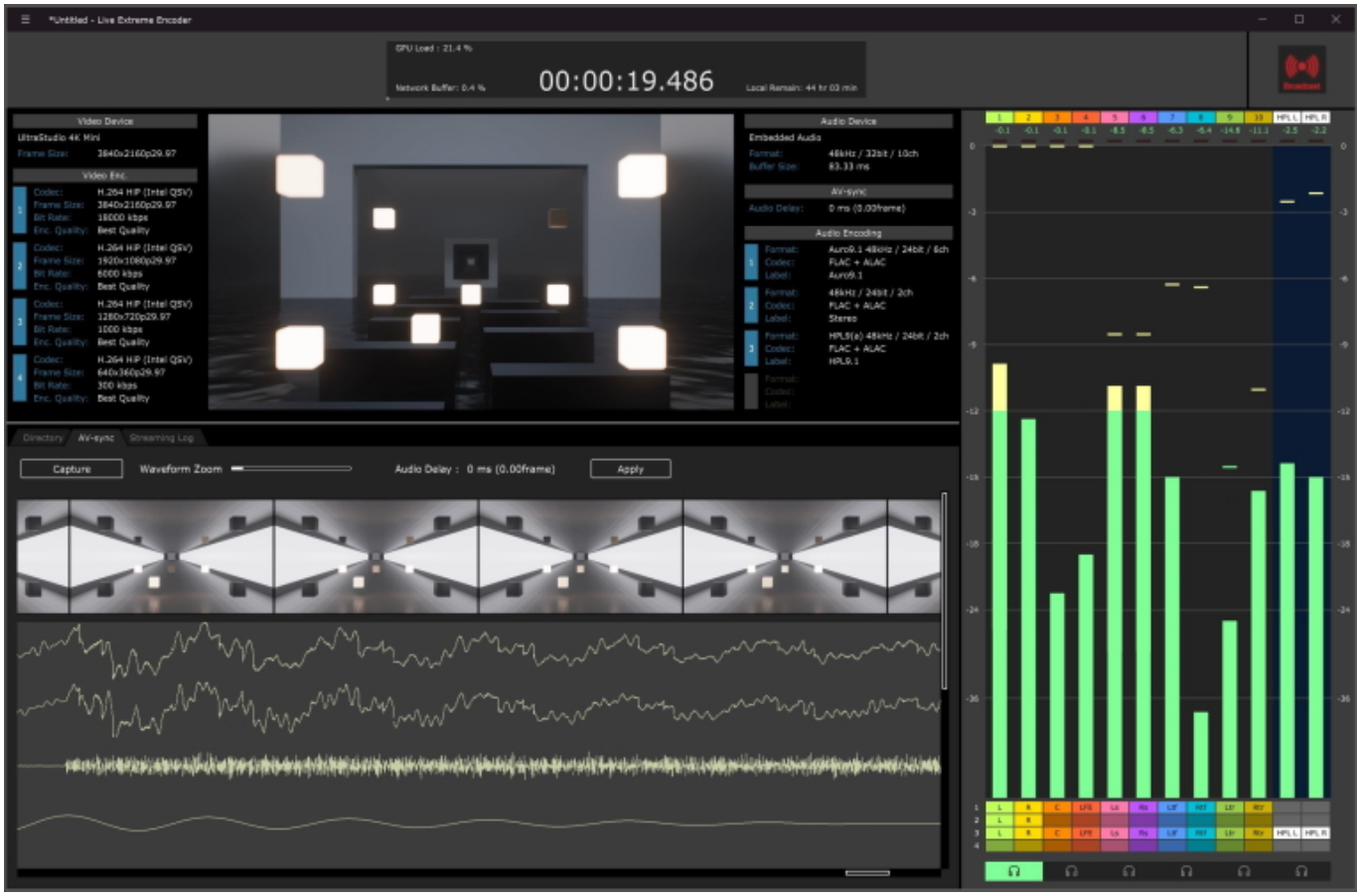
Live Extreme by KORG



The “Live Extreme by KORG” streaming system, which uniquely allows livestreaming of lossless or high-resolution audio alongside high resolution video, is now available in the U.S. through compatibility with Amazon Web Services (AWS) and initial adoption by Streamsoft Inc.’s white box high-resolution streaming platform, Artist Connection. The capabilities and market potential of the Live Extreme streaming system will be demonstrated to content creators throughout the AES NY 2023 Audio Engineering Society convention, booth 653, October 25 – 27, at the Javits Convention Center in Manhattan.

While livestreaming is now a preferred medium to connect with audiences, many streaming platforms compromise on audio quality in deference to high-resolution video content. The ability to livestream high-resolution audio simultaneously with high-res video sets Live Extreme apart from platforms relying on lossy audio compression. Live Extreme by KORG is further differentiated by its browser-based accessibility, ensuring compatibility across a wide range of devices – from smartphones and tablets to Windows PCs, Macs, and set-top boxes (STBs) including Apple TV and Chromecast – without any need for specialized equipment.

KORG is renowned for over 15 years of pioneering high-resolution audio development, including the world’s first portable and double-speed DSD recorders,

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high-resolution DACs supporting up to 192 kHz PCM and DSD up to 11.2 MHz, and the AudioGate series of DSD/PCM format conversion, playback and recording software apps. That expertise, along with eight years of leading-edge experience in the development of high-resolution audio streaming, led to KORG’s introduction of Live Extreme in Japan in 2020 as the world’s first livestreaming system with the capability to stream high-resolution video up to 4K UHD, accompanied by lossless or high-resolution audio, up to PCM 384 kHz/24-bit / DSD 5.6 MHz.

Live Extreme is compatible with FLAC and ALAC (Apple Lossless) audio codecs, accommodates lossless surround audio up to 7.1 channels and offers immersive audio through near-lossless as well as compressed format support including up to 7.1.4 channels at a 96 kHz sample rate in AURO-3D and 9.1.6 channels in Dolby Atmos®. It also offers a specialized binaural processor, HPL, specifically tailored for music performances and accommodating up to 7.1.4 channels at 192 kHz sampling. Since its launch, Live Extreme has been used for streaming scores of concerts and events in Japan and has been successfully integrated into multiple domestic streaming platforms and services. Live Extreme supports interactive streaming which can allow listeners to alternate between up to four mixes and spotlight specific performers on stage.

The Live Extreme Encoder software supports real-time livestreaming and on-demand streaming, as well as pre-recorded livestreaming. The Encoder runs on Windows 10/11 computers and accepts input from any ASIO-compatible ADC or digital interface. Proprietary KORG technology synchronizes video to an audio clock, eliminating troublesome video clock jitter and ensuring bit-perfect transmission. Audio and video can be down-converted to any desired resolution or format, including processing pre-recorded files (e.g., Apple ProRes) into Live Extreme formats. Local storage backup is also supported. Software development is underway to add direct support to the Live Extreme Encoder for AURO-3D and Artist Connection.

Conventional livestreaming methods apply lossy compression twice: first in the live encoders that output an intermediary audio and video format for upload to streaming servers, and then (although serial stages of lossy compression are known to create artifacts) lossy compression is applied again in the streaming servers to resolve the signals to the distribution format. Live Extreme’s encoder circumvents this issue by directly encoding source content into either the HLS or MPEG DASH distribution formats, with lossless audio format conversion applied as desired, before upload to the streaming server via FTP, WebDAV or Amazon S3 protocols. The streaming server then passes the signals along to the consumer without recompression. The quality benefit that the Live Extreme system’s single encoding stage offers in terms of audio fidelity applies to video quality as well.

Live Extreme can be integrated within existing streaming systems and platforms with minimal investment and is suited for live venues, streaming studios, podcasting studio, houses of worship and streaming service providers. With near ubiquitous web browser support for H.264 and FLAC, dedicated consumer playback

software is not required. Live Extreme delivers the consumer content faithful to the source, with unsurpassed streaming audio quality.

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