

Converters Embeders / De-embeders



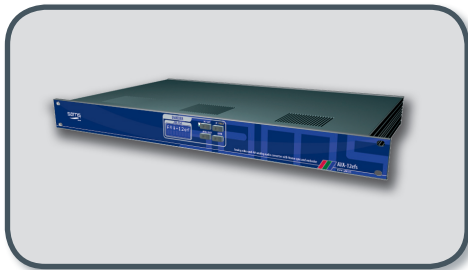
sams

Professional and broadcast video/audio equipment

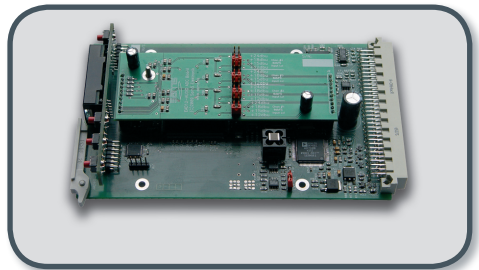
48 Zivka Davidovića st. • 11050 Belgrade • Serbia • +381 11 3806 253; +381 11 2402 212 • sams@sams.rs • www.sams.rs

- Broadcast quality
- Converts YUV, RGB, CVBS or YC to digital video
- 12/10bit processing
- Fiveline adaptive 3D comb filter
- AGC / CTI / DNR
- EDH processing
- Automatic YUV pixel timing adjustment
- Input signal presence detection
- Pass, "Freezing" or broadcast test in the case of incorrect video input
- Integrated Test Generator (Black, Color Bar)
- Easy setup with local control and LCD display
- Audio embedder with adjustable input level - 12, 15, 18 or 24dB
- Balanced analog audio inputs
- 24bit / 48kHz / 4 ch sampling and processing

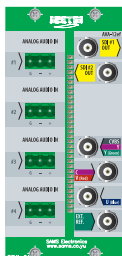
AVA-12ef converts composite or component analog video to SDI. AVA-12ef have a frame sinhronaizer that asynchronous video signal recorded in the memory and reads it synchronized with an external reference, as well as other settings. It is useful for synchronizing large number of external signals with signals from the TV station, or the capture of material from an amateur into a professional format. With both available, composite and component (Y, Cr, Cb or RGB or YC) inputs, this unit is ideal for converting all types of analog video. Advanced and highly flexible digital output, enables high-quality conversion of referral systems. "12bit 4x oversampling allows the A / D conversion of high-performance 10bit output. An intelligent adjustment system provides full digital filter frequency response, even in the composite signal. Fixed frequency 54MHz ADC and buses for all options, allows for very precise processing and digital filtering. AVA-12ef is high quality embedder, designed to insert four analog audio signals into digital video. The device has a level adjustment, change the audio phase and selection of channel place. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.



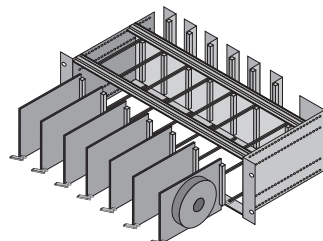
Standalone version



Module for SRU-306 rack frame



Back connector BCVA-84



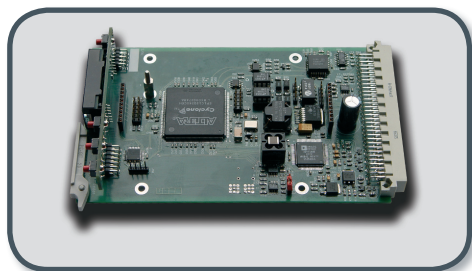
SRU-306, with 6 modules + PSU

- Broadcast quality
- Converts YUV, RGB, CVBS or YC to digital video
- 12/10bit processing
- Fiveline adaptive 3D comb filter
- AGC / CTI / DNR
- EDH processing
- Automatic YUV pixel timing adjustment
- Input signal presence detection
- Pass, "Freezing" or broadcast test in the case of incorrect video input
- Integrated Test Generator (Black, Color Bar)
- Easy setup with local control and LCD display
- Audio embedder
- Balanced / unbalanced digital audio inputs
- 24bit / 48kHz / 2 ch sampling and processing

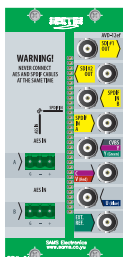
AVD-12ef converts composite or component analog video to SDI. AVD-12ef have a frame synchronizer that asynchronous video signal recorded in the memory and reads it synchronized with an external reference, as well as other settings. It is useful for synchronizing large number of external signals with signals from the TV station, or the capture of material from an amateur into a professional format. With both available, composite and component (Y, Cr, Cb or RGB or YC) inputs, this unit is ideal for converting all types of analog video. Advanced and highly flexible digital output, enables high-quality conversion of referral systems. "12bit 4x oversampling allows the A / D conversion of high-performance 10bit output. An intelligent adjustment system provides full digital filter frequency response, even in the composite signal. Fixed frequency 54MHz ADC and buses for all options, allows for very precise processing and digital filtering. AVD-12ef is high quality embedder, designed to insert two 24-bit digital audio signals into digital video. The device has a level adjustment, change the audio phase and selection of channel place. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.



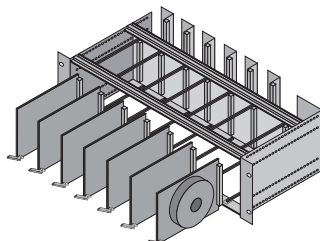
Standalone version



Module for SRU-306 rack frame



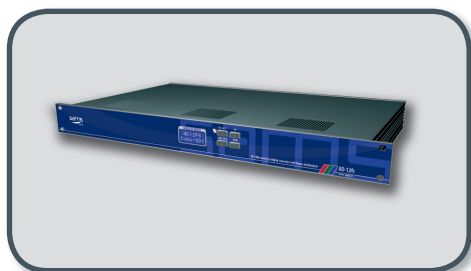
Back connector BCVA-84



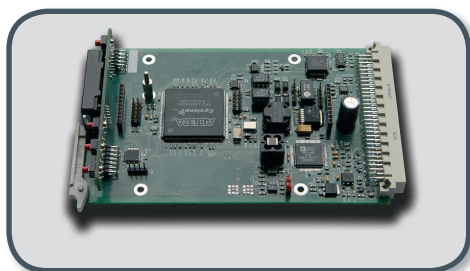
SRU-306, with 6 modules + PSU

- Broadcast quality
- Converts YUV, RGB, CVBS or YC to digital video
- 12/10bit processing
- Fiveline adaptive 3D comb filter
- Integrated Three 54MHz: Noise Shaped Video, 12-bit AD converter and 4 x oversampling
- Integrated automatic gain control with adaptive peak white mode
- CTI (chroma transient improvement)
- DNR (Digital Noise Reduction)
- EDH processing
- Automatic YUV pixel timing adjustment
- Input signal presence detection
- Pass, "Freezing" or broadcast test in the case of incorrect video input
- Integrated Test Generator (Black, Color Bar)
- Easy setup with local control and LCD display

AD-12fs converts composite or component analog video to SDI. AD-12 have a frame synchronizer that asynchronous video signal recorded in the memory and reads it synchronized with an external reference, as well as other settings. It is useful for synchronizing large number of external signals with signals from the TV station, or the capture of material from an amateur into a professional format. With both available, composite and component (Y, Cr, Cb or RGB or YC) inputs, this unit is ideal for converting all types of analog video. Advanced and highly flexible digital output, enables high-quality conversion of referral systems. "12bit 4x oversampling allows the A / D conversion of high-performance 10bit output. An intelligent adjustment system provides full digital filter frequency response, even in the composite signal. Fixed frequency 54MHz ADC and buses for all options, allows for very precise processing and digital filtering. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.



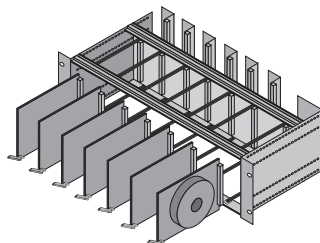
Standalone version



Module for SRU-306 rack frame



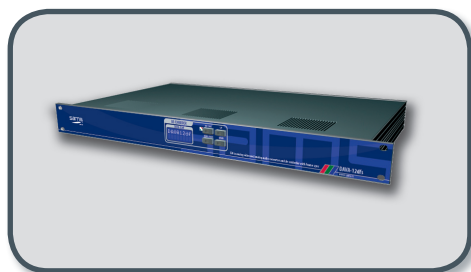
Back connector ADCV-8



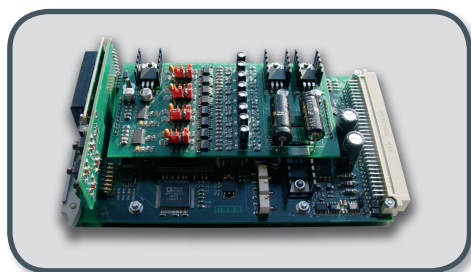
SRU-306, with 6 modules + PSU

- Broadcast quality (12/10bit processing)
- Converts SDI to YUV, RGB, CVBS or YC
- Synchronized digital output
- Synchronous switch tollerant (RP 168)
- Save 4 different presets
- Complete ProcAmp adjustment
- Jitter cleaner
- EDH processing
- PAL CVBS color framing and SC phase
- Pass, "Freezing" or broadcast test in the case of incorrect video input
- Integrated Test Generator (Black, Color Bar)
- Easy setup with local control and LCD display
- Audio de-embeder
- Balanced analog audio outputs
- 24bit / 48khz / 4ch sampling and processing

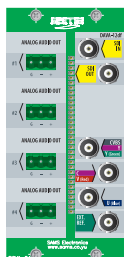
DAVA-12df converts SDI to composite or component analog video. DAVA-12df have a frame sinhronaizer that asynchronous video signal recorded in the memory and reads it synchronized with an external reference, as well as other settings. It is useful for synchronizing large number of external signals with signals from the TV station, or the capture of material from an amateur into a professional format. DAVA-12df is synchronous switch tollerant (RP 168), for a smooth transfer without unpleasant visual effects when switching between two sources. With both available, composite and component (Y, Cr, Cb or RGB or YC) outputs, this unit is ideal for converting all types of analog video. Complete ProcAmp output signal controls are provided for all output formats with adjustments: Horizontal and Vertical Blanking, Horizontal and Vertical Position, SC Phase, Color Framing, Luma, Color, Pedestal, Sharpness, YC Delay etc. DAVA-12df is high qualiti de-embeder, designed to separate the four 24-bit audio signals from digital video and convert them to analog. The device has a level adjustment, change the audio phase and selection of channel place. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.



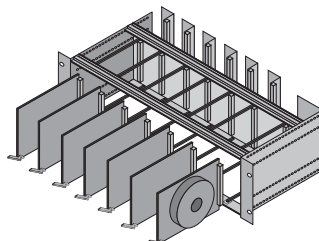
Standalone version



Module for SRU-306 rack frame



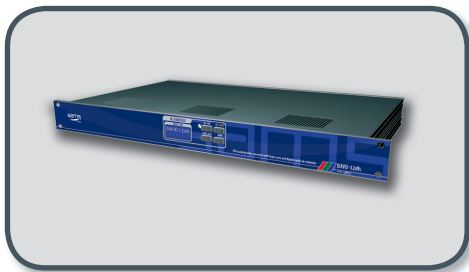
Back connector BCVA-84



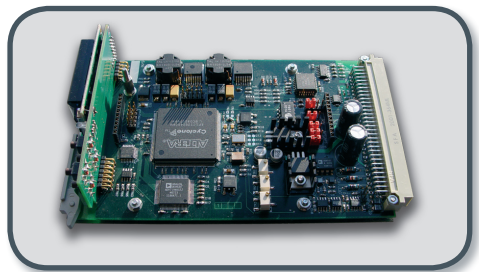
SRU-306, with 6 modules + PSU

- Broadcast quality (12/10bit processing)
- Converts SDI to YUV, RGB, CVBS or YC
- Synchronized digital output
- Synchronous switch tollerant (RP 168)
- Save 4 different presets
- Complete ProcAmp adjustment
- Jitter cleaner
- EDH processing
- PAL CVBS color framing and SC phase
- Pass, "Freezing" or broadcast test in the case of incorrect video input
- Integrated Test Generator (Black, Color Bar)
- Easy setup with local control and LCD display
- Audio de-embeder
- Balanced / unbalanced AES digital audio outputs
- 24bit / 48khz / 2ch sampling and processing

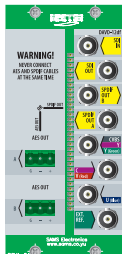
DAVD-12df converts SDI to composite or component analog video. DAVD-12df have a frame sinhronaizer that asynchronous video signal recorded in the memory and reads it synchronized with an external reference, as well as other settings. It is useful for synchronizing large number of external signals with signals from the TV station, or the capture of material from an amateur into a professional format. DAVD-12df is synchronous switch tollerant (RP 168), for a smooth transfer without unpleasant visual effects when switching between two sources. With both available, composite and component (Y, Cr, Cb or RGB or YC) outputs, this unit is ideal for converting all types of analog video. Complete ProcAmp output signal controls are provided for all output formats with adjustments: Horizontal and Vertical Blanking, Horizontal and Vertical Position, SC Phase, Color Framing, Luma, Color, Pedestal, Sharpness, YC Delay etc. DAVD-12df is high quality de-embeder, designed to separate the two 24-bit audio signals from digital video. The device has a level adjustment, change the audio phase and selection of channel place. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.



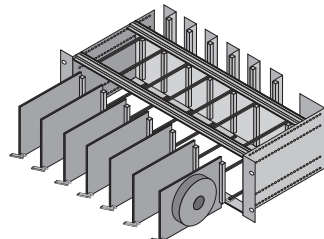
Standalone version



Module for SRU-306 rack frame



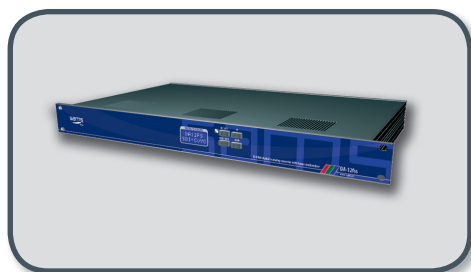
Back connector BCVA-84



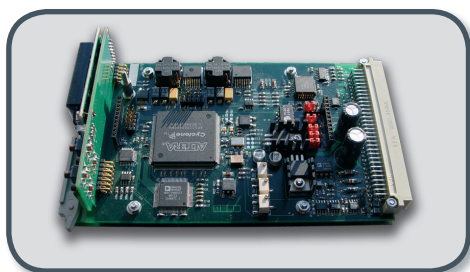
SRU-306, with 6 modules + PSU

- Broadcast quality (12/10bit processing)
- Converts SDI to YUV, RGB, CVBS or YC
- Redlocked digital output
- Save 4 different presets
- Complete ProcAmp adjustment
- Jitter cleaner
- EDH processing
- PAL CVBS color framing and SC phase
- Pass, "Freezing" or broadcast test in the case of incorrect video input
- Integrated Test Generator (Black, Color Bar)
- Easy setup with local control and LCD display

DA-12fs converts SDI to composite or component analog video. DA-12fs have a frame synchronizer that asynchronous video signal recorded in the memory and reads it synchronized with an external reference, as well as other settings. It is useful for synchronizing large number of external signals with signals from the TV station, or the capture of material from an amateur into a professional format. With both available, composite and component (Y, Cr, Cb or RGB or YC) outputs, this unit is ideal for converting all types of analog video. Complete ProcAmp output signal controls are provided for all output formats with adjustments: Horizontal and Vertical Blanking, Horizontal and Vertical Position, SC Phase, Color Framing, Luma, Color, Pedestal, Sharpness, YC Delay etc. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.



Standalone version



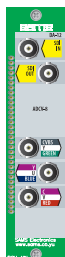
Module for SRU-306 rack frame



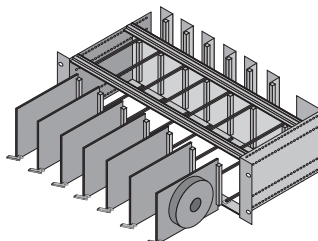
Front side



Rear side



Back connector ADCV-8



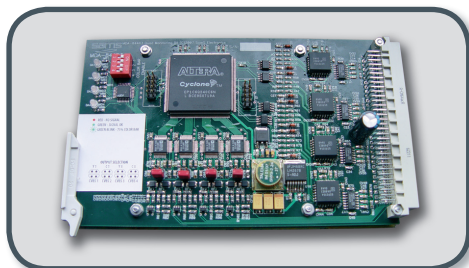
SRU-306, with 6 modules + PSU

- 4 channels of monitoring conversion on one card
- 24 channels of monitoring in a 3RU frame
- Supports PAL and NTSC
- 8-bit conversion with 10-bit DAC and special output filter
- Color bar test mode available with valid input signal
- Input indicator LEDs (one per channel)
- Input EQ for up to 300m of cable

The MDA-844 converts serial digital video signal to composite or YC analog video. This device is specially made for monitoring SDI video over analog monitor. With both composite and YC outputs available, this module is perfect for converting SDI video sources. D/A fully differential path and 10/8 bit processing ensure that signal can be used in the most demanding broadcast and professional applications. Comprehensive user adjustable digital filtering ensures full frequency response even for a composite signal.



Standalone version



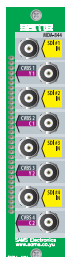
Module for SRU-306 rack frame



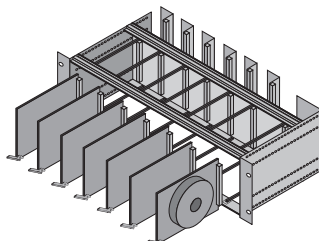
Front view



Rear view



Back connector ADCV-8



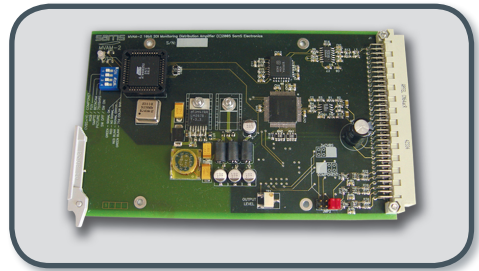
SRU-306, with 6 modules + PSU

- Multiformat distribution and monitoring in one card
- 8bit conversion with 10bit DAC and special output filtering to reduce artifacts
- Color bar test mode available with valid input signal
- Indicator LED
- Input EQ for up to 300m of cable

The DVAM-2 converts serial digital video signal to composite, RGB, YUV or YC analog video. This device is specially made for monitoring SDI video and for video distribution. D/A fully differential path and 10/8 bit processing ensure that signal can be used in the most demanding broadcast and professional applications. Comprehensive user adjustable digital filtering ensures full frequency response even for a composite signal.



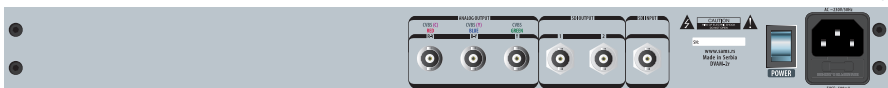
Standalone version



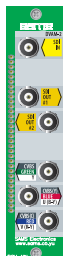
Module for SRU-306 rack frame



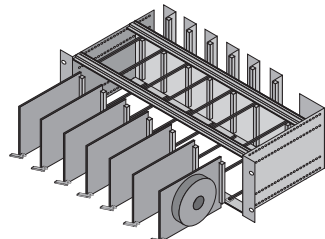
Front view



Rear view



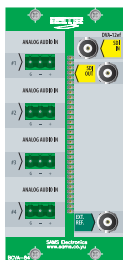
Back connector ADCV-8



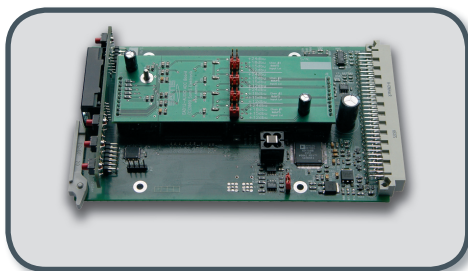
SRU-306, with 6 modules + PSU

- Broadcast quality
- Synchronize digital video and embedding analog audio
- EDH processing
- Input signal presence detection
- Pass, "Freezing" or broadcast test in the case of incorrect video input
- Easy setup with local control and LCD display
- Audio embedder with adjustable input level - 12, 15, 18 or 24dB
- Balanced analog audio inputs
- 24bit / 48kHz / 4 ch sampling and processing

DVA-12ef have a frame synchronizer that asynchronous video signal recorded in the memory and reads it synchronized with an external reference, as well as other settings. It is useful for synchronizing large number of external signals with signals from the TV station, or the capture of material from an amateur into a professional format. DVA-12ef is synchronous switch tolerant (RP 168), for a smooth transfer without unpleasant visual effects when switching between two sources. DVA-12ef is high quality embedder, designed to insert four analog audio signals into digital video. The device has a level adjustment, change the audio phase and selection of channel place. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.

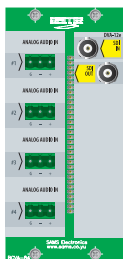


Back connector BCVA-84

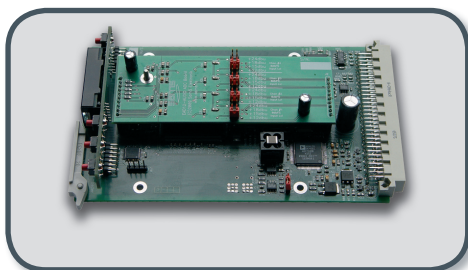


Module for SRU-306 rack frame

- Broadcast quality
- Embedding analog audio into digital video
- Input signal presence detection
- Easy setup with local control and LCD display
- Audio embedder with adjustable input level - 12, 15, 18 or 24dB
- Balanced analog audio inputs
- 24bit / 48kHz / 4 ch sampling and processing



Back connector BCVA-84

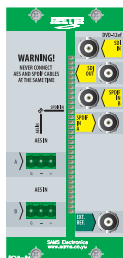


Module for SRU-306 rack frame

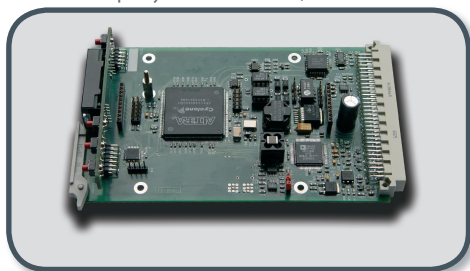
DVA-12e is high quality embedder, designed to insert four analog audio signals into digital video. The device has a level adjustment, change the audio phase and selection of channel place. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.

- Broadcast quality
- Synchronize digital video and embedding digital audio
- EDH processing
- Input signal presence detection
- Pass, "Freezing" or broadcast test in the case of incorrect video input
- Easy setup with local control and LCD display
- Audio embedder
- Balanced / unbalanced digital audio inputs
- 24bit / 48kHz sampling and processing

DVD-12ef have a frame sinchronaizer that asynchronous video signal recorded in the memory and reads it synchronized with an external reference, as well as other settings. It is useful for synchronizing large number of external signals with signals from the TV station, or the capture of material from an amateur into a professional format. DVD-12ef is synchronous switch tollerant (RP 168), for a smooth transfer without unpleasant visual effects when switching between two sources. DVD-12ef is high quality embedder, designed to insert two 24-bit digital audio signals into digital video. The device has a level adjustment, change the audio phase and selection of channel place. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.

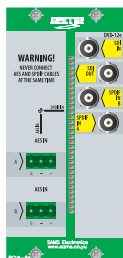


Back connector BCVA-84

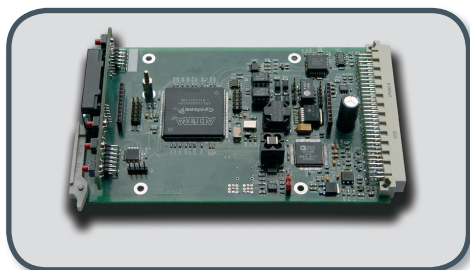


Module for SRU-306 rack frame

- Broadcast quality
- Embedding analog audio into digital video
- Input signal presence detection
- Easy setup with local control and LCD display
- Audio embedder
- Balanced / unbalanced digital audio inputs
- 24bit / 48kHz sampling and processing



Back connector BCVA-84

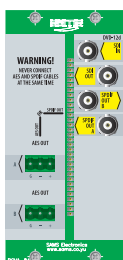


Module for SRU-306 rack frame

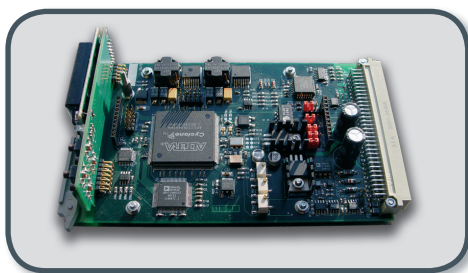
DVD-12e is high quality embedder, designed to insert two 24-bit digital audio signals into digital video. The device has a level adjustment, change the audio phase and selection of channel place. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.

- Broadcast quality (12/10bit processing)
- Save 4 different presets
- Easy setup with local control and LCD display
- Audio de-embedder
- Balanced / unbalanced AES digital audio outputs
- 24bit / 48khz / 2ch sampling and processing

DVD-12d is high quality de-embedder, designed to separate the two 24-bit audio signals from digital video. The device has a level adjustment, change the audio phase and selection of channel place. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.



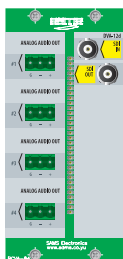
Back connector BCVA-84



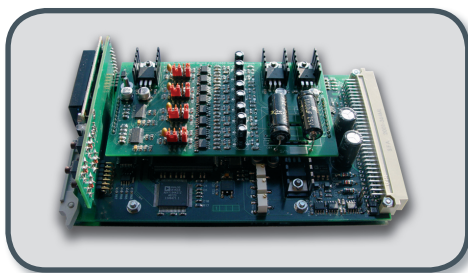
Module for SRU-306 rack frame

- Broadcast quality (12/10bit processing)
- Save 4 different presets
- Easy setup with local control and LCD display
- Audio de-embedder
- Balanced analog audio outputs
- 24bit / 48khz / 4ch sampling and processing

DVA-12d is high quality de-embedder, designed to separate the four 24-bit audio signals from digital video and convert them to analog. The device has a level adjustment, change the audio phase and selection of channel place. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.



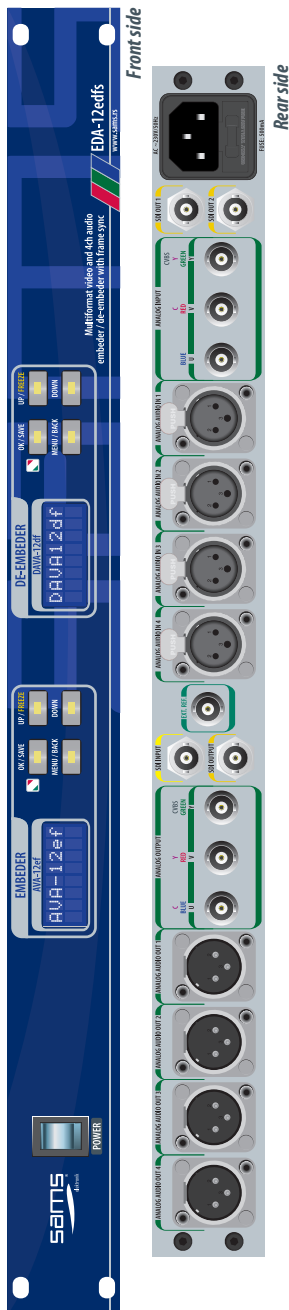
Back connector BCVA-84



Module for SRU-306 rack frame

**MULTIFORMAT VIDEO AD / DA CONVERTER WITH FRAME SYNC AND 4CH
AUDIO EMBEDDER / DE-EMBEDDER**

AVA^{12Ef}



- Broadcast quality
- Converts YUV, RGB, CVBS or YC to digital video
- 12/10bit processing
- Fiveline adaptive 3D comb filter
- AGC / CTI / DNR
- EDH processing
- Automatic YUV pixel timing adjustment
- Input signal presence detection
- Pass, "Freezing" or broadcast test in the case of incorrect video input
- Integrated Test Generator (Black, Color Bar)
- Easy setup with local control and LCD display
- Audio embedder with adjustable input level - 12, 15, 18 or 24dB
- Balanced analog audio inputs
- 24bit / 48kHz / 4 ch sampling and processing

AVA-12ef converts composite or component analog video to SDI. AVA-12ef have a frame synchronizer that asynchronous video signal recorded in the memory and reads it synchronized with an external reference, as well as other settings. It is useful for synchronizing large number of external signals with signals from the TV station, or the capture of material from an amateur into a professional format. With both available, composite and component (Y, Cr, Cb or RGB or YC) inputs, this unit is ideal for converting all types of analog video. Advanced and highly flexible digital output, enables high-quality conversion of referral systems. "12bit 4x oversampling allows the A / D conversion of high-performance 10bit output. An intelligent adjustment system provides full digital filter frequency response, even in the composite signal. Fixed frequency 54MHz ADC and buses for all options, allows for very precise processing and digital filtering. AVA-12ef is high quality embedder, designed to insert four analog audio signals into digital video. The device has a level adjustment, change the audio phase and selection of channel place.

DAVA^{12Df}

- Broadcast quality (12/10bit processing)
- Converts SDI to YUV, RGB, CVBS or YC
- Synchronized digital output
- Synchronous switch tolerant (RP 168)
- Save 4 different presets
- Complete ProcAmp adjustment
- Jitter cleaner
- EDH processing
- PAL CVBS color framing and SC phase
- Pass, "Freezing" or broadcast test in the case of incorrect video input
- Integrated Test Generator (Black, Color Bar)
- Easy setup with local control and LCD display
- Audio de-embedder
- Balanced analog audio outputs
- 24bit / 48kHz / 4ch sampling and processing

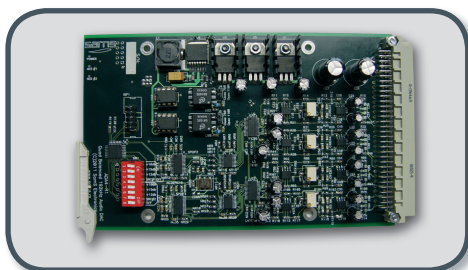
DAVA-12df converts SDI to composite or component analog video. DAVA-12df have a frame synchronizer that asynchronous video signal recorded in the memory and reads it synchronized with an external reference, as well as other settings. It is useful for synchronizing large number of external signals with signals from the TV station, or the capture of material from an amateur into a professional format. DAVA-12df is synchronous switch tolerant (RP 168), for a smooth transfer without unpleasant visual effects when switching between two sources. With both available, composite and component (Y, Cr, Cb or RGB or YC) outputs, this unit is ideal for converting all types of analog video. Complete ProcAmp output signal controls are provided for all output formats with adjustments: Horizontal and Vertical Blanking, Horizontal and Vertical Position, SC Phase, Color Framing, Luma, Color, Pedestal, Sharpness, YC Delay etc. DAVA-12df is high quality de-embedder, designed to separate the four 24-bit audio signals from digital video and convert them to analog. The device has a level adjustment, change the audio phase and selection of channel place.

- Broadcast quality
- 24bit conversion, 32 to 192 KHz sampling rate
- Output level from 9 to 24dB for 0dBFS in 1dB increment
- 4ch analog outputs
- 2ch digital inputs
- Low-Jitter Clock Recovery
- The selection of inputs: AES/EBU or SPDIF
- Fine-tune the output level
- Led indication of input signal

ADA-4 is a high quality two channel digital audio to four channel analog converter. The conversion is 24 bit and the device automatically adjusts by the incoming sampling rate and supports from 32 to 192 KHz. The maximum output level from +9 to +24 dB 0dbFS and is set by dip-switch in 1dB increment. The input can be AES / EBU or SPDIF. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.



Standalone version



Module for SRU-306 rack frame



ADA-4s, front view



ADA-4s, rear view

NOTE: The device can be made in a shortened version ADA-2, 1ch digital to 2ch analog audio converter.



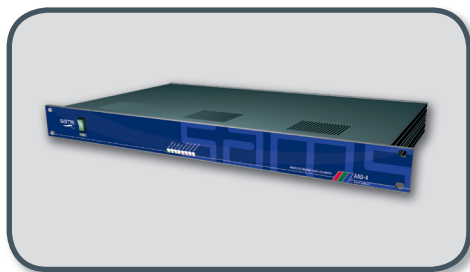
ADA-2s, front view



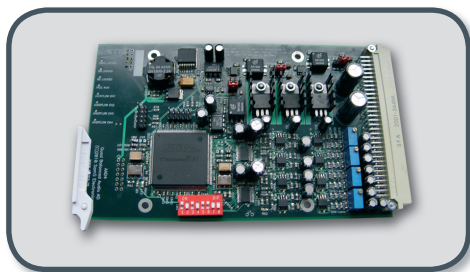
ADA-2s, rear view

- Broadcast quality
- 24bit conversion, 48 / 96 / 192 sampling rate
- 24dBu max input level
- 4ch analog inputs
- 2ch digital outputs
- The possibility of raising input level 0dbFS @ 24dBu or 0dbFS @ 18dBu
- Automatic or manual reference selection: BB / DARS / Word clock (optional)

AAD-4 is a high quality four channel analog audio to digital two channel converter. The conversion is 24 bit and the device has selectable sampling rates over the dip switch: 48 / 96 / 192 KHz. UNITS accepts different types of external references: Black Burst, DARS, Free Run or Word clock (optional). Audio input level can be raised to +6 dB. Maximum input level is 24dB. The output can be AES / EBU or SPDIF. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.



Standalone version



Module for SRU-306 rack frame



AAD-4s, front view



AAD-4s, rear view

NOTE: The device can be made in a shortened version AAD-2, 2ch analog to 1ch digital audio converter.



AAD-2s, front view



AAD-2s, rear view

- 3RU 19" rack frame for 6 modules
- It can be configured in any combination of digital modules
- The system provides three individual grounds (mains, chassis and 0V) performed on a connector on the back of the case
- Wiring is completely eliminated by using the motherboard which keeps all signals and low voltage power supply to each card

SRU-306 is a 3RU chassis with pull-down door that accepts up to 6 modules. The casing is capable of storing any combination of digital modules.

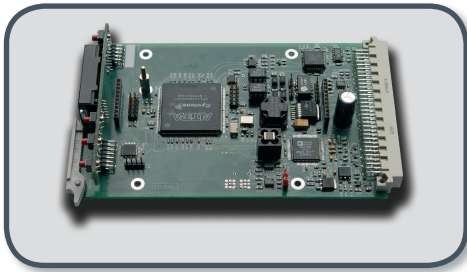
All modules are in format "LITTLE EUROPE", 100x160mm and easily assembled and disassembled from the rack. All modules have the ability to lock in the frame, which prevents accidental problems in contacts between the module and the motherboard.

Modules can be reconfigurable, whether it comes to replacing them, adding new or relocation of existing. The door on the housing can be of aluminum or acrylic glass. The back of the frame has a choice of the masses.



DIGITAL
video

SDI FRAME SYNCHRONIZER **DD^{12Fs}**



Module for SRU-306 rack frame

- Broadcast quality
- Synchronize digital video
- 12/10bit processing, 4 x oversampling
- Fiveline adaptive 3D comb filter
- AGC / CTI / DNR
- EDH processing
- Automatic YUV pixel timing adjustment
- Input signal presence detection
- Pass, "Freezing" or broadcast test in the case of incorrect video input
- Integrated Test Generator (Black, Color Bar)
- Easy setup with local control and LCD display
- Allows CLEAN SWITCH on the SDI switchers and routing switchers

DD-12fs synchronize SDI video. DD-12fs have a frame synchronizer that asynchronizes video signal recorded in the memory and reads it synchronized with an external reference, as well as other settings. It is useful for synchronizing large number of external signals with signals from the TV station, or the capture of material from an amateur into a professional format. DD-12fs is synchronous switch tolerant (RP 168), for a smooth transfer without unpleasant visual effects when switching between two sources. This unit is perfect for synchronizing digital video sources. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.