

# Five Audio Specs Necessary for Film Distribution & Broadcast

- 1 **Loudness:** The LKFS (Loudness Units Relative to Full Scale) is usually -23 to -25 db throughout the project. But each network is different. This number refers to long-term measurements as opposed to short-term (e.g. a 10 second window).
- 2 **Maximum (True) Peak:** the very loudest parts of your audio. Most networks are -10 but some are -2 and some networks require different true peak readings for different deliverables (e.g. stereo mix -10, surround mix -2)
- 3 **Stereo vs. Surround Sound:** Stereo is comprised of Left and Right channels. 5.1 surround sound is Left, Center, Right, Left Rear, Right Rear, and LFE (low-frequency effects), or sub-woofer.
- 4 **Dolby Pro Logic II, LT/RT and Lo/Ro:** 5-channel (5.0) mix that has been matrix encoded into a stereo 2-channel mix called an LT/RT (Left Total/Right Total). Popular in U.S. television markets, but being phased out of film in favor of Digital Cinema Packages (DCP). A Lo/Ro mix is a 5.1-to-stereo down mix without using the Dolby Pro Logic II encoding.
- 5 **Stems:** the separated elements of your full soundtrack. They can be single elements (e.g. VO, music, dialog, etc.) or several elements mixed (e.g. M&E). In dipped stems, each stem remains at the varying levels set for a full mix (e.g. music lower during VO). Undipped stems remain at one even level throughout the program so that international distributors can re-dip the stems to account for the differences in the length of different languages.

Find the full article at [blog.frame.io](https://blog.frame.io)

