Product Information

SDI to USB 3.0 Video Capture Card

Model: SDI2USB3.0-BroadCast

Contents:

1. Using a PC for Broadcast Applications
2. Using a Smartphone for Broadcast Applications
3. Question / Answer for issues

www.ezdiybroadcast.com

www.peephole-store.com  www.iat101.com  ia-tecs@hotmail.com
Simplified Livestream Broadcasting System Diagram

- **Video Capture**: Your Video camera, Game player, or DVR source
- **Video encode**: PC or Smartphone for upload encoded video to outside
- **CDN*, Server, and Stream Platform**: Communication network and server for broadcasting
- **Video Display to Audience**: Live stream video to your audience

**Stream Platform**
- **Free Service**
  - YouTube
  - Facebook
  - Skype
  - Twitter (Twitch)
- **Monthly fee Service**
  - Livestream: $42/mo
  - Ustream: $99/mo
  - Wowza: $49/mo
  - DaCast: $19/mo

**Business**
- Boss, customer service or Business Partners

**Public**
- Product sale or entertainment Channel, Hobby group, Customers or Students

**Personal**
- Family and Friends

**Video Capture**
- DSLR Camera
- Surveillance Camera
- Video Game
- TV box / DVD
- DVR

**Video encode**
- Smartphone 3G/4G/5G
- PC or Smartphone for upload encoded video to outside

**CDN*, Server, and Stream Platform**
- ISP* Network
- Phone Carrier

**Video Display to Audience**
- Live stream video to your audience

Source: www.ezdiybcast.com
1. Using a PC for Broadcasting Applications

Applications:
1. Full HD-SDI / 3G-SDI Video capture and Live Stream Broad Cast.
2. Home surveillance & DIY video system equipment through USB 3.0 or USB 2.0
3. Compact size perfect for travel and portable use

Plug & Play FHD/HD Video Capture Card, No need to install any software!
Automatically determine the input video format, and automatically change to the specified output size:

Video Source
640x360 / 640x480 / 720x480 / 720x576 / 768x576 / 800x600 / 856x480 / 960x540 / 1024x576 / 1024x768 / 1280x720 / 1280x800 / 1280x960 / 1280x1024 / 1368x768 / 1440x900 / 1600x1200 / 1680x1050 / 1920x1080 / 1920x1200 /

SDI input
SDI-USB3.0-BroadCast
USB 3.0 Output
Internet Live-Stream Broadcast

Compatible OS:
- Windows 7, 8.1,10, Windows Server 2008 R2
- OS X (10.8 and above)
- Linux (Kernel version 2.6.38 and above)

Note:
- This device can work with an USB 2.0 PC, however USB 2.0 only has 40MB/s bandwidth, and it works for 480P/60FPS for USB 2.0.
- We recommend using it with an USB 3.0 PC. An USB 3.0 interface has 300-350 MB/s. USB 3.0 has a much better bandwidth for livestreaming. Please read bandwidth considerations in our web site www.ezdiybroadcast.com
- For USB2.0 Output: 720x480, 720x404, 640x480, 640x360, 320x240, 320x180
Example Setup of a 3G-SDI / HD-SDI Camera for live stream broadcasting

Note: SDI Splitter is not included in the sell

Camera or equipment with 3G-SDI/ HD-SDI / SDI video output

SDI Splitter

SDI cable

SDI DVR

SDI cable

USB 3.0 Output

Internet Live-Stream Broadcast

SDI-USB3.0-BroadCast

Note:
• This device can work with an USB 2.0 PC, however USB 2.0 only has 40MB/s bandwidth. We recommend using it with an USB 3.0 PC. An USB 3.0 interface has 300-350 MB/s. USB 3.0 has a much better bandwidth for livestreaming. Please read bandwidth considerations in our web site www.ezdiybroadcast.com
• For USB2.0 Output: 720x480, 720x404, 640x480, 640x360, 320x240, 320x180

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Broad Software and Operating System compatibility

1. Compatible operating systems: Windows (7, 8, 8.1), Linux (kernel version 2.6.38 and above), OS X (10.8 and above)
2. Compatible with USB 3.0 and USB 2.0 (please check Video Format under PC ‘s USB ports)
3. Compatible with various USB 3.0 ports (Intel, Renesas, ASMedia, Fresco Logic), compatible with expended USB 3.0 via PCIe Gen1.1 x1
4. Support APIs, such as Windows: DirectShow, DirectSound, Linux: V4L2, ALSA, OS X: QuickTime
5. Support software including AMCAP, OBS, Windows Media Encoder (Windows), Adobe Flash Media Live Encoder (Windows, OS X), Real Producer Plus (Windows), VLC (Windows, OS X, Linux), QuickTime Broadcaster (OS X), QuickTime Player (OS X), Wirecast (Windows, OS X) and etc.
6. Don't support 1080P 60Hz with OS X.

Video Format under PC ‘s USB ports

Automatically determine the input video format, and automatically change to the specified output size:

USB3.0 output: Support up to 1920x1200p /60FPS
- 1920x1200, 1920x1080, 1920x960
- 1680x1050, 1280x720, 1024x768
- 960x540, 850x480
- 720x576, 720x540, 720x480, 720x404
- 640x480, 640x360

USB2.0 Output: 720x480, 720x404, 640x480, 640x360, 320x240, 320x180
a. Easy Testing Steps for PC using AmCap software (free software) to verify the device working fine

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Plug the SDI-USB 3.0 card into a PC / Notebook's USB 3.0 or USB 2.0 port, and check if the Power LED light turn on</td>
</tr>
<tr>
<td>2. <strong>PC screen</strong>:</td>
<td>Open AmCap program, and you should find the “USB Video Device” under Devices</td>
</tr>
<tr>
<td>3.</td>
<td>Plug SDI video signal to the SDI-USB 3.0 card’s SDI port</td>
</tr>
</tbody>
</table>

**4. PC screen**: click “USB Video Device”, and the screen will show the HDMI video

**5.** Select stream format (under Options/ Video Device/ Capture Format) for preferred video size ***

**6.** The final video you want to view on screen

*** Please read bandwidth considerations in our web site for find the optimal video size for your livestream network

www.ezdiybroadcast.com

- For USB2.0 port: only following video format available 720x480, 720x404, 640x480, 640x360, 320x240, 320x180. Please USB 3.0 port
b. Using OBS (Open Broadcaster Software) for PC / Notebook Livestreaming Applications

1. Open OBS software

2. Click mouse right button to add video under Sources and Select Video Capture Device

3. Create New

4. Select Device: **USB Video Device**
   You also set up the video information as followings
   Resolution / FPS Type: Custom (recommended)
   Resolution: **1280x720** (recommended ***)
   FPS: **30** (for gaming video, it is better select 60)
   Video Format: **YUY2**
   YUV color Space: **Default**
   YUV color Range: **Default**
   Buffering: **Auto-Detect**

5. Zoom viewing window to desired size. Click Settings/ Stream and set:
   Stream Type: **Custom Streaming Server**
   URL: rtmp://a.rtmp.youtube.com/live2
   Stream Key: (obtained from your YouTube, Facebook Or other streaming server’s account)

6. Click **“Start Streaming”**
   And once linked to your livestream server account, the green light will turn on and showing the streaming status. (You may also check your YouTube or Facebook account to see the live stream video at the same time)

** Before setup the OBS livestream for broadcast, please always test your network’s speed, and then based on the network bandwidth test result vs. video size table (read our web site for information) to select the suitable video size for a stable livestreaming.

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- For USB2.0 port: only following video format available 720x480, 720x404, 640x480, 640x360, 320x240, 320x180. Please USB 3.0 port
2. Using an Android Smartphone for Mobile Livestreaming Applications

You can invite your club members, family and friends to watch your live streaming video. Live streamed videos are saved automatically and you can also set broadcast privacy settings to watch the video only by yourself.

For current suggested smartphone APP software can only used for an Android Phone to Broadcasting video events on YouTube / Facebook/ USTREAM / .

If you prefer using an iPhone for uploading your video, you may buy a low-cost Android Device to run the apk software (CameraFi Live”) and then WiFi connecting to your iPhone for livestreaming. Please check the example linking diagram shown in next page.

1. Download software to your Smartphone
( Note: the software works for Android phone only, not working for an iOS phone)
Android Version requirements: Version 4.3 above:
*** Go to “Google Play”, search and download “CameraFi Live”

2. Setup Steps:
Please visit our YouTube Demo for EZ Setup: https://youtu.be/-fyvVxaBkwg

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Example for using the capture card with an Android phone for Live Stream Broadcasting

The Broadcast App software is working on Android Device, the livestream signal can be sent to a WiFi router or using smartphone’s 3G/4G connection for broadcasting to YouTube, USTREAM, or Wowza for live streaming broadcast.

The Broadcast App software is working on Android Device, the livestream signal can be passed to an iOS device (set as a portable WiFi hotspot), and then broadcast to YouTube, USTREAM, or Wowza for live streaming broadcast.
Package Includes:

**Basic Set**
- 1.) SDI-USB 3.0 Capture Card
- 2.) USB 3.0 cable (A) with power splitter
- 3.) USB 3.0 cable (B)
- 4.) USB 3.0 adapter B (Male)
- 5.) USB 3.0 adapter B (Female)
- 6.) OTG cable

**Optional Items**
(not included in a basic set)
- 1.) 5V battery case with USB cable (Battery is not included)

USD 5

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## Product Specifications

<table>
<thead>
<tr>
<th>Connection</th>
<th></th>
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<tbody>
<tr>
<td><strong>Host Interface</strong></td>
<td>USB3.0，360MB/s Bandwidth</td>
</tr>
<tr>
<td><strong>Input Interface</strong></td>
<td>BNC</td>
</tr>
<tr>
<td><strong>SDI video input</strong></td>
<td>HD/3G-SDI Video Signal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SDI input</strong></td>
<td>SD/HD/3G-SDI, SMPTE-259/274/296/372/424/425/292 standard</td>
</tr>
<tr>
<td><strong>Transmission rate</strong></td>
<td>1.485Gb/s，2.97Gb/s</td>
</tr>
<tr>
<td><strong>Video Capture</strong></td>
<td>UVC (USB video class)</td>
</tr>
<tr>
<td><strong>Audio Capture</strong></td>
<td>UAC (USB audio class)</td>
</tr>
<tr>
<td><strong>Output Color Space</strong></td>
<td>YUY2, RGB24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Others</th>
<th></th>
</tr>
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<tbody>
<tr>
<td><strong>Supported O/S</strong></td>
<td>• Windows 7, 8.1, 10, Windows Server 2008 R2</td>
</tr>
<tr>
<td></td>
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<tr>
<td><strong>Compatible Software</strong></td>
<td>AMCAP, OBS, Windows Media Encoder, Adobe Flash Media Live Encoder, Real Producer Plus, VLC, Wirecast</td>
</tr>
<tr>
<td><strong>Compatible development interface</strong></td>
<td>DirectShow (Windows), DirectSound (Windows)</td>
</tr>
<tr>
<td><strong>Dimension</strong></td>
<td>70x99.6x24mm</td>
</tr>
<tr>
<td><strong>Power Consumption</strong></td>
<td>&lt;= 1.0 W</td>
</tr>
<tr>
<td><strong>Working Temperature range</strong></td>
<td>0-50 °C</td>
</tr>
</tbody>
</table>