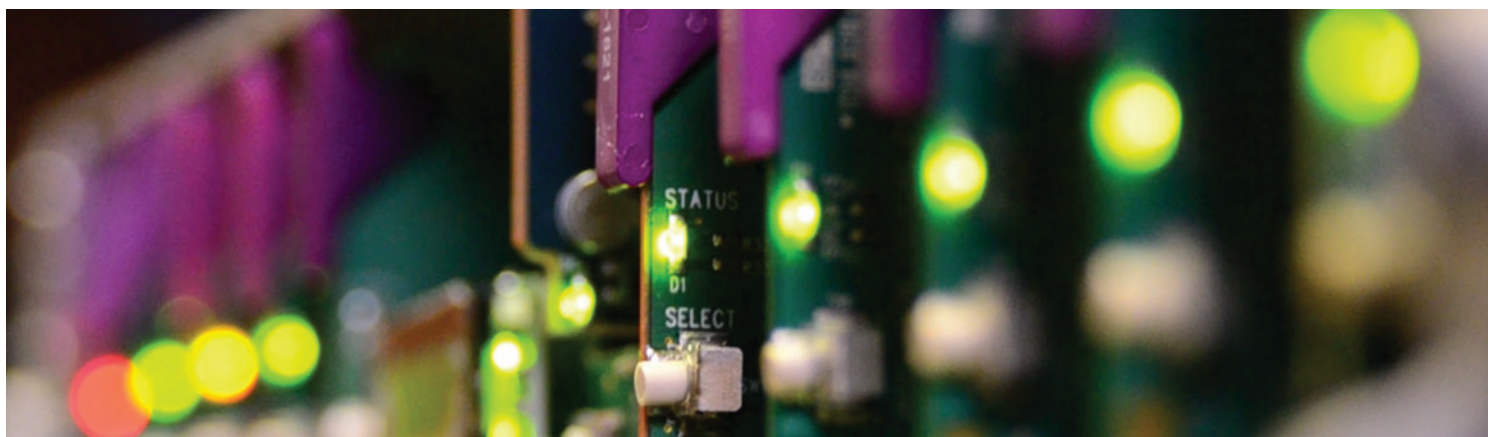


XVP-1801-SD

SD ARC and Frame Sync



Space-saving, modular platform for advanced signal processing.

The XVP-1801-SD from Grass Valley, a Belden Brand, is a dual standard (525/625) aspect ratio converter (ARC) and frame synchronizer with high quality video processing, using advanced motion adaptive de-interlacing. It is designed for use in facilities where 4:3 and 16:9 formats reside and conversion from one to the other is required. The converter features a second input which can be used as a background input to replace the black bars that would normally be there during a side panel or letterbox conversion.

The ARC function offers fixed presets as well as variable user configurable aspect ratios. The support of AFD (Active Format Description) SMPTE-2016, VLI (Video Line Index) RP-186 and WSS allows the card to adjust its ARC automatically without any external intervention. The XVP-1801-SD will re-insert on the output signal the proper AFD, VLI or WSS along with HANC and VANC information found on the input.

With the integration of a frame sync, incoming feed signals can be synced to house, and video/audio levels adjusted using a proc and color correction, when entering the facility. The XVP-1801-SD features a video proc amp with full YUV and RGB level controls.

The XVP-1801-SD will pass and delay automatically all 16 channels (four groups) of embedded audio to keep lip sync. Full audio processing, shuffling, downmixing and four AES in and four AES out channels are available as an option. Additional audio flexibility is offered when the XVP is connected to other audio processing cards. When connected with a UAP-1783 or an AAP-1741, the XVP-1801-SD gains additional AES or analog audio channels while still maintaining lip sync. Depending on the audio processor selected, these boards also offer Dolby E or Dolby Digital (AC-3) for encoding or decoding, upmixing from 2.0 to 5.1 and full dynamic processing (limiter, compressor and expander).

An RS-232/422 port is provided for automation control for ARC presets and GPIs are also available for user presets.

The XVP-1801-SD can be upgraded in the field to the full XVP-1801 up/down/crossconverter specification if extra capabilities are required, and this strengthens the hardware investment and simplifies spares requirements.

XVP-1801-SD SD ARC and Frame Sync

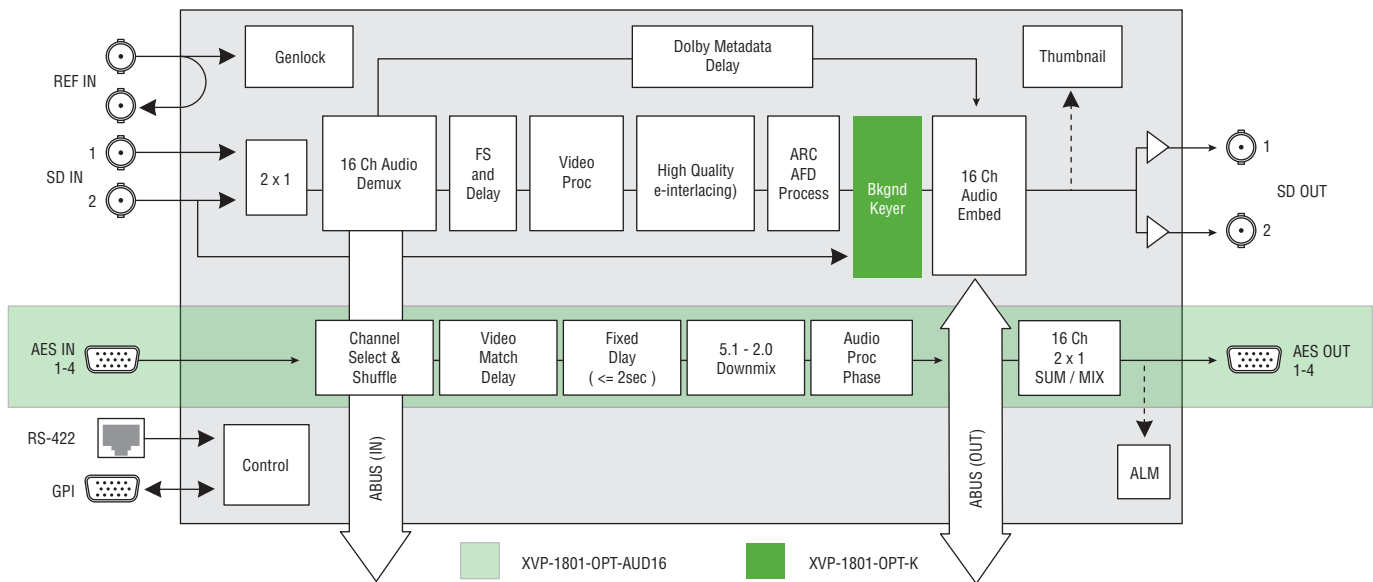
KEY FEATURES

- SD frame synchronizer with proc amp control (full YUV and RGB level)
- Advanced adaptive video de-interlacing for higher image quality
- Automatic ARC, using AFD (SMPTE-2016), VLI (RP-186) and WSS detection and correct re-insertion with the output
- Custom and fixed ARC presets
- Background keying capability during aspect ratio conversion which allows side panels or letterbox black bars to be filled with video or graphics
- Optional 16 channels of embedded full audio processing, shuffling and downmixing
- Optional 4 AES inputs and 4 AES outputs
- Perfect audio/video synchronization plus additional audio fixed delay of up to 2 seconds
- Compatible with Grass Valley audio processing cards, including the UAP-1783, AAP-1741 and DAP-1781
- Reference input
- RS-422 protocol and GPI ports for automation or external device control
- Multiple presets for save and recall
- Thumbnail and ALM streaming over IP
- Upgradeable to full XVP-1801 up/down/cross converter
- Audio metadata processing (SMPTE 2020-A)

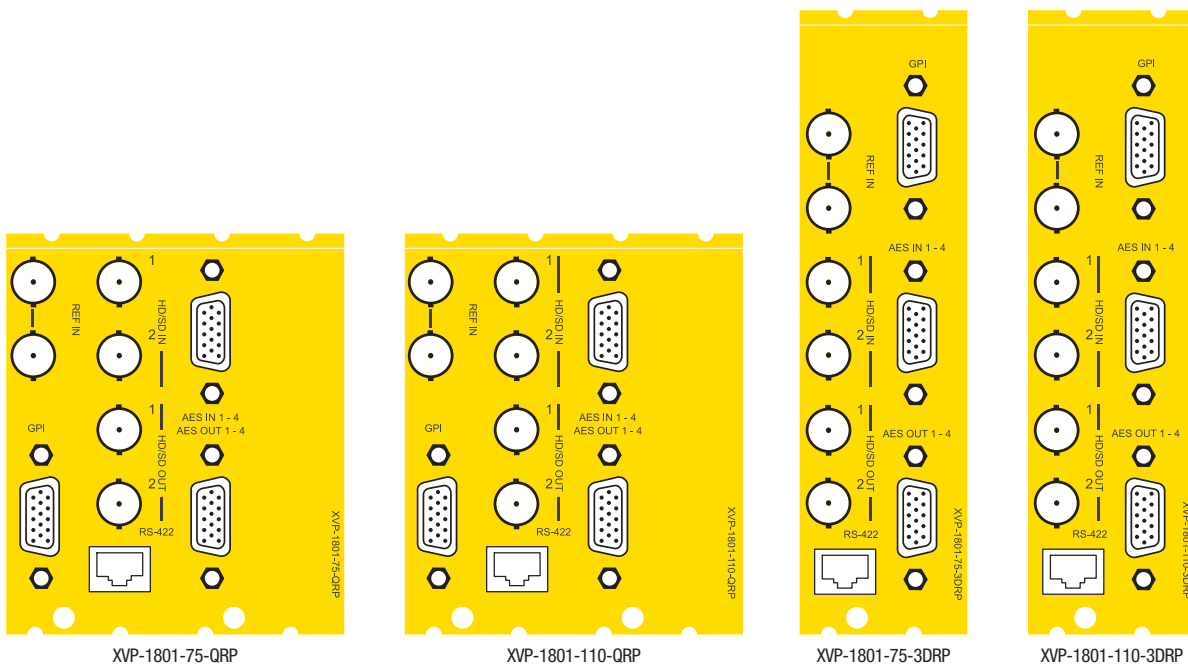
XVP-1801-SD

Input	Output	
	525	625
SD	525	X
	625	X

Video formats supported.



XVP-1801-SD SD ARC with Frame Sync



XVP-1801-SD SD ARC and Frame Sync

SPECIFICATIONS

Video Inputs (2)

Signal:
SD: SMPTE-259M-C (270 Mb/s)

Supported formats:

SD: SMPTE-125M: 480i59.94
SD: EBU: 576i50

Embedded audio: SMPTE-299M-272

Cable length: 340m (1,115 ft.) Belden 1694A at 270 Mb/s

Return loss: >15 dB up to 1.5 GHz

Video Output

Signal: SMPTE-259-C (270 Mb/s)

Supported formats: SD: 480i59.94, 576i50

Embedded audio: SMPTE-299M, SMPTE-272M

Return loss: >15 dB up to 1.5 GHz

Jitter: <0.2 UI

Reference Input

Signal: SMPTE 170M/SMPTE 318M/ITU 624-4/
BUT 470-6 blackburst

Return loss: >35 dB up to 5.75 MHz

Video Processing Performance

Signal path: 10 bits

Latency:

1 frame in all modes

Up to 6 frames of additional delay can be added

Audio Digital Inputs (4)

Sampling freq.: 32 to 96 kHz

Quantization: Up to 24 bits

AES3

Level: 0.2 to 7 Vp-p

Impedance: 110Ω balanced

AES3-id

Level: 0.2 to 2 Vp-p

Impedance: 75Ω

Return loss: 15 dB at 6 MHz

Audio Digital Outputs (4)

Sampling freq.: 48 kHz

Quantization: 24 bits

AES3

Level: 3 Vp-p

Impedance: 110Ω balanced

AES-3id

Level: 1.0 Vp-p

Impedance: 75Ω

Return loss: 15 dB at 6 MHz

Audio Processing Performance

Quantization: 24 bits

Sampling: 48 kHz

Number of channels: 16 (4 groups)

Freq. response: ±0.02 dB (20 Hz to 20 kHz)

SNR: 123 dB (A weighted)

THD+N: -138 dB (20 Hz to 20 kHz)

Miscellaneous

Fixed delay: 0 to 2.0s

Step: 1 ms (coarse), 1 sample (fine)

GPI (8)

Connector: 15-pin D-Sub, opto-isolated

GPI in:

Input selection: 1, 2

Presets: 1, 2, 3, 4

GPI out: Provides status of selected input: 1 or 2

RS-422 (Automation)

Connector: RJ45

Signal: OXTEL Series automation protocol

ABUS Connector

As per ABUS standard, Grass Valley

Test Pattern Generator

Video:

Color bars — 100% white bar with 75% color

Audio:

Left channel pulsed 1 kHz tone

Right channel steady 1 kHz tone

Electrical

Power: 17W

FIELD UPGRADEABLE TO
XVP-1801
UP/DOWN/CROSS CONVERTER



ORDERING

Densité 2 frame

XVP-1801-SD

XVP-1801-75-QRP

XVP-1801-110-QRP

Options (software)

XVP-1801-OPT-AUD16

XVP-1801-OPT-K

XVP-1801-UG-SD2XVP

Options (hardware)

BOC-DE15-4BNC-1

NSH15M

Remote control

Densité 3 frame

XVP-1801-SD-3RU

XVP-1801-75-3DRP

XVP-1801-110-3DRP

Description

AES IO support and 16 channels on-board audio processing option

Background key input option

Upgrade from XVP-1801-SD to full XVP

75 ohm digital audio breakout cable

HD-15 to terminal block adapter

iControl, iControl Solo, RCP-200

Description

SD frame sync and ARC

Double rear connector panel, 75 ohm

Double rear connector panel, 110 ohm

Quadruple rear connector panel, 75 ohm

Quadruple rear connector panel, 110 ohm



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