

AV synchronization (Lip-Sync) video design

Video Design Objectives

A single video sequence to enable:

- Course lip-sync test
- Fine lip-sync measurement
- Natural and real life video content

Video Sequence

Duration

Maximum of 20 minutes

Video Resolution

- High Definition (HD)
- Standard Definition (SD)
- Ultra High Definition up to 4k depending frame rates

Video Frame Rates

- PAL
 - 25 fps
 - 50 fps
- NTSC
 - 29.97 fps
 - 59.94 fps

No frame rate conversion: All video sequences are captured (filmed) in respective video frame rates.

More information

- 🔗 [Webpage](#)
- 📧 [Email](#)



Narlak's AV-Sync test stream video screenshot

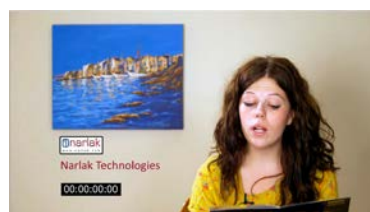
Introduction

A single video sequence to test AV synchronization (AV-Sync) with objectives of testing coarse AV-Sync, fine AV-Sync measurements and with a video content natural and close to real life video.

Video Design

Narlak has designed a video sequence with "Talking Head" video embedded in a Picture In Picture (PIP) style on a real life or natural video content. Video sequence has white frames (flash) and corresponding beep tones at regular time intervals. Audio content is only speech from "Talking Head" video and beeps at corresponding white frames.

"Talking Head" PIP video enables coarse AV-Sync to be tested by **visual inspection** at **any given point of time**. Beep and flash at regular intervals will help to measure the AV-Sync delay introduced in the receiver under test accurately using an **oscilloscope** or a light sensitive LED/microphone set-up. The background natural or real life video content will keep the receiver (encoder/decoder) under test busy (if not under stress!) compared to the static background of talking head only video.



Typical "Talking Head" video content with a static background. There are only little movements in the head region of the speaker. On the contrary broadcast encoder/decoder has to deal with real life or natural video content which will have scene changes and moving video content.