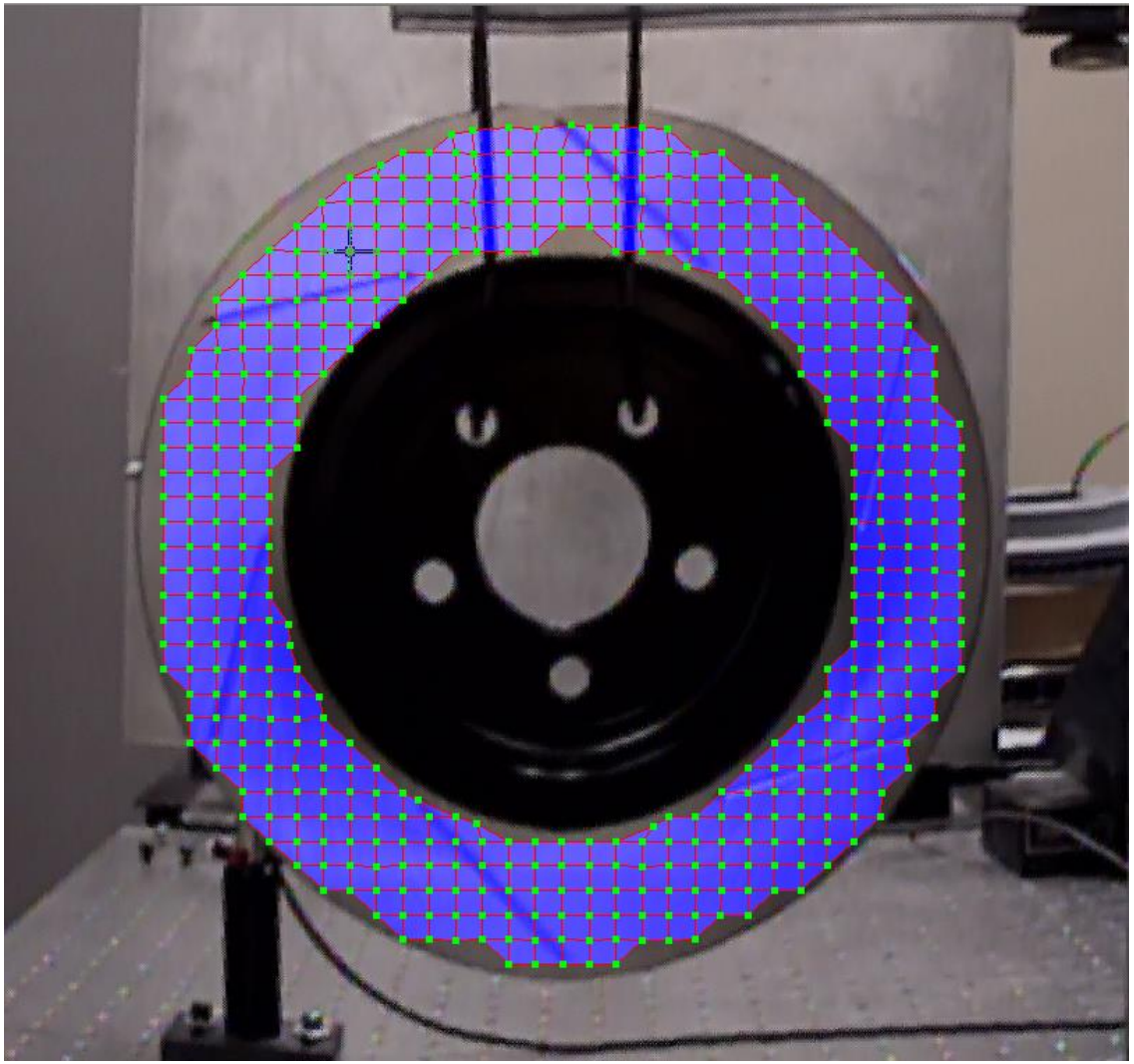
LS01 Example – Brake Rotors



Brake Rotor with 500 measurement points

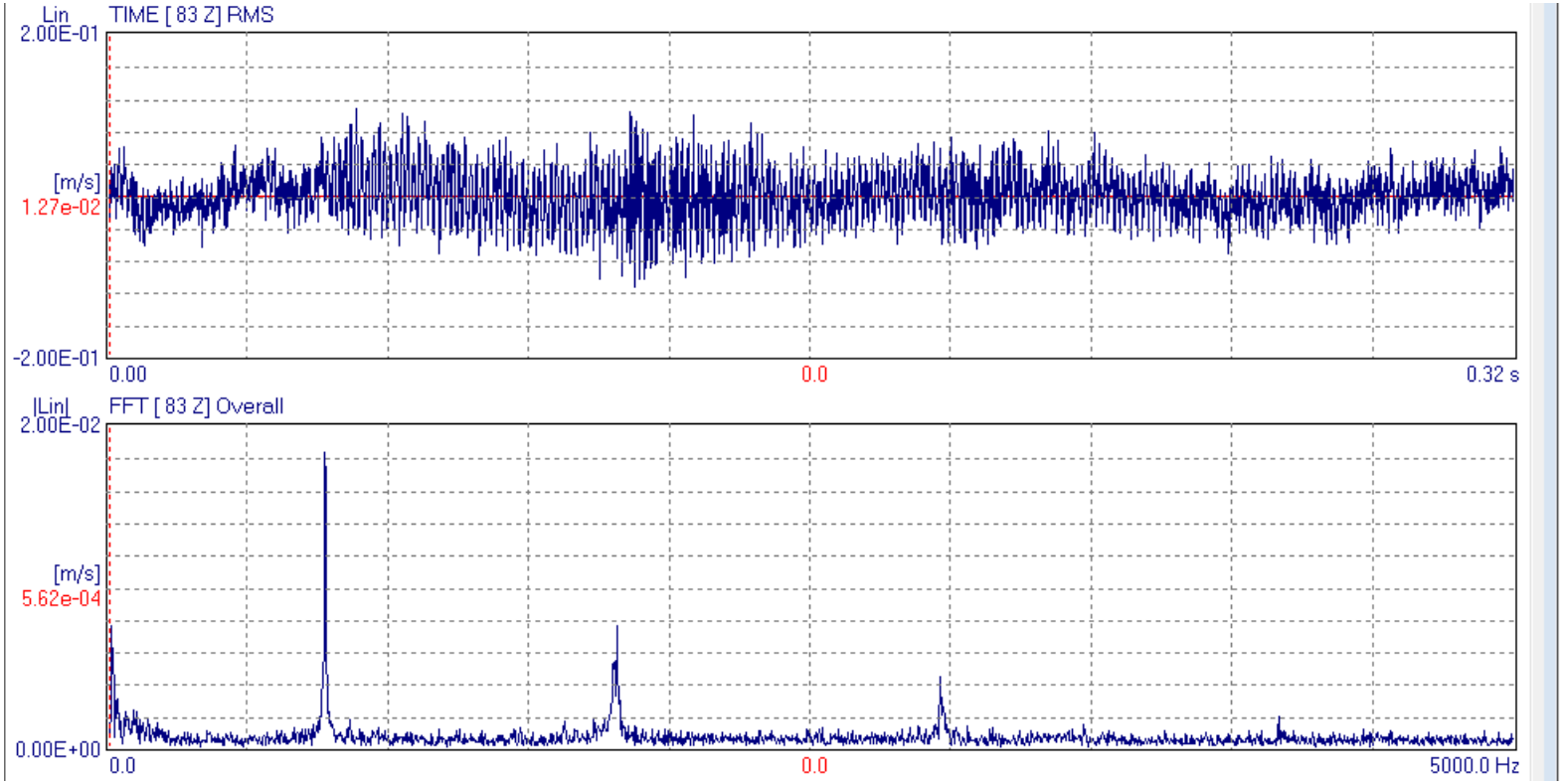
Center Area is Excluded from the measurement

Chirped Frequency Excitation from the back with a PZT

LS01 – Brake Rotor Data

Optical Measurement Systems

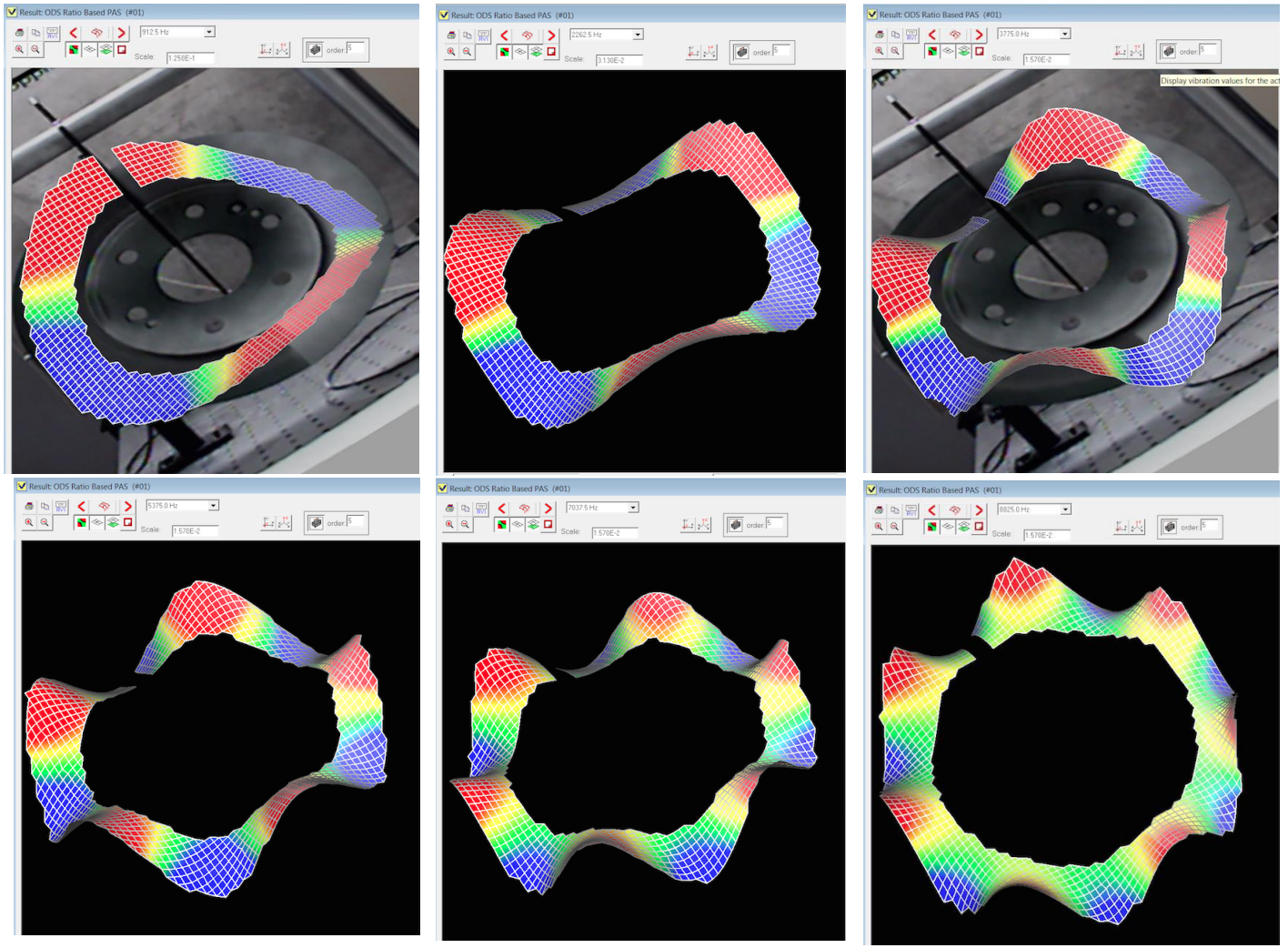
Obtain Time Domain and FFT Data at each measurement point



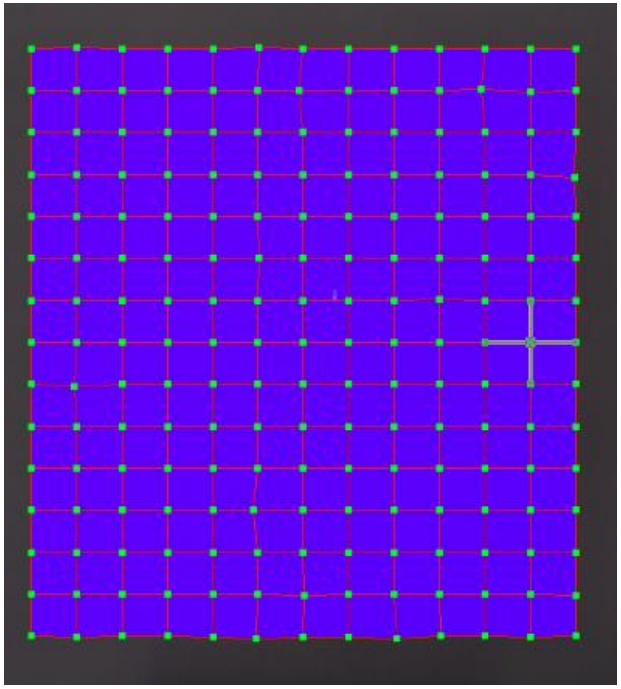
LS01 – Brake Rotor Animations

Optical Measurement Systems

View 3-D Animations at any frequency



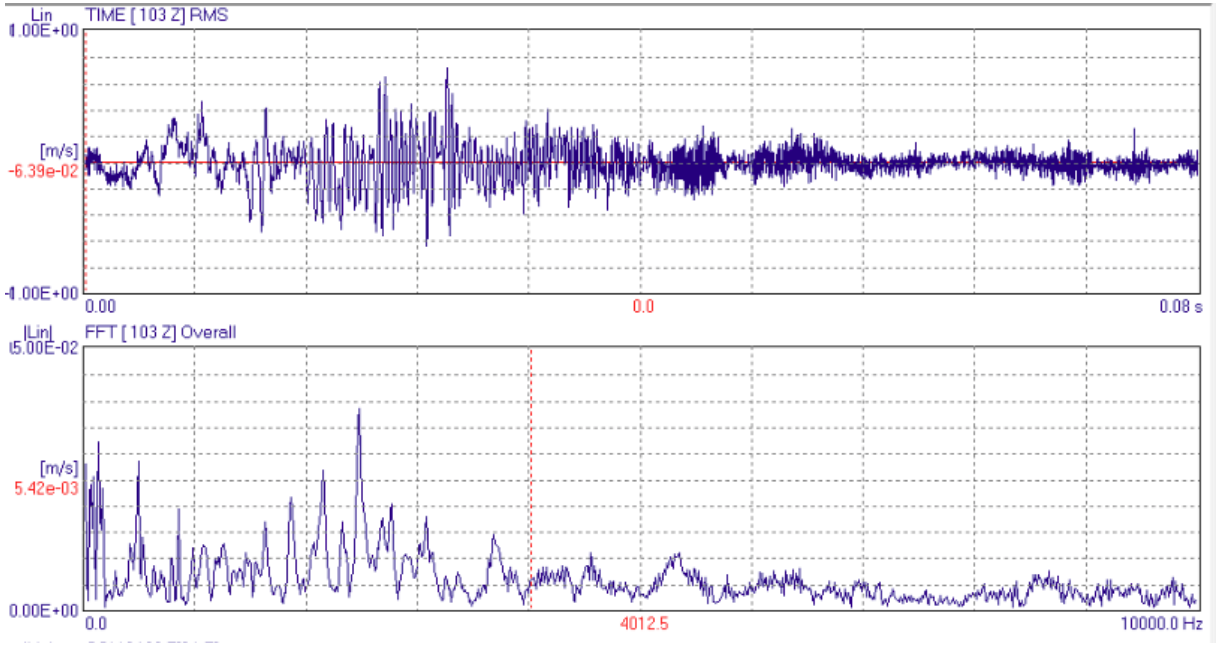
LS01 Example – Flat Speaker



Flat Panel Speaker with over 150 measurement points

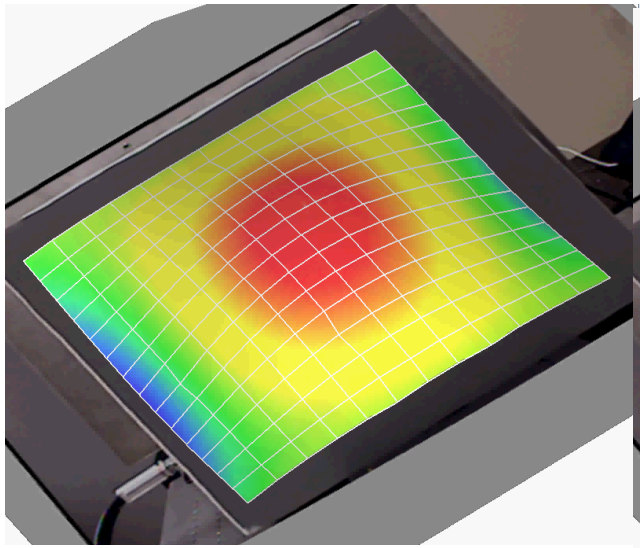
Drive Speaker with signals from 0 – 10 kHz

Several resonant frequencies can be seen

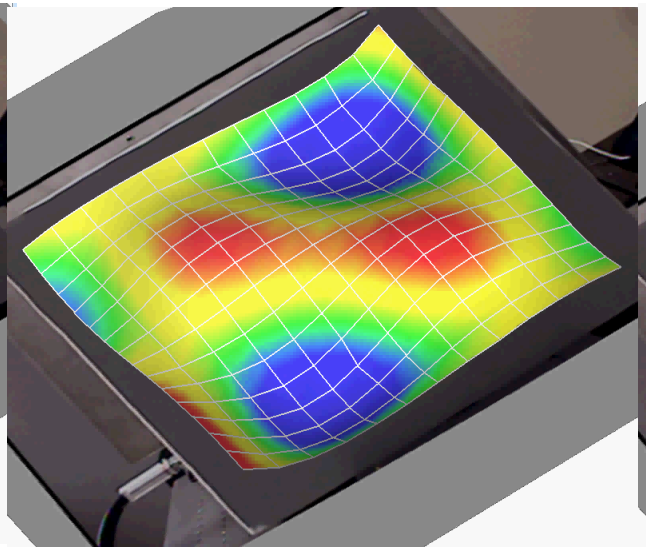


LS01 - Speaker Animations

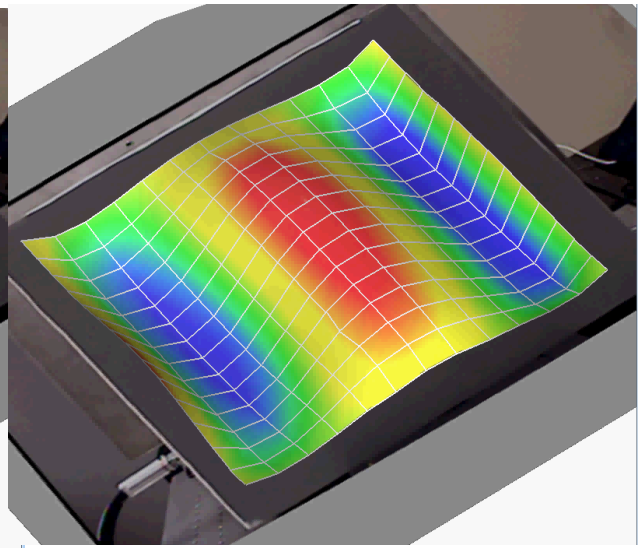
Optical Measurement Systems



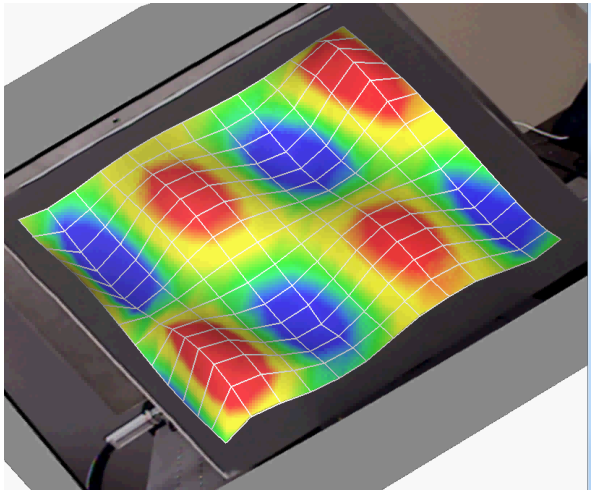
150 Hz



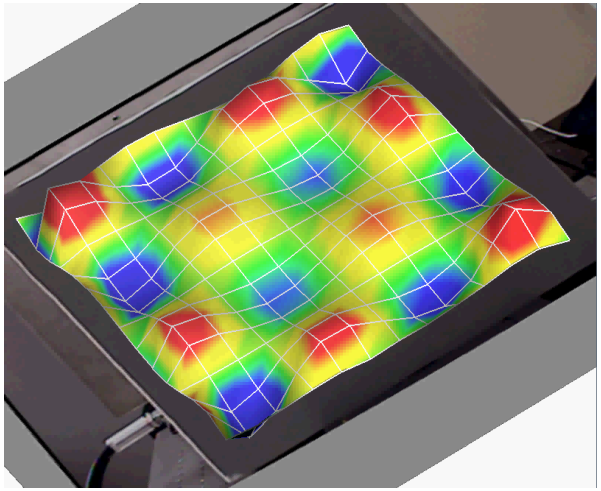
375 Hz



475 Hz

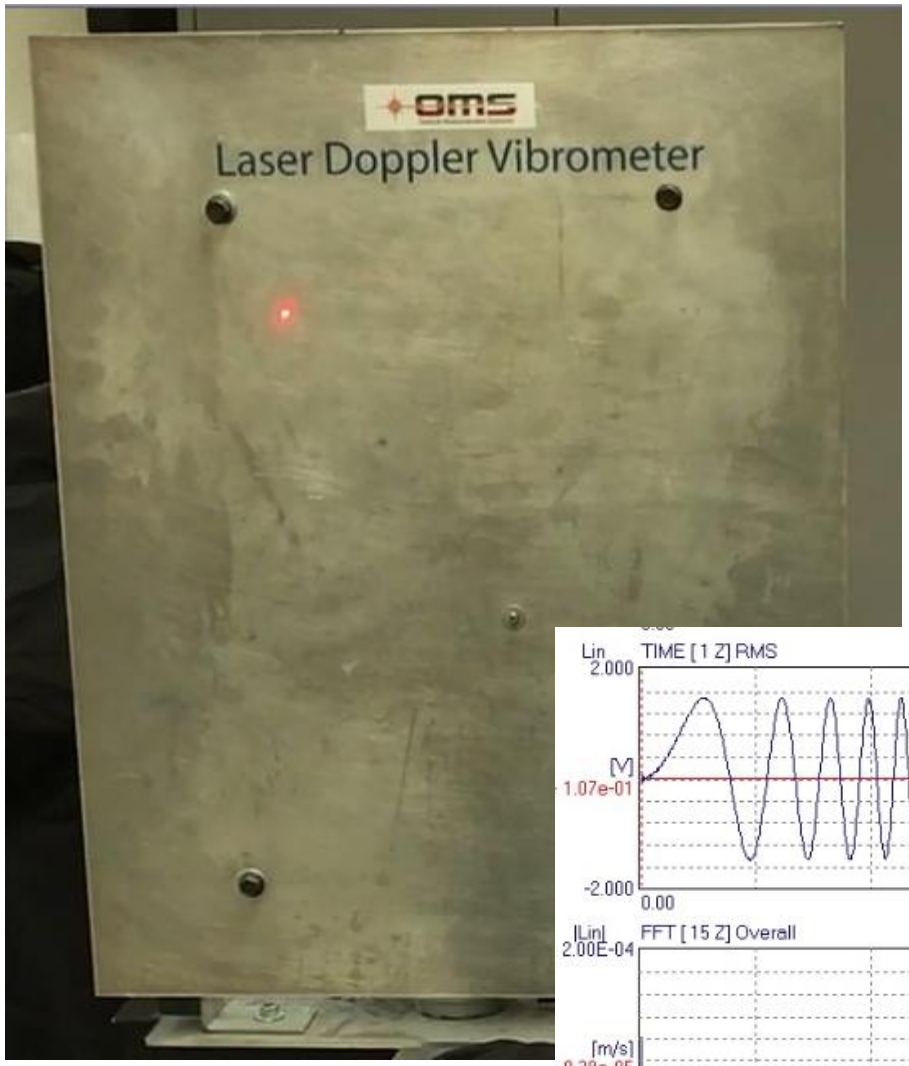


800 Hz



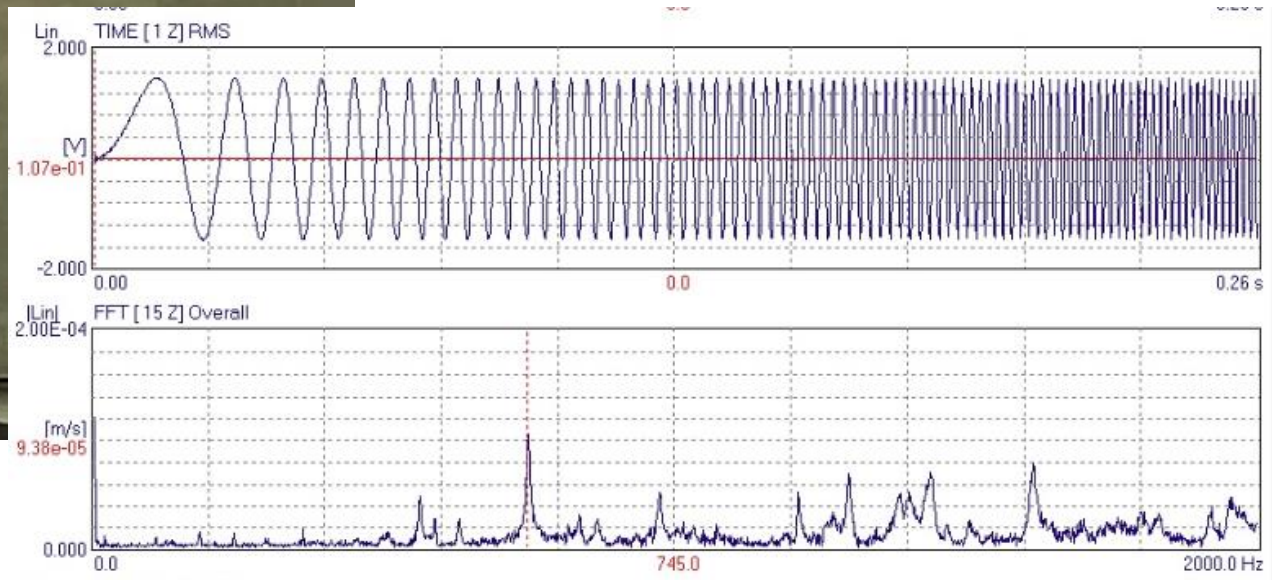
1200 Hz

LS01 Example – Aluminum Plate

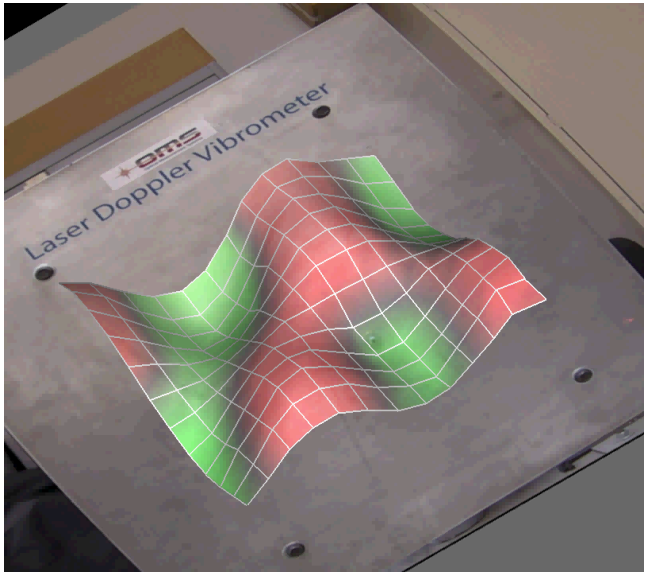


Excite Plate with a PZT, Driven with a Chirped Frequency Excitation

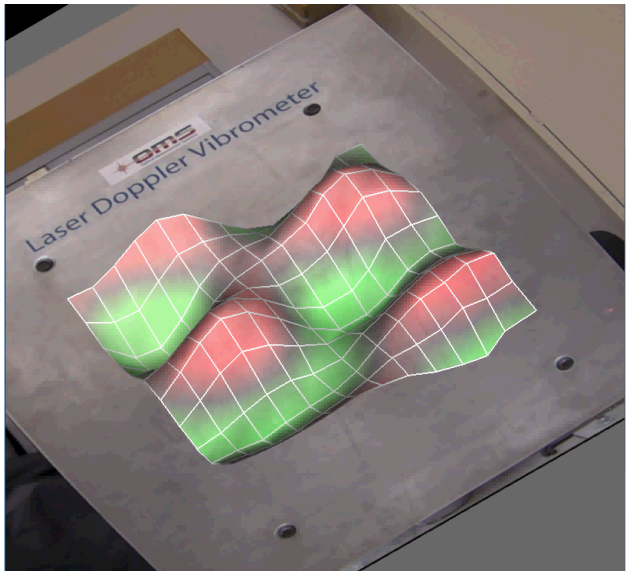
Observe Plate Resonances in FFT



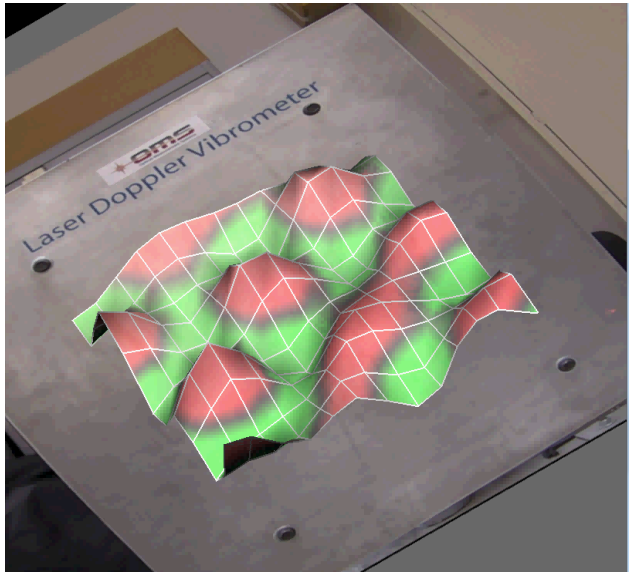
LS01 - Plate Animations



555 Hz

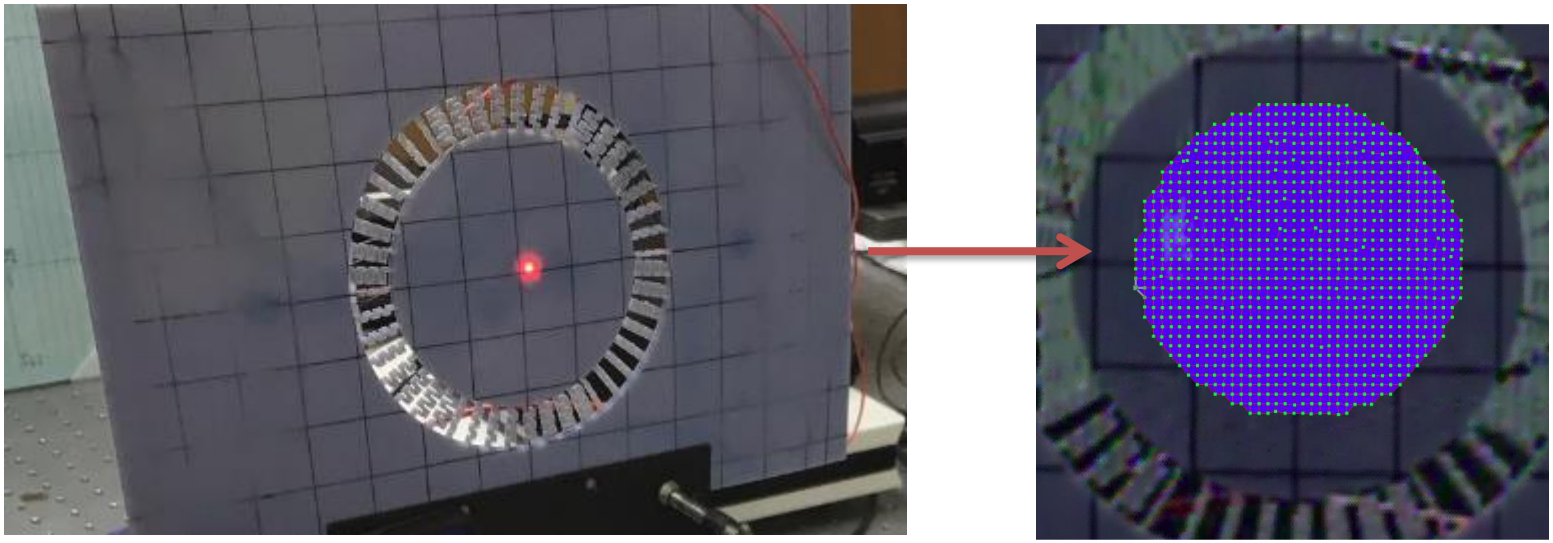


969 Hz

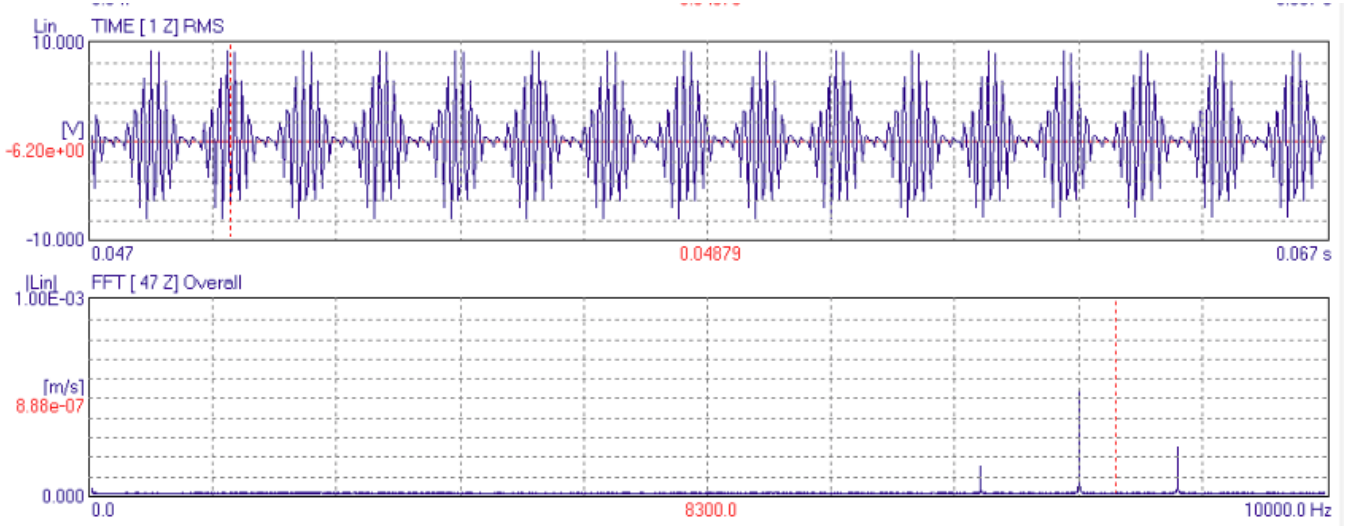


1844 Hz

LS01 Example – Circuit Board

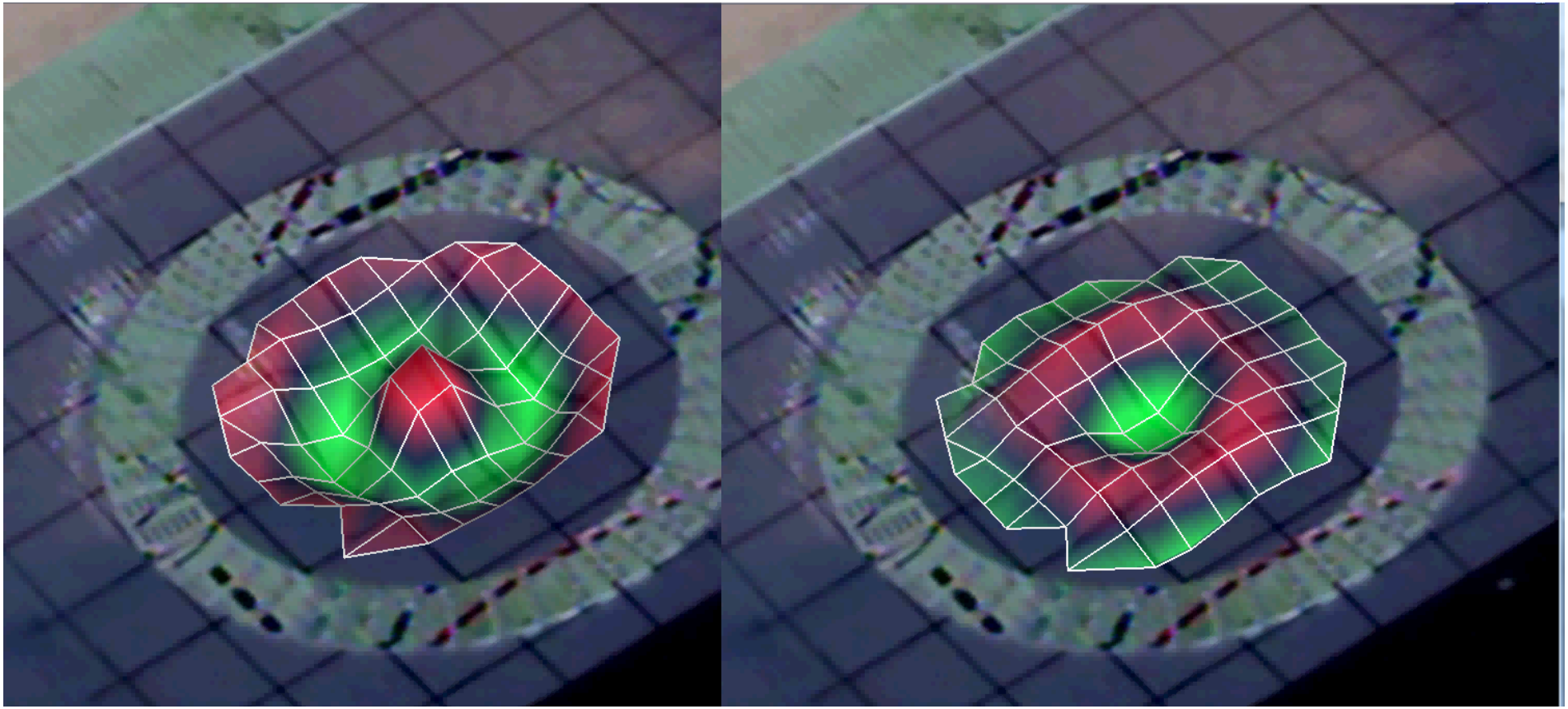


Measure hundreds of points
inside the center area



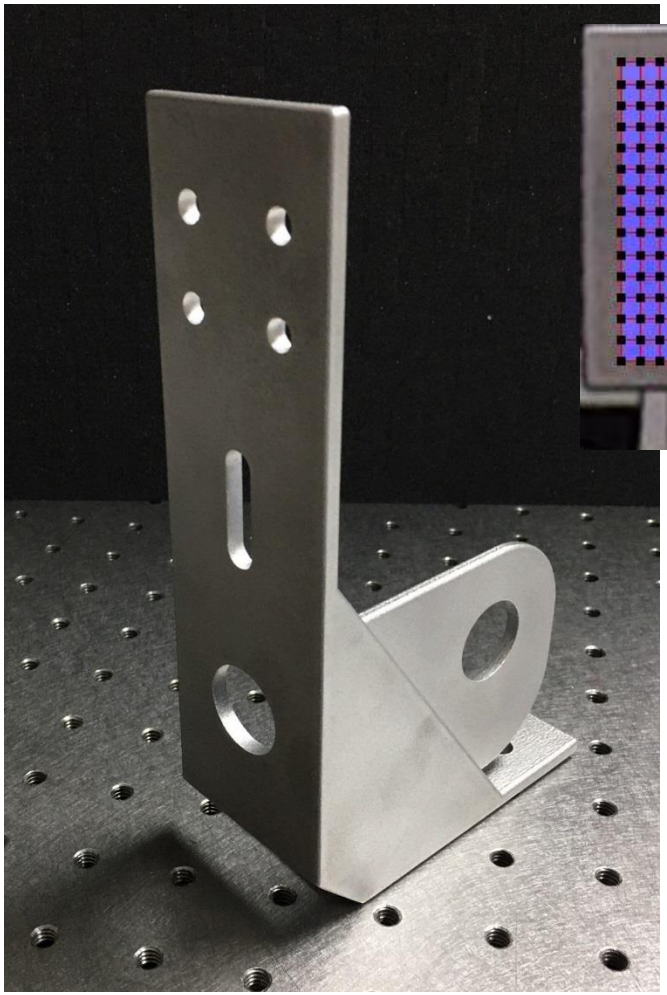
LS01 – Circuit Board Animations

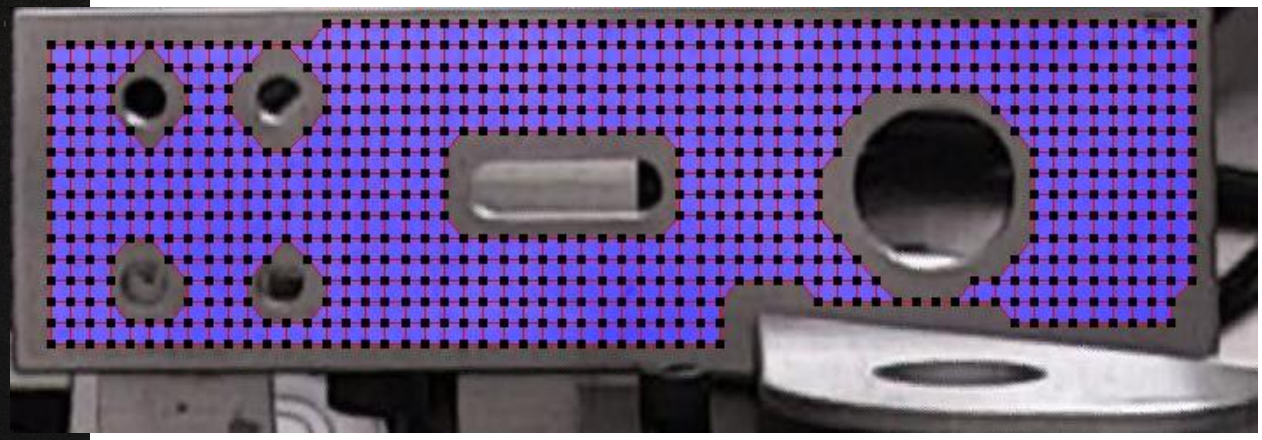
Optical Measurement Systems

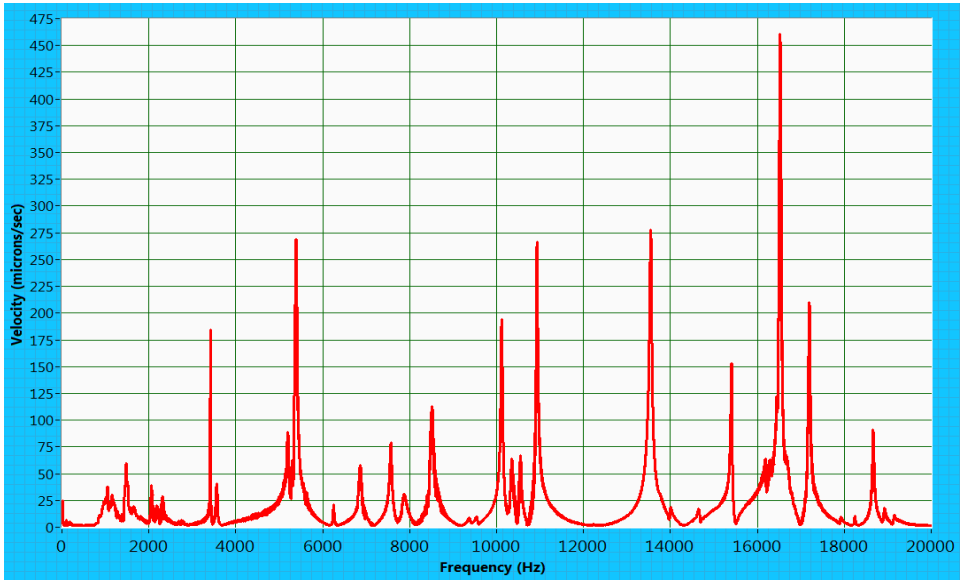


8000 Hz

LS01 Example – Bracket



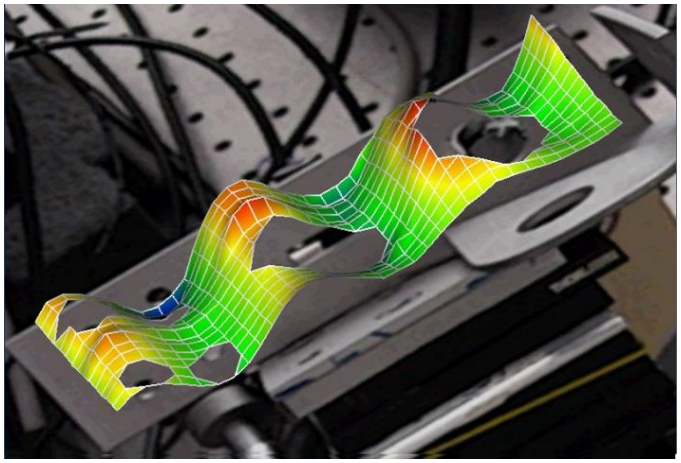




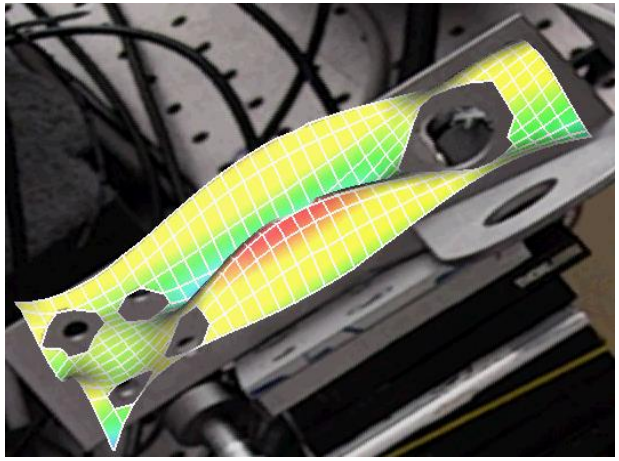
Vibration spectrum of the bracket

LS01 – Bracket Animations

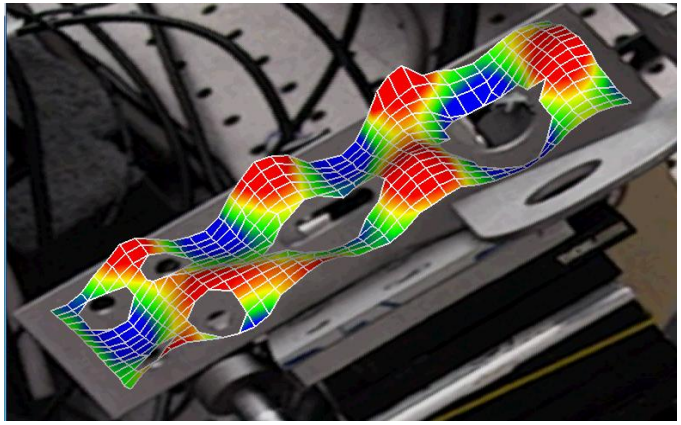
Optical Measurement Systems



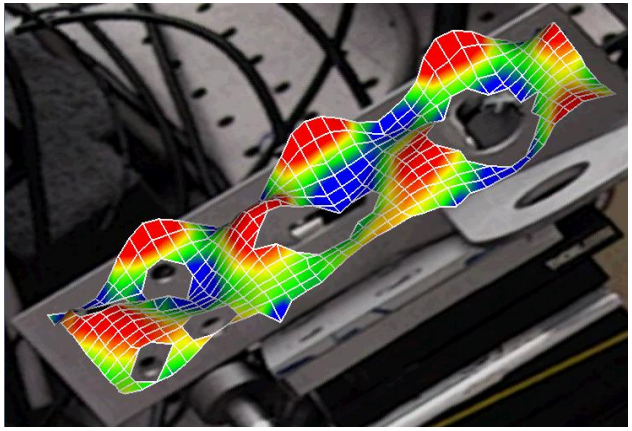
16054 Hz



19589 Hz



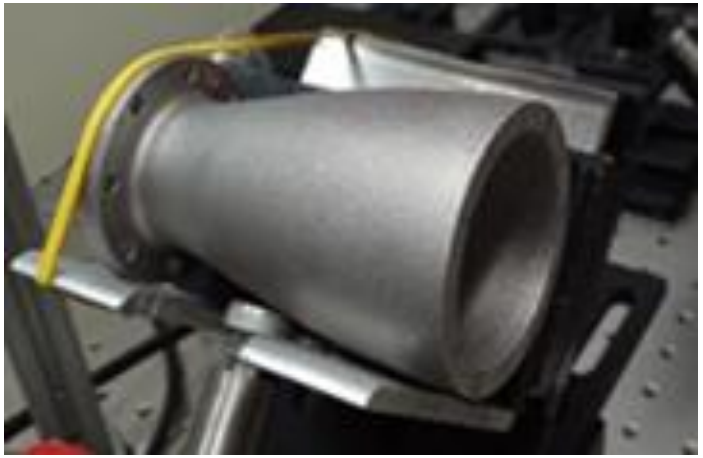
28139 Hz

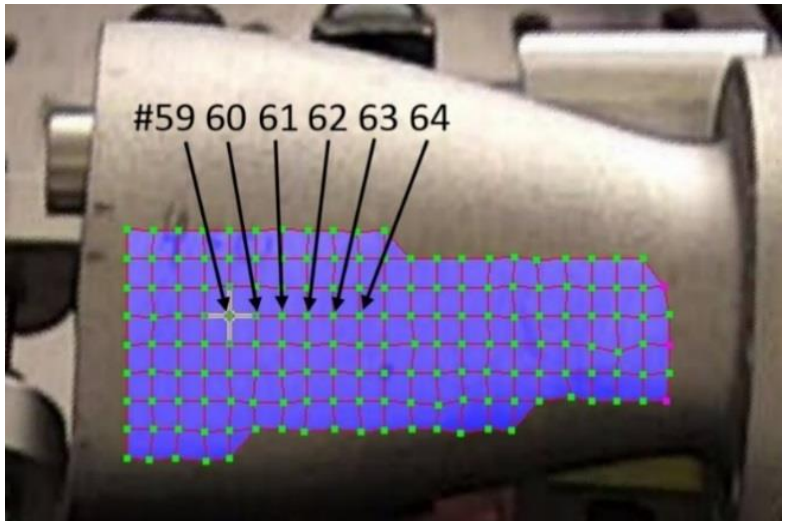


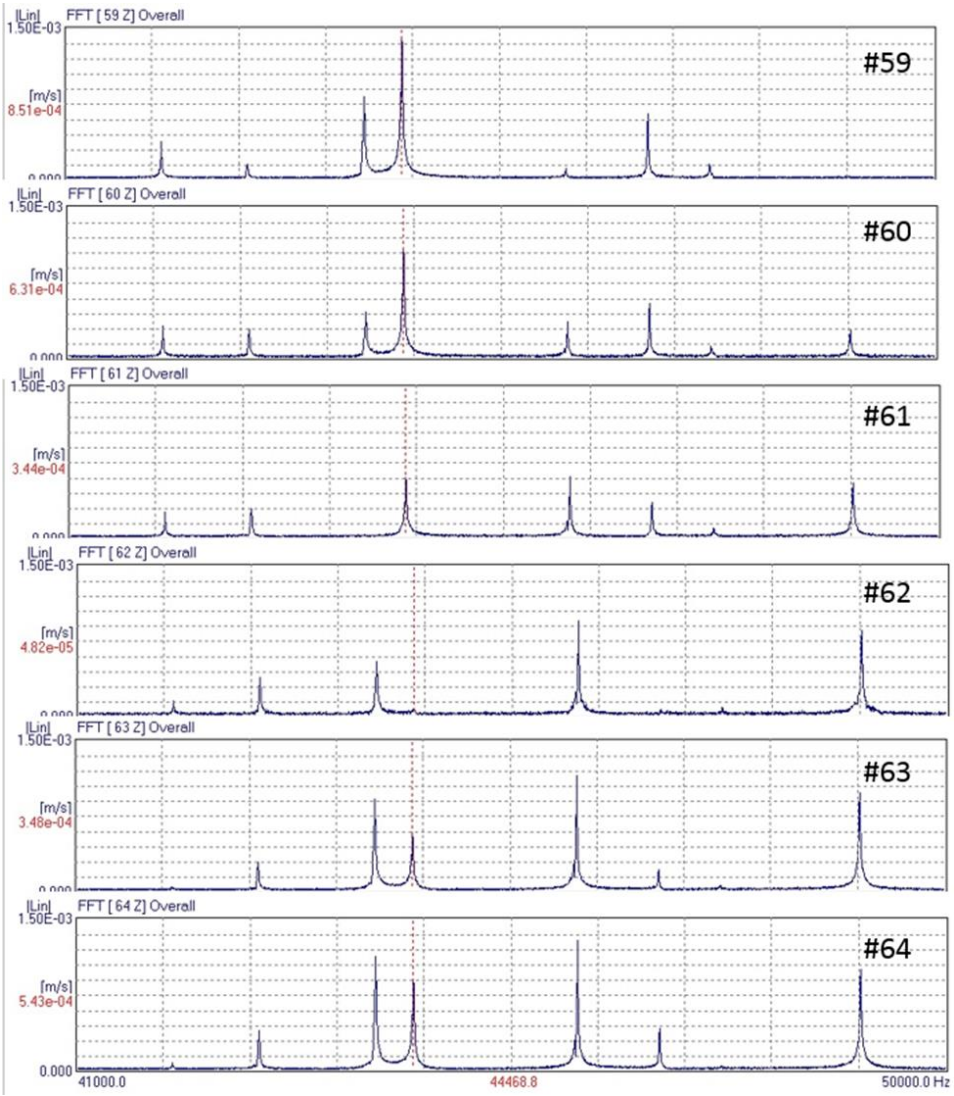
32098 Hz

LS01 Example – Nozzle

Optical Measurement Systems

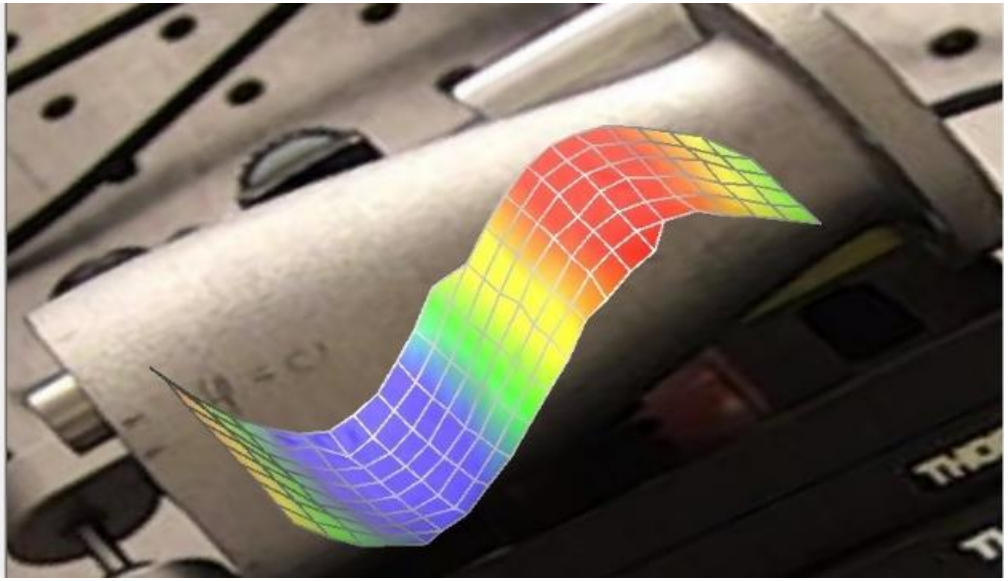




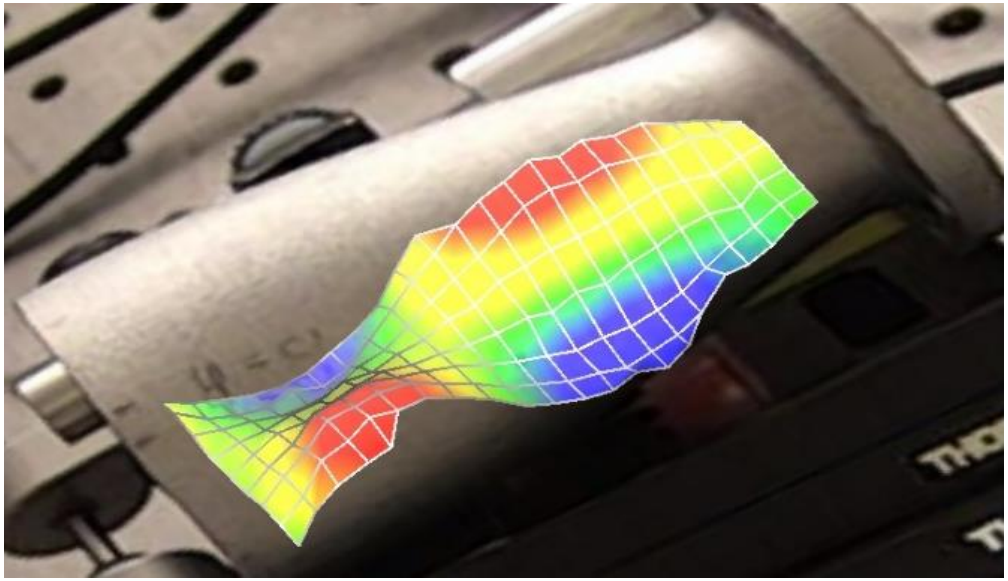


Vibration spectrum of the nozzle

LS01 – Nozzle Animations

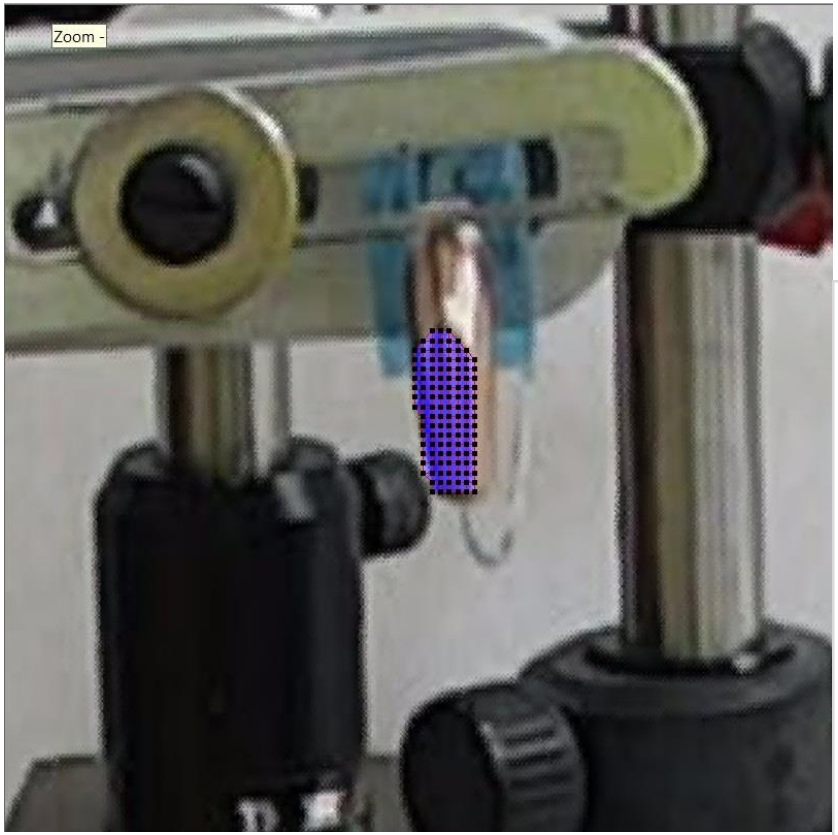


35074 Hz

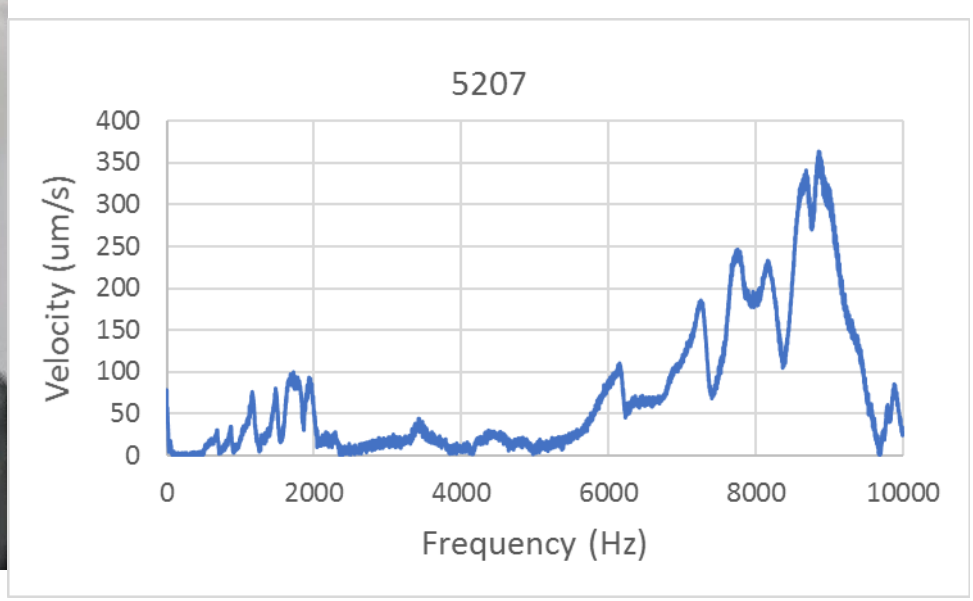


40230Hz

LS01 Example – Hearing Aid



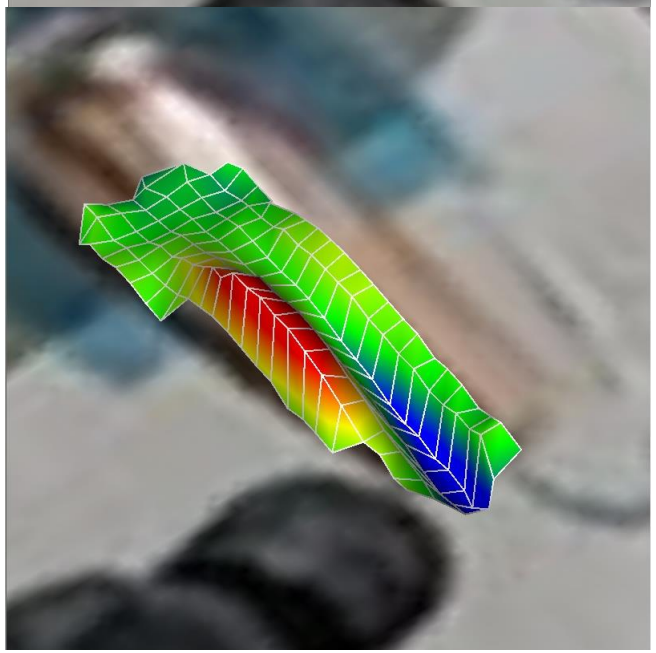
Hundreds of measurement locations were created on the battery cover of a small hearing aid. The separation between measurement positions was less than 1 mm.



Typical vibration spectrum

LS01 – Hearing Aid Animations

The cover on the hearing aid moves as one unit at low frequencies



At high frequencies, some spatial variations can be seen in the vibration