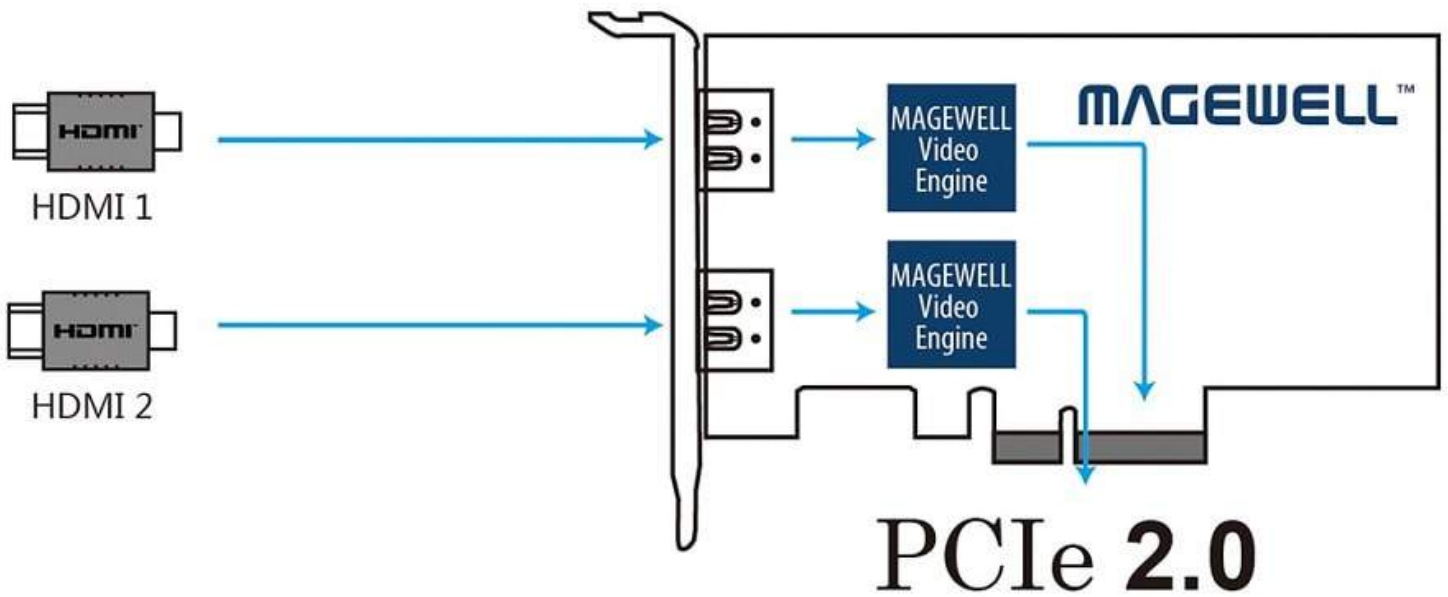# Pro Capture Dual HDMI

Two channel HD capture card

- HDMI x 2 + embedded audio x 2

Interface

Features

PCIe 2.0

Capture 2k x 2k

Compatible with Windows

Compatible with Linux

Up/down Scaling

Deinterlacing

Multiple Streaming

Automatically Detecting Input Signal

High-fidelity Video Processing Pipeline

Image Control

Various Output Color Spaces

SG-DMA Transmission Mode

Multiple Devices on One Host

Hardware Time Stamp

Mounting Hole

Rotary Switch

High-speed Memory

LED Indicator

Firmware Upgrade

Common Driver

Continuously Work for 24h x7

Accessories

Low Profile Bracket

Pro Capture Dual HDMI

Supported OS	- Windows 7/8/8.1/2008/2008 R2/2012 (x86 & x64) - Linux (V4L2 kernel driver source code under NDA, supports x86, x64 & arm architecture)
Supported APIs	- Windows - DirectShow - DirectKS - Wave API/DirectSound/WASAPI - Linux - V4L2 - ALSA
Supported Software	- VLC - VirtualDub - OBS - xSplit - vMix - VidBlaster - Wirecast - Microsoft Media Encoder - Adobe Flash Media Encoder - Any other DirectShow/V4L2 encoding/streaming software
Input Interfaces	2x HDMI type A - DVI 1.0 - HDMI 1.4a
Output Interfaces	PCIe Gen2 x4
Input Features	Support for input video resolutions up to 2048×2048 pixels

HDMI Specific Features	225MHz HDMI receiver - Adaptive HDMI equalizer support for cables lengths up to 30M - Support for customized EDID - Support for extraction of AVI/Audio/SPD/MS/VS/ACP/IRSC1/ISRC2/Gamut InfoFrames - Full colorimetry support - Support for 8/10/12-bit color depths - Support for RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2 color sampling - Support for up to 8-channel IEC60958/IEC61937 audio streams - Support for extraction of audio formation information & channel status data - Support for extraction of video timing information - Support for extraction of 3D format information - Support for extraction of Sony/Canon DSLR time code
Video Output Formats	- Support for output image resolutions up to 2048×2048 pixels - Support for output frame rates up to 120fps. (Actual output frame rate can be limited by PCIe bandwidth, and at higher image resolutions – above 1280×1024 – by the pixel clock of the on-board video processing hardware. eg. Max frame rate at 1920×1080 = ~80fps.) - Support for 4:2:0 8-bit output formats: NV12, I420, YV12 - Support for 4:2:2 8-bit output formats: YUY2, YUYV, UYVY - Support for 4:4:4 8-bit output formats: V308, IYU2, V408, BGR24, BGR32 - Support for 4:4:4 10-bit output formats: V410, Y410 - More output formats are supported via Pro Capture SDK for DirectKS

	• Two video processing pipelines with ~180Mpixels/s processing bandwidth for each one
	• Full 10-bit video processing
	• Video cropping
	• Video scaling
	• Video de-interlacing
	
	    ○ Weave
	    ○ Blend top & bottom field
	    ○ Top field only
	    ○ Bottom field only
	
	• Video aspect ratio conversion
	
	    ○ Auto or manual selection of input aspect ratio
	    ○ Auto or manual selection of output aspect ratio
	    ○ Three aspect ratio conversion modes: Ignore (Anamorphic), Cropping or Padding (Letterbox or Pillarbox)
	
	• Video color format conversion
	
	    ○ Auto or manual selection of input color format & quantization range
	    ○ Auto or manual selection of output color format, quantization range & saturation range
	    ○ Support for RGB, YCbCr 601, YCbCr 709, YCbCr 2020 color formats
	    ○ Support for Limited or Full quantization range
	    ○ Support for Limited, Full & 'Extended gamut' saturation range
	
	• Video frame rate conversion
	• Video OSD composition
	
	    ○ Support for PNG OSD image (up to 2048×2048)
	    ○ Support for dynamic loading of RGBA OSD image via SDK

Video Processing Features	
Multiple Cards per System	• Support for multiple cards plugged to one system • On-board rotary switch to set card number, with 16 positions from 0 to F • System hardware device tree will display "01: Pro Capture AIO" when rotary switch is set to 1, and so on • The video and audio device names displayed in your software will include the card number (set by the rotary switch)

Multiple Output Streams	• Unlimited output streams for any one input channel • Independent cropping, aspect ratio, color format, resolution, frame rate, de-interlacing and color adjustment settings for each individual stream
Ultra Low Latency Support	• Latency of 64 video lines • Partial notification mode in SDK
Timestamp & A/V Synchronization	• Hardware based 100ns high resolution clock • Audio frames (192 audio samples) & video frames are stamped with hardware clock • Hardware clock can be synchronized across cards (via SDK)
Video Output SG-DMA	• ~700MB/s per channel DMA bandwidth in PCIe 2.0 system • ~400MB/s per channel DMA bandwidth in PCIe 1.0 system • Support for auto detection of Intel tiled GPU surface • Support for DirectGMA for AMD video adapter chipsets • Support for GPUDirect for Nvidia video adapter chipsets
SDK	• Pro Capture SDK for DirectShow for easy integration (Windows) • Pro Capture SDK for DirectKS for maximum flexibility & performance (Windows)
Windows Driver Tweaks	• All options can be controled by three levels of registry key: global level, product level and device level • Video, Audio, Crossbar filter names can be customized via registry keys
Firmware Upgrade	• Multiple cards in one system can be upgraded simultaneously • Cards can be upgraded without a system power shutdown (In most cases, even a reboot is not needed)
LED Indicator	• Status LEDs indicate the working state of each channel: idle, input signal locked, memory failed or FPGA configuration failed.
Form Factor	• Low profile PCIe x4 Add-on Card • 115.99mm x 68.88mm (without PCI bracket)
Accessories	• Low Profile Bracket

Power Consumption	- Max current at 12V ~0.9 A - Max current at 3.3V ~0.6 A - Max power consumption ~12.8 W
Working Environment	- Operating temperature: 0 to 40 deg C - Storage temperature: –20 to 70 deg C - Relative Humidity: 5% to 90% non-condensing