

USB Capture SDI 4K Plus Technical Specifications

Copyright (c) 2011–2025 [Nanjing Magewell Electronics Co., Ltd.](#) All rights reserved.

Specifications are based on current hardware, firmware and software revisions, and are subject to change without notice.

Windows, DirectShow and DirectSound are trademarks or registered trademarks of Microsoft Corporation. OS X and macOS are trademarks or registered trademarks of Apple Inc.

Revised on 06/18/2025

Input Features

- Max input & loop through video at 6G 4K (4096×2160 30fps 4:2:2 10-bit)
- Input RGB/YUV 4:4:4 10/12-bit, YUV 4:2:2 8/10/12-bit, RGBA/YUVA 4:4:4 10-bit
- Up to 8-channel embedded audio
- Input analog audio via 3.5mm line in
- SD/HD/3G/6G-SDI BNC input & loop through
- SD (ST 259)/HD (ST 292)/3Ga (ST 425)/3Gb-DL (ST 425)/3Gb-DS (ST 425)/6G 4k(ST 2081) standard
- Input SDI signals transmitted up to 75m for 6G-SDI signal

Process and Capture Features

- Video processing pipelines with ~640Mpixels/s processing bandwidth
- Capture videos up to 4096x2160, frame rates up to 120fps. Outputs include (actual capture frame rate can be limited by the USB bandwidth and internal working frequency.):
 - 4096x2160p/3840x2160p 23.98/24/25/29.97/30
 - 2560x1440p60
 - 1920x1080p/1280x720p 23.98/24/25/29.97/30/50/59.94/60/90
 - 720x576p25
 - 720x480p30
- Output NV12/I420/YUYV/UYYV/RGB24/RGB32 videos
- Support video cropping, up/down scaling, de-interlacing, aspect ratio conversion, color format conversion, frame rate conversion, flip and mirror
- Output audio of SDI signal via 3.5 mm line out
- Up to 2 audio channels at 48KHz

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 (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 the device:
 - Pulsing slowly: input signal unlocked
 - On: input signal locked
 - Double blinks: memory abnormal or FPGA configuration failed
 - Off: firmware or power supply abnormal

Form Factor

- 4.36 inch (L) x 2.24 inch (W) x 0.67 inch (H) (110.7mm x 56.8mm x 17mm)

Accessories

- 1 × USB 3.0 cable (63cm)

Power Consumption

- 5V max current: ~0.86 A
- max power consumption: ~ 4.3 W

Working Environment

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