



9992-ENC Firmware Version 1.2.X Release Notes

Version 1.2.20:

- This version allows the bit rate for the Encoder 1 channel to go up to 70 Mb/s in HD mode.

Version 1.2.19:

- This version adds additional logging for SCTE-104 over TCP messages with a UTC timestamp. If a message is dropped, the log will have the exact reason. Additionally, the UTC time will be logged.

Version 1.2.18:

- This version was not released to customers.

Version 1.2.17:

- This version was not released to customers.

Version 1.2.16:

- Fix an issue whereby the encoder would sometimes disappear from DashBoard in the BBG-1300-FR.
- For SCTE-104 over TCP messages with an UTC timestamp, accept messages in the past as immediate instead of dropping them.

Version 1.2.15:

- Disable interlaced-to-progressive conversion in encoder channels 3 and 4 as they are not properly supported by the hardware.

Version 1.2.14:

- Fix a closed captioning corruption issue when converting from interlaced to progressive content.

Version 1.2.13:

- Fix a rare crash and restart that could happen if one had four channels with closed captioning at high bit rate running simultaneously.
- Fix a CC duplication issue when converting frame rates.

Version 1.2.12:

- Remove the ability to configure unsupported MPEG-2 configurations, as follows:
 - MPEG-2 does not support 10-bit or 4:2:2 operation; these controls are not grayed out in MPEG-2 mode.
 - MPEG-2 does not support 1080p50, 1080p59.94, and 1080p60; if these signals are detected at the input, they will be automatically downscaled to 720p at the same frame rates.
- Allow multi-link operation without a RIST license, in UDP or RTP modes.



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Version 1.2.11:

- Fixes a regression issue whereby the encoder would not recognize valid OP-47 data in the SDI ancillary space. This issue was present in versions 1.2.2 through 1.2.10.

Version 1.2.10:

- General SRT stability improvements.
- Increase the maximum connection latency x bit rate limit from 1000 milliseconds at 32 Mb/s to 2000 milliseconds at 32 Mb/s.

Version 1.2.9:

- Fix an issue with the FLV metadata in H.264 whereby the video bit rate was not being reported correctly.
- Relax the conditions whereby the card would turn off one or more channels due to excessive CPU utilization.

Version 1.2.8:

- This version fixes a very rare reference clock selection issue.

Version 1.2.7:

- Fix a licensing issue: in AAC or Dolby audio, if the channel were configured for surround downmix, the encoder still required a surround license even though the output was stereo. This has been corrected to require only a stereo license in this case.
- The 6G-SDI resolutions were not working (4Kp25, 4Kp29.97 and 4Kp30). This has been fixed.

Version 1.2.6:

- New feature: in SRT, it is now possible to specify the partner by host name instead of IP address. The device will perform a DNS lookup to find the IP address. This feature requires DNS to be configured in the **Network** tab.

Version 1.2.5:

- Support for DSP version 2.7. There are no user-visible changes in this version.
- Fix an issue whereby, in some cases, when Closed-Captioning was enabled, the PAT/PMT versions would continuously change.

Version 1.2.4:

- New feature: add support for setting the SRT source port in caller mode.

Version 1.2.3:

- New feature: add support for SCTE-104 over TCP operation. This requires a separate per-channel license.



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- New feature: add support for the VSF EtherType in RIST Main Profile (reception only). The encoder will auto-detect and correctly process Reduced Overhead and Keep-Alive packets using the VSF EtherType.
- Minor cosmetic fix to the SRT RTT display.
- Add support for DSP version 2.6, with fixes for some HEVC corner cases.

Version 1.2.2:

- Fix a problem that caused an interoperability issue with libRIST when receiving from a Cobalt Encoder.
- Fix a problem whereby the encoder would fail to recognize Closed-Captions using ST 334 ancillary data packets.
- Fix a problem whereby the Encoder 3 and Encoder 4 channels failed to recognize EIA-608 Line 21 captions.
- Fix a problem whereby the line number coded in the ST 2038 payload was incorrect.

Version 1.2.1:

- This version has no user-visible changes. Internal Manufacturing improvements only.

Version 1.2.0 New Features:

- DSP support up to version 2.5.
 - DSP 2.5 includes some minor video quality improvements.
 - DSP 2.4 includes some minor video quality improvements.
 - Also supports version 2.3.
- Added SRT support to the mainline code.
- Updated the AAC audio encoder to the latest libraries.
- Add support for VSF TR-06-4 Part 1 Source Adaptation and VSF TR-06-2 Null Packet Deletion in RIST.
- Increased the number of saved configuration files to 50.
- Add a CPU utilization measurement and alarm to the Product tab.
- In multi-channel mode, turn off encoder channels if the CPU utilization is excessive.
- Performance improvements for RIST operation.
- Added an HLS alarm that works in the same way as the RTMP alarm.
- Added a feature to HLS where in HTTP POST mode where the URL is split into multiple sections in the GUI.
- Added a feature to allow setting arbitrary source UDP ports in the IP Outputs.
- Additional performance increase in RIST, HLS and RTMP.
- Implement an overall bit rate limit for card. The 9992-ENC will not accept a configuration that exceeds the bit rate limit.
- Speed-up of initial parameter refresh in DashBoard.
- Add support for the XML sideload through the frame interface, to speed up DashBoard startup.



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- Add the ATSC AC3 descriptor to the PMT when encoding Dolby.
- Add support for the 9992-2ENC-4K Model.
- Enable the Frame Interface for OG-3/OG-X and BBG-1300 frames.
- Add support for firmware update over the Frame Interface (transparent to the user).
- Increase the number of available RIST destinations and tunnels to 8.
- Add support for setting the OP-47 Page Number in the PMT.
- Add OP-47 Caption support.
- Increase the maximum allowed video bit rate.
- Increase the frequency of NTP synchronization.
- In RIST mode, add support synchronization information in the SR message.
- Impose a minimum one-frame interval between distinct SCTE-35 packets since some third-party devices cannot handle back-to-back messages.
- Add support for SCTE-35 signaling in the HLS manifest (compatible with YouTube).
- Add support for accepting multiple normal requests in the same SCTE-104 message.
- Add VPID information to the Video Inputs tab.
- Add an automatic mode whereby the video signal settings are set by the VPID values.
- Add a control to clip the QP in AVC mode.
- Add SCTE-35 signaling support to HLS.
- Downmix support control is now available through SNMP.
- Add surround-to-stereo downmix support for Dolby and AAC.
- Supports firmware uploads of up to 64 Mbytes.
- Add source IP address filtering to RIST tunnels.
- Timing improvements on SDI inputs. Internal change only.
- Add a fan alarm for boards with hardware version 2 and higher.

Version 1.2.0 Bug Fixes:

- Fixed a corner-case issue whereby in some rare situations, the local RSA/ECDSA certificates would not be signed by the local CA.
- Fixed a corner-case routing issue that happened if the Frame Interface were placed in the same network as one of the streaming interfaces. In this case, the default gateway (if defined) for the streaming interface would be assigned to the frame interface, and any RIST/SRT streams attempting destined to other subnets and assigned to that streaming interface would not work.
- Fixed a very intermittent crash related to parameter changing in AAC audio.
- Fix line 21 caption extraction in SD (was not working before).
- Fix a bug in the HLS SNMP MIB, which prevented SNMP access to the Enable Host Header and Host Header variables.
- Fix an MPTS creation bug: if two encoder instances were set to the same program number and routed to the same output, the encoder failed to resolve the conflict and produced an invalid MPTS containing two programs with the same number.



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- Fixed a metadata bug in MPEG-2 only where the size of the active image was coming out as 1088 instead of 1080, for 1920x1080 signals.
- Fix an SNMP access issue to the encoder bit rate configurations.
- Fix an audio buffer model violation in HEVC.
- Fix the audio buffer model compliance for RIST and HLS.
- Fix a bug whereby if the encoder suffered an overflow due to excessive CPU utilization, it would not recover until it was restarted.
- Fix a rare crash on HLS parameter setup.
- Fix A/V sync offset on Dolby Surround.
- RIST DTLS: fixed incorrect signature algorithm selection from DTLS client.
- Solve an issue whereby the encoder would appear to hang while doing a firmware update if the auto-reboot box was checked.
- Fixed a GUI issue whereby switching in and out of RTMP mode made the PID configuration GUI in the Advanced Tab disappear.
- Fix a small issue with 1.1.9 whereby parameters would not be restored correctly from previous versions.
- Fix an SNMP type mismatch from string to integer in the DID variable.
- Fix the HE-AAC frame size for correct operation.
- Work around a DataSafe issue that could cause a crash and restart.
- Fix an audio drop problem that could cause the encoder to lose A/V sync and restart.
- Fix a low-frequency, intermittent issue whereby DNS translation would incorrectly fail.
- Cosmetic change: use audio “service” instead of audio “channel” in the GUI.
- Event log changes to reduce CAN bus traffic. Internal change only.
- Fix Ethernet output selection in RIST mode and for RIST Tunnels.
- Remove repeated entries in the event log to further reduce CAN bus traffic.
- Fix an issue whereby SMPTE ST 2038 data was not coming out in ASI/IP mode.
- Fixed an A/V sync issue with Dolby pass-through when the framesync was enabled.
- Fixed an issue with Dolby pass-through in RIST and HLS modes.
- Fixed an issue that prevented Dolby pass-through to operate with SD signals.