

ZEN SERIES: SOFTWARE RELEASE NOTES

UPDATE	NOTES		
Version	LV5600 / LV7600	LV5300 / LV5350	LV7300
5.0	<p>New features:</p> <ul style="list-style-type: none">● Multiple audio IP Flows are possible as part of the SMPTE ST2110-30 standard, when using the LV5600-SER06 or LV7600-SER06 IP INPUT option. You can select 1, 2 or 4 IP Audio flows per input. . <p>Improvements:</p> <ul style="list-style-type: none">● SR Live Metadata analysis, which is available from the STATUS menu, now supports SR Live Metadata Ver.1.00, when using the LV5600-SER01 or LV5600-SER02 SDI option.	<p>Improvements:</p> <ul style="list-style-type: none">● SR Live Metadata analysis, which is available from the STATUS menu, now supports SR Live Metadata Ver.1.00.	<p>Improvements:</p> <ul style="list-style-type: none">● SR Live Metadata analysis, which is available from the STATUS menu, now supports SR Live Metadata Ver.1.00, when using the LV7300-SER01 or LV7300-SER02 SDI options.
4.9	<p>New features:</p> <ul style="list-style-type: none">● RS-FEC feature has been added to the LV5600-SER06 IP INPUT option. <p>Improvements:</p> <ul style="list-style-type: none">● A PACKET JITTER Graph has been created by looking at the actual measured Min (minimum) and Max (maximum) Packet Arrival Interval Time values, when using the LV5600-SER05/LV7600-SER05 or LV5600-SER06/LV7600-SER06 IP INPUT option.	<p>Changes:</p> <ul style="list-style-type: none">● The tab description "REMOTE LABEL INPUT" has been changed to "REMOTE LABEL" for the LV7290, in the SYSTEM SETUP.	<p>Changes:</p> <ul style="list-style-type: none">● The tab description "REMOTE LABEL INPUT" has been changed to "REMOTE LABEL" for the LV7290, in the SYSTEM SETUP.
4.8	<p>New features:</p> <ul style="list-style-type: none">● SCTE-104 packet information is displayed on the SCTE-104 Packet screen, the picture and in the Event Log with the LV5600-SER01 or LV5600-SER02 SDI input options.	<p>New features:</p> <ul style="list-style-type: none">● SCTE-104 packet information is displayed on the SCTE-104 Packet screen, the picture and in the Event Log of LV5300 and LV5350.	<p>New features:</p> <ul style="list-style-type: none">● SCTE-104 packet information is displayed on the SCTE-104 Packet screen, the picture and in the Event Log with the LV7300-SER01 or LV7300-SER02 SDI input options.
4.6	<p>New features:</p> <ul style="list-style-type: none">● Grand Master information has been added to the PTP display with the LV5600-SER05/LV7600-SER05 or LV5600-SER06/LV7600-SER06 IP INPUT options.● SMPTE ST 2110-21 Buffer Measurement feature has been added to the LV5600-SER06 and LV7600-SER06 IP INPUT option.● SMPTE ST 2110 Packet Error insertion feature has been added to the LV5600-SER32 and LV7600-SER32 TSG option.● SMPTE ST 2110 Packet Jitter insertion feature has been added to the LV5600-SER32 and LV7600-SER32 TSG option.● SMPTE ST 2022-6/ST 2110 Lip Sync pattern has been added to the LV5600-SER32 and LV7600-SER32 TSG option.● LV5600-SER31 and LV7600-SER31 COLORIMETRY ZONE option is now supported. <p>Improvements:</p> <ul style="list-style-type: none">● English, Spanish and Portuguese are now supported in the EIA-608/708 closed captions display with the LV5600-SER01 or LV5600-SER02 SDI input options.● Payload ID from a SMPTE ST 2110-20 source is added to the IP to SDI output even if it is not present in the SMPTE ST 2110-40 packet with the LV5600-SER05/LV7600-SER05 or LV5600-SER06/LV7600-SER06 IP INPUT options.● SMPTE ST 2110 PACKET JITTER, PTP STATUS and TIMING COMPARISON measurements are displayed for both port 1 and port 2 with the LV5600-SER05/LV7600-SER05 or LV5600-SER06/LV7600-SER06 IP INPUT options.● Event Log with PTP time is now available with the LV5600-SER05/LV7600-SER05 or LV5600-SER06/LV7600-SER06 IP INPUT options.● SMPTE ST 2110 AUDIO and ANC measurements are now displayed as part of the packet jitter measurement feature with the LV5600-SER05/LV7600-SER05 or LV5600-SER06/LV7600-SER06 IP INPUT options.● SMPTE ST 2110 IP STATUS, PACKET JITTER, PTP STATUS, TIMING COMPARISON, and PATH DELAY data graphs can be stored as a csv file on USB memory with the LV5600-SER05/LV7600-SER05 or LV5600-SER06/LV7600-SER06 IP INPUT options.● Error logging is now available for MAX FALL/MAX CLL levels with the LV5600-SER23 and LV7600-SER23 HDR option.	<p>Improvements:</p> <ul style="list-style-type: none">● English, Spanish and Portuguese are now supported in the EIA-608/708 closed captions display with the LV5300-SER21 or LV5350-SER21 Closed Captions option● Error logging is now available for MAX FALL/MAX CLL levels with the LV5300-SER23 or LV5350-SER23 HDR option.	<p>Improvements:</p> <ul style="list-style-type: none">● English, Spanish and Portuguese are now supported in the EIA-608/708 closed captions display with the LV5300-SER21 or LV5350-SER21 Closed Captions option● Error logging is now available for MAX FALL/MAX CLL levels with the LV7300-SER23 HDR option.
4.4	<p>New features:</p> <ul style="list-style-type: none">● Capturing data in the PCAP format is now supported with the LV5600-SER06 and LV7600-SER06 IP INPUT option.● SMPTE ST 2022-6 is now supported with the LV5600-SER06 and LV7600-SER06 IP INPUT option.● NMOS (IS-04/05) is now supported with the LV5600-SER06 and LV7600-SER06 IP INPUT option.● Phase difference display of PTP-BB is now supported with the LV5600-SER05, LV7600-SER05, LV5600-SER06 and LV7600-SER06 IP INPUT option.		
4.1	<p>Improvements:</p> <ul style="list-style-type: none">● IGBP version setting menu has been added to the LV5600-SER05/LV7600-SER05 and LV5600-SER06/LV7600-SER06 IP options.		

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4.0	Improvements: <ul style="list-style-type: none">● SFP reset menu has been added to the LV5600-SER05/ LV5600-SER06/ LV7600-SER05/ LV7600-SER06 IP options.		
3.9	New features: <ul style="list-style-type: none">● SR Live Metadata analysis display has been added to the STATUS for LV5600-SER01 and LV5600-SER02 SDI Input options. Improvements: <ul style="list-style-type: none">● Marker display supporting the color bars in the color area BT.709 of ARIB STD-B66 and ARIB STD-B72 has been added to the LV5600-SER01 and LV5600-SER02 SDI Input options.● English closed captions (EIA-608/708) are supported for the 4K-6G system for the LV5600-SER01 and LV5600-SER02 SDI options.	New features: <ul style="list-style-type: none">● SR Live Metadata analysis display has been added to the STATUS. Improvements: <ul style="list-style-type: none">● Marker display supporting the color bars in the color area BT.709 of ARIB STD-B66 and ARIB STD-B72 has been added.● English closed captions (EIA-608/708) are supported for the 4K-6G system.	New features: <ul style="list-style-type: none">● SR Live Metadata analysis display has been added to the STATUS for the LV7300-SER01 and LV7300-SER02 SDI Input options. Improvements: <ul style="list-style-type: none">● Marker display supporting the color bars in the color area BT.709 of ARIB STD-B66 and ARIB STD-B72 has been added to the LV7300-SER01 and LV7300-SER02 SDI Input options.● English closed captions (EIA-608/708) are supported for the 4K-6G system for the LV7300-SER21 Closed caption option.
3.8	Improvements: <ul style="list-style-type: none">● LV5600-SER06/LV7600-SER06 supports 25G single mode and an SFP test signal output (LV5600-SER32/LV7600-SER32)		
3.6	Improvements: <ul style="list-style-type: none">● Assigned address is indicated when DHCP is selected in the NETWORK section of the SYSTEM SETUP● English closed captions (EIA-608) are supported for the following formats (HD DUAL/3G-A/3G-B-DL/4K Dual/4K Quad/4K 12G) for both the LV5600-SER01 and LV5600-SER02 SDI options● Assigned address is indicated when DHCP is selected in the SYSTEM SETUP of the LV5600-SER05 /LV5600-SER06 /LV7600-SER05 /LV7600-SER06 IP options	Improvements: <ul style="list-style-type: none">● Assigned address is indicated when DHCP is selected in the NETWORK section of the SYSTEM SETUP● English closed captions (EIA-608) are supported for the following formats (3G-A/3G-B-DL/4K Dual/4K 12G) if the LV5300-SER21 or LV5350-SER21 license option is enabled.	Improvements: <ul style="list-style-type: none">● Assigned address is indicated when DHCP is selected in the NETWORK section of the SYSTEM SETUP● English closed captions (EIA-608) are supported for the following formats (3G-A/3G-B-DL/4K Dual/4K 12G) if the LV7300-SER21 license option is enabled.
3.5	New features: <ul style="list-style-type: none">● LV5600-SER06/LV7600-SER06 now supports 25G IP INPUTS● LV5600-SER32/LV7600-SER32 now supports 25G IP TSG		
3.3	Changes: <ul style="list-style-type: none">● Auto measurement value, (when the LV5600-SER02 Eye Pattern eye is closed due to the extended distance of the cable transmission), has been corrected● When using the LV5600-SER02 Eye Pattern option, if the Or/Of value is greater than 20%, it is indicated as ">20%".● "LOUDNESS AUTO MEASURE" and "MARK AND GATING LAMP" for the LV5600-SER03 and LV7600-SER03 Audio options, has been added.	Changes: <ul style="list-style-type: none">● Auto measurement value, (when the LV5300 Eye Pattern eye is closed due to the extended distance of the cable transmission), has been corrected● When the Or/Of value is grater than 20%, it is indicated as ">20%" on the LV5300	Changes: <ul style="list-style-type: none">● Auto measurement value, (when the LV7300-SER02 Eye Pattern eye is closed due to the extended distance of the cable transmission), has been corrected● When using the LV7300-SER02 EYE pattern option, if the Or/Of value is grater than 20%, it is indicated as ">20%"
3.2	Improvements: <ul style="list-style-type: none">● Upon external synchronization of the waveform display, the input signal format is indicated as same as the "EXT REF PHASE" indication for LV5600-SER01 and LV5600-SER02 SDI options.● Not only the current value but also the PEAK HOLD value on the audio level meter can be displayed by making a selection in the menu of the LV5600-SER03 and LV7600-SER03 Audio options.● Packet list is now automatically updated in the IP STATUS for LV5600-SER05 and LV7600-SER05 IP options.● PATH DELAY and Timing Comparison are now supported in the user layout with the LV5600-SER05 and LV7600-SER05 IP options.● LV5600-SER05 and LV7600-SER05 now supports Telnet and SNMP● LV5600-SER05 and LV7600-SER05 now supports IGMPv3-SSM Changes: <ul style="list-style-type: none">● DDR3 and scaler initializing have been added in case the measuring display is not indicated after start up.● TRS error and line number error have been fixed during SDI signal detection for the LV5600-SER01 and LV5600-SER02 SDI Input options.● NMOS control response speed has been improved for the LV5600-SER05.	Improvements: <ul style="list-style-type: none">● Not only the current value but also the PEAK HOLD value on the audio level meter can be displayed by making a selection in the menu of the LV5300-SER20 and LV5350-SER20 Audio options. Changes: <ul style="list-style-type: none">● DDR3 and scaler initializing have been added in case the measuring display is not indicated after start up.● TRS error and line number error have been fixed during SDI signal detection.	Improvements: <ul style="list-style-type: none">● Not only the current value but also the PEAK HOLD value on the audio level meter can be displayed by making a selection in the menu of the LV7300-SER20 Audio option. Changes: <ul style="list-style-type: none">● DDR3 and scaler initializng have been added in case the measuring display is not indicated after start up.● TRS error and line number error have been fixed during SDI signal detection for the LV7300-SER01 and LV7300-SER02 SDI options.
3.0	Improvements: <ul style="list-style-type: none">● 1080/48P(1080/47.95P) is now selectable in the MONITOR OUT.● AV PHASE is now selectable at each layout in the STATUS with the LV5600-SER26 and LV7600-SER26 Layout option. Changes: <ul style="list-style-type: none">● F3:AV PHASE SETUP menu in the AV PHASE for LV5600-SER01 and LV5600-SER02 SDI options.● F6:INPUT SELECT menu for LV5600-SER01 and LV5600-SER02 SDI Input options.● When ST2110 signal is input, Freeze, Black, Gamut and Level Y/C error detection are now supported for the LV5600-SER05 and LV7600-SER05 IP Input.● Receiving Buffer of ST2110 signal has been extended to support big packet interval of fluctuation for the LV5600-SER05 and LV7600-SER05 IP Input.● PTP has been included in ST2110 signal redundancy for LV5600-SER05 and LV7600-SER05 IP Input.	Improvements: <ul style="list-style-type: none">● 1080/48P(1080/47.95P) is now selectable in the MONITOR OUT● AV PHASE is now selectable at each layout in the STATUS with LV5300-SER26 and LV5350-SER26 Layout options Changes: <ul style="list-style-type: none">● F3:AV PHASE SETUP menu in the AV PHASE● F6:INPUT SELECT menu	Improvements: <ul style="list-style-type: none">● 1080/48P(1080/47.95P) is now selectable in the MONITOR OUT● AV PHASE is now selectable at each layout in the STATUS with the LV7300-SER26 Layout option. Changes: <ul style="list-style-type: none">● F3:AV PHASE SETUP menu in the AV PHASE for the LV7300-SER01 and LV7300-SER02 SDI Input options.● F6:INPUT SELECT menu has been added to the LV7300-SER01 and LV7300-SER02 SDI Input options.

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2.8	<p>New features:</p> <ul style="list-style-type: none">● Video noise meter is now supported with the LV5600-SER30 /LV7600-SER30 Video Noise Meter options.		
2.6	<p>New features:</p> <ul style="list-style-type: none">● Dolby is now supported for the LV5600-SER04 and LV7600-SER04 Dolby options.● TSL protocol is now supported for the LV5600-SER27 and LV7600-SER27 Tally options. <p>Improvements:</p> <ul style="list-style-type: none">● DCI white dot marker has been added to the chromaticity diagram for the LV5600-SER01 and LV5600-SER02 SDI Input options.● Visibility of the marker line in the picture marker display. The line is now thicker and broken into sections to be easier to see with the LV5600-SER01 and LV5600-SER02 SDI Input options● NMOS (IS-05) for the LV5600-SER05 and LV7600-SER05 IP options now support the Evertz system.● Saving an SDP file received by NMOS (IS-05) to USB has been added as a function of the LV5600-SER05 and LV7600-SER05 IP options.● BULK mode of NMOS (IS-05) is now supported with the LV5600-SER05 and LV7600-SER05 IP options.● Saving a received packet by ETHERNET (RJ45) to USB as a PCAP file has been added as a function of the LV5600-SER05 and LV7600-SER05 IP options.● Data dump feature is now supported in the ST2110 setting for the LV5600-SER05 and LV7600-SER05 IP options.● Filter function by using the VLAN ID has been added to the LV5600-SER05 and LV7600-SER05 IP options	<p>New features:</p> <ul style="list-style-type: none">● TSL protocol is now supported for the LV5300-SER27 and LV5350-SER27 Tally options. <p>Improvements:</p> <ul style="list-style-type: none">● Visibility of the marker line in the picture marker display. The line is now thicker and broken into sections to be easier to see.● DCI white dot marker has been added to the chromaticity diagram for LV5300-SER22 and LV5350-SER22 CIE Chart display options.	<p>New features:</p> <ul style="list-style-type: none">● TSL protocol is now supported for the LV7300-SER27 Tally option. <p>Improvements:</p> <ul style="list-style-type: none">● Visibility of the marker line in the picture marker display. The line is now thicker and broken into sections to be easier to see with the LV7300-SER01 and LV7300-SER02 SDI Input options.● DCI white dot marker has been added to the chromaticity diagram for the LV7300-SER22 CIE Chart display option.
2.5	<p>Improvements:</p> <ul style="list-style-type: none">● Waveform color is now selectable when the capture function is in the Held mode.● Waveform display of the external synchronization signal in 4K system is now available for the LV5600-SER01 and LV5600-SER02 SDI Input options.● Composite variable scale in the vector and waveform displays is supported with the LV5600-SER01 and LV5600-SER02 SDI Inputs.● Guide display can now be turned on/off when the LV5600-SER01 or LV5600-SER02 is used in the vector display mode.● Eye Histogram has been added to the LV5600-SER02 SDI Input option.● EYE/JITTER waveform display in the 4K-6G system is now supported for the LV5600-SER02 SDI Input option.● ST2110-40 (ancillary data) is now supported with the LV5600-SER05 and LV7600-SER05 IP options.● Phase graph indication of PTP with Video, Audio and Ancillary data has been added to the LV5600-SER05 and LV7600-SER05 IP options.● PTP packet capture function has been added to the LV5600-SER05 and LV7600-SER05 IP options.● Packet capture has been increased to 1M for the LV5600-SER05 and LV7600-SER05 IP options.● Interlocking mode with payload ID for SDR, HLG and PQ has been added to the LV5600-SER23 and LV7600-SER23 HDR options.	<p>Improvements:</p> <ul style="list-style-type: none">● Waveform color is now selectable when the capture function is in the Held mode.● Composite variable scale in the vector and waveform displays is supported.● Guide display can now be turned on/off in the vector display mode.● Eye Histogram has been added to the LV5300.● EYE/JITTER waveform display in the 4K-6G system is now supported for LV5300● Interlocking mode with payload ID for SDR, HLG and PQ has been added to the LV5300-SER23 and LV5350-SER23 HDR options.	<p>Improvements:</p> <ul style="list-style-type: none">● Waveform color is now selectable when the capture function is in the Held mode.● Composite variable scale in the vector and waveform displays is supported with the LV7300-SER01 and LV7300-SER02 SDI Inputs.● Guide display can now be turned on/off when the LV7300-SER01 or LV7300-SER02 is used in the vector display mode.● Eye Histogram has been added to the LV7300-SER02 SDI Input.● EYE/JITTER waveform display in the 4K-6G system is now supported for the LV7300-SER02 SDI Input option.● Interlocking mode with payload ID for SDR, HLG and PQ has been added to the LV7300-SER23 HDR option.
2.3	<p>New Functions:</p> <ul style="list-style-type: none">● Vector variable scale function has been added to the LV5600-SER01 and LV5600-SER02 SDI Input options.● NMOS IS-04 Registered Discovery is now supported with the LV5600-SER05 and LV7600-SER05 IP Options.● Setting function in NMOS IS-05 by SDP file has been added to the LV5600-SER05 and LV7600-SER05 IP options.● Packet capture function has been added to the LV5600-SER05 and LV7600-SER05 IP options.● PATH DELAY graphic display of ST2022-6 has been added to LV5600-SER05 and LV7600-SER05 IP options.● Wide signal provided in ST2110-21 is now supported for the LV5600-SER05 and LV7600-SER05 IP options.● PTP and ST2110-20 Phase display function has been added to the LV5600-SER05 and LV7600-SER05 IP options.● HDR (HLG) color bar has been added to the LV5600-SER24 and LV7600-SER24 Test Signal Generator option (works with SER23 HDR option).● LV5600-SER29 /LV7600-SER29 now supports 6G-SDI system. <p>Improvements:</p> <ul style="list-style-type: none">● Web server access port (port no. 8080) indication has been added to the NETWORK setting tab.● HEX indication on the payload ID detection display has been added to the STATUS of the LV5600-SER01 and LV5600-SER02 SDI options.● 720p format is now supported with the LV5600-SER05 and LV7600-SER05 IP options.● CLog/Log-C is now supported with the LV5600-SER23 and LV7600-SER23 HDR option.	<p>New Functions:</p> <ul style="list-style-type: none">● Vector variable scale function has been added.● HDR (HLG) color bar has been added to the LV5300-SER24 and LV5350-SER24 Test Signal Generator option (works with SER23 HDR option)● 6G-SDI system is now supported for the LV5300-SER28 and LV5350-SER28 4K/12G-SDI options. <p>Improvements:</p> <ul style="list-style-type: none">● Web server access port (port no. 8080) indication has been added to the NETWORK setting tab.● HEX indication on the payload ID detection display has been added to the STATUS.● CLog/Log-C is now supported with the LV5300-SER23 and LV5350-SER23 HDR options.● 4K 3G dual link is now supported with the LV5300-SER28 and LV5350-SER28 4K/12G-SDI options.	<p>New Functions:</p> <ul style="list-style-type: none">● Vector variable scale function has been added to the LV7300-SER01 and LV7300-SER02 SDI Input options.● HDR (HLG) color bar has been added to the LV7300-SER24 Test Signal Generator option (works with SER23 HDR option).● 6G-SDI system is now supported for the LV7300-SER28 4K/12G-SDI options. <p>Improvements:</p> <ul style="list-style-type: none">● Web server access port (port no. 8080) indication has been added to the NETWORK setting tab.● HEX indication on the payload ID detection display has been added to the STATUS of the LV7300-SER01 and LV7300-SER02 SDI options.● CLog/Log-C is now supported with the LV7300-SER23 HDR option.● 4K 3G dual link is now supported with LV7300-SER28 4k/12g-SDI option.