Minimum System Requirements

- The system requirements listed below are recommended as minimums. The system requirements for CyberLink PowerDVD vary depending on the movie content you are watching. 3D technologies require additional hardware to view 3D movie content. CyberLink PowerDVD optimizes performance by selecting the appropriate video de-interlacing algorithm for the available processing power. CyberLink PowerDVD maintains its support for processors below 1.6 GHz by ensuring that some CyberLink TrueTheater technologies are turned off by default. CyberLink PowerDVD's advanced audio and video technologies function better when used with processors above 2.4 GHz.

Operating System

- **Ultra HD Blu-ray**: Microsoft Windows 10 (32-bit and 64-bit with 2015 Nov. updates)
- **Blu-ray Disc, DVD, and TrueTheater 3D Playback**: Microsoft Windows 10, 8.1/8, 7 with Service Pack 1
- **VR Mode**: Windows 10/8.1/7 with Service Pack 1

Processor (CPU)

- **Ultra HD Blu-ray**: Intel 7th generation (Kaby Lake) Core i processors and above that support the Intel Software Guard Extensions (Intel SGX) technology.
- **VR Mode**: Intel i5-4590, AMD FX 8350 equivalent.
- **Blu-ray Disc, DVD, and TrueTheater 3D Playback**:
  - Blu-ray Disc playback: Intel Core 2 Duo E6750 (2.66GHz), AMD Phenom 9450 (2.10GHz).
  - Blu-ray 3D playback: Intel Core i5, AMD Phenom II X4.
  - TrueTheater HD** and TrueTheater 3D** for Blu-ray and HD video: Intel Core i5 (with 4 Cores), AMD Phenom II X6.
- DVD playback: Pentium 4 (2.4 GHz), Athlon 64 2800+ (1.8 GHz), AMD Fusion E-series & C-series.

  Note: ** some Fox titles released from Jul. 2013 will not support TrueTheater HD or TrueTheater 3D.

- **4K Ultra HD with Hardware Acceleration:** Intel 3rd generation Core i5.
  
  Note: CyberLink PowerDVD supports 4K Ultra HD video in H.264 / MP4 format at bitrates up to 60 Mbps.

**Graphics Processor (GPU)**

- **Ultra HD Blu-ray:** Intel 7th generation (Kaby Lake) Core i processors integrated with Intel HD Graphics 630, Intel Iris™ Graphics 640.

  Note: Ultra HD Blu-ray is supported only if a display is powered by Intel Graphics and supports HDCP 2.2. If your computer includes more than one graphics processor, Ultra HD Blu-ray is supported only on the display that is connected and powered by Intel Graphics.

- **VR Mode:** NVIDIA GeForce GTX 970, AMD Radeon R9 290 equivalent.

- **HDR 10 Video Playback:** To view High Dynamic Range (HDR) effects from HDR10 Videos, Intel 7th Generation (Kaby Lake) Core i Processors integrated with Intel HD Graphics 630 or Intel Iris Graphics 640.

- **4K Ultra HD with Hardware Acceleration:**

  - H.264/AVC: 3rd Generation Intel Core i5 (Ivy Bridge).
  - H.265/HEVC (8bits): 5th Generation Intel Core i5 (Skylake) or Nvidia GTX 960.
  - H.265/HEVC (10bits): 7th Generation Intel Core i5 (Kaby Lake) or Nvidia GTX 1060.

  Note: CyberLink PowerDVD supports 4K Ultra HD video in H.264 / MP4 format at bitrates up to 60 Mbps.

- **Blu-ray Disc, DVD, and TrueTheater HD/3D Playback:** Intel HD Graphics, ATI Radeon HD 5000, NVIDIA GeForce 9500GT.

  Note: We strongly recommend that you update your graphics card driver to the latest version. 3D display devices are required for TrueTheater 3D playback.

- **Blu-ray 3D playback:** Intel HD Graphic (Intel Core i5), NVIDIA GeForce GTX 400 series and GeForce GT 240/320/330/340, AMD Radeon HD 6000 and 6000M series with UVD 3 support.

- **DVD Playback:** PCI Express graphic accelerator supporting DirectX 9.0.

**Mainboard (Motherboard)**
- **Ultra HD Blu-ray**: Ultra HD Blu-ray requires a mainboard that supports the Intel Software Guard Extensions (Intel SGX) technology. The Intel SGX feature needs to be enabled in the BIOS settings and allocated with 128 MB or above memory space. To view the HDR 10 effect of Ultra HD Blu-ray movies, a mainboard that supports exporting HDR 10 signal is required. Note: To output Ultra HD Blu-ray movies to an external display, the connection port embedded on the mainboard must support HDCP 2.2. For laptop PCs, please refer to the specification of your laptop to see if the external display connection (HDMI/DisplayPort) supports HDCP 2.2 output.

- **HDR 10**: To view HDR 10 video, a mainboard that supports exporting HDR 10 signal is required.

**Memory**

- **Ultra HD Blu-ray/VR Mode**: 4 GB (6 GB recommended).

- **Blu-ray Disc, DVD, and TrueTheater 3D Playback**:
  - DVD and TrueTheater 3D playback: 1 GB required for Windows 10, 8.1/8/7

- **Blu-ray 3D with or without Hardware Acceleration**: 2 GB.

**Hard Disk Space**

- 500 MB for product installation.

**Display Device**

Note: When playing video files on displays larger than Quad HD+ (or any file greater than 3300 X 1900 resolution), CyberLink PowerDVD enters a high performance mode that disables some non-essential playback features. In this mode the following features are unavailable: Video rotation, Video Scene Selector (Video mark in/out), Instant Preview, Instant Zoom (Zoom in/out), Dual subtitle display, Subtitle customization for font, color, and size. If required, you can disable high performance mode in video settings.

- **Ultra HD Blu-ray**:
  - Display device with HDMI 2.0a/DisplayPort 1.3 connection interface, and must support HDCP 2.2.
  - Screen resolution: Ultra HD resolution (3840 x 2160).
Display connection: HDMI 2.0a/DisplayPort 1.3 version cable without any adapters/splitters/repeaters. Note: To enable the High Dynamic Range (HDR) feature of Ultra HD Blu-ray movies, the display device must support the HDR display feature and 10-bit color depth display capability with an HDMI 2.0a/DisplayPort 1.4 connection interface. If your display device or GPU doesn’t support the HDR feature, PowerDVD will play back the Ultra HD Blu-ray movie under Standard Dynamic Range (SDR) mode.

**Blu-ray Disc, DVD, and TrueTheater 3D Playback:**
- For Blu-ray titles with AACS and DVD titles with CPRM playback, PowerDVD only allows output to display devices using DVI, HDMI and DisplayPort connector in order to be compliant with copy protection (HDCP).
- For other DVD and Blu-ray Disc playback: HDCP compliant display for digital output. TV or computer monitor for analog output.
- TrueTheater 3D playback: 3D display and 3D glasses required.

**Blu-ray 3D with or without Hardware Acceleration:** 3D display and 3D glasses are required (NVIDIA 3D Vision, 3D Ready HDTV, HDMI 1.4-enabled TV, Micro-polarizer LCD or Anaglyph Red/Cyan Glasses). HDCP compliant display for digital output.

**Video Output**

**VR Mode:** HDMI 1.4, DisplayPort 1.2.

**USB Port**

**VR Mode:** 1x USB 2.0.

**Disc Drive**

**Ultra HD Blu-ray playback:** optical disc drives that are certified for Ultra HD Blu-ray playback.

**Blu-ray Disc playback:** BD-ROM/BD-RE or Super Multi Blu combo disc drive.

**DVD and TrueTheater 3D playback:** DVD-ROM, DVD+R/RW, DVD-RAM or DVD Super Multi combo disc drive.
Internet Connection

- Required for initial software and file format activation, first-time play of an Ultra HD Blu-ray movie, and online services.

Language Support

- English
- French
- German
- Italian
- Spanish (European)
- Chinese Simplified

Movies

- BD-R 1.1/BD-RE 2.1, BD-R 2.0/BD-RE 3.0, BDROM 2.2, BD-J, BDROM Profile 1.1 (Bonus View), BDROM Profile 2.0 (BD-Live), BDROM Profile 5.0 (BD 3D), BDROM Profile 6.0 (Ultra HD Blu-ray), AVCREC, AVCHD XAVC-S, DVD-Video, DVD-VR, DVD+VR, VCD, SVCD, CD, BD ISO, DVD ISO

Conventional Video: 264, 265, 26L, 3G2, 3GP, 3GP2, 3GPP, ASF, AVC, AVI, BSF, DIV, DIVX, DVR-MS, FLV1, H264, H265, HEVC, JSV, JVT, M1V, M2P, M2T, M2TS, M2V, M4V, MK3D, MKV, MOD, MOV1, MP4, MP4V, MPE, MPEG, MPG, MPV, MTS, MVC, QT, TOD, TP, TPD, TRP, TS, TTS, VC1, VOB, VRO, WM, WMV, WTV2


Videos

- HDR 10 Video: H.265 in MP4, MKV and M2TS
### Photos
- BMP, JPEG, JPG, PNG, TIF, TIFF, MPO¹, JPS, ARW, CR2, CRW, DCR, DNG, ERF, KDC, MEF, MRW, NEF, ORF, PEF, RAF, RAW, RW2, SR2, SRF, X3F

### Music
- AAC², AC3, ADTS¹, AOB, APE, DTS, FLAC², M4A(AAC, ALAC codec), MID, MKA, MP2, MP3, MPA, OGG, RMI, WAV, WMA, DSD Audio (DSF, DFF)

### Subtitles
- **External (text):** SubRip (.SRT), PowerDivX (.PSB), MicroDVD (.SUB), SubViewer (.SUB), SubStation Alpha (.SSA, .ASS), SAMI (*.SMI)
- **External (image):** VobSub (.sub+.idx)
- **Embedded:** MKV: SSA, ASS, SRT, PGS (Compressed PGS, Uncompressed PGS), VobSub MP4: VobSub, Embedded-Timed Text (MPEG4 PART-17)

### Format and Device Support
- ¹Only supports FLV/MOV files encoded with H.264 codec
- ²Only supported in Windows 7 with OEM TV Feature Pack
- ³Only supports 3D MPO files
- ADTS and AAC require windows 7 or above
- Music files only

### Extract Audio from Video

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Formats Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videos</td>
<td>ASF, AVI, DIVX, MOV (H.264), DAT, M2T, VRO, MKV, FLV, MVC, MP4, WMV, DVR-MS, MOD, MPEG, MPG, TOD, VOB, MTS, M2TS, WTV</td>
</tr>
</tbody>
</table>

* The audio format of source video should be AAC, PCM, LPCM, MPEG1, MPEG2, MP3, WMA, AC3, FLAC, APE, ALAC, VORBIS, DTS
* The audio extracted from video will be 2 channels if the source audio more than 2 channels.
* If the source videos have multiple tracks, then the first track would be extracted.

### CyberLink Cloud Transcoding Support

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Formats Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videos</td>
<td>ASF, AVI, DIVX, MOV (H.264), DAT, M2T, VRO, MKV, FLV, MVC, MP4, WMV, DVR-MS, MOD, MPEG, MPG, TOD, VOB, MTS, M2TS, WTV</td>
</tr>
</tbody>
</table>
Minimum System Requirements for Transcoding Files before Upload

- Processor (CPU): Intel® Core2 Duo CPU 4500 @ 2.20GHz
- RAM: 2GB

CyberLink Cloud Video Streaming

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Formats Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videos</td>
<td>MP4, MKV, MPG, M2TS, MTS, TS</td>
</tr>
</tbody>
</table>

* For other video format, not support streaming playback. Need to download the video in advance, and then play the cache file.

Media Casting to Streaming Device

- Supported Devices
  - Roku®
  - Chromecast™
  - Apple TV®
Videos
3G2, 3GP, 3GP2, 3GPP, ASF, AVI, DAT, DIV, DIVX, DVR-MS, FLV, M2P, M2T, M2TS, M4V, MKV, MOD, MOV (H.264), MP4, MP4V, MPE, MPEG, MPG, MPV, MTS, MVC, QT, TOD, TP, TPD, TRP, TS, TTS, VOB, VRO, WM, WMV, WTV
(* Supports H.265 video in MKV, MP4, M2TS)

Photos
JPG, JPEG, MPO, JPS, ARW, CR2, CRW, DCR, DNG, ERF, KDC, MEF, MRW, NEF, ORF, PEF, RAF, RAW, RW2, SR2, SRF, X3F, BMP, PNG, TIF, TIFF

Audio
MP3, WAV, M4A(AAC, ALAC Codec), FLAC, OGG, APE

External Subtitle (TEXT):
SubRip (.SRT), PowerDivX (.PSB), MicroDVD (.SUB), SubViewer (.SUB), SubStation Alpha (.SSA, .ASS), SAMI (*.SMI)

Subtitle
(Embedded subtitle in video is not supported.)

Media Transcoding for Casting

- Video will be transcoded to H.264/AAC/M2TS via HTTP Live Streaming
- Transcoding is required if any of the below conditions apply:
  - The video format is not coded in H.264 in MKV/MP4
  - TrueTheater video enhancements are applied
  - The bitrate of the video is larger than the decoding capability of the target streaming device.
  - Audio will be transcoded to AAC
Photos will be transcoded to JPG

Minimum System Requirements for Video Casting to Device in HD Quality

- CPU: Intel HD Graphics with Intel 2th Generation (SandyBridge) Core i3 or above.
- RAM: 2GB

DLNA Specifications

- PowerDVD Ultra -
  - Digital Media Server (DMS) to store content for sharing with other DLNA players and receivers
  - Digital Media Player (DMP) for playback of media stored on Digital Media Server (DMS) on local network
  - Digital Media Controller (DMC) to find content on Digital Media Servers for playback on Digital Media Receivers (DMR)
  - Digital Media Receiver (DMR) for playback of content received from a Digital Media Controller

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Formats Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videos</td>
<td>3G2, 3GP, 3GP2, 3GPP, ASF, AVI, DAT, DIV, DIVX, DVR-MS, FLV, M2P, M2T, M2TS, M4V, MKV, MOD, MOV (H.264), MP4, MP4V, MPE, MPEG, MPG, MPV, MTS, QT, TOD, TP, TPD, TRP, TS, TTS, VOB, VRO, WM, WMV, WTV</td>
</tr>
<tr>
<td>Photos</td>
<td>BMP, JPEG, JPG, PNG</td>
</tr>
<tr>
<td>Audio</td>
<td>LPCM, M4A(AAC codec), MKA, MP2, MP3, MPA, WAV, WMA</td>
</tr>
</tbody>
</table>
• **Power Media Player** - Share To, Stream From, Play To and Play From compatibility:
  • **Share To (DMS):** Share media content from mobile devices with PowerDVD Ultra or Power Media Player
    o iOS (iPhone/ iPod Touch/ iPad): Share iTunes synced music, photos and video in the camera roll, photos and videos synced in the photo tab. Videos and podcasts synced with iTunes are not supported in Power Media Player
  • **Stream From (DMP):** Browse and playback the media library content from PowerDVD Ultra and Power Media Player
    o iOS: Streamed video from PowerDVD Ultra will be transcoded to MOV(H.264) format
    o Android: Streamed video from PowerDVD Ultra will be transcoded to MP4(H.264) format
  • **Play To (DMC):** Play media on Power Media Player to PowerDVD Ultra or other devices with Power Media Player
  • **Play From (DMR):** Allowing PowerDVD Ultra or Power Media Player to play media to devices with Power Media Player

**Hardware Support for Blu-ray™ 3D and TrueTheater™ 3D**

• Stereoscopic 3D technologies require additional hardware to view 3D movie content:
  • HDMI 1.4 enabled 3DTV
    o **Eye wear:** Active shutter glasses
    o **Supported Hardware:** HDMI 1.4 enabled 3D TV
    o **Supported Graphic Card:** NVIDIA GeForce GTX 460 and AMD Radeon HD 6800 series or above
    o **Integrated Graphics:** 2nd generation Intel Core processors or above

• **NVIDIA 3D Vision**
  o NVIDIA 3D Vision Kit + 3D Vision-Ready Display + 3D Vision Compatible NVIDIA Graphics Card are required
  o Please download and install [3D VISION CD for Desktop GPUs v1.38](http://example.com) or [Verde Notebook 3D VISION CD v1.38](http://example.com)

• **120Hz Frame-sequential 3D LCD** (NVIDIA 3D Vision-Ready)
- **Native format**: 120 fps left and right
- **Eye wear**: Active shutter glasses (NVIDIA 3D Vision Kit)
- **Supported Hardware**: Asus G51J-SZ028V, Acer GD245HQ, Acer GD235HZ

- **3D Polarizer LCD**
  - **Native format**: row-interleaved
  - **Eye wear**: Polarized glasses
  - **Supported Hardware**: Zalman ZM-M220W, Acer 5738DG (Notebook)

- **3D Ready HDTV (DLP)**
  - **Native format**: checkerboard
  - **Eye wear**: Active shutter glasses
  - **Supported Hardware**: Mitsubishi 1080p DLP HDTV, Samsung 3D Ready DLP HDTV

**HD Audio Compatible Sound Card and Codec List**

- Realtek ALC669 (support up to 192kHz/24bit 6 channels)
- Realtek ALC670 (support up to 192kHz/24bit 6 channels)
- Realtek ALC885 (support up to 192kHz/24bit 2-channels or 96kHz/24bit 4-8 channels)
- Realtek ALC889 (support up to 192kHz/24bit 2-channels or 96kHz/24bit 4-8 channels)
- Realtek ALC892 (support up to 192kHz/24bit 8 channels)
- Realtek ALC898 (support up to 192kHz/24bit 2-8 channels)
- Realtek ALC899 (support up to 192kHz/24bit 2-8 channels)
- Realtek ALC1150 (support up to 192kHz/24bit 2-8 channels)
- VIA EnvyHD Vinyl VT1818S codec (support up to 192kHz/24bit 8-channels)
- VIA EnvyHD Vinyl VT1828S codec (support up to 192kHz/24bit 8-channels)
- VIA EnvyHD Vinyl VT2020 codec (support up to 192kHz/24bit 8-channels)
- Auzentech X-Fi HomeTheater HD (supports HDMI 1.3a bit-stream lossless pass-through)
- AMD Radeon HD 5000 and 6000 Series graphics cards supporting lossless pass-through
- NVIDIA GeForce GTX 400 Series graphics cards supporting lossless pass-through
- Intel Core i3/i5/i7 with integrated audio and graphics

**Note:** This product uses Cinavia technology to limit the use of unauthorized copies of some commercially-produced film and videos and their soundtracks. When a prohibited use of an unauthorized copy is detected, a message will be displayed and playback or copying will be interrupted. More information about Cinavia technology is provided at the Cinavia Online Consumer Information Center at [www.cinavia.com](http://www.cinavia.com). To request additional information about Cinavia by mail, send a postcard with your mailing address to: Cinavia Consumer Information Center, P.O. Box 86851, San Diego, CA, 92138, USA.

*Apple TV® is a trademark of Apple Inc., registered in the U.S. and other countries. Chromecast™ is a trademark of Google Inc. Roku® is a registered trademark of Roku, Inc.*