LZE GMBH • FRAUENWEIHERSTRASSE 15 • 91058 ERLANGEN

MPEG AUDIO TEST PLAYER

(FOR ANDROID OS)

VERSION DATE: 17.04.2026

VERSION 3.1.0 REV2

1. Content

2. Introduction

The MPEG Audio Test Player is a reference-build multimedia player for Android OS that demonstrates the full feature set of MPEG-H Audio and xHE-AAC. It is built on the Fraunhofer MPEG-H White-label App project and serves as a working integration example within the AndroidX Media / ExoPlayer (Media3) framework.

MPEG-H Audio is a Next Generation Audio system that represents the state of the art in audio codec technology. The overall system has already been standardized and is being deployed. However, more detailed insights are required to ensure comprehensive knowledge of current applications and a reliable basis for future research. To this end, Fraunhofer IIS has created a range of tools that encourage professional users to work with MPEG-H Audio and share their practical insights to further academic research. The MPEG-H Audio system excels through its unique personalization features. They enable the creation of fully adjustable dialogue levels, customizable audio description, multiple languages, and even interactive object positioning. As a result, users can tailor their experience to individual preferences and requirements. MPEG-H Audio delivers these unprecedented customization options as well as immersive sound on every kind of playback device – from home theaters to 3D soundbars to mobile devices.

xHE-AAC, the latest generation of the AAC codec family, is the ideal solution for today's audio and video streaming services – be it movies, music, audiobooks or podcasts. With adaptive DASH/HLS streaming from 12 to more than 320 kbit/s for stereo, as well as improved speech quality and stereo imaging, xHE-AAC noticeably improves reception and sound quality. Its mandatory MPEG-D DRC loudness and dynamic range control and seamless bit rate adjustment guarantee the best user experience in any playback situation. xHE-AAC decoding is natively supported in Android, Fire OS, Vega OS, iOS, and Windows.

If you want to share your insights with us, please get in touch with mpegh-feedback@iis.fraunhofer.de.

3. MPEG Audio Test Player

Experience the full scope of your MPEG-H or xHE-AAC Audio Mix

The MPEG Audio Test Player delivers a real-life playback scenario. It helps optimize user experience by enabling you to trial the personalization options of your MPEG-H Audio mix. It can also serve as a reference implementation for quality control of your content. In addition to being a great tool for testing your own decoder and playback solutions, the MPEG Audio Test Player serves as an example of how UIs and bitstream passthrough implementations can be designed efficiently.

The MPEG Audio Test Player is a prebuilt example version of the Fraunhofer MPEG-H White-label App project. It can be used as a reference implementation of MPEG-H Audio integration into AndroidX Media/ExoPlayer frameworks and facilitates the development of your own player. The Fraunhofer MPEG-H White-label App project can be requested from Fraunhofer IIS.

Highlights:

- Supported transport formats: DASH, HLS, MP4, MPEG2TS (Media3/ExoPlayer)
- Supported audio formats: MPEG-H Audio, xHE-AAC
- 3 different MPEG-H interactivity overlays: MPEG-H TV UI, MPEG-H quick launch bar, MPEG-H Touch UI
- Binaural playback to headphones/earbuds
- HDMI passthrough playback (Android TV devices)
- Google cast support
- Supported video formats: H.264/AVC (depends on the availability of the device's HW decoder implementation), H.265/HEVC (depends on the availability of the device's HW decoder implementation)
- Tile-based media item selection
- Supports file playback from device's local storage
- Supports flexible server-side managed content configuration
- Requires minimum Android 11