

v1.7.2 – 15th August 2019

New Features

[SAPP-153] - Video preview thumbnail

Small, slow refreshing video preview showing video input/output on the web interface.

[SAPP-225] - Option to select streaming interface

IP Interface option allows selection of Ethernet port used for streaming multicast or across WAN. Prior to this IP settings on Port 2 could interfere with streaming on Port 1, and Port 2 couldn't be used for multicast. On Sapphire units with optional IP Module this also allows choice of streaming via B110 PCB or IP Module.

Improvements

[SAPP-226] - Video/Audio helpers on web interface

Video helper provides quick setup of video format and Quad-Sync options. Audio helper will route embedded audio for standard or Quad-Sync operation and enable the required number of channels.

Bug Fixes

[SAPP-224] - SDI lock issues on some Encoders

A small number of Encoder PCBs have exhibited video lock issues with software version v1.6.1 onwards.

[SAPP-227] - Reduce upgrade file size

The larger upgrade file size from v1.7 onwards had created some problem when updating from much older software versions. The new upgrade files are about half the size and backwards compatible.

Known Issues

[SAPP-214] – BISS limited to 8 PIDs

First 8 PIDs are encrypted/decrypted OK, will be a problem when trying to use BISS with more than 6 audio channels otherwise works as per previous releases.

v1.7.1 – 2nd August 2019

New Features

[SAPP-219] - Codec reset and unit reboot buttons on web interface

Config tabs now have a Reset button, this forces a quick reset of the Encoder or Decoder.
Unit tabs now have a Reboot button, this forces a complete reboot of the unit.

Bug Fixes

[SAPP-221] - Streamer could end up running from both Ethernet 1 and IP stream port

In some situations the Streamer could end up running on two ports, which would then clash if both interfaces are on the same network.

[SAPP-222] - Web status and configuration can stop updating after a couple of days continuous uptime

[SAPP-223] - Entering non-multicast stream address causes constant IP decode reset

Decoder multicast stream address is now correctly clipped.

Known Issues

[SAPP-214] – BISS limited to 8 PIDs

First 8 PIDs are encrypted/decrypted OK, will be a problem when trying to use BISS with more than 6 audio channels otherwise works as per previous releases.

v1.7 – 26th July 2019

New Features

[SAPP-154] - Audio bouncers on WUI

Live audio meters for all encoder and decoder channels, includes non-PCM status for Dolby E.

[SAPP-155] - Configuration presets

Import, export and management of named configurations via web interface.

[SAPP-196] - 8 stereo pairs of compressed audio

First 4 stereo pairs can be LPCM, MPEG Layer 1/2, AAC-LC.

Extra 4 stereo pairs can be LPCM, MPEG Layer 1.

Allows for 8 pairs from SDI 1, or 2 pairs from SDI inputs 1/2/3/4 in Quad-Sync mode.

Improvements

[SAPP-124] - Web config screen showed 0 video bitrate when in ASI bitrate mode

WUI now includes Auto vs Manual option for video bitrate to clarify operation.

[SAPP-193] - Additional IP diagnostic information on WUI

This includes MAC address and link state information for all Ethernet ports, FEC / packet loss information, received packet jitter measurement. Status page better reflects state of IP transmit/receive.

[SAPP-199] - Decoder ASI/IP bitrate status displayed on WUI

[SAPP-218] - Stop using M30 16-bit LPCM encoder for channel 1

Previously resulted in restricted Normal latency mode when selected and was missing pass-through of channel status information.

Bug Fixes

[SAPP-80] - Audio meters show frozen level when not encoding/decoding

[SAPP-172] - Change from Layer II to Layer I audio can cause M30 crash

[SAPP-189] - MPEG-1 Layer 1 decoder start-up not reliable

Replaced MPEG-1 decoder with own implementation so now works without restriction and recommended for use with Ultra Low latency mode.

[SAPP-209] - Black screen during decoder recovery in freeze frame mode

Improved freeze frame mode and behaviour when power cycling an encoder/transmitter source.

[SAPP-210] - Various audio embedder/deembedder bugs

On occasions embedded audio output and channels status for some pairs could become corrupt.

[SAPP-211] - Web Interface viewed on Edge did not update Status

[SAPP-212] – ST352 packet generation should assume Rec.709 if missing VUI

This was causing issues with Phabrix Qx to refuse to display SDI sources flagged as Unspecified.

[SAPP-215] - Blank streaming multicast address causes IP issues

Known Issues

[SAPP-214] – BISS limited to 8 PIDs

First 8 PIDs are encrypted/decrypted OK, will be a problem when trying to use BISS with more than 6 audio channels otherwise works as per previous releases.

v1.6.2 – 18th June 2019

New Features

[SAPP-203] - Camera back front panel support for Decoder

Bug Fixes

[SAPP-204] - Minor fixes to Unit page on WUI

Known Issues

[SAPP-189] - MPEG-1 Layer 1 decoder start-up not reliable

No change since previous releases, on TS interruption decoder might need soft reset to start audio.
Would recommend using LPCM for error prone high bitrate Ultra Low delay applications,
or using MPEG-2 Layer 2 for other applications noting it adds a small delay until resolved.

v1.6.1 – 17th May 2019

New Features

[SAPP-142] - Quad-Sync output support for 720p

Improvements

[SAPP-192] - Jitter reduction on SDI outputs (20-45% depending on mode of operation)

Bug Fixes

[SAPP-183] - Quad-Sync not reliable with 4x asynchronous 1080p59

[SAPP-190] - Banding on 10-bit 2160p59/60 decode with genlock enabled

[SAPP-191] - Banding on 10-bit encode with Quad-Sync enabled

[SAPP-197] - Left channel analogue audio inputs 1 and 2 have inversion

Known Issues

[SAPP-189] - MPEG-1 Layer 1 decoder start-up not reliable

No change since previous releases, on TS interruption decoder might need soft reset to start audio.
Would recommend using LPCM for error prone high bitrate Ultra Low delay applications,
or using MPEG-2 Layer 2 for other applications noting it adds a small delay until resolved.

v1.6 – 17th April 2019

New Features

[SAPP-7] - IP streaming (B110 native support)

Currently limits ASI/Mux bitrate to 30Mbps.
Supports UDP/RTP, Unicast/Multicast.

[SAPP-47] - ST 352 payload ID analyser

Useful tool on web interface for monitoring HDR/WCG or other flags from SDI inputs.

[SAPP-55] - HDR/WCG modes (Rec.2100 HLG and PQ)

Automatic support if ST 352 flags are present on SDI 1, or manual selection available.

[SAPP-119] - Quad-Sync support for HD source switching

Can now be used for frame synchronised source switching with format conversion.

[SAPP-167] - IP streaming/decoding (Sapphire units with IP hardware upgrade)

No bitrate limitations compared to native support
Supports UDP/RTP, Unicast/Multicast, FEC (ST 2022-1)

[SAPP-176] - SDR/WCG modes (Rec.2020 NCL and CL)

Automatic support if ST 352 flags are present on SDI 1, or manual selection available.

[SAPP-184] - Sony HDR/WCG modes (HLG Live and S-LOG3)

Automatic support if ST 352 flags are present on SDI 1, or manual selection available.
S-LOG3 gets flagged as Unspecified as per output from Sony cameras.

Improvements

[SAPP-141] - Quad-Sync input support for 720p

Can now handle up-conversion of 720p to 1080p including half/double frame rates.

[SAPP-149] - Quad-Sync improved I to P conversion quality

Previous method was causing soft pictures at decode end with 1080i output selected.

[SAPP-152] - Licensed feature list added to web interface

[SAPP-168] - Frame sync the blue screen and test pattern switchover

[SAPP-171] - Improve LPCM lip-sync in Low and Normal delay modes

Bug Fixes

[SAPP-106] - Dolby-E line alignment wasn't working with Quad-Sync output

[SAPP-120] - Quad-Sync conversion artefacts with certain combinations primarily 4x 1080i

[SAPP-150] - Automated recovery from failed front panel upgrade

[SAPP-151] - Quad-Sync could lock-up when connecting/disconnecting inputs

- [SAPP-160] - Field ordering issue when decoding DTC interlaced streams
- [SAPP-162] - Blue screen on fail could occur despite being in freeze on fail mode
- [SAPP-165] - Multiple changes on web interface can get lost
- [SAPP-169] - Blue screen not blue with streams requiring horizontal scaling
- [SAPP-170] - Service changes in PMT were not always picked up without TS interruption
- [SAPP-175] - Audio lost from SDI 2/3/4 when unplugging SDI 1 with Quad-Sync enabled
- [SAPP-182] - Decoder Quad-Sync license now clips setting rather than forcing decode error
- [SAPP-186] - In some cases embedded audio outputs were getting distorted

Known Issues

- [SAPP-183] - Quad-Sync not reliable with 4x asynchronous 1080p59

All other combinations are believed to work, as does 4x synchronous 1080p59.
Would recommend maximum 3x asynchronous 1080p59 sources until next release.

- [SAPP-189] - MPEG-1 Layer 1 decoder start-up not reliable

No change since previous releases, on TS interruption decoder might need soft reset to start audio.
Would recommend using LPCM for error prone high bitrate Ultra Low delay applications,
or using MPEG-2 Layer 2 for other applications noting it adds a small delay until resolved.

v1.5.1 – 28th January 2019

New Features

- [SAPP-66] - Dolby-E line alignment (licensed feature, automatic output alignment to recommended offsets)
- [SAPP-77] - AAC-LC decoding (more robust support for B110 and 3rd party streams)

Improvements

- [SAPP-116] - Up-sampling support for DTC encoders (3/4, 2/3 and 1/2 horizontal resolution)
- [SAPP-145] - Improve default genlock alignment (defaults to 0 line offset now)

Bug Fixes

- [SAPP-118] - Genlock status reports Disabled when Internal mode selected
- [SAPP-130] - Upgrade can cause loss of config

[SAPP-135] - Potential for embedded audio pair to be swapped

[SAPP-136] - Some embedded Level B sources just producing noise

[SAPP-140] - Chroma format controlling genlock bit depth

[SAPP-143] - Periodic clicking with M30 decoded audio in genlock mode

[SAPP-144] - Upgrades can hang until power cycle

[SAPP-147] - Data channel entry in PMT not always correct

v1.5 – 20th December 2018

New Features

[SAPP-4] - PSF format support (licensable feature)

[SAPP-6] - Private data RS-232 channel

[SAPP-9] - Web browser enabling IP based control

[SAPP-59] - Greater control over audio routing (audio from each SDI input)

[SAPP-15] - 1080p to 1080i conversion on decoder (Quad-Sync option)

Improvements

[SAPP-18] - OEM web page branding now available

[SAPP-23] - Major genlock lock speed improvements

[SAPP-49] - Disable DDR when not in use to save power

[SAPP-93] - Option to duplicate decoded HD on all four outputs

[SAPP-113] - Various power savings (2-3W depending on mode of operation)

[SAPP-117] - New user for SCP upgrades (details in integration document)

Bug Fixes

[SAPP-30] - Horizontal shift in picture could occur with genlock

[SAPP-85] - H.264 encoding 10-bit was not yet enabled

[SAPP-92] - Genlock not functional in less common formats

[SAPP-95] - DES de-scrambling can lockup on TS interruption

- [SAPP-104] - Status display not updating after loss of signal
- [SAPP-105] - Genlock boundary issues affecting certain pixel offsets
- [SAPP-108] - Genlock line/pixel offset changes causing decoder to reset
- [SAPP-125] - Encoder test tone shouldn't be 0dBFS
- [SAPP-127] - DHCP option not working on front panel

v1.4.6 – 5th November 2018

Bug Fixes

- [SAPP-89] - Cannot switch between encoder and decoder from the front panel
- [SAPP-90] - SDI outputs can fail on reset/reconfiguration
- [SAPP-94] - Restore defaults on BISS enabled decoders requires power cycle
- [SAPP-101] - BISS settings not clipped correctly when switching unit mode

v1.4.5 – 24th October 2018

New Features

- [SAPP-5] - Encoder test pattern
- [SAPP-10] - H.264 encoding 8-bit
- [SAPP-11] - MPEG Layer II encoding/decoding
- [SAPP-12] - MPEG Layer I encoding/decoding
- [SAPP-46] - Multi channel audio decoding
- [SAPP-69] - AAC-LC encoding
- [SAPP-13] - Quad-sync mode on encoder
- [SAPP-14] - 1080i input to Quad-sync mode
- [SAPP-16] - 1080psf input support on encoder
- [SAPP-44] - 1080p pass-through in Quad-sync mode
- [SAPP-65] - 16/20/24-bit LPCM pass-through

[SAPP-67] - Dolby-E status on Sapphire audio meter (or in remote commands)

[SAPP-39] - Feature licensing (license mask is displayed on front panel)

Improvements

[SAPP-25] - Automatic recognition of speed grade (single upgrade file)

[SAPP-35] - Add board ESN to front panel display

Bug Fixes

[SAPP-19] - Video format/chroma/bits not always detected

[SAPP-24] - ASI input doesn't meet timing

[SAPP-27] - Linear audio lip-sync improvement

[SAPP-28] - Linear audio locks up on RF break

[SAPP-29] - Random blocking artefacts in p50

[SAPP-30] - Horizontal shift from genlock

[SAPP-32] - Audio gain control broken on cameraback

[SAPP-38] - Streaming across bridge can prevent FPGA load

[SAPP-40] - ST 352M packets on incorrect lines

[SAPP-56] - Wrong 4:2:2 to 4:2:0 filter coefficients used in Interlaced formats

[SAPP-76] - Long button press causes configuration change to be ignored

v1.4.1 – 21th August 2018

Bug Fixes

[SAPP-1] - White sparkles with genlock enabled

v1.4 – 14th August 2018