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VFS-3901H-1

HDTV Video Frame Synchronizer/Proc Amp

The VFS-3901H-1 video frame synchronizer is optimally designed to handle the ingest and timing of HDTV video into a digital facility. It supports either composite black or tri-level reference inputs. A video proc amp is included to correct input levels.

The VFS-3901 generates an audio video timing pulse on the NEO® midplane to permit separate audio synchronizer modules to track the video synchronizer. This combination allows both audio and video to be timed together into a digital facility.

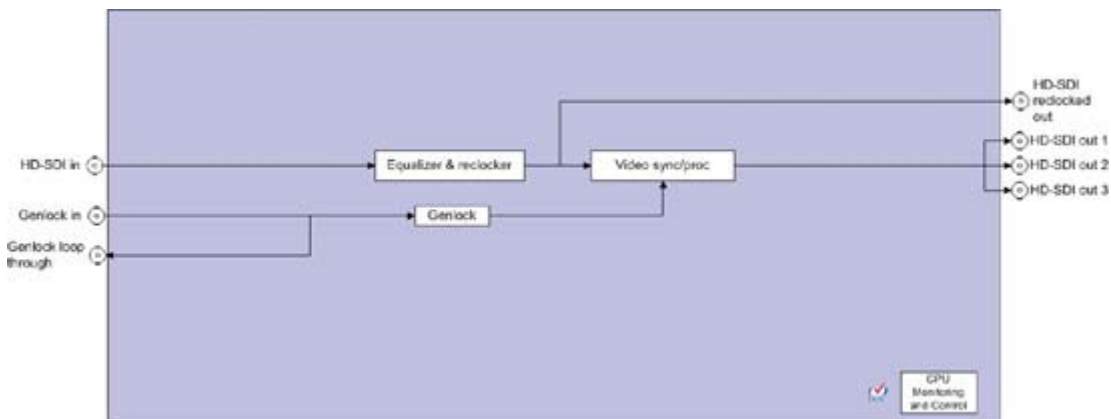
All modules in the NEO family can be controlled locally by means of an intuitive card-edge interface or remotely, using the Nucleus network control panel or CCS NAVIGATOR™.



FEATURES

- Auto-detect or user-forced input video standard
- Passes entire VANC and HANC
- Auto-detect or user-forced input video standard
- Built-in video processing amplifier (YpbPr)
- Cleanly handles hot switch on input
- Audio/video timing signal generated on NEO midplane to enable additional audio signals to track the video synchronizer
- Color black or tri-level sync reference input
- NEOSCOPE™ card edge signal monitoring
- DejaView™ intelligent settings recovery system
- Command Control System (CCS™) Enabled

BLOCK DIAGRAM



BACK MODULE



SPECIFICATIONS Specifications and designs are subject to change without notice

Digital Video Input

Number	1
Standards	1080i (SMPTE 274M); 720 p(SMPTE 296M)
Connector	BNC per IEC 169-8
Impedance	75 ohms
Frame Rate	1080i: 50, 59.94 Hz 720p: 59.94 Hz
Return Loss	>18 dB from 5 MHz to 1485 MHz
Signal Level	800 mV \pm 10%
Equalization	Automatic, adjustment-free cable equalization for 1.485 Gb/s

SDI Output

Number	1 reclocked, 3 synchronized
Standards	1080i (SMPTE 274M) at 50 and 59.94 Hz 720p (SMPTE 296M) at 59.94 Hz
Frame Rate	50 or 59.94 Hz (user selectable, based on HD standard and reference standard)
Connector	BNC per IEC 169-8
Impedance	75 ohms
Return Loss	>18 dB from 5 MHz to 1485 MHz
D.C. Offset	0.0 V \pm 0.5 V
Rise and Fall Time	<270 ps, with 100 ps of each other
Overshoot	<10%
Jitter	<135 ps peak-to-peak
Delay	Up to 4 frames in delay mode, up to 1 frame in sync mode
Frame Synchronizer Lock Range	At least \pm 35 ppm
Minimum Signal Delay	To be determined

Reference Video

Level	1 Vp-p, -5 dB to +6 dB
Signal Type	Analog composite NTSC/PAL-B or \pm 300 mV tri-level sync (1080i/720p)
Connector	BNC per IEC 169-8
Impedance	75 ohms
Return Loss	>40 dB to 6 MHz
Common Mode Range	5 Vp-p
Common Mode Rejection Ratio	>60 dB at 60 Hz

ORDERING INFORMATION

VFS-3901H-1	HDTV frame synchronizer, with built-in video processing amplifier. Includes front and rear module. Requires one available NEO frame slot.
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