

# USB Capture AIO Technical Specifications

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## Input Interface

- DVI-I: DVI 1.0
  - HDMI 1.4a (via breakout cable)
  - VGA (via DVI-to-VGA connector)
  - Component (via breakout cable)
- DB9
  - YC (S-Video)
  - Composite video
  - Analog audio (L+R)
  - Component video
- BNC SD/HD/3G SDI

## HDMI Input Features

- 225MHz HDMI receiver, max input 2048x1080 60fps 4:4:4
- Custom EDID
- Input RGB/YUV 4:4:4 8/10/12-bit, YUY 4:2:2 12-bit
- Up to 8-channel 24-bit HDMI-embedded audio at 192kHz
- HDMI interfaces: HDMI 1.4a

## SDI Input Features

- BNC SD/HD/3G SDI
- SD (ST 259)/HD (ST 292)/3Ga (ST 425)/3Gb-DL (ST 425)/3Gb-DS (ST 425) standard
- Input RGB/YUV 4:4:4 10/12-bit, YUV 4:2:2 8/10/12-bit, RGBA/YUVA 4:4:4:4 10-bit
- Input SDI signals transmitted up to 150m for 3G-SDI signals
- Max input 2048x1080 60fps 4:2:2 10bit
- Up to 8-channel SDI-embedded audio

## VGA & Component Input Features

- 12-bit ADC
- Support for RGB & YCbCr (YUV) color formats
- Support for 'Separated sync', 'Composite sync', 'Sync-on-green' (SOG), 'Sync-on-luminance' (SOY)
- Support for DMT, CEA, CVT, GTF, and custom CVT/GTF video timings
- Input signals up to 165MHz pixel rate are digitized with 1:1 sampling
- Input 3.5mm line in

## S-video & CVBS Input Features

- Support for NTSC, PAL, SECAM standards
- Auto detection of the standard of input signal

## Process and Capture Features

- Video processing pipeline up to 160M pixels/s. Capture resolutions up to 2048x2160, frame rates up to 120fps. Outputs include (actual capture frame rate can be limited by the USB bandwidth and internal working frequency.):
  - 1920x1080p 23.98/24/25/29.97/30/50/59.94/60/75
  - 1280x720p 23.98/24/25/29.97/30/50/59.94/60/100/119.88/120

- 720x576p25
- 720x480p30
- Support for YUY2/UYVY/RGB24/RGB32
- Custom video resolutions for CVT/GTF timings
- Support video cropping, up/down scaling, de-interlacing, aspect ratio conversion, color format conversion, frame rate conversion, flip and mirror
- Up to 2-channel IEC60958 audio streams for HDMI signal
- Up to 2 audio channels at 48KHz for SDI signal

## Included Software

- USB Capture Utility enables users to easily check and set the capture-related parameters, upgrade firmware of the capture device and export info needed for troubleshooting

## SDK & APIs

- The MWCapture SDK provides functions including signal status extraction, capture configuration and real-time audio & video capture, etc.
- Windows DirectShow/Wave API/DirectSound/WASAPI
- Linux V4L2/ALSA
- macOS AVCaptureSession/AudioUnit

## Output Interface

- USB 3.0
  - compatible with USB 2.0
  - compatible with USB 3.1 Gen 1

## Compatible Software

- Zoom Rooms
- Microsoft Teams
- Skype for Business
- Google Hangouts
- GoToMeeting
- Gstreamer
- VLC
- OBS Studio
- XSplit
- QuickTime Player
- Any other DirectShow/V4L2/AVCaptureSession based encoding or streaming software

## Recommended OS

- Windows 10/11/Server 2016/Server 2019/Server 2022/Server 2025 (x86 & x64) and above
- Linux x86, x64 & ARM architecture, with 2.6.35 and above
- Mac OS X 10.9 and above
- macOS 10.12 and above
- Chrome OS

## LED Indicator

- Status LEDs indicate the working state of each channel:
  - Pulsing slowly: input signal unlocked
  - On: input signal locked
  - Double blinks: memory failed or FPGA configuration failed
  - Off: firmware or power supply abnormal

## Form Factor

- 116mm (L) x 116mm (W) x 32mm (H)

## Accessories

- 1 × USB 3.0 cable (101.5cm)

- 1 × **DVI** to **VGA** connector
- 1 × **DVI-I** to **HDMI + Component** breakout
- 1 × **DB9** to **YC + Composite + Analog Audio + Component** breakout

## Power Consumption

- 5V max current: ~1A
- Max power consumption: ~5W

## Working Environment

- Operating temperature: 0 to 45 deg C
- Storage temperature: -20 to 70 deg C
- Relative Humidity: 5% to 90% non-condensing