



Recommended upload encoding settings

Below are recommended upload encoding settings for your videos on YouTube.

Container: MP4

Audio codec: AAC-LC

- Channels: Stereo or Stereo + 5.1
- Sample rate 96khz or 48khz

Video codec: H.264

- Progressive scan (no interlacing)
- High Profile
- 2 consecutive B frames
- Closed GOP. GOP of half the frame rate.
- CABAC
- Variable bitrate. No bitrate limit required, though we offer recommended bit rates below for reference
- Chroma subsampling: 4:2:0

Frame rate

Content should be encoded and uploaded in the same frame rate it was recorded.

Common frame rates include: 24, 25, 30, 48, 50, 60 frames per second (other frame rates are also acceptable).

Interlaced content should be **deinterlaced** before uploading. For example, 1080i60 content should be **deinterlaced** to 1080p30. 60 interlaced fields per second should be **deinterlaced** to 30 progressive frames per second.

Bitrate

The bitrates below are recommendations for uploads. Audio playback bitrate is not related to video resolution.

Recommended video bitrates for SDR uploads

To view new 4K uploads in 4K, use a browser or device that supports VP9.

Type	Video Bitrate, Standard Frame Rate (24, 25, 30)	Video Bitrate, High Frame Rate (48, 50, 60)
2160p (4k)	35-45 Mbps	53-68 Mbps
1440p (2k)	16 Mbps	24 Mbps
1080p	8 Mbps	12 Mbps
720p	5 Mbps	7.5 Mbps
480p	2.5 Mbps	4 Mbps
360p	1 Mbps	1.5 Mbps

Recommended video bitrates for HDR uploads

Type	Video Bitrate, Standard Frame Rate (24, 25, 30)	Video Bitrate, High Frame Rate (48, 50, 60)
2160p (4k)	44-56 Mbps	66-85 Mbps
1440p (2k)	20 Mbps	30 Mbps
1080p	10 Mbps	15 Mbps
720p	6.5 Mbps	9.5 Mbps
480p	Not supported	Not supported
360p	Not supported	Not supported