matrox **MXO2 Mini**™

New! Also available with **Matrox MAX** technology for faster than realtime H.264 HD file creation.

Affordable high definition HDMI and analog I/O for Mac and PC

Don't settle for an HDMI and analog I/O card with messy cables when you can get all the features and more in a professional breakout box with Matrox MXO2 Mini. This sleek little device for Mac and PC also gives you the added advantage of portability. You can take it with you wherever you go. Use it with a laptop or a desktop system and your favorite applications including Final Cut Pro, Adobe Premiere Pro and Photoshop, and many more. Capture via HDMI, analog component, S-Video, and composite. Convert your standard definition videos to high definition, or vice versa, while capturing or playing out, using Matrox MXO2 Mini's high-quality dedicated hardware. Playback high definition and standard definition video simultaneously. Turn your HDMI screen into a professional-grade video monitor with Matrox's unique color calibration tool. Easily edit AVCHD footage by capturing into an edit-friendly compressed or uncompressed format. Count on uncompromising Matrox quality and reliability in MXO2 Mini, backed by a three-year warranty.

Matrox MXO2 Mini is also available with Matrox MAX technology for faster than realtime high definition H.264 file creation.

Key features

- Works with Mac and PC, laptops and desktops
- Small, lightweight, external box that's easily connected to your cameras and monitors
- Capture high definition video via HDMI or analog component; NTSC and PAL via analog component, S-Video, or composite
- Playback high definition video via HDMI and analog component; NTSC and PAL via HDMI and analog component or HDMI and S-Video and composite
- Output HD and SD video simultaneously
- Turns your HDMI screen into a professional-grade video monitor with color calibration tools including blue-only

- High-quality 10-bit hardware scaling engine for realtime upscaling, downscaling, and cross conversion on capture and playback (See Specifications section for scaling features supported on Mac and PC)
- Stereo RCA and up to 8 channels of HDMI audio input and output
- 5.1 and 7.1 surround sound monitoring on the HDMI output
- Easily edit AVCHD footage by capturing into an edit-friendly compressed or uncompressed format
- Works with your favorite applications including Final Cut Pro, Adobe Premiere Pro, Adobe Photoshop, and many more
- Also available with Matrox MAX for faster than realtime H.264 encoding
- Three-year hardware warranty and complimentary telephone support

with matrox
MAX

Matrox MAX is a unique technology that implements faster than realtime H.264 encoding for resolutions ranging from iPod to HD. It uses a dedicated hardware processor to accelerate the creation of H.264 files for Blu-ray, the web, and mobile devices. By using specialized hardware acceleration, jobs are finished with amazing speed and system resources are liberated for other tasks. Quality and flexibility are ensured through direct integration with professional applications such as Apple Compressor on the Mac and Adobe Media Encoder on the PC. As an added benefit, the Matrox MAX technology allows direct export to higher-quality H.264 Blu-ray compliant files from Compressor.

Inexpensive HDMI monitoring with 10-bit 4:2:2 color precision

This one feature is reason enough to buy Matrox MXO2 Mini. It turns your HDMI screen into a professional-grade video monitor with Matrox's unique color calibration tool. Controls for hue, chroma, contrast, brightness, and blue-only are provided. You get accurate color representation so that you can use your HDMI monitor even for color grading. Matrox MXO2 Mini provides 1:1 pixel mapping on HDMI displays that support this feature so your video will not be stretched and distorted by the monitor. You get accurate monitoring on your HDMI display in the following resolutions:

- 720 x 486 (NTSC)
- 1920 x 1080
- 720 x 576 (PAL)
- 1280 x 720

High quality 10-bit hardware scaling at an amazing price

There is no other device near this price point that lets you adapt to any delivery format your clients demand. Matrox MXO2 Mini's dedicated 10-bit hardware scaling engine provides high-quality scaling on capture and playback in the formats you need, no mater what you started with.

- **HD to SD downscaling** – Matrox MXO2 Mini provides realtime HD to SD downscaling with proper conversion of the HD color space to the SD color space and proper aspect ratio conversion to anamorphic, letterbox, and center cut. You can monitor or record an SD master of your HD project in real time.
- **SD to HD upscaling** – Matrox MXO2 Mini provides realtime SD to HD upscaling with proper conversion of the SD color space to the HD color space. MXO2 will "pillarbox" 4:3 footage and scale 16:9 SD footage to full screen.
- **Cross conversion** – Matrox MXO2 Mini offers realtime cross conversions from 720 to 1080 and 1080 to 720.

See Specifications section for scaling features supported on Mac and PC

Simultaneous HD and SD output

Matrox MXO2 Mini lets you view and record your projects in HD and SD at the same time. You can select to simultaneously playback HD or SD on the HDMI output and HD or SD on the analog output. This is a real time saver if you are delivering in multiple formats.

Editing workflows for Mac

On the Mac, Matrox MXO2 Mini lets you capture from either the analog or HDMI input to uncompressed video or to any of the compression formats supported by Apple Final Cut Pro including ProRes. This means you can easily edit AVCHD material which is otherwise very difficult to work with.

Matrox MXO2 Mini works with Final Cut Pro, Apple Color, Adobe After Effects, and all QuickTime applications that support the V-out component.

Editing workflows for PC

On the PC, Matrox MXO2 Mini lets you capture to uncompressed or to the highly-efficient Matrox MPEG-2 I-frame HD/SD codec from either the analog or HDMI input. This means you can easily edit AVCHD material which is otherwise very difficult to work with.

As an added benefit, Matrox MXO2 Mini includes Matrox A/V Tools, an easy-to-use application for fast capture and playback of your audio/video assets. This stand-alone application is ideal when all you need to do is quickly capture video for web streaming or DVD authoring. Matrox A/V Tools also lets you grab frames from your video and save them as TGA files.

Matrox MXO2 Mini works with Adobe Premiere Pro CS4 on the PC and provides WYSIWYG support for popular applications such as Adobe Encore CS4, Photoshop CS4, and After Effects CS4; Autodesk 3ds Max and Combustion; and NewTek LightWave 3D (32-bit versions only).

Specifications

General

Weight: 9.9 ounces (280 grams)	
Dimensions: 6 1/2" x 4 5/16 x 1 1/2" (166mm x 110mm x 40mm)	

System compatibility

Mac Pro and Intel-based MacBook Pro running Mac OS X Leopard 10.5.6 or higher
PC desktops and laptops running Windows XP (32-bit), and Windows Vista (32- and 64-bit)

Regulatory compliance

FCC Class A, CE Mark Class A, C-Tick Mark, VCCI
RoHS Directive 2002/95/EC

Video inputs

HDMI - HD - 10-bit
Component - HD/SD - 10-bit
Y/C (S-Video) - 10-bit
Composite - 10-bit

Audio inputs

2 RCA - stereo pair (unbalanced)
HDMI embedded - up to 8 channels
24-bit 48 kHz

Video outputs

HDMI - HD/SD - 10-bit
Component - HD/SD - 12-bit
Y/C (S-Video) -12-bit
Composite - 12-bit
Simultaneous HD and SD output

Audio outputs

2 RCA - stereo pair (unbalanced)
HDMI embedded - up to 8 channels

Supported formats

720p and 1080i @ 50, 59.94
1080p @ 25, 29.97
NTSC, PAL

HDMI capture

The HDMI specification defines that Matrox MXO2 Mini cannot capture when connected to copy protected sources. It is the user's responsibility to confirm copyright ownership before capture or distribution of content.

Codecs

Mac:
Matrox MXO2 Mini lets you capture to all HD and SD codecs supported by Final Cut Pro. On a Quad-Core MacPro, you can capture HD to ProRes 422 HQ, DVCPRO HD, DV, DVCPRO, and DVCPRO50. On a MacBook Pro Core2 Duo 2.4 GHz or faster, you can capture HD to ProRes 422 HQ (720p at 24, 25, and 30 fps) and DVCPRO HD. On systems equipped with proper storage you can capture uncompressed 8- and 10-bit HD.

PC:
Matrox MPEG-2 I-frame HD adjustable from 50 to 300 Mbps
Matrox MPEG-2 I-frame SD adjustable from 10 to 50 Mbps
Uncompressed 8- and 10-bit

10-bit hardware scaling

Mac: Up/down/cross conversion on capture and output
PC: First release supports down conversion on output. Additional features will be made available in subsequent software releases at no charge.

Matrox MXO2 Mini kit contents

Matrox MXO2 Mini input/output device
Matrox MXO2 PCIe cable (1 meter)
Matrox MXO2 Mini external power supply
Two S-Video adapters
One of the following:
Matrox MXO2 PCIe x 1 host adapter (for use with Mac Pro and PC desktop)
Matrox MXO2 PCIe host ExpressCard/34 adapter (for use with MacBook Pro and PC laptops)

Ordering information

Matrox MXO2 Mini laptop - for use with MacBook Pro and PC laptops
Matrox MXO2 Mini desktop - for use with Mac Pro and PC desktops

Additional host adapters may be purchased separately.

ExpressCard/34 adapter

PCIe host adapter

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Digital Video Solutions