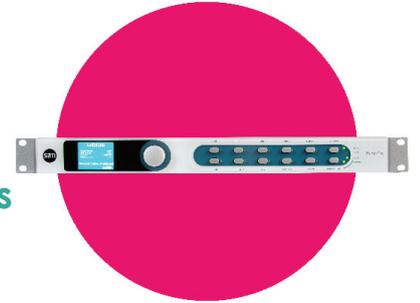


UHD1200 — 12G UHD Video & Audio Processor

Technical Data Sheet

UHD1200 is a flexible 12G or quad-link UHD processing unit including HDR and Wide Color Gamut mapping along with converting to or from 4K and HD/SD. Such advanced processing allows re-purposing of existing or new assets, as well as covering all common video and audio processing tasks.



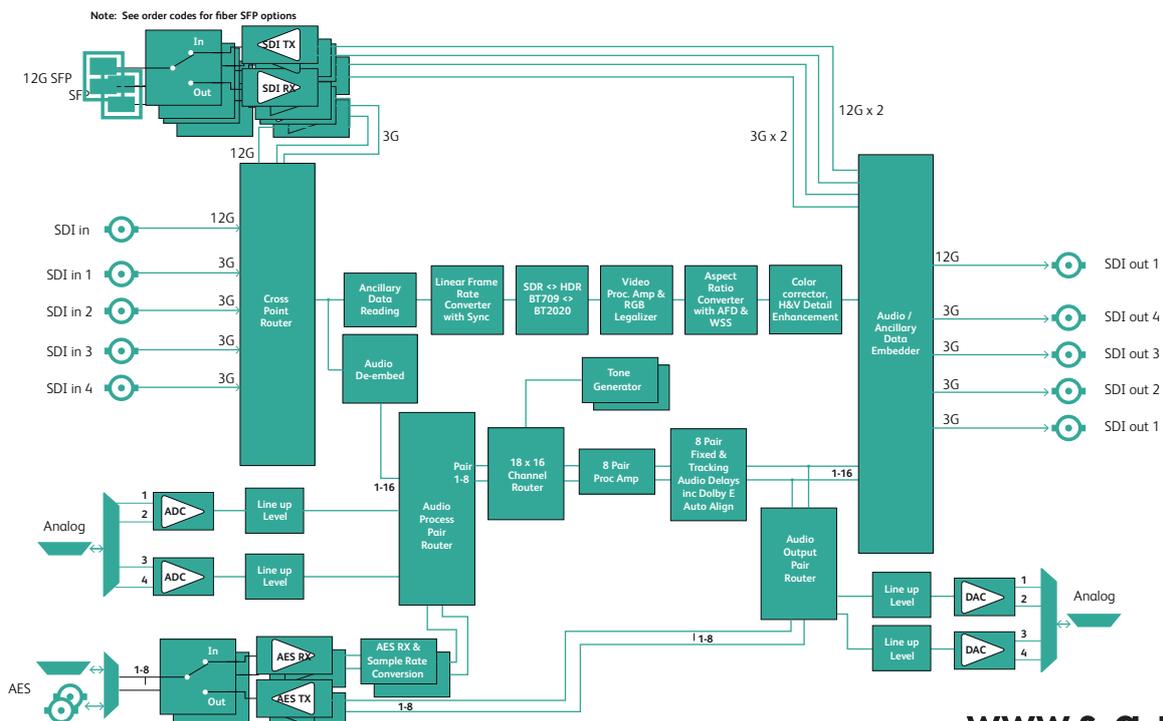
Applications

- Repurpose existing HD content - up convert for distribution over UHD channels
- Service existing HD channels - down convert UHD content for simulcast on mainstream HD services
- Integrate HDR (PQ, HLG, Slog3) signals into SDR workflows, translate between HDR standards, or map SDR signals for use in HDR productions
- Cover color space requirements with BT709 and BT2020 translation features
- UHD signal processing - synchronize, adjust and enhance, or process audio with UHD1200s comprehensive control features

Features

- SD/HD/3G/UHD up, down and cross conversion with clean cut feature
- Frame Synchronization including continuous output on input standard changes
- HDR (PQ, HLG, Slog3) and BT2020 wide color gamut support, along with video proc and powerful picture enhancement tools, including edge enhance and noise reduction
- 16-channel embedded audio processing and PCM/Dolby audio delay compensation
- Metadata support including Closed caption, WST, timecode and SMPTE2020 handling
- Easy to use control options inc. front panel with control lock, and remote via web interface and RollCall
- Linear motion adaptive frame rate conversion available when up or down converting
- Automatic Aspect Ratio Conversion with signalling support (SMPTE 2016, L23 ETSI, L23 AFD, VI SMPTE, VI AFD)
- Balanced AES and analog audio I/O
- Support for fiber Tx and Rx via SFP
- Dual PSU as standard

UHD1200 Processing



Technical Specification

Signal Inputs

Serial digital 1 x 75 Ohm SD/HD/3G/12Gb/s/UHD-1 serial digital with embedded audio

Serial digital 4 x 75 Ohm SD/HD/3Gb/s/UHD-1 serial digital with embedded audio

Input standards: 12Gb/s UHD-1 single link to SMPTE 2082, UHD-1 Quad-link-SDI, SMPTE 2036,

3Gb/s HD-SDI, SMPTE425 level A, dual-link level B

1.5 Gbit/s HD-SDI SMPTE292M/
SMPTE299M

270 Mbit/s SD-SDI SMPTE259M

Reference 1 x loop-through HDTV Trisync/SD Bi-sync (black & burst) SMPTE 240M/274M

Audio AES (option) up to 8 x Balanced AES inputs – via 25 way D Type

Analog audio (option) 2 x Stereo Analog inputs via 25 way D Type

Signal Outputs

Serial digital 1 x 75 Ohm SD/HD/3G/12Gb/s/UHD-1 serial digital with embedded audio

Serial digital 4 x 75 Ohm SD/HD/3Gb/s/UHD-1 serial digital with embedded audio

Output standards: 12Gb/s UHD-1 single link to SMPTE 2082, UHD-1 Quad-link, SMPTE 2036

3Gb/s HD-SDI, SMPTE425 level A, dual-link level B

1.5 Gbit/s HD-SDI SMPTE292M/
SMPTE299M

270 Mbit/s SD-SDI SMPTE259M

Audio AES (option) up to 8 x Balanced AES outputs – via 25 way D Type

Analog audio (option) 2 x Stereo Analog outputs via 25 way D Type

Input standard

Input standard

(auto detect) 525, 625

720 50/59.94/60p

1080 50/59.94/60i

1080 50/59.94/60p (Levels A and B)

720/1080/2160 23/24/25/29.97/30p

1080 23/24/25/29.97/30psf, with film detection and processing

2160 50/59.94/60p (Levels A and B)

Output standard

525, 625

720 50/59.94/60p

1080 50/59.94/60i

1080 50/59.94/60p (Levels A and B)

720/1080/2160 23/24/25/29.97/30p

1080 23/24/25/29.97psf, with film detection and processing

2160 50/59.94/60p (Levels A and B)

Video Functions

Up Conversion, Down Conversion, Cross Conversion

Square division to / from 2SI conversion

SD/HD/3Gb/s to / from UHD-1 Linear Standards Conversion

Noise Reduction

SDR to / from HDR (PQ, HLG, Slog3)

Colour space BT709 to / from BT2020

Manual or Automatic ARC

AFD (SMPTE 2016), VI (RP186), WSS (L23)

SD input format Normal 4:3, Anamorphic 16:9,

Letterbox 14:9, Letterbox 16:9

SD output format Normal 4:3, Anamorphic 16:9,

Letterbox 14:9, Letterbox 16:9

Auto zoom On/Off

Manual zoom Zoom +/- 20%

Safe area marker Off , 16:9, 4:3

Manual controls : size, aspect, pan, tilt
Wide range of ARC presets including 702 sample line mode

Metadata

Closed caption CEA608 <> CEA708

Timecode conversions

WST/RDD8 conversion

SMPTE2020 embed/de-embed

Audio Functions

Analog Audio (option)

- Two pairs of analog inputs are individually available to the processing channel
- Headroom +24dBu; balanced connection

AES Audio (option)

- AES audio is accessible via 8 bidirectional ports which can be configured as inputs or outputs
- AES input is auto-detected as PCM (32-96kHz) or non-PCM (48kHz locked to relevant video input)

Embedded Audio

- 16-channel embedded audio processing
- PCM audio processing includes channel level gain and delay compensation, as well as channel level routing/shuffle with audio phase inversion
- Non-PCM processing features pair level routing and delay compensation.
- Dolby-E data is passed with a delay to match the video and with co-timed audio frame drop or repeat.

System

Pattern Off , Black, Ramp, Bars

Proc amp

Black Level +100 to -100mV (0) in 0.8mV steps

Contrast -6dB to +6dB (0) in 0.2dB steps

Saturation -6dB to +6dB (0) in 0.2dB steps

Y Gamma 0.4 to 1.7 (1) in 0.1 steps

Freeze On/Off

Genlock Reference lock, Input lock (same format), Follow input (same frame rate), Free run

Memories 16 user memories

Adjustable Legalizer

EDH support

Communications

Remote control via web interface and RollCall network (IP)

Power (Primary and Secondary)

Input voltage range 100 – 240 VAC, 50/60 Hz 1.5A (Max) via three pin IEC power socket

Mechanical

Temperature range 0 to 45° C operating

Cooling Internal Fan, side venting

Weight Approximately 2.4kg

Case type 1RU, Rack Mounting

Dimensions 44mm x 430mm x 170mm (h, w, d)

