



9992-ENC Firmware Version 1.1.0 Release Notes

This release introduces the following new features:

- Add support for Dolby AC-3, Dolby EAC-3, and Dolby-E pass-through.
- Add configuration of video signal type signaling for MPEG-2, H.264 and H.265.
- DNS Enhancements:
 - Show DNS IP obtained by DHCP in the Network Tab status GUI.
 - Provide DNS server priority control in the Network tab.
- Add support for configuring and sending host header in HLS Remove Server operation using http PUSH for data transfer.
- Add support for SMPTE-2108 HDR metadata injection.
- Add SDT signaling for HDR content (includes both PQ10 and SL-HDR2 descriptors).
- Add full SNMP control of most encoder variables.
- If the clock is NTP-synchronized, persist it so that the encoder starts from the synchronized time when it reboots.
- Add support for on-the-fly parameter changes for selected parameters, including:
 - Audio gain
 - Audio source selection
 - Table Descriptors
 - SDT enable/disable and SDT parameters
- When doing SCTE-104 to SCTE-35 conversion, promote the frame at the splice point to an IDR. For SCTE-104 Splice Normal commands with zero pre-roll, insert an IDR as soon as possible (within 2 frames).
- Add scene change detection sensitivity controls.
- Add support for Ultra-Low Latency encoding.
- Add support for 6G-SDI input signals (to support 4Kp24/25/29.97/30 signals).
- Add CRC error reporting for SDI inputs, with a control to clear the count.
- Add a built-in framesync to all the encoder channels, which provides the following functionality:
 - With the framesync enabled, it is no longer necessary to externally genlock the Video 3 and 4 inputs to Video 1 and Video 2. The encoder can now handle four completely independent signals.
 - If an encoder channel loses input signal, it can be configured to continue operating, encoding either a configurable flat field or the last good frame received.
- Enhancements to RIST Simple Profile (VSF TR-06-1) functionality:
 - Support for the RTT Echo message introduced in the 2020 revision of TR-06-1.
- Support for RIST Main Profile (VSF TR-06-2):
 - Support for Baseline Level tunneling, including:
 - Sending and receiving of JSON messages.
 - Support for Reduced Overhead mode.

- Support for DTLS Level encryption and authentication (additional license required), including:
 - Support for cipher suite selection.
 - Flexible certificate architecture, including built-in certificates and external certificates.
 - Support for internal or external CAs.

This release fixes the following issues:

- Fix a SCTE-35 syntax error when injecting a splice point with zero pre-roll.
- HEVC: insert hrd_parameters() in VUI and buffering_period() in SEI.
- Fix a bug whereby an unusable IPv6 DNS entry would be considered valid, causing DNS lookup to return 0.0.0.0 and connections to fail.
- Show input audio level (dBFS) in the GUI.
- Force GDR off in RTMP mode.
- Fix a bug whereby some connections would not be restored after a reboot.
- Fix a bug whereby the encoder would not recover from some error conditions.
- Correct some audio mux issues.
- Increase the number of maximum connections from 6 to 10 to allow an encoder to be connected to all possible destinations.
- Fix an issue whereby in a multi-channel encoder, if individual channels are stopped and started again in a certain order, the audio PID bit rate goes to zero. This only affects ASI/IP Output.
- Remove the yellow alarm issued for stopped encoders. The unit will still alarm if a stopped encoder is connected to either an ASI output or an IP output.
- Fix an issue whereby the encoder would not start when scaling to resolutions that are not multiple of 16 with interlaced content.
- RTMP fix: discard input from RTMP server once connection is established. This avoids a long-term queue overflow at the server.
- Fix a bug whereby the encoder would stop working after about 20 seconds if it lost communication with the frame controller.
- Correct the Ethernet LED programming.
- Fix a bug where the NACK Window in RIST Simple profile was set incorrectly, causing ARQ to malfunction at high bit rates.
- Handle (broken) RIST Simple Profile devices that generate multiple NACKs in the same compound RTCP packet.
- Fix a bug whereby the NACK Window would be insufficient at high bit rates.
- Fix an issue whereby the board would respond on the backplane Ethernet when installed in an OG-3 or OG-X frame.
- CAN bus reliability improvements.
- Fix an issue whereby CC was not working correctly in HEVC with Hierarchical B-frames.
- Fix an issue with HEVC segment delimitation in HLS mode – segments did not necessarily start on an IDR.
- Corrected the byte ordering of some of the FLV metadata fields in RTMP mode.
- Improvements to the firmware update mechanism.

- Fix an issue whereby Ancillary Data extraction for Encoder 3 and Encoder 4 would stop working if Encoder 2 were disabled.
- Fix an issue whereby CC/AFD would not work reliably for interlaced content that was converted to progressive.
- Fix an issue with invalid CC/AFD insertion in MPEG-2.