

7730DAC, 7730DAC-A4

SDI D to A Component Analog Video Converter



The 7730DAC line of serial digital video to component analog converters are broadcast quality D to As with an extensive list of additional features. High quality digital to analog conversion of audio can be packaged with the video to create a D to A frame synchronizer with audio demux.

In addition, Evertz[®] fault monitoring processing will analyze and report video and audio problems via an On-Screen Display or remotely via VistaLINK[®] SNMP.

► Features & Benefits

D to A process

- 12-bit, over sampled video DACs
- SMPTE/EBU N10, Betacam, MII and NTSC specific standards supported
- Y, Pb, Pr or G, B, R output format
- Selectable setup pedestal
- Black level and gain controls of all components
- 300mV separate composite sync output

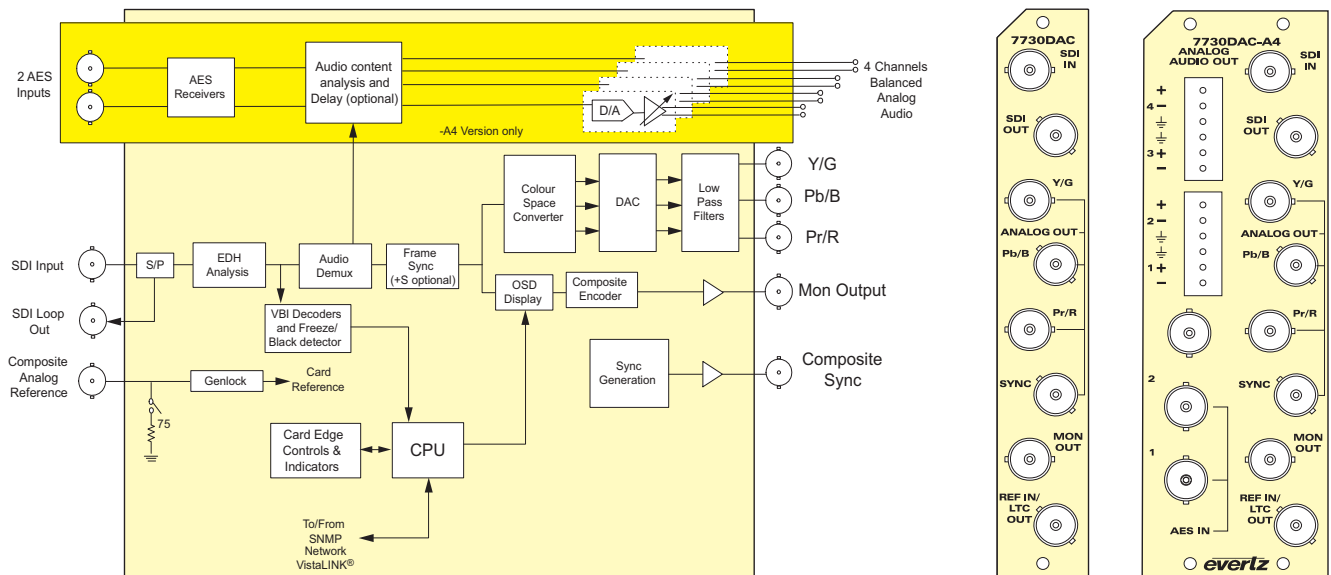
The Features of all 7730DACs are:

- SDI 525 or 625, 270Mb/s component digital video input
- One 270Mb/s re-clocked SDI output
- Four output BNCs for Y, Pb, Pr or G, B, R and composite sync
- One composite analog output on BNC for monitoring and control
- One frame video synchronizer (with +S option)
- Infinitely variable output phase (27MHz clock increments)
- Freeze modes: black, freeze, pass
- Menu adjustable free running frequency
- VU/PPM bar graph level Indicators
- Decodes vertical interval time code (VITC) and "burns" the time code into the monitoring output picture
- A comprehensive on-screen display is available to configure the various features of the module

- Flexible configuration of the text and audio bar graph information displays
- An extensive list of error conditions can be monitored and fault conditions can be configured from these conditions
- On-screen messages can be triggered by the configured fault conditions
- VistaLINK[®] -capable for remote monitoring and control via SNMP (using VistaLINK[®] PRO) when installed in 7800FR frame with 7700FC VistaLINK[®] Frame Controller

The Features of "-A4" option are:

- One group (four channels) of synchronous 20-bit audio is de-multiplexed from the incoming digital video
- Two unbalanced AES audio inputs (up to 48kHz, 24 bits) on BNC
- User selects either the de-embedded audio or the input AES audio
- The selected audio is delayed equivalently to the video delay with the +S option
- Four high quality 24-bit audio channels are output (analog) as balanced on two removable barrier strips
- Low impedance outputs (66Ω)
- Analog audio output levels are adjustable
- Additional audio delay of up to five seconds
- Additional audio advance of up to one frame, depending on video delay
- Loss of video modes: pass audio, mute audio



The Complete Solution Provider



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Specifications

Serial Video Input:

Standard: SMPTE ST 259-C - 525 or 625 line component
 Number of Inputs: 1
 Number of Reclocked Outputs: 1
 Connector: BNC per IEC 61169-8 Annex A
 Return Loss: > 15dB to 270MHz
 Embedded Audio: SMPTE ST 272-A
 Frequency Lock Range: ±75ppm from nominal

Analog Video Output:

Standards: SMPTE/EBU N10, Betacam, MII and NTSC specific standards. GBR or YPbPr formats with or without setup
 Number of outputs: 1
 Connectors: 4 BNCs per IEC 61169-8 Annex A
 Video signal Level: 1V nominal
 Sync signal Level: 300mV nominal
 Output level control range: > ±7.5% (All components)
 Black level control range: ±10 IRE
 Input Impedance: 75Ω
 Return loss: > 40dB to 10MHz

Reference Video Input:

Standard: NTSC, SMPTE ST 170 PAL, ITU624-4
 Number of Inputs: 1
 Connector: BNC per IEC 61169-8 Annex A
 Signal Level: 1V nominal
 Frequency Lock Range: ±75ppm from nominal
 Input Impedance: 75Ω or High impedance (jumper selectable)
 Return Loss: > 35dB to 10MHz

Video Performance:

Frequency Response: < ±0.1dB (100kHz to 4.1MHz)
 Noise Floor: < -73dBms (15kHz to 5MHz)
 Inter-channel Delay: < ±5ns
 Minimum Delay: 3ms
 Maximum Delay: 1 frame plus 3ms

Analog Audio Outputs (-A4 only):

Number of Outputs: 4
 Type: Balanced analog audio
 Connector: Two 6-pin removable terminal strips
 Output Impedance: 66Ω balanced
 Sampling Frequency: 48kHz
 Signal Level: 0dBFS a 12 to 25dBu (user-settable)
 Frequency Response: < ±0.05dB (20Hz to 20kHz)
 Dynamic range: 24 bits when AES inputs selected, 20 bits when embedded audio selected
 THD+N: < 0.001% (> 100dB) @ 1kHz, -1dBFS
 Crosstalk: < -105dB (20Hz to 20kHz)
 DC Offset: < ±30mV
 SNR: > 110dB "A" Weighting
 Inter-Channel Phase Error: < ±1° (20Hz to 20kHz)

AES Audio Inputs (-A4 only):

Number of Inputs: 2
 Input Standard: SMPTE 276M, single-ended synchronous or asynchronous PCM AES
 Connector: BNC per IEC 61169-8 Annex A
 Resolution: 24 bits when AES inputs selected, 20 bits when embedded audio is selected
 Input Sampling Rate: 32kHz to 48kHz when AES inputs selected, Synchronous 48kHz when embedded audio is selected
 Minimum I/O Delay: 3.5ms
Electrical:
 Voltage: +12V DC
 Power: 10W DAC + 7.5W (-A4 option) = 17.5W
 EMI/RFI: Complies with FCC Part 15, Class A EU EMC Directive

Physical (number of slots):

350FR, 7700FR-C, 7800FR:
 Non-audio versions: 1
 Audio versions (-A4): 2

Stand Alone Enclosure:

Dimensions: 14" L x 4.5" W x 1.9" H (355mm L x 114mm W x 48mm H)
 Weight: Approx. 1.5lbs (0.7kg)

Ordering Information

7730DAC	SDI D to A Component Analog Video Converter
7730DAC-A4	SDI D to A Component Analog Video Converter with a four-channel Analog Audio converter/embedder

Ordering Options	Rear Plate must be specified at time of order (Eg: Model +3RU)
+S	Optional frame synchronizer
Rear Plate Suffix	
+3RU	3RU Rear Plate for use with 350FR, 7700FR-C or 7800FR Multiframe
+SA	Standalone Enclosure Rear Plate

Enclosures

350FR	3RU Portable Multiframe which holds up to 7 single slot modules
7700FR-C	3RU Multiframe which holds up to 15 single slot modules
7800FR	3RU Multiframe which holds up to 15 single slot modules
7801FR	1RU Multiframe which holds up to 4 single or 2 dual slot modules
S7701FR	Standalone Enclosure