setting of formats is possible.

• Display

Employs an LCD monitor with XGA resolution. Various displays such as waveform display, vector display, picture display, and status display can be placed side by side on the XGA monitor. You can monitor these displays simultaneously.

Depending on the combination, bowtie, embedded audio, and data dump can also be displayed. Furthermore, each display can be magnified.

• Operation

The LV 5700 can be controlled through the panel and remotely controlled through a computer via the Ethernet network. In addition, presets can be recalled using the remote connectors on the rear panel.

• Extensive Analysis Functions

The LV 5700 can also be used as an analyzer to detect multiple types of transmission errors, detect gamut errors, display data dumps, analyze the contents of voice control packets, measure the equivalent cable length, and so on.

• Output

Provides HD-SDI/SD-SDI switching type reclock output as well as analog picture monitor output and AES/EBU output. In addition, an analog XGA output connector is provided enabling information to be displayed on a large external monitor.

• Power Supply

Since a DC power supply (9 V to 17 V Optional) can be used in addition to the AC power supply (90 V to 250 V), the LV 5700 can also be used on the field.

• Eye Pattern Display

Displays eye patterns and automatically measures physical characteristics. (Optional)

■ Options

Name	Name of article
Option 70	HD/SD Eye Pattern
Option 71	DC Operation
Option 72	HD/SD SDI Input Unit
Option 73	SD Analog Input Unit
Option 74	Analog Audio Monitor
Option 75	AES/EBU Input unit

Above options can not be installed all together but one option except option 71.

■ LV 5700 REAR PANEL



Video Format HD-SDI Video System	1 1920 X 1035 / 60i 2 1920 X 1035 / 59.94i 3 1920 X 1080 / 60i 4 1920 X 1080 / 59.94i 5 1920 X 1080 / 50i 6 1920 X 1080 / 30p 7 1920 X 1080 / 29.97p 8 1920 X 1080 / 25p 9 1920 X 1080 / 24p 10 1920 X 1080 / 23.98p 11 1920 X 1080 / 24sF 12 1920 X 1080 / 23.98sF 13 1280 X 720 / 60p 14 1280 X 720 / 59.94p
Standards Supported HD-SDI Standard Ancillary Data Standard Embedded Audio Standard SD-SDI (Supported only on the LV 5700)	SMPTE 292M SMPTE 291M SMPTE 299M
Video System	1 525 / 59.94i 2 625 / 50i
Standards Supported SD-SDI Standard Ancillary Data Standard Embedded Audio Standard	SMPTE 259M SMPTE 291M SMPTE 272M
Format Setting Video System Sampling Frequency	Select manual setting or automatic setting HD: Auto switching between 74.25 MHz and 74.25/1.001 MHz SD: 13.5 MHz (Supported only on the LV 5700)
Input/Output Connector HD-SDI Input Input Connector External Reference Input Input Signal Input Connector	BNC connector 2 systems A and B, 75 Ω Tri-level sync signal or NTSC/PAL black burst BNC connector passive loop-through 1 system 2 connectors
XGA Output Output Signal Output Connector HD-SDI Output Output Connector	XGA signal D-sub 15 pin female BNC connector 1 connector Outputs the selected channel, 75 Ω
Analog Output Output Signal Output Connector AES/EBU Output Output Signal	Y, P _B , P _R or GBR BNC connector 1 system 3 connectors CH1/2, CH3/4, CH5/6, CH7/8 Separated from embedded audio and output Select 2 groups (8 ch) from 4 groups (16 ch) BNC connector 4 connectors
Output Connector Remote Connector Function Control Signal Control Connector Ethernet Connector Function	Recalling of presets TTL level (LOW active) D-sub 25 pin female 1 connector Remote control from an external computer and monitoring of errors, etc. 10BASE-T/100BASE-TX 1 connector
Input/Output Connector	
Display Format Display Format Dot Clock Horizontal Frequency Vertical Frequency	XGA effective area 1024 X 768 dots 65 MHz or 64.935 MHz* 48.363 kHz or 48.315 kHz* 60 Hz or 59.94 Hz* (* Automatically switch according to the input signal)
Display	Displays waveform display, vector display, picture display, and status display on a single screen side by side
Waveform Display Waveform Operation EAV-SAV Period GBR Conversion Sweep Magnification Channel Assignment	Select show/hide Select Y, P _B , P _R or GBR conversion display Select X 1 or X 5 Select GBR order or RGB order during GBR conversion display
Vertical Axis Filter Horizontal Axis Operation Mode Overlay Parade Timing	Flat, low-pass Displays multiple waveforms overlaid Displays waveforms side by side Time difference between channels Uses bowtie* signals *Authorized by Tektronix, Inc.
Display Format Line display	Overlay: 1H, 2H Parade: 1H, 2H, 3H Timing: 2H

Line Magnification Field Display	Select x1, X10, ACTIVE, or BLANK Overlay: 1V, 2V Parade: 1V, 2V, 3V Select x1 or x20
Field Magnification Scale Scale Display Voltage Scale % Scale	0 V to 0.7 V, -0.3 V to 0.7 V 0 % to 100 %, -50 % to 100 %
Vector Display Sweep Magnification Scale EAV-SAV Period	Select from X 1, X 5, IQ-MAG. Color bar switching type between 75 % and 100 % Show/hide is synchronized with the waveform display setting Show/hide is a switching type
I, Q Axes	
Picture Display HD Display SD Display	Reduced display Magnified display (Supported only on the LV 5700)
Embedded Audio Display Lissajous Display Display Channel Display Method Sound Image Display Display Channel Peak Level Meter Display Display Channel Display Method Ch Mapping User Bit Display Data Dump Display Analysis Display	Select from 2 ch or 8 ch display Select X-Y or L-R Select from 3-1 ch, 3-2 ch, and 3-2-2 ch displays Simultaneous 8 ch display Peak meter Can be mapped arbitrary from 1 ch to 8 ch Displays 192 bits sequentially Analyzes and Displays the user bit
Data Dump Display Display Format	Displayed separately by serial data sequence or channel.
Digital Signal Analysis CRC Error BCH Error Checksum Error Parity Error TRS Error EDH Error Line Number Gamut Error Level Error Audio Sequency Format Detection Audio Information Detection	Detects video signal errors Detects embedded audio errors Detects ANC data errors Detects ANC data errors Detect TRS errors Detects EDH errors Detects line number errors Detects level overrange of GBR video signals Detects video level and reserved data errors Detects continuity errors of embedded audio Detects the SDI video signal format Detects the presence or absence of embedded audio on each channel Detects the sampling frequency for each group Displays voice control packets Detects the synchronization relationship between the external synchronization signal and the SDI signal Measures the SDI signal level Displays the cable length converted to 800 mVp-p signal source level Detects the presence or absence of SDI signals
External Sync Lock Detection Equivalent Cable Length Measurement	
Signal Detection	
Line Selector Operation Mode	Interlocked type between waveform display, vector display, and picture display Preset
Presets Number of Presets Prisets Items Recall Method	100 sets All setup items Through the front panel, remote connector, and Ethernet Switch 8 points and 100 points for recalling through the remote connector
Cursor Measurement Configuration	Horizontal cursor: 2 lines (REF, D) Vertical cursor: 2 lines (REF, D) Measured in [%] and [V] Displayed in [ms] and [ms] Displays the frequency in which the time between cursors is considered a cycle.
Amplitude Measurement Time Measurement Frequency Measurement	
Environmental Conditions Operating Temperature Operating Humidity Spec Guaranteed Temperature Spec Guaranteed Humidity Operating Environment Operating Altitude Pollution Degree	0 to +40 °C ≤ 85 % RH (without condensation) +10 to +30 °C ≤ 85 % RH (without condensation) Indoor use Up to 2,000 m 2
Power Requirements	90 to 250 VAC (48 Hz to 440 Hz) or 9 to 17 VDC(Option)
Dimensions and Weight	215 (W) x 133 (H) x 449 (D) mm 4.9 kg
Accessories	Instruction manual1 Power cord1 Cover/Inlet stopper1 Screws for rack mounting (inch specification)2 25-pin D-sub connector1 25-pin D-sub connector cover1