

# Open Signal Broadcast Specifications

This document contains the technical specifications for videos submitted to Open Signal for cable broadcast.

## Technical Specifications:

- No black or bars needed at beginning or end of video
- Aspect Ratios: **16:9 (HD), 4:3 (SD)**
- Frame Rate: **29.97 fps**
- Resolution: **HD (1920 x 1080), SD (720 x 480)**
- File types(container formats): **.mov, .mpg, .mp4**
- Video Bitrate: **15 - 20 Mbps**
- Compression Codecs:
  - **MPEG-2** – Standard Definition (SD) legacy format used for DVD.
  - **H.264** – High Definition (HD) high-quality format, more compressed than Apple ProRes. Results in smaller file while maintaining quality. Common for web.
  - **Apple ProRes LT** – High Definition (HD) high-quality format with less compression than H.264, results in a large file.
- Audio: **48kHz**
  - Broadcast dynamic range between **-6dB (peak)** and **-20dB** (audio higher than -6dB may distort).
  - Audio channels must be identical on the left and right channels (for example, both channels need to have the music and the microphone).

## Minimum Technical Quality

If a video file isn't a valid format or is corrupt, Playback staff may determine that the file is unplayable and request a new file. If a file is playable, Playback staff will assess the technical quality by applying the following test:

- Can I make out the video?
- Can I understand the audio?

If a program fails the technical quality test, staff will contact the producer and discuss whether or not the producer intended, for the purposes of art or commentary, to make the video indiscernible or the audio unintelligible. If the choices were not intentional, staff will discuss with them what can be done to make their show viewable.

**Questions? Email [playback@opensignalpdx.org](mailto:playback@opensignalpdx.org).**