



Natural Frequency Test Standtand SAE J2598

FDT

SAE J2598

- Automatic measurement with one Mouse-Click
- Calculates attenuation or loss factor according SAE J2598
- Freely selectable dB values for the attenuation calculation
- Quality factor for the damping values
- Optional, setting frequency bands for quality control (good/bad statement)

Measurement Process

- Software-guided measurement process
- Repeat and series measurement
- Automatic protocol generation

Measurement Types

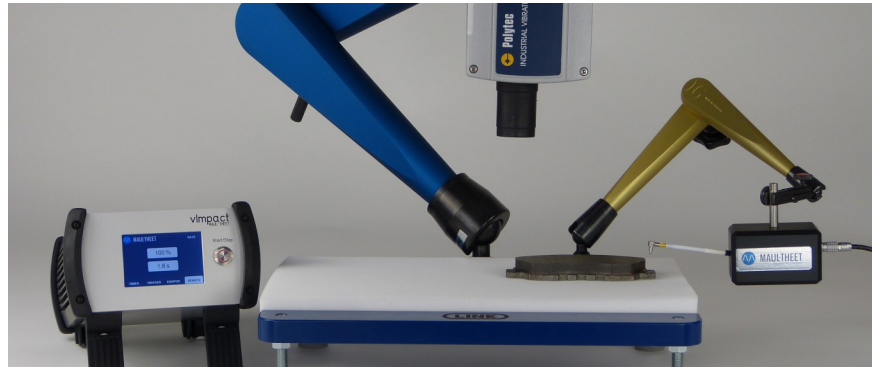
- Part Type Definition
- Serial Measurement
- Repetition Measurement
- Master Part Measurement

Data Export

- ProLINK
- ACSII
- CSV
- PDF

513-1 Central Data Base by ProLINK (optional)

High Precision Test Stand for determining the natural frequencies and damping of components



The NFT is optimized for the determination of

- Natural Frequencies
- Damping Values of components following SAE J2598.

It consists of an aluminum base plate with the following components:

- Excitation Unit
- Vibration Sensor

Excitation Unit

The broad band excitation is done with an Automatic Impact Hammer:

- Frequency Range 0.3 to 40 kHz
- Impact Force up to 200N peak
- High Reproducibility

Vibration Sensor

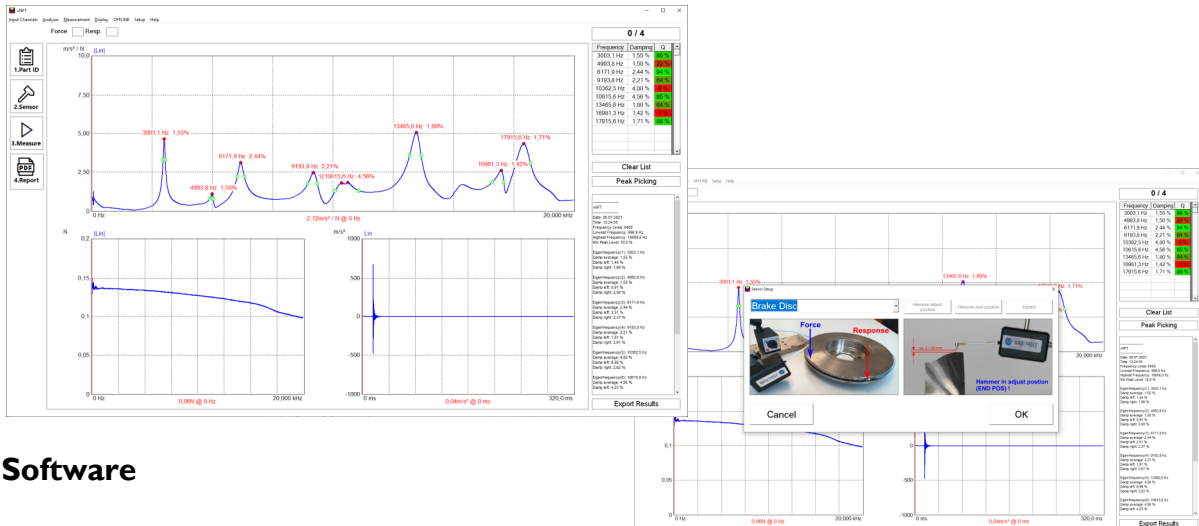
The following sensors can be used with the FDT:

- Laser Doppler Vibrometer
- Microphone
- Acceleration Sensor

Data Acquisition

4 Channel DAQ with synchronous sampling

- Frequency Ranges 1 Hz to 100 kHz
- Frequency Resolution 100 to 26500 FFT Lines
- AC, DC and IEPE Coupling



Software

The software guides the user through the entire testing process. The individual steps are called up by buttons. Instructions for the settings on the test object, entries for the work orders and test objects, the analysis and the creation of reports are partially backed up with photos.

Part type specification:

- Name and Meta data
- Frequency range (1 Hz - 100 kHz) selectable
- Frequency Resolution (No of FFT lines) selectable
- dB Values for Damping Calculation (0.5 to 3dB)

Measurement Procedure based on Work Order:

- Serial Measurement
- Repetition Measurement

Automatic Measurement Procedure:

- Triggering of Automatic Impact Hammer
- Measurement of Excitation Force and Vibration Response
- Averaging and Analysis
- Peak Picking, Damping Calculation and Quality Assessment

Report generation and output of results for each test object:

- Printer, PDF, Excel, CSV, etc.

Data Export

- ProLINK
- ASCII Files