

MAGEWELL

Eco Capture AIO M.2 Technical Specifications

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Input Signal

- HDMI 1.4a (via an accessory cable)
- SD/HD/3G SDI (via an accessory cable)

HDMI Input Features

- 165MHz HDMI receiver, max input: 2048x1080 60fps 4:4:4
- Custom EDID
- Input RGB/YCbCr 4:4:4 8/10/12-bit, YCbCr 4:2:2 8/10/12-bit
- Up to 8-channel 24-bit HDMI-embedded audio at 192kHz
- HDMI interface: HDMI 1.4a

SDI Input Features

- Max input: 2048x1080 60fps 4:2:2 10bit
- Up to 8-channel 48KHz embedded audio
- SD (ST 259)/HD (ST 292)/3Ga (ST 425)/3Gb-DL (ST 425)/3Gb-DS (ST 425) standard
- Input RGB 4:4:4/YCbCr 4:4:4/YCbCr 4:2:2 10/12-bit
- Input SDI signals transmitted up to 110m for 3G-SDI signals
- Support Closed Caption via SDK

CVBS Input Features

- 12-bit ADC
- Support NTSC, PAL and SECAM standard
- Auto-detect input signal

Process and Capture Features

- ~700MB/s per channel DMA bandwidth in PCIe 2.x system
- ~400MB/s per channel DMA bandwidth in PCIe 1.x system
- Video processing pipelines with ~180Mpixels/s processing bandwidth
- Capture videos up to 2048x1080, frame rates up to 144fps
- HDMI outputs include (actual capture frame rate can be limited by the PCIe bandwidth and internal working frequency.):
 - 2048x1080p60
 - 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
- SDI outputs include (actual capture frame rate can be limited by the PCIe bandwidth and internal working frequency.):
 - 2048x1080p60
 - 1920x1080p/1280x720p 23.98/24/25/29.97/30/50/59.94/60
 - 720x576p25
 - 720x480p30
- Support for RGB/YCbCr 601/YCbCr 709/YCbCr 2020
- Support video scaling, de-interlacing, color format conversion, frame rate conversion
- Output videos at 8-bit 4:4:4
- 100ns high-resolution clock based on hardware implementation
- Hardware clock synchronization across cards via SDK

SDK & APIs

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

Output Interface

- M.2 2280 Type M (PCIe Gen2 x2)

Recommended OS

- Windows 7 Ultimate/8.1 Enterprise/10 Enterprise/Server 2008 R2 DataCenter/Server 2012 R2 DataCenter/Server 2016 R2 DataCenter (x86 & x64) and above
- Linux x86, x64 & ARM architecture, with 2.6.35 and above

Compatible Software

- VLC
- VirtualDub
- OBS
- XSplit
- vMix
- VidBlaster
- Wirecast
- Microsoft Media Encoder
- Any other DirectShow/V4L2/AVCaptureSession based encoding or streaming software

LED Indicator

- Status LEDs indicate the working state of the device:
 - Pulsing slowly: no valid input signal
 - On: input signal locked
 - Off: no power
 - Double blinks: memory abnormal or FPGA misconfigured

Form Factor

- M.2 Type–2280 (22 x 80 mm)

Accessories

- 1 x **FPC** ribbon cables (Part number: 11514)
- 1 x **FPC to HDMI type A** adapter (Part number: 11514)
- 1 x **MMCX to BNC** cable

Power Consumption

- Max current at 3.3V: ~ 0.89 A
- Max power consumption: ~ 2.94 W

Working Environment

- Operating temperature: 0 to 40deg C
- Storage temperature: -20 to 70 deg C
- Relative Humidity: 5% to 90% (non-condensing)