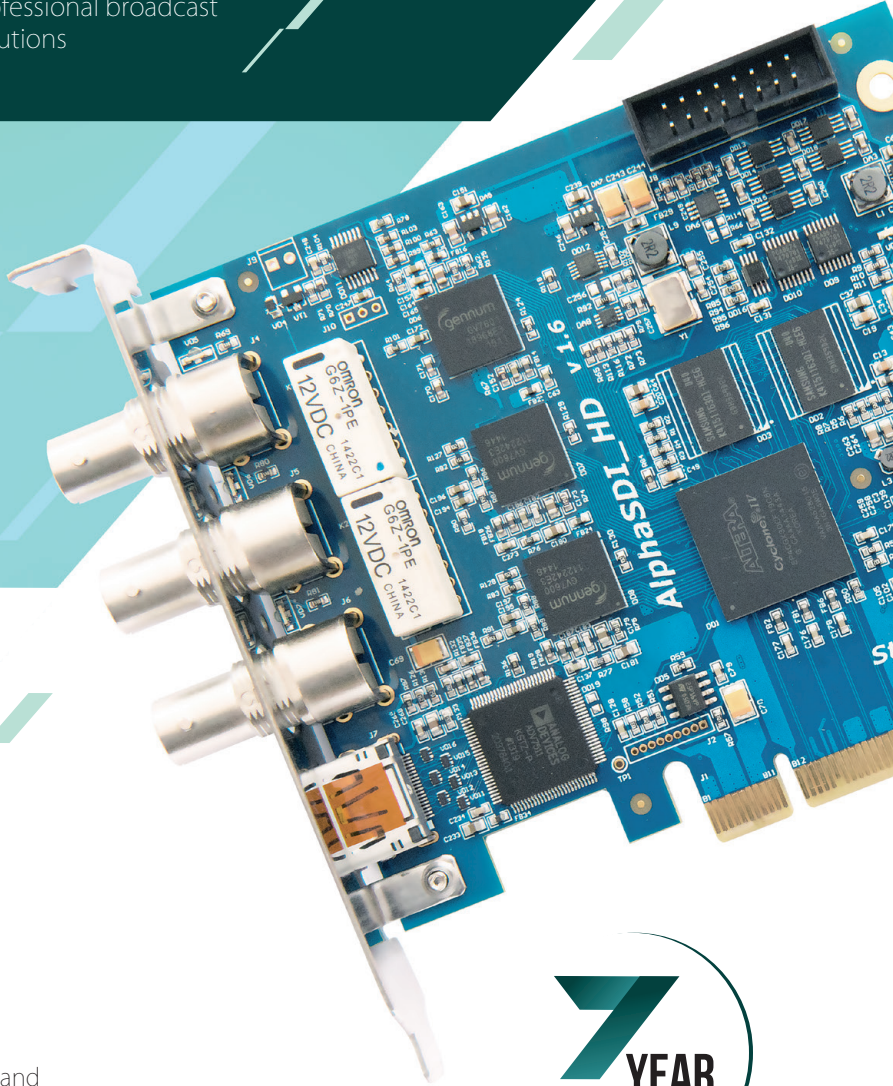




# ALPHA HD

Capture and playback  
(1+1 or 0+2) HD/SD-SDI  
PCI-e card



## DESCRIPTION

Stream Alpha HD is a PCI-Express card for overlay and output of computer graphics. It can be used as a basis for creation of on-air graphic design systems (CG-systems) and broadcasting video servers.

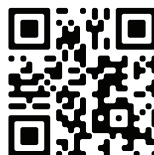


## FEATURES

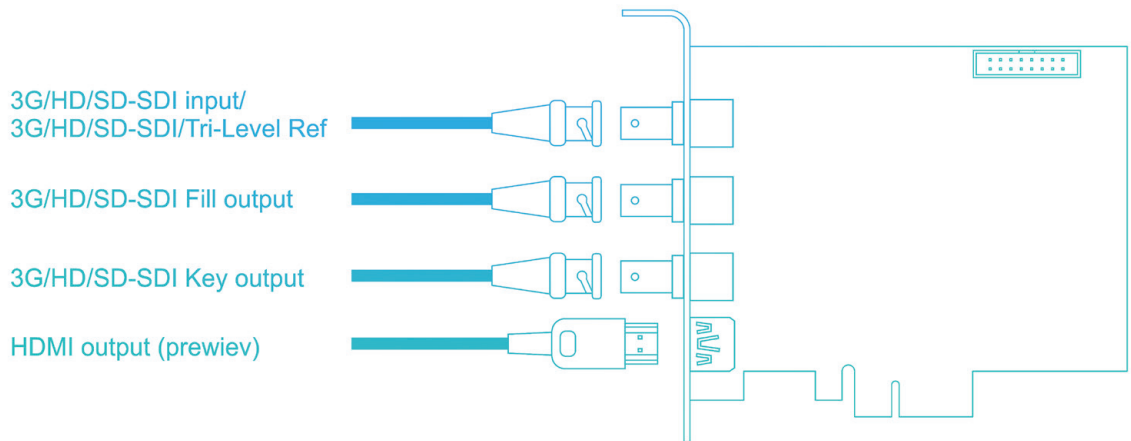
- Works with 8 and 10-bit component serial 3G-SDI signal, HD-SDI, SD-SDI, DVB-ASI in accordance with ITU-R.601, SMPTE 424m, SMPTE 292m, SMPTE 274m, SMPTE 259m и DVB-ASI standards;
- Automatic activation of video signal relay bypass mode upon computer power loss;
- Synchronization from input SDI/HD/3G-SDI signal or analog Black burst/tri-level signal. When external synchronization is lacking internal synchronizing generator is applied;
- Digital key signal (alpha-channel) output for use with external mixer that has a DSK (Down Stream Key) input. Key signal delay relative to output graphics has a software controlled wide adjustments range;
- 16-channels SDI/HD/3G-SDI embedded audio input/output;
- Error control in incoming SDI signals with check total count according to EDH method. EDH packets on the output are formed anew in accordance with SMPTE165 standard.

## FREE SDK/TOOLS/DRIVERS

- Windows 7,8,10,Server 2008/12 (32 and 64 bit)
- Stream Labs API
- Direct Show Filter
- Examples for integration in SW and Tools for HW tests
- Support V4L2 and ALSA
- Free Sources for C programming language
- Medialooks SDK



# CONNECTION DIAGRAM



## SPECIFICATIONS

<b>Video Input Connector Type</b>	75-Ohm BNC	<b>HDMI Audio Output</b>	1 Stereo Pair
<b>Number of Inputs</b>	1	<b>Sample Format</b>	YUV 4:2:2, RGB 4:4:4+Alpha-channel
<b>Video Input Formats</b>	3G-SDI, HD-SDI, SD-SDI, DVB-ASI	<b>Color Depth</b>	8 – bit
<b>3G-SDI standards</b>	1080p50, 1080p60, 1080p50.94	<b>Digital Audio Input</b>	SDI Embedded Audio(16 mono channels)
<b>HD-standards</b>	720p50, 720p59.94, 720p60, 1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080i50, 1080i59.94, 1080i60, 1080i50, 1080i59.94, 1080i60	<b>Capture audio in two modes</b>	Synch with video frame By Adjustment buffer depth
<b>SD-standards</b>	625/25 PAL, 525/29.97 NTSC, 525/23.98 NTSC	<b>Audio Capture</b>	24 bit/48KHz
<b>Capture VBI(VANC)</b>	8 - bit samples or 10 - bit samples aligned to 16 - bit.	<b>Digital Audio Output</b>	SDI Embedded Audio(16 mono channels)
<b>Synchronization</b>	Without input signal in selfgeneration mode - «Freerun» Synch from SDI input signal	<b>Analog Audio</b>	Option for Input and Output using Sound Pro extension card
<b>Analog External Synchronization Input(Genlock)</b>	Blackburst, Tri-level	<b>Bypass Relays in case of power failure</b>	G/SD/HD SDI with embedded audio or DVB-ASI
<b>Genlock Connector Types</b>	75-Ohm BNC through connector on board External breakout cable. This allows to realize independent input and output. Captured SDI signal does not affect to output synchronization. Output in this case can be in Analog synch or in Freerun	<b>Bypass Option</b>	Ability to enable Bypass in WatchDog Timer in case of software application or PC hangs
<b>Video Output Connector Type</b>	75-Ohm BNC	<b>Internal processing</b>	Copying Video- and Audio-data from PC RAM to local memory(DMA for Read) Converting RGB video to YUV Internal Alpha-channel Overlay Transcoding Alpha-channel using Alpha LUT Alpha-channel Delay Adjustment
<b>Number of SDI Outputs</b>	2	<b>SDI Specification</b>	SMPTE 259M, SMPTE 292M, SMPTE 424M, SMPTE 372M, SMPTE 274M, ITU-R BT.656 and ITU-R BT.601.
<b>Video SDI Outputs</b>	1 Fill and 1 Key	<b>ASI Specification</b>	DVB-ASI (coax) EN50083-9; Rx bitrate 0- 214Mbit/s
<b>Video Output Formats</b>	3G-SDI, HD-SDI, SD-SDI, DVB-ASI	<b>PCI interface</b>	PCIe Gen1 x 4
<b>Output HDMI v.1.4</b>	Preview from Main SDI output	<b>Power consumption</b>	5w
		<b>Firmware Update</b>	via PCI Express
		<b>Size</b>	109x86