

T-VIB™ NVH Software

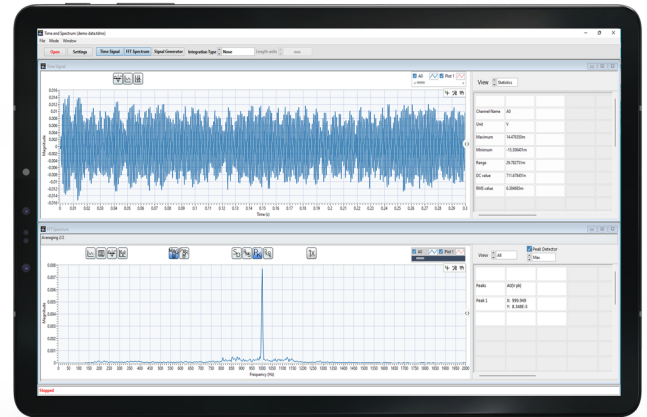
Affordable and powerful software for noise and vibration analysis. Users can use the modules in TVIB for different Tests including evaluation of Product quality using Acoustic Measurements and evaluation of Modal Characteristics from Vibration Measurements using Shaker and Impact Hammer and thus take leap into the world of Automobile NVH analysis.



- Signal integration: Acceleration, Velocity, Displacement with unit scaling.
- Linear, logarithmic, and dB scales, dB value setting, Graph annotation
- Signal Recording and Advanced Post process with options for Filter, Window, Averages, and time-slicing of raw recorded Waveform.
- Save Data in TDMS format, View in Excel, and save Image files
- Export measurement data to .uff & .wav formats
- Independent Channel Calibration and Scaling options (Option for using calibrators for Sensitivity Measurement of Accelerometers and Microphones)

Use Cases

- Bump Test Product Development
- Off route Machine Vibration analysis.
- Drop Test
- Product Development & Research



FEATURES

TSAP201: Time & FFT Spectrum Analyzer with Post Processor

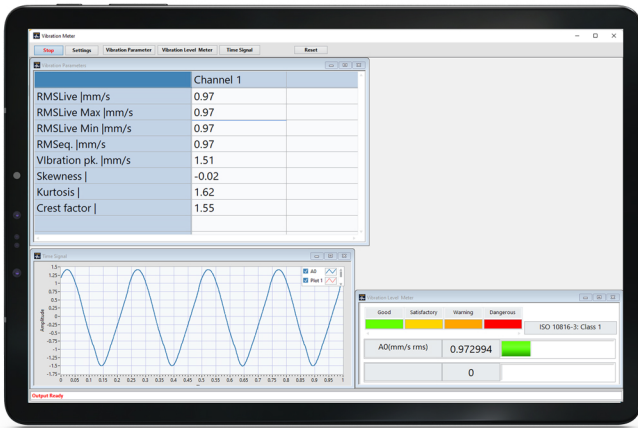
- 2/4/8/16 Channels (based on the DAQ) Sound & Vibration Measurements
- Scaling for Accelerometers, Microphones, Force sensors, Impact Hammers, Proximity Probes, and Voltage Output Sensors.
- Real-time View, Record, Export & Post Process Data
- Time Waveform and Narrowband FFT sizes through 102400 points
- Options to select Sample rate, Block Size, Settling time
- Different Options for Collecting Data: Software Runs based on User Start/ Stop, and Runs for a predefined Time/ Number of Blocks and Channel Triggers.
- Useful for applications requiring separate channel scaling and calibration such as simultaneous sound and vibration measurements
- Filtering: FIR and IIR filters, Low, High, Bandpass & Band Stop Filters.
- Channel Triggers: Pre/Post trigger with hysteresis
- Decimation
- Averaging Option: Exponential & Linear weighting, RMS, Vector & Peak hold Averaging
- Cursors for Analysis: Harmonic, Band, and Sideband cursor
- Peak detection & View of the Magnitudes in RMS, Pk, Pk-Pk, Power spectrum, PSD

TVM202: Basic Vibration meter

- Measurement Parameters: RMS Live Max/Min, RMS equivalent, Derived peak
- Time weighting filter: 1sec
- Signal Integration option for conversion of Acceleration to Velocity or Displacement, Unit conversion.
- Time signal View
- Bearing Filters and ISO 10816 Filter.

TVM203: Advanced Vibration meter

- True peak, Kurtosis, Skewness, Crest factor,
- ISO 10816 filters and level alarms for different machine classes
- Custom level alarm setting
- Custom filter band configuration for acceleration, velocity, or displacement
- Time weighing filter: Custom from 0.125s to 1 minute.



Use Cases

- Machine Vibration

TSLM 204: Sound level meter

- Sound levels: Parameters like Leq, Max, Min, Live, Peak, L10, L50, L90
- Octave Spectrum : 1/1, and 1/3 Octave bands
- Frequency filter
- Fast and slow Time Weighting
- Averaging: Exponential
- A, B, C Frequency Weighting.

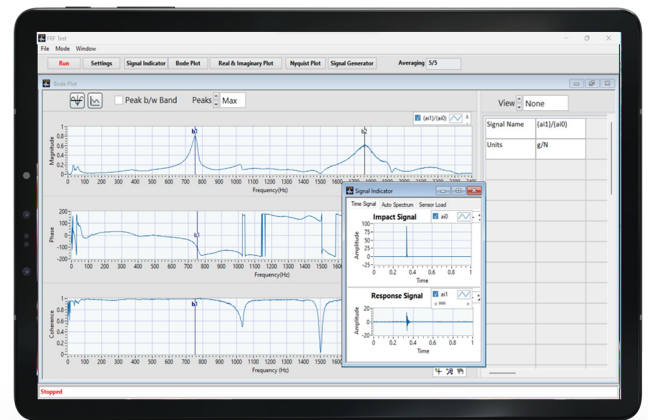
Use Cases

- Machine noise, Environmental noise

- Sensor overload alarm
- Bode, real-imaginary, Nyquist plot, Coherence
- Cursors for Identifying the peaks in the plots
- Averaging: RMS/Vector
- FRF estimates: H1, H2 and H3,
- Windows: Force-exponential, Hanning, Flat top
- Options for setting Trigger & Filter
- Save Measurement Data Set in .uFF file format, and assign DOF based on the location as defined by the user for Post-Processing for Model Shape Animation in third-party Software.

Use Cases

- Experimental Modal Analysis
- Product quality
- Natural Frequency
- Transmissibility, Vibration isolation Measurement

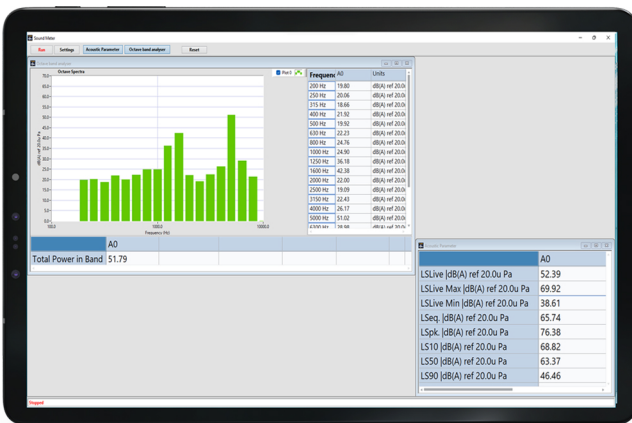


Waveform Generator TWGM 206

- Pink/White/random noise
- Noise Burst
- Frequency Sine Sweep, Frequency Sine Sweep burst,
- Log/Linear sweep
- Band pass filter for noise.

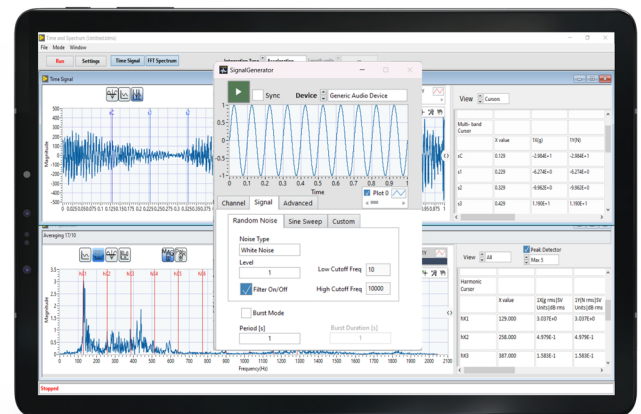
Use Cases

- Shaker Test for Experimental Modal Analysis



TIST 205: FRF Test

- Measuring Frequency Response Function, Phase, and Coherence
- Different Options for Collecting Data: Free run for Shaker Test, Triggered run for Impact Hammer Test
- Accept/ Reject Signals for Double hit rejection
- Impact level trigger, Signal Level Monitor, Level Detection
- Auto spectrum/time signal view of Impact and Response channel



Order Analysis TOA 207

- 2/4/8/16 Channels(based on the DAQ)Sound & Vibration Measurements, one channel Tachometer Analog TTL Signal
- Time Signal, Order Spectrum, Speed Profile & Order Tracking, Envelope Spectrum, Overall RMS Level
- Filtering: FIR and IIR filters, Low, High, Bandpass & Band Stop Filters.
- Averaging Option: Exponential & Linear weighting, RMS, Vector & Peak hold Averaging
- Cursors for Analysis: Harmonic, Band, and Sideband cursor. Peak detection & View of the Magnitudes in RMS, Pk, Pk-Pk, Power spectrum, PSD
- Real-time View, Record, Export & Post Process Data
- Options to select Sample rate, Block Size, Settling time, Order resolution, Maximum Order, pulse per revolution, Envelope band specification, Envelope spectrum Resolution

Use Cases

- Machine Condition Monitoring, Run up , Coast Down Test

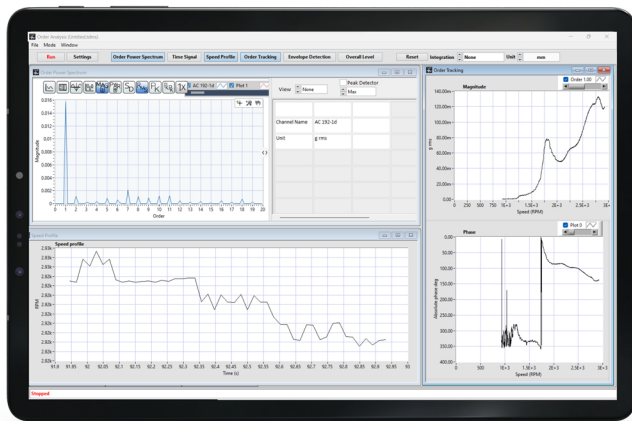


Orbit Analysis TOA 209

- 2/4/8/16 Channels(based on the DAQ)Sound & Vibration Measurements, one channel reserved for Analog Tachometer TTL Signal
- Filtering: FIR and IIR filters, Low, High, Bandpass & Band Stop Filters.
- Time signal & Time base plot, Speed Profile & Orbit plot, Full Spectrum Spectrum

Use Cases

- Machine Condition Monitoring

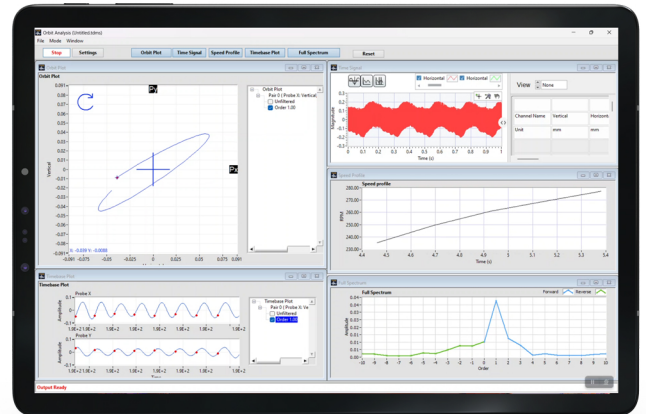


Balancer TB 208

- 2/3 Channel Operation, Sample Rate Selection,Block Size
- Settling time, one channel Tachometer Analog TTL Signal, Measuring Unit Selection: Acceleration, Velocity & Displacement, Averaging
- Single plane Balancing
- Dual plane Balancing

Use Cases

- Balancing Rotating Machineries



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