

## IP-HE950E V01L056 Enhancement List

☐ Modified Items

No.	Affected region & Version	Description
1	V01L050~V01L054	Addressed issues that SNMP command fails to change configuration file.

## IP-HE950E V01L054 Enhancement List (Released Date: July 26<sup>th</sup>, 2023)

☐ Modified Items

No.	Affected region & Version	Description
1	V01L001~V01L053	CVE-2023-38433: Vulnerable to use of hard-coded credentials Addressing the above problem that authentication information of the Web interface of the product may be obtained by reverse engineering, etc.

## IP-HE950E V01L053 Enhancement List

☐ Modified Items

No.	Affected region & Version	Description
1	V01L001~V01L052	Addressed issues that the tiers and levels in bitstreams are incorrect in some video coding combinations of resolution and video rate. (Level in H.264, Level and Tier in H.265)

## IP-HE950E V01L052 Enhancement List (Released Date: January 30<sup>th</sup>, 2023)

☐ Modified Items

No.	Affected region & Version	Description
1	V01L030~V01L051	Addressed issues that may cause a delay difference (0.020 ms) between audio channels when the audio channel mode is multichannel "4ch (2/2), 4ch (3/1), 5.1ch".

## IP-HE950E V01L051 Enhancement List

(Released Date: April 27<sup>th</sup>, 2021)

### ☐ Enhanced Items

No.	Item	Description
1	IPv6 Stateless address	For the generation of IPv6 stateless addresses when the IP version is "IPv4 & IPv6" and IPv6 "stateless". Up to V01L050, to generate IPv6 stateless addresses, a router had to be present on the network at IP-HE950E startup. If an IPv6 stateless address has not been generated, a request is periodically sent to the router so that an IPv6 stateless address can be generated even when the router is started after IP-HE950E.

## IP-HE950E V01L050 Enhancement List

(Released Date: January 27<sup>th</sup>, 2021)

### ☐ New Features

No.	Item	Description
1	Serial data transmission function	Transmit the data of RS-232C/RS-422 serial port between devices through IP network.
2	HDx4ch multi-channel	Audio allocation to each HD channel can be freely set. (until V01L042: 1x Stereo fixed to each HD channel)

### ☐ Enhanced Items

No.	Item	Description
1	Option for HDx4ch multi-channel function	Change options to - Contribution-plus encoder option - Quad 3G-SDI input option (until V01L042: Also requires 4K encoder option)

### ☐ Modified Items

No.	Affected region & Version	Description
1	V01L030~V01L042	Addressed issues where decoded video may blur during HD x4ch transmission.

## IP-HE950E V01L042 Enhancement List (Released Date: June 5<sup>th</sup>, 2020)

☐ Modified Items

No.	Affected region & Version	Description
1	V01L020~V01L041	Even if Contribution-plus option is not installed, audio 3 and 4 can be set from SNMP and cannot be returned from WEB screen. If there is no option, it is modified so that it cannot be set from SNMP.
2	V01L020~V01L041	CVE-2020-8597: Affected by buffer overflow vulnerability in pppd. Addressing potential Denial of Service (DoS) attacks when using PPPoE.
3	V01L030~V01L041	The specification required Contribution-plus option for 5.1 channel audio, but it could be set without an option. The specifications and instructions have been changed so that 5.1 channel audio can be used without any options.
4	V01L040~V01L041	To address the problem of encoding 4K video, which can cause a part of the video to be distorted very rarely.

## IP-HE950E V01L041 Enhancement List (Released Date: January 17<sup>th</sup>, 2020)

☐ Enhanced Items

No.	Affected region & Version	Description
1	SNMP configuration	Audio bit rate can be automatically set when the audio format is changed by SNMP as follows. - MPEG-2 AAC LC 4ch(2/2) -> MPEG-4 AAC ELD stereo audio bit rate set to 256kbps - MPEG-4 AAC ELD stereo -> MPEG-2 AAC LC 4ch(2/2) audio bit rate set to 512kbps

## IP-HE950E V01L040 Enhancement List (Released Date: August 8<sup>th</sup>, 2019)

### ☐ New Features

No.	Item	Description
1	Additional IP redundancy function	-Streaming mode: Multicast, Unicast (Simplex) & Multicast -Error correction: SMPTE2022 FEC
2	Picture mode	Dynamic texture for primary encoder

### ☐ Modified Items

No.	Affected region & Version	Description
1	V01L001~V01L031	The following bug has been fixed (when sampling bit 16bit or 20bit). Channel status (VUCP bit) was not transmitted in Pass-thru (SMPTE302M) audio format.
2	V01L030~V01L031	The following bug has been fixed. When Pre-filter was set to LIGHT or MEDIUM, the brightness level increased by 3 – 5%.

## IP-HE950E V01L031 Enhancement List (Released Date: December 6<sup>th</sup>, 2018)

### ☐ Modified Items

No.	Affected region & Version	Description
1	V01L030	The following bug has been fixed. When encoding HD(1080i), video degradation rarely occurred at the bottom right of the image.

## IP-HE950E V01L030 Enhancement List (Released Date: October 15<sup>th</sup>, 2018)

### ☐ New Features

No.	Item	Description
1	HDx4ch multi-channel	HD(1080i)x4ch transmission enable
2	IP redundancy	Stream out from LAN1 and LAN2
3	H.264 for primary encoder	H.264 streaming from DVB-ASI also enable
4	Additional video resolution	-H.265/H.264: 480i, 576i -H.265: 1080i x 1440
5	Additional audio coding and channel mapping	-MPEG-4 AAC LC -MPEG-4 AAC ELD -Channel mode: 5.1ch, 4ch(2/2), 4ch(3/1)
6	Expansion of coding bit rate	-Video bit rate: up to 68Mbps -System bit rate: up to 70Mbps
7	IPv6	Support IPv6 for stream and control over IP network
8	Remove limitation of prefilter	Available at all resolution Expand filter strength

### ☐ Modified Items

No.	Affected region & Version	Description
1	V01L010~V01L021	The following bug has been fixed. If characteristic number for alarm name and detail parameter is more than 52 letters in SNMP v2c trap, it cannot be conformed to SNMP IP packet format. The trap is sometimes detected.

## IP-HE950E V01L021 Enhancement List (Released Date: May 14<sup>th</sup>, 2018)

☐ Modified Items

No.	Affected region & Version	Description
1	V01L001~V01L020	The following bug has been fixed. Analyzer detected PCR cycle error in TS stream from DVB-ASI.
2	V01L001~V01L020	The following bug has been fixed. Some of satellite modulators detected error.
3	V01L001~V01L020	The following bug has been fixed. SNMP manager couldn't sometimes recognize details of alarm.
4	V01L020	The following bug has been fixed. In case of 4K with Ultra low latency mode, video freeze or corruption was sometimes happened in complicated scene at encoder.
5	V01L020	The following bug has been fixed. In case of high bitrate with ancillary data, analyzer detected PCR jitter error in TS stream from DVB-ASI.
6	V01L020	The following bug has been fixed. Line number value of SDI active through signal was shifted one line and analyzer detected "L NUM ERR".
7	V01L020	The following bug has been fixed. Software error occurred in settings below. - Video: 4K, Ultra low latency - Audio: MPEG2-AAC LC, 128kbps - Ancillary data transmission
8	V01L020	The following bug has been fixed. In case of changing audio input source from analog to embedded, actual input couldn't be changed. (Setting on web GUI could be changed.)

## IP-HE950E V01L020 Enhancement List (Released Date: December 5<sup>th</sup>, 2017)

### ☐ New Features

No.	Item	Description
1	Expansion of number of audio channels	With contribution-plus option: 8ch (4 stereo pair) Without contribution-plus option: 4ch (2 stereo pair)
2	Ancillary function	Transmit ancillary data based on SMPTE ST 2038 or ARIB STD-B40
3	Additional parameters of video performance	-Ultra low latency (ALL P) -Low latency (ALL P)
4	SDI output option (SFP)	Active through SDI output
5	Balanced analog audio function	2ch (1 stereo pair)

### ☐ Modified Items

No.	Affected region & Version	Description
1	V01L001~V01L010	The following bug has been fixed. After time synchronization by SNTP and turning off, Log time stamp was initialized when booting up again.
2	V01L001~V01L010	The following bug has been fixed. Encoder sometimes couldn't boot by turning on, or software reset from web GUI or front panel operation. (Depended on hardware)
3	V01L001~V01L010	The following bug has been fixed. Stream_id of MPEG2-AAC was set to Private_stream_1 incorrectly.