

Modular Terminal
Equipment:
Conversion,
Distribution, and
Synchronization

DigiLinx™



sierravideosystems



DigiLinx™

In any production or broadcast environment, signal distribution, format conversion, and timing are essential functions.

The DigiLinx family of modular digital terminal equipment is designed expressly for hybrid analog/digital, transition-to-digital, and all digital facilities where these functions are critical. SVS offers serial digital video and audio delay, storage and frame sync modules, high quality 10-bit analog and digital converters, high definition DAs, and many other modules to complement large systems. With over 20 different functions to choose from, DigiLinx provides a variety of solutions for your terminal equipment needs.



Sierra Video Systems offers an array of modules, mounting frames, and configurations.

HIGHLIGHTED FEATURES INCLUDE:

- Compact modular design
- 1RU and 3RU mounting frames
- High level of density and integration within each module
- Enables remote setting and monitoring of system modules from any PC
- SmartLinx interface allows control and integration of 170 DigiLinx modules

1RU FRAME

The 1RU DigiLinx™ frame can accept up to six single-width DigiLinx modules, or up to three double-width modules, in any combination and comes with a single built-in power supply. This frame also comes with an optional local control panel for applications where a complete SmartLinx™ control system is necessary. Otherwise, by ordering the SmartLinx Host Adapter module, the DigiLinx1RU frame can be controlled via the SVS SmartLinx protocol and/or by using Windows with our SmartLinx application program. The universal DigiLinx frames make it possible to mix and match any type of DigiLinx modules.



The DigiLinx frames offer exceptionally high module density in both 1RU and 3RU frames.

3RU FRAME

The 3RU DigiLinx™ frame offers great flexibility because of its capacity to accommodate up to 18 single-width modules or 9 double-width modules. This 3RU frame is available with either single or redundant power supplies. The larger frame provides a special power alarm to indicate power supply functionality and performance.

All modules are designed to plug into the rear of the mounting frame to reduce impedance, jitter, and return loss. Our

designs move the input buffer to a circuit that is right next to the BNC connector to considerably improve performance and reliability.

SMARTLINX™

Operation and maintenance are exceptionally important issues in system design. An exclusive feature of the DigiLinx family is our SmartLinx™ Control Interface. The



SmartLinx™ facilitates easy interrogation of individual modules.

SmartLinx™ interface makes it possible to control and interrogate individual DigiLinx modules in any size system. SmartLinx protocol simplifies the ability for external control devices and third-party systems to access remote control of various DigiLinx modules. Using our exclusive PC-based applications program, you can set operating parameters and monitor the status of any SmartLinx-capable module in your system. SmartLinx can control complex DigiLinx mode functions, such as DigiCache delay and YUV/RGB selection for A-to-D and D-to-A conversions.



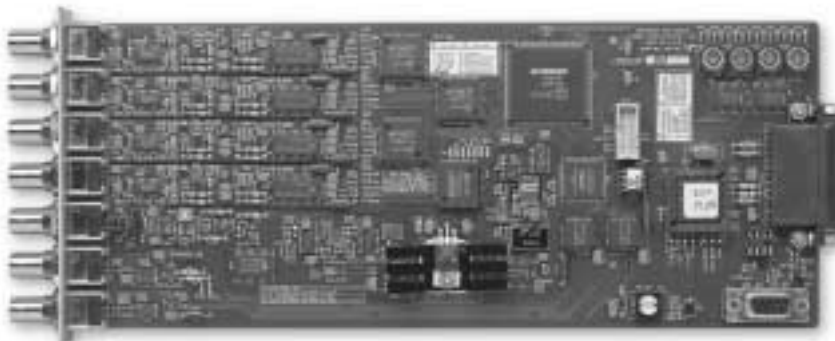
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DigiLinx™

ANALOG, DIGITAL, & HD DISTRIBUTION AMPLIFIERS



507126 – HD Digital Video Reclocking DA
507119 – HD Digital Video Equalizing DA
507114 – SDI Reclocking DA



The Sierra Video Systems' DigiLinx system offers flexibility in HD, digital and analog distribution amplifiers. All types can be mixed and matched in the same frame, providing a complete initial system design and simplifying future expansion.

Both HD and SDI Equalizing DA's are appropriate when a serial source provides an insufficient number of outputs to meet your needs. For example, if a test generator only has two outputs, but six pieces of equipment in the same room need this signal, an equalizing DA will provide low levels of jitter to all loads at minimal cost. Likewise, the HD and SDI Reclocking DAs help to compensate for jitter induced by long cable runs. Frequencies travel down a cable at different speeds, causing the shapes and spacing of pulses to create "perceived" jitter at the end of long cable runs. Our Reclocking DA's alleviate this problem.

Unlike other HD DA's in the industry, SVS HD digital video DA's will accept a wide range of data rates, encom-

passing serial digital video standards from 155Mbps to 1.485Gbps (and everything in between!!) This provides conformance with the new HD standards while allowing for use with the intermediate 360 and 540 Mbps standards. Our HD DA's feature 4 or 6 output modules while our SDI DAs are available in 4, 8, or 12 outputs.

For audio distribution, we offer an eight output AES/EBU unbalanced S/PDIF digital audio DA for use with 75 ohm cabling route signals. Using 75 ohm coax allows the user one cable type to distribute either video and digital audio within a facility.

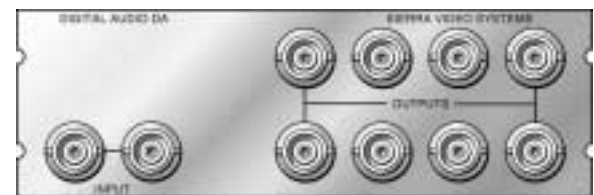
Don't forget the analog! Our analog video wide bandwidth linear video DA is ideal when a few analog DA's are needed in an otherwise all-digital facility. Many digital video devices still use an analog genlock reference. A lot of monitoring is done as either analog composite or analog component video. These are typical situations where our analog DA module is a perfect solution.

507112 – SDI Equalizing DA
507030 – Fanout Analog Video DA
507530 – AES Unbalanced Audio DA

Compact DA's with incredible flexibility



507119-06



507530-08

- Requires 1RU (807110) or 3RU (807120) frame.
- For SmartLinx, order Host Adapter (507125)



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DISTRIBUTION AMPLIFIERS SPECIFICATIONS

507112 SPECIFICATIONS

Data Rate Range (for custom clock rates) <50-600Mbps
Equalization range for Belden 8281 300M up to 177Mbps,
200M @ 200 > 400Mbps, 100M @ 600Mbps
Return Loss (in & out) >15db from 100 KHz to 500 MHz
Jitter <400p seconds with input driven through < 50M of Belden 8281
Operating Temperature 0 to 70C
Guaranteed Calibrated Temperature 20 to 40C
Operating Humidity 5 to 95% RH (non condensing)

507119 SPECIFICATIONS

Data Rate Range (for custom clock rates) <140-1500Mbps
Equalization range for Belden 8281 50M up to 1500Mbps
Return Loss (in & out) >15db from 100 KHz to 1500 MHz
Number of outputs 6
Jitter <200p seconds with input driven through < 50M of Belden 8281
Operating Temperature 0 to 70C
Operating Humidity 5 to 95% RH (non condensing)
Power Consumption <0.5A @ 5V provided by DigiLinX frame power supply

507030 SPECIFICATIONS

Nominal Input Video Level 1 V p-p
Maximum Input Video Level 1.5 V p-p
Input Impedance High-Z, looping
Input Return Loss 40 dB @ 5 MHz
Superimposed Input DC \pm 5 V
Impedance 75 ohms
Output Return Loss 35 dB @ 5 MHz
DC On Signal \pm 50 mV
Isolation Between Outputs 30 dB @ 5 MHz
Nominal Gain Unity
Gain Adjustment Range \pm 3 dB
Frequency Response \pm 0.1 dB to 5 MHz; + 0/-3 dB, 5-60 MHz
Differential Phase Error \pm 0.1 degree @ 3.58 or 4.43 MHz
Differential Gain Error \pm 0.1 percent @ 3.58 or 4.43 MHz
Signal-to-Noise Ratio 80 dB to 5 MHz

507114 SPECIFICATIONS

Data Rates (default) 143, 177, 270 and 360Mbps
Equalization range for Belden 8281 300M @ 143Mbps, 300M @ 177Mbps,
200M @ 270Mbps, 150M @ 360Mbps
Data Rate Range (for custom clock rates) 50-600Mbps
Return Loss (in & out) >15db from 100 KHz to 500 MHz
Jitter <400p seconds with input driven through < 200M of Belden 8281
Operating Temperature 0 to 70C
Guaranteed Calibrated Temperature 20 to 40C
Operating Humidity 5 to 95% RH (non condensing)

507126 SPECIFICATIONS

Data Rates 1.485Gbps, 1.485/1.001Gbps
Input Cable Length Range (for Belden 8281) 0 to 100 meters
Return Loss (input & outputs) >15dB from 100KHz to 1.5GHz
Number of outputs 6
Output Jitter (with 100 meters Belden 8281) <200psec. p-p
Power Consumption <0.5A @ 5V provided by DigiLinX frame power supply
Operating Temperature 0-70C
Operating Humidity 5 to 95% RH (non-condensing)

507530-08 SPECIFICATIONS

Inputs

Connector BNC looping
Impedance 75 ohm * (required external terminator)
Signal Level 1 V p-p
Sampling Freq 22 - 96 KHz

Outputs

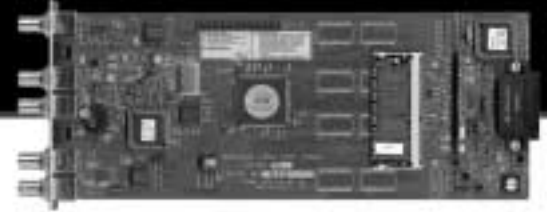
Number 8
Connector BNC
Impedance 75 ohm
Level 1 V p-p

Performance

Jitter < 10 nsec

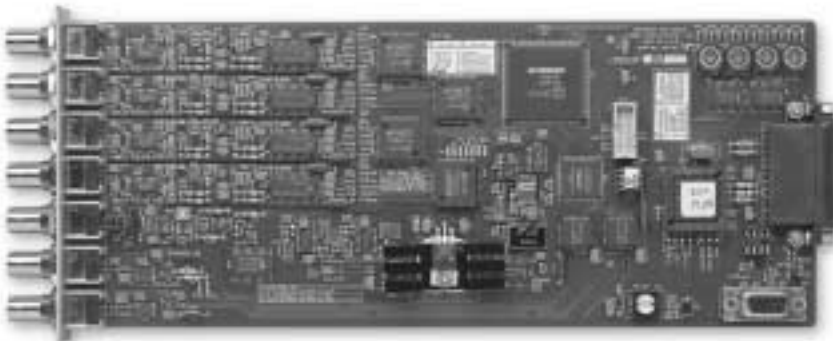
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ANALOG TO DIGITAL/ DIGITAL TO ANALOG CONVERTERS



507101 – Analog Component to SDI
507102 – SDI to Analog Component
507109 – Analog Composite to SDI

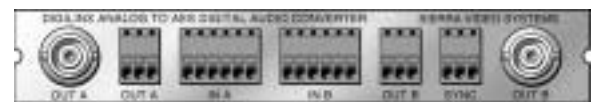
507108 – SDI to Analog Composite
507140 – AES/EBU to Analog Audio
507141 – AES/EBU Audio to Analog



*Versatile A-to-D conversion for facilities
in a "digital transition"*



507101-00



507140-00

DigiLinx modules combine precision 10-bit processing, automatic multi-standard versatility, exceptional high density, and SmartLinx accessibility into a single solution for analog and digital conversion applications.

The A-to-SDI & SDI-to-A component converter family uses advanced design with features only available from SVS. This family is frequently used to convert analog cameras and component videotape machines for new serial digital video facilities. The most popular version of these converters is the SDI-to-YUV/RGB converter. YUV vs. RGB mode and sync and blanking modes are all user-selectable using internal default condition switches, or SmartLinx.

The A-to-SDI & SDI-to-A composite converter family uses similar advanced design for analog composite to 270Mbps digital video. On-board precision references and EEPROM stored calibration provide

stable performance while networked remote control offers ease of in-system adjustment. Built in cropping controls allow the user to remove undesirable source noise at the active picture boundaries. PAL or NTSC input formats are automatically selected as source material changes. Sophisticated adaptive decoding provides 3 line comb filtering with notch decoding to automatically select the best process for changing program content.

The A-to-AES/EBU & AES/EBU-to-A audio converter family contain 2 identical stereo 24-bit analog and digital converters. Each converter has full differential inputs and both AES and S/PDIF outputs are available. The converters can be locked to an external AES audio stream or used free running using extremely stable internal oscillator sample rates of 32Khz, 44.1Khz and 48Khz.

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CONVERTERS SPECIFICATIONS

507101 ADC FAMILY GENERAL SPECIFICATIONS

Input level 1V p-p composite or 700mv nc
Input Impedance 75Ω 1%
Input return loss 35dB @ 5MHz

Frequency response

Y/Green/Key channels 100KHz-5.75MHz, ±0.1dB
U/V/Red/Blue channels 100KHz-5.75MHz, ±0.1dB(4:4:4 modes)
U/V/Red/Blue channels 100KHz-2.75MHz, ±0.1dB(4:2:2 modes)

Delay tilt

Y/Green/Key channels 100KHz-5.75MHz, < 8nsec
U/V/Red/Blue channels 100KHz-5.75MHz, < 8nsec(4:4:4 modes)
U/V/Red/Blue channels 100KHz-2.75MHz, < 8nsec(4:2:2 modes)

Temporal Skew < 8nsec spread across all four inputs in all modes
Digital Video Precision 10 bits
Digitization Accuracy < 0.2% error on all inputs in all modes
(all gains and offsets independently calibrated)

Sync to Video Skew-Adjustable ±4.7usec with < 5nsec resolution
(except sync timing module)

Sync timing module ±15 TV lines with < 5nsec resolution
Digital Video/Key output swing 800mV, +/-50mV
Output return loss: <15dB @ 270MBs
Digital Video/Key jitter <400psec peak to peak per
SMPTE measurement specification, 10 Hz filter

Operating Temperature 0 to 70C
Guaranteed Calibrated Temperature 20 to 40C
Operating Humidity 5-95% RH(non-condensing)
Size 4.5" wide x 12" long x .8" high (1.6" high with Looping Inputs)
Typical power required +5V @ 1,000 ma, +8V @ 475 ma, -8V @ 100 ma

507108 SPECIFICATIONS

Video Input Standard SMPTE 259M
Video Input Connector BNC female
Video Input Return Loss >15dB @ 270MHz(75 ohm referenced)
Video Input Range 200m(Belden 8281 or equiv.)
Video Output Standard PAL or NTSC
Video Output Diff. Gain <0.5%
Video Output Diff. Phase <1 degree
Video Output Precision 10 bits
Video Output Connector BNC female
Video Output Jitter <.05 nanoseconds peak-to-peak
Video Delay 2H + 15 microseconds
Power Consumption 5V, <1.5A; 8V, <.8A; -8V, <0.15A
Operating Temperature Range 0 to 50 C, non-condensing
Operating Humidity Range 0 to 95% RH, non-condensing

507140-00 SPECIFICATIONS

Input

4 analog audio inputs configured as 2 stereo pair
Impedance > 20K ohm
Common Mode Rejection Better than -60 dB
Maximum Input Level Adjustable in 5 dB step from -11dBu to +24dBu

Outputs

AES Output 110 ohm balanced
S/PDIF Output 75 ohm unbalanced
Jitter < +/- 20 nsec

Conversion

128xFs Digital over-sampling filter
Sample Rates 32KHz, 44.1KHz, 48KHz or locked to an external reference
Signal to Noise -95 dB min (typical -105 dB) A-Weighted
THD 0.006% @ maximum input level
0.01% @ -20dB from max input level
Frequency Response 20Hz to 20KHz +0.2 dB (48KHz sampling rate)

507102 DAC FAMILY GENERAL SPECIFICATIONS

Input return loss <15dB @ 270MBs
Input equalization range 200m of Belden 8281 or equiv.
Output level 1V p-p composite or 700mv nc
Output Impedance 75Ω 1%
Output return loss 35dB @ 5MHz

Frequency response

Y/Green/Key channels 100KHz-5.75MHz, ±0.1dB
U/V/Red/Blue channels 100KHz-5.75MHz, ±0.1dB(4:4:4 modes)
U/V/Red/Blue channels 100KHz-2.75MHz, ±0.1dB(4:2:2 modes)

Delay tilt

Y/Green/Key channels 100KHz-5.75MHz, < 8nsec
Temporal Skew < 8nsec spread across all four inputs in all modes
Digital Video Precision 10 bits
Digitization Accuracy <0.2% error on all inputs in all modes
(all gains and offsets independently calibrated)

Sync to Video Skew < 5nsec error from digital video definitions
Operating Temperature 0 to 70C
Guaranteed Calibrated Temperature 20 to 40C
Operating Humidity 5-95% RH(non-condensing)
Size 4.5" wide x 12" long x .8" high (1.6" high with Looping Inputs)
Typical power required +5V @ 1,000 mA, +8V @ 375 mA, -8V @ 85 mA

507109 SPECIFICATIONS

Video Input Standard PAL or NTSC
Video Input Connector BNC female
Video Input Return Loss >35dB @ 5MHZ(75 ohm referenced)
Video Output Standard SMPTE 259M
Video Digitizer/Decode Diff. Gain <0.5%
Video Digitizer/Decode Diff. Ph. <1 degree
Video Input/Process Precision 10 bits
Video Output Connector BNC female
Video Output Jitter <350 picoseconds peak-to-peak
Video Delay 2H + 15 microseconds
Power Consumption 5V, <1.5A; 8V, <.8A; -8V, <0.15A
Operating Temperature Range 0 to 50 C, non-condensing
Operating Humidity Range 0 to 95% RH, non-condensing

507141-00 SPECIFICATIONS

Input

AES Input 110 ohm balanced (4 Vpp)
S/PDIF Input 75 ohm unbalanced (1Vpp)

Outputs

4 outputs configured as 2 stereo pair
Differential Outputs <20 ohm balanced
Maximum Output Level Adjustable in 5 dB step from -11dBu to +24dBu

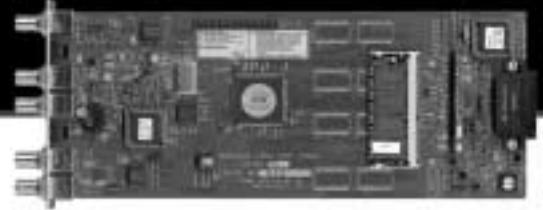
Conversion

128xFs Digital over-sampling filter
Full 24 bit conversion
Sample Rates from 32KHz to 96KHz
Separate sampling rates between channels 1/2 and 3/4 supported
Signal to Noise -95 dB min (typical -105 dB) A-Weighted
THD 0.006% @ maximum input level
0.01% @ -20dB from max input level
Frequency Response 20Hz to 20KHz +0.2 dB (48KHz sampling rate)

All specifications subject to change without notice.

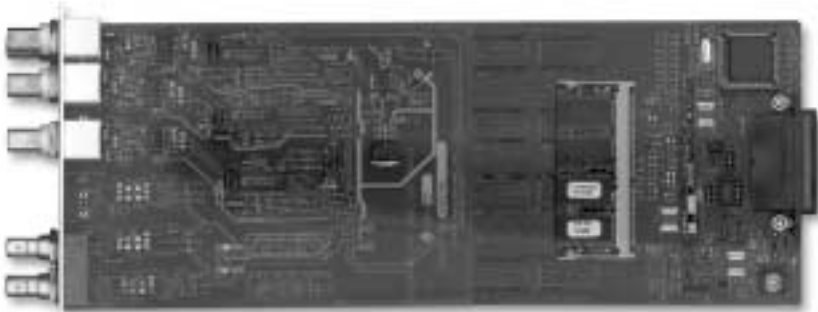
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AES DIGITAL AUDIO EMBEDDER / DE-EMBEDDER



557135 – AES/EBU Digital Audio Embedder for 270Mbps Video Streams

567135 – AES/EBU Digital Audio De-embedder for 270Mbps Video Streams



Embed audio data into video streams



557135-00



567135-00

The DigiLinx Embedder and De-embedder offer outstanding advantages over traditional methods of running breakaway audio/video systems, especially in broadcast facilities where limited breakaway is required. These modules can help simplify your system design, reduce the need for distribution amplifiers, reduce cable length and return loss, and provide a single routing system in a cost effective package.

These modules accept 270Mbps component digital video signals and embed or de-embed audio data from the video stream as defined by SMPTE 272M-1994. This produces 1 to 3 AES digital audio streams and a 270Mbps digital video signal at its outputs. All digital video processing paths are at least 10 bits wide.

The Embedder can insert one, two, or three streams, depending on the signals and ancillary data space available. The addresses of the streams are under user control as

well as the ability to strip away ancillary data already present in the video signal before adding the user's audio data. The module will automatically insert its streams into remaining ancillary data space if the user chooses to retain existing ancillary data. Users can provide audio already synchronized to the video signal, for 'bit perfect' insertion of the stream, or provide any asynchronous digital audio signal to be rate converted and inserted into the video signal as a 48KHz ancillary data stream. Separate rate converters for each audio input allow the three audio inputs to totally unrelated; down to the sample rate! While the BNC I/O version accepts balanced or unbalanced audio streams, a 'pluggable' terminal strip version (which also accepts balanced or unbalanced audio) is also available to simplify connections for balanced signal users.

- Requires 1RU (807110) or 3RU (807120) frame.
- For SmartLinx, order Host Adapter (507125)



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EMBEDDER & DE-EMBEDDER SPECIFICATIONS

557135-00 SPECIFICATIONS

Video Input Standard	SMPTE 259M, 270Mbps
Video Input Connector	BNC female
Video Input/Output Return Loss	>15dB @ 270MHz(75 Ohm referenced)
Audio Input Standard	AES unbalanced serial digital audio stream
Audio Input Connector	BNC female
Audio Input Return Loss	>35dB @ 4MHz(75 Ohm referenced)
Video Output Standard	SMPTE 259M, 270Mbps
Video Precision	10 bits
Video Output Connector	BNC female
Video Output Jitter	<350 picoseconds peak-to-peak
Video Delay	<10usec.
Audio Delay	<1msec.
Power Consumption	.5V, <1.5A 8V, <0.8A -8V, <0.15A
Operating Temperature Range	0 to 50 C, non-condensing
Operating Humidity Range	0 to 95% RH, non-condensing

567135-00 SPECIFICATIONS

Video Input Standard	SMPTE 259M, 270Mbps
Video Input Connector	BNC female
Video Input/Output Return Loss	15dB @ 270MHz(75 Ohm referenced)
Audio Output Standard	AES unbalanced serial digital audio stream
Audio Output Connector	BNC female
Audio Output Return Loss	>35dB @ 4MHz(75 Ohm referenced)
Video Output Standard	SMPTE 259M, 270Mbps
Video Precision	10 bits
Video Output Connector	BNC female
Video Output Jitter	<350 picoseconds peak-to-peak
Video Delay	<10usec.
Audio Delay	<1msec.
Audio Output Jitter	<250 nanoseconds peak-to-peak
Power Consumption	.5V, <1.5A 8V, <0.8A -8V, <0.15A
Operating Temperature Range	0 to 50 C, non-condensing
Operating Humidity Range	0 to 95% RH, non-condensing

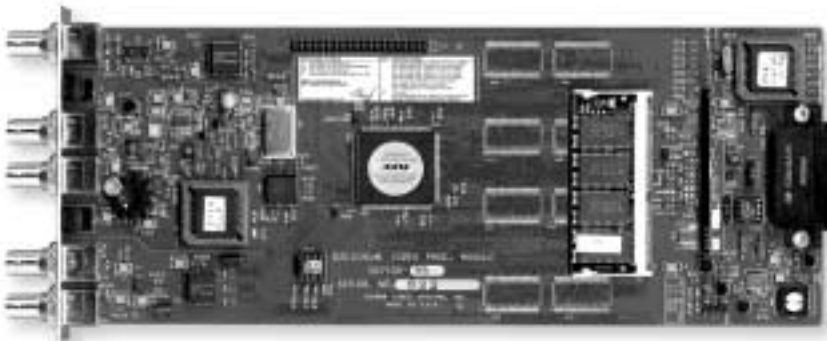
Specifications may be subject to change.

DigiLinx™

FRAME SYNCHRONIZATION & NON-VOLATILE FRAME STORAGE



547135 – FrameCache - Frame Synchronizer
527135 – SlideCache - Non-Volatile "Slide" Storage



Bring real-time, non-synchronized video into a synchronized video environment and store up to 12 non-volatile "slides."



547135-00



527135-00

FrameCache is a serial digital component video I/O frame synchronizer providing local and remote control of video output to sync input timing. FrameCache accepts a serial digital component (270 Mbps) input signal as well as an analog composite sync or video signal for output timing reference.

FrameCache produces a serial digital component video output signal that is synchronized with the analog composite sync input signal. Since the frame rate of the incoming video signal can be faster or slower than that of the outgoing video signal, an input video frame will be "dropped" or "repeated" when the input and output video frame rates do not match.

The module contains more than three frames of video storage, ensuring that output video is not

interrupted during active video by asynchronous video sources. FrameCache's four frame mode also allows output video to immediately freeze on a clean frame of input video when input video is interrupted.

SlideCache acts as a serial digital component, non-volatile "slide" storage module. SlideCache is a product that uses Flash EPROM memory to present durable, commonly used images. It is exceptionally well suited for frequently used images that are rarely changed. Popular applications include station ID's, PSA slides, EBS warning slides, and custom test patterns.

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SLIDECACHE OPTIONS

SlideCache – 527135 Options:

Holds 1 525 or 625 image527135-00
Holds 6 525 or 5 625 images527135-10
Holds 12 525 or 10 625 images527135-20

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FITN-100 SKIRT GENERATOR



807146 – FITN-100 Skirt Generator System



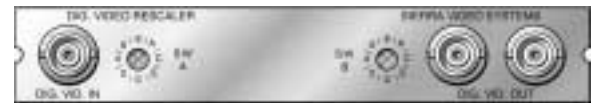
An active picture has 720 active horizontal pixels. In order to present a 4:3 ratio image correctly on a monitor expanded to 16:9, the original 720 pixels must be re-scaled to 540 horizontal pixels. This re-scaling results in unattractive, blank vertical strips flanking the picture, or a wide, vertical margin to the left or right of the 4:3 image.

The Skirt Generator solves this problem by producing two images on the screen simultaneously. Separate content appears on the main portion of the screen, as well as on the "skirt". The margin contains information, including text or graphics, without interfering with the main picture.

The Skirt Generator consists of two modules, an aspect ratio re-scaler and a video insertion module. The re-scaler accepts a 4:3 aspect ratio 270Mbps SMPTE 259M video signal

and produces a 16:9 aspect ratio corrected 270Mbps SMPTE 259M video signal suitable for use in a wide screen format. The insertion module combines this main video signal with a second video signal which typically contains graphics to be displayed in the skirt video area. The main aspect ratio compensated material can be positioned anywhere within the widescreen format image via rear panel controls. Additional features include placing adjustable width borders between the main video and the surrounding skirt video, a user controllable border matte generator, and adjustable width garbage masking for the main video edges.

Insert two 4:3 images on a 16:9 screen simultaneously. Separate video sources are used for the main video and the "skirt area."



587135-00



587144-00

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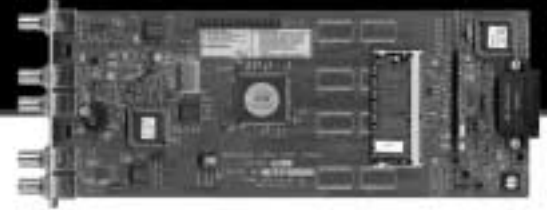
SKIRT GENERATOR SPECIFICATIONS

SKIRT GENERATOR SPECIFICATIONS

Video Input Standard	SMPTE 259M
Video Input Connector	.....	BNC female
Video Input Return Loss	.....	>15dB @ 270MHz(75 ohm referenced)
Video Input Range	.....	Source must be within 200 meters of input when using Belden 8281 or equiv.
Video Output Standard	.....	SMPTE 259M
Video Output Connector	.....	BNC female
Video Output Jitter	.....	<350 picoseconds peak-to-peak with 10 Hz high pass filter
Power Consumption	.....	5V, <1.5A; 8V, <0.5A; -8V, <0.15A
Operating Temperature Range	.....	0 to 50 C, non-condensing
Operating Humidity Range	.....	0 to 95% RH

DigiLinux™

VARIABLE VIDEO & AUDIO TIME DELAY



517135 – TimeCache: Video - Variable Digital Video Time Delay

507146 – TimeCache: Audio - Variable AES/EBU Dual Digital Audio Time Delay



Delay up to 15 seconds of either SDI video or AES/EBU Audio.



517135-00



507146-00

TimeCache: Video brings multi-line, processor outputs (such as production switchers, DVE's, and digital chroma keyers) back into time with house sync. The 8 and 16 Megabyte versions can be used to delay camera outputs in virtual studio systems to be in time with computer rendered backgrounds created 4 to 8 frames after corresponding camera movements. The 256 and 512 Megabyte versions provide "safety delays" of 7.4 or 14.9 seconds, respectively. Minimum delay is .233 seconds and a maximum delay of 14.9 seconds.

Popular applications of this compact module are video delays for live events and synchronizing video with breakaway audio. Often security and safety measures are necessary to censor unwanted on-air programming. The TimeCache: Video

can delay up to 15 seconds to help filter any broadcast. Also, this delay helps pause video on a broadcast network where the audio and video take separate paths. Use the TimeCache: Video to synchronize the video and the separate audio.

TimeCache: Audio accepts two independent 32 to 96k sample per second AES/EBU complaint audio streams and delays them by a user programmable amount of time. The delays for each of the two audio paths are independently adjustable with a maximum possible delay of 15 seconds. The minimum delay is roughly 10 microseconds. BNC and plug-in terminal strip audio I/O versions are available. The use of personal computer dynamic RAM allows this product to cost less than other delays offering only a few hundred milliseconds.

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TIMECACHE SPECIFICATIONS

507135 Options:

w/.233 second delay	.517135-00
w/.466 second delay	.517135-10
w/.932 second delay	.517135-20
w/1.86 second delay	.517135-30
w/3.73 second delay	.517135-40
w/7.46 second delay	.517135-50
w/14.9 second delay	.517135-60

507146 Specifications

Audio Input/Output Standard	Unbalanced or balanced AES or P-DIF serial audio streams
Audio Input Connector	BNC female or pluggable terminal strip
Audio Input Return Loss	>30dB @ 4MHz(75 ohm referenced)
Audio Output Connector	BNC female or pluggable terminal strip
Audio Output Jitter	<250 nanoseconds peak-to-peak
Audio Delay	10 microseconds to 14.5 seconds (independent for each channel) 10 microseconds to 0.5 seconds (economy version)
Power Consumption	.5V, <1A; 8V, <.5A; -8V, <.05A
Operating Temperature Range	.0 to 50 C, non-condensing
Operating Humidity Range	.0 to 95% RH, non-condensing

All specifications subject to change without notice.