

VIDEO MULTIMETER™

Video Playback Performance

THE CHALLENGE

Video playback is an essential factor in overall user experience of smart devices since: Majority of people are using mobile phones for watching videos through different devices, channels or applications.

In general video playback performance consists of the following measurable items:

- Video playback speed variation (jitter)
- Skipped frames during playback (dropped frames)
- Pausing or twitching during playback (jerkiness)
- A/V sync (lip sync)



Also for VR
performance
and 3D gaming
rendering

THE SOLUTION

OptoFidelity™ Video Multimeter is a professional, end-to-end, non-intrusive measurement solution for the true and objective video playback performance of a mobile, tablet or any multimedia device. With OptoFidelity Multimeter you can objectively analyze video quality (jerkiness, jitter, slowness, dropped frames, lip sync). You can even measure dual displays, end-to-end video calls and captured video performance. In short future you can also measure VR performance.

It is a perfect tool for R&D design verification, test laboratory use, field applications or competitor analysis. It creates reliable and repeatable results quickly when measuring video playback performance with a standard USB connection. You can transfer all the data into your own test software and design database for complete analysis, save the measurement results and download those to your computer. Measurements can also be automated with an API option to be a part of a continuous integration.

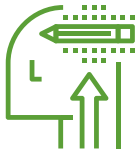
OptoFidelity Video Multimeter provides results on MOS (Mean Opinion Score) - a clear, general numerical and easily comparable indication of the perceived quality from the user's perspective.



Measure directly from a display and get the same objective test results as the end-user would experience the video.

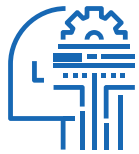
OptoFidelity

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USE CASES

- Frame rate & measurement with MOS (Mean Opinion Score)
- Lip Sync for audio/video synchronisation
- Camera viewfinder latency
- Material encoding / decoding
- Video streaming performance
- End-to-end video call performance
- Multimedia streaming
- Captured video performance
- Display tearing
- Display mirroring



OPTIONS

- A/V synchronisation (lip sync) measurement from 3.5 mm audio output connector
- Control API
- External frame trigger output
- Dual Sensor for display mirroring
- End-to-end video call performance
- Captured video file performance
- Perforated mounting plates (mobile and tablet size)
- Generic DUT holder
- Adjustable fiber holder
- Optical fiber (optional length)
- Drive testing



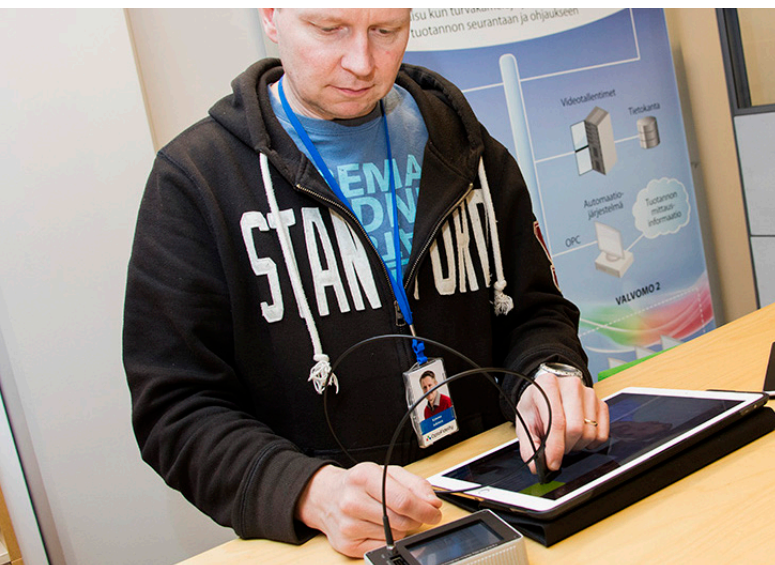
BENEFITS

- Battery operated compact device
- True measurements directly from display
- MOS (mean opinion score) result metrics
- Standardized measurement setup: repeatable and reliable test results
- Support for all typical display technologies
- Customized integration to customer's system
- Works independently of backlight brightness
- Software options can be activated later on
- OptoFidelity's test video generator software, with which you can create test videos in the format of your choice



TECHNICAL SPECIFICATIONS

- Supported operating systems: Windows 7 or newer, Ubuntu Linux 12.04 or newer, Mac OS X Snow Leopard or newer
- Linux / Windows host controllable via USB
- 4K resolution and H.265, VP9 encoding support
- Preserves the original audio track
- Timing accuracy: 1 ms
- Maximum framerate: 150 FPS
- External dimensions: 12x8x3 cm
- Operating temperature range: -10 C to +40 C
- Storage temperature range: -20 C to +60 C
- Internal memory: 4 GB
- Operating time on battery: 6 hours
- Battery: Li-Ion Panasonic PA-L2, 1950 mAh, 7 Wh
- Operating current: 300 mA
- Built-in fiber sensor bandwidth: 4 kHz
- Built-in fiber sensor sample rate: 100 kS/s
- Trigger output voltage (low): 0.0 V to 0.4 V
- Trigger output voltage (high): 2.9 V to 3.3 V
- Trigger output impedance: 50 ohm



At OptoFidelity we thrive for the ultimate user experience by simulating and testing user interactions for smart devices. We are globally recognized pioneers in testing, and our humanlike robot assisted technology platforms and other measurement devices are widely used throughout products lifecycle from R&D to production. We are dedicated to unify our customer's testing process and speed up time-to-market. Eight out of ten largest mobile phone companies are convinced by our state of the art engineering competence and innovative thinking.

WHAT IS YOUR TESTING CHALLENGE? WE'D LOVE TO HEAR IT!