

ZEN Series

Leader

Waveform Monitor LV5600、LV5300(A)、LV5350 Rasterizer — LV7600、LV7300

March 15th, 2024

Version Upgrade Information Ver. 7.5 or later (free of charge / to be released at the end of March)

■ 3D-LUT(LV5600,LV7600,LV5300(A),LV5350,LV7300)

The 3D-LUT Cube files can be loaded and are used to display SDR and HDR picture, waveform in simultaneous HDR/SDR productions.

- Picture display, waveform display, vectorscope, CIE chart and histogram are supported.
- Supports up to 4 channels for 2K (HD) and 1 channel for 4K (UHD).
- A maximum of 10 Cube files can be registered.
- The 3D-LUT is effective in HDR/SDR Simultaneous production, which can support various methods.
- The interpolation method uses 33-point tetrahedral interpolation.
- SDI output after 3D-LUT conversion (LV5300(A)/LV5350/LV7300 not supported)
- Input/output conversion Gamma SDR/HDR (HLG, PQ, S-LOG3, LOG-C, C-LOG), Colorimetry BT2020/BT709/DCI compatible
- Range Full/Narrow support.
- Cube file file information, header information display

3D-LUT



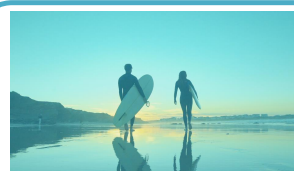
※3D-LUT function require SER23

3D-LUT and
transformation
information

LUT04 : 01S_HLGSTD5_SDI.cube
Title : 01S_HLGSTD5.srm
SDR/BT709 → SDR/BT709, FULL



SDI Input Signal



SDI Output after 3D-LUT Conversion



3D-LUT



Cubeファイル

Measurement after
3D-LUT conversion

Leader

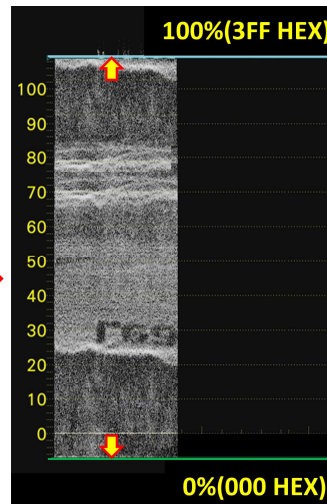
SDR Full Range (LV5600,LV7600,LV5300(A),LV5350,LV7300)

It is compatible with the Full Range of HDR. The Full Range of SDR will now be supported without HDR option.

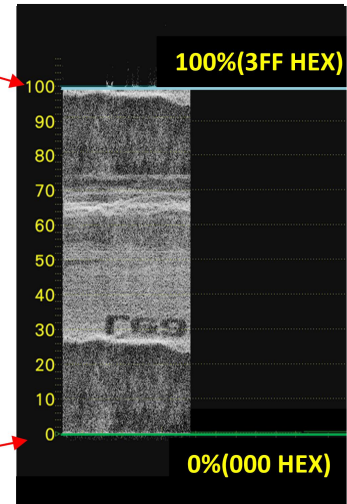
- Waveform display, vectorscope, CIE chart, histogram, CineLite and CineZone are supported.
- Supports up to 4 channels for 2K (HD) and 1 channel for 4K (UHD).
- Scale change for each function.
- Full range support for DPX and TIFF files.



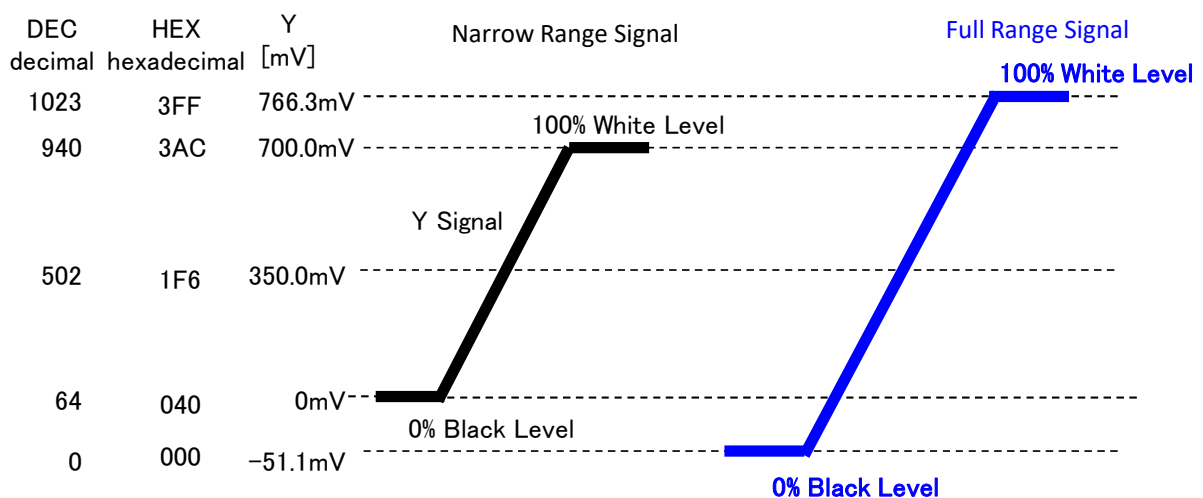
Full Range Signal



Full Range Signal Input
Conventional Narrow Range
settings



Full Range Signal Input
Added Full Range settings



■ Multilingual closed captioning (subtitles) pairs (LV5600,LV7600,LV5300(A),LV5350,LV7300)

The number of supported languages has been increased for traditional closed captioning.

•CC608

English/Spanish/Portuguese/French/German/Danish/Italian/Finnish/Swedish

•CC708

English/Spanish/Portuguese/Danish/Dutch/Faroese/Finnish/
French/German/Icelandic/Irish/Italian/Norwegian/Swedish/Korean

•OP47

English/Spanish/Portuguese/Czech/Slovak/Estonian/French/German/Italian/
Lettish/Lithuanian/Polish/Rumanian/Serbian/Croatian/Slovenian/Swedish/
Finnish/Hungarian/Turkish/Ukrainian/Rumanian/Bulgarian

•ARIB STD-B37

Japanese

※Conventional support

※ LV5300(A) requires LV5300-SER21, LV5350 requires LV5350-SER21 and LV7300 requires LV7300-SER21



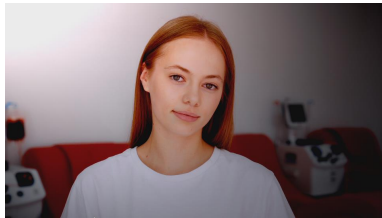
German Closed caption Display

Leader

■ False Colour Display (LV5600, LV7600, LV5300(A), LV5350, LV7300)

A False Colour display has been added to the existing CineZone function. Highlights, human skin tones, 18% Grey, blacks, etc. can now be easily identified.

- 2K (HD) supports up to four channels and 4K (UHD) supports one channel.
- False Colour support for ARRI, RED and SONY cameras. ※ USER-S (SONY) will be supported in the future.
- Each value can be varied from the basic value.



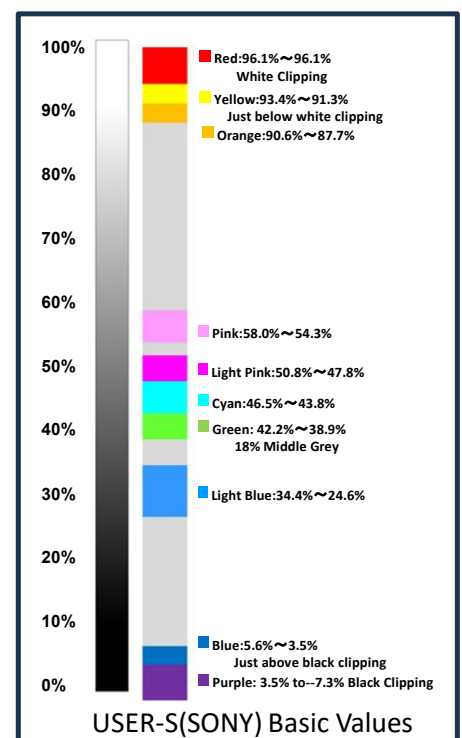
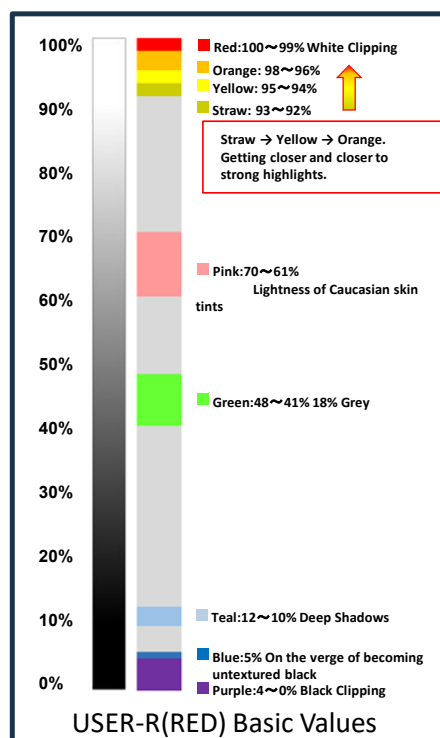
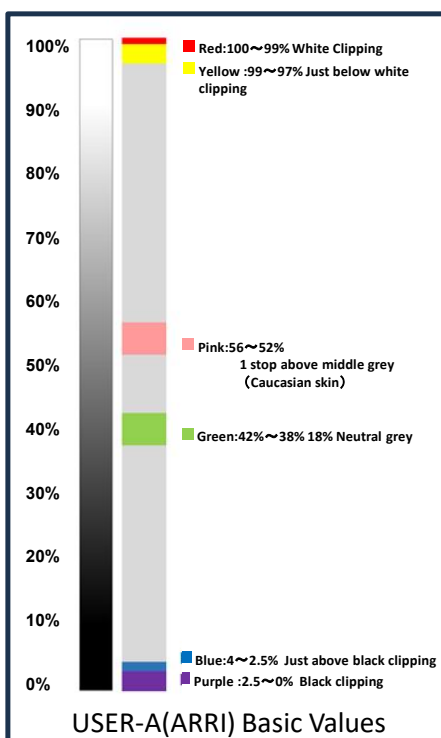
False Color OFF



False Color USER-A



False Color USER-R



■ Timecode continuity monitoring function and timecode date display (LV5600, LV7600, LV5300(A), LV5350, LV7300) SDI and IP (ST 2110-40, ST 2022-6) timecode continuity monitoring function and display of timecode and date.

■ Timecode anomaly monitoring details

- Missing timecode packets
- Duplication of timecode information
- Errors are displayed on the screen and recorded in the event log.
- Switching display of timecode
- Non-continuous skipping of timecode time information occurs
- When timecode packets are not superimposed



Date display and no abnormality display

EVENT LOG display content

TC NO : Missing timecode packets
 TC:RPT : Duplication of timecode information
 TC:SKIP : Discontinuity of timecode information
 ※ Discontinuous dropped frame flags are not detected.

EVENT LOG LIST		SAMPLE No.16	<< NOW LOGGING >>	
14:LTC	20:09:05.01	A	1920x1080/59.94I	TC:RPT,
13:LTC	20:08:36.11	A	1920x1080/59.94I	
12:LTC	20:08:36.10	A	1920x1080/59.94I	TC:SKIP,

EVENT LOG LIST display

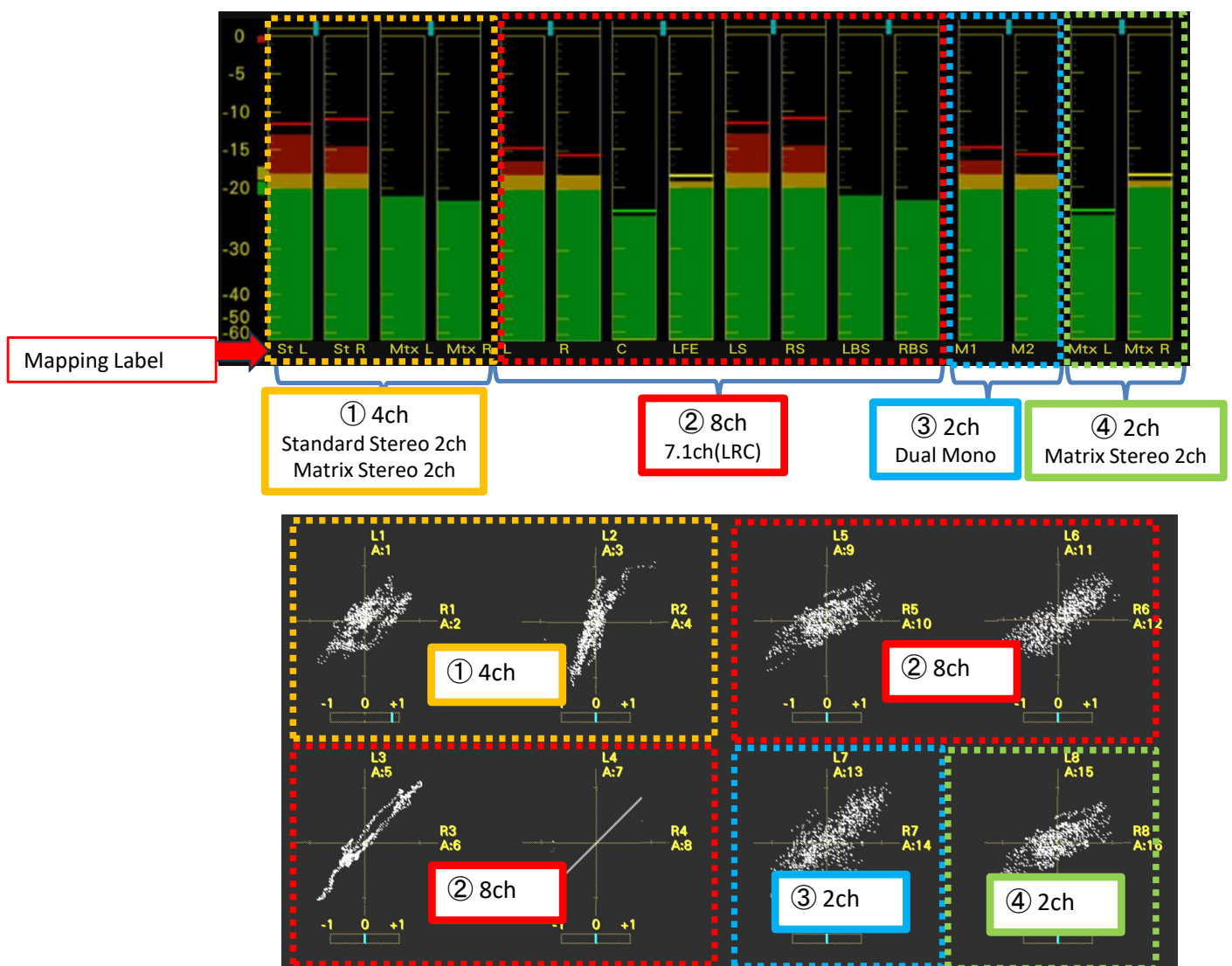
- Source ID display (LV5600, LV7600, LV5300(A), LV5350, LV7300)
The Source ID display function displays the UDW 15 words of ancillary data transmitted with DID: 253h SDID: 149h in ASCII code.



- IP Audio Channel Mapping diversification (Option LV5600SER06, LV7600SER06 supported)
Audio channel mapping function allows free audio channel allocation in two-channel pairs
 - Mapping is Mono, Dual Mono, Standard Stereo, Matrix Stereo, 5.1ch(LCR), 5.1ch(LRC), 7.1ch(LCR), 7.1ch(LRC), 7.1.4ch(LCR), 7.1.4ch(LRC), U01~16 can be selected
 - Mapping labels are displayed for various inputs.
 - It is decoded and output as AES/EBU.
 - NMOS - compatible

Mapping example

Stream① 4ch →
Stream② 8ch →
Stream③ 2ch →
Stream④ 2ch →



※ On the ZEN series, the FIRMWARE version can be checked by pressing the [SYS] key → [F.3] (SYSTEM INFO) key. FIRMWARE can be downloaded from our website. This Ver. 7.5 is scheduled for the end of March.

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