DigivibeMX®
Vibration Analyzer, Data Collector & Dynamic Balancer
The most complete, reliable and productive Vibration analyzer, Collector and Dynamic Balancer

Overview

DigivibeMX platform is the most complete, reliable and productive vibration analyzer, collector & dynamic balancer. Digivibe allow you to do simple and complex analysis in both on and off route modes. The Balancing functions can be used in situ and on balancing machines. The intuitive interface is perfect for novice and expert users alike.

DigivibeMX Series

DigivibeMX M30: vibration analyzer, data collector and dynamic balancer.

DigivibeMX M20: vibration analyzer and data collector.

DigivibeMX M10: balancer for 1 and 2 planes.
DIGIVIBEMX | VIBRATION ANALYZER, COLLECTOR & BALANCER

Advanced, but simple

**Functions**

<table>
<thead>
<tr>
<th>Feature</th>
<th>M30</th>
<th>M20</th>
<th>M10</th>
</tr>
</thead>
<tbody>
<tr>
<td>3D ODS Analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFT Spectra 3D Waterfall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dual Channel Functions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFT Spectra with 2 million lines of resolution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lines and columns tendency (octaves)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistical machinery condition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barcode generator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easy-to-use and understand ISO color alarm coding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligent Analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large Bearing Database</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synchronize with other users easily</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Export to ASCII, WAV, UFF-58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gear calculator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Channel, Trial Capable Option</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis and Balancing Reports (CSS, Word, Excel)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multilanguage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balancing in situ in 1 and 2 planes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balancing calculator with 12 functions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balancing without trial weights</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Take a shot. Get the data.

DigivibeMX can easily identify your machines using our embedded barcode generator and reader.

Advanced Analysis

Advanced features allow you to diagnose complex problems in machinery and structures avoiding high costs of downtime, collateral damage, and unplanned repairs.

The most common tool are:

- Time domain
- FFT Pointers
- CPM, Hz, Orders
- FRF & Bump Test
- Waveform Analysis-Transient Capture

Dual Channels

The Dual Channel function offer advantages, because it save time for the data collection and obtain information that can’t be achieved with one channel analysis.

Bearings and Gears

DigivibeMX has a expandable data base with failure frequencies of more than 23,000 bearings. It also includes functions for frequencies calculation and analysis of gear boxes.

Machinery Data Bases

- Name, area & company.
- Measure points
- Type of coupling
- Iso Class
- Export/Import db

Compatibility

- ASCII* Format
- UFF58 Files
- ANL BAL
- WAV (digital stethoscope)

Availability: M20 & M30
**Predictive Analysis Tools**

DigivibeMX allows the users to complete analysis of all kinds of machinery in the database with tools like:

- Machinery database and routes
- Database with more than 23,000 bearings & a gear calculator
- Diagnosis Interpretation tool
- Cascade Spectra
- 3D ODS

**FFT Spectra**

The spectral analysis tool in DigivibeMX are based on the FFT algorithm, able to measure very low frequencies (0.4 Hz) up to 30kHz. The precision of the spectra adjust based upon the point definition and can reach 2 million lines of resolution.

**Dynamic balancing in 1 and 2 planes**

- Balancing without trial weights
- 2 Polar graphs
- Calculator with 12 functions:
  - Add or remove weight
  - Separate or combine weights
  - Trial weights
  - Serial Balancings (without trial weights)
  - Drill calculation
  - Residual Imbalance
  - Degree of quality
  - Intelligent Machine Wizard
  - Balancing Report
**ODS Function**

ODS analysis is now an easy task. Create your 3D model in 3D design software (3DS Max, Blender, Solid Works, Windows 3D Builder that comes free with Windows 10 etc.) import the model to the DigivibeMX to generate a customized ODS analysis. The phase analysis also calculates the coherence between signals, the cross power and the transference to ensure that all of the recorded signals are consistent. Also all the 3D simulations can be exported to AVI video or to an animated graphic GIF.

**3D Cascade**

The FFT graphic in cascade (waterfall) is a spectral representation variable in time (creating a 3D drawing) showing how the density of a signal vary as time passes. DigivibeMX includes a tool that generates this graph easily with the ability to rotate and zoom in with the mouse or your fingers like in any other 3D software.

**System requirements**

Requirements to install the Digivibe:

- Processor 1.6 GHz or superior
- 2 GB RAM or superior
- Windows 10 (supports Windows 8.1 Windows 7*)
- SVGA Monitor or superior
- “Touch” mode for touch screen
- 300 MB free disk space
- 1 USB 2.0 port

*Does not work with Windows RT.*
**DigivibeMX includes:**

### 2-Channel interface
- 4-pin connectors (1-A, 1-B, 2) for 24V accelerometers
- 5-pin connector (Op) for Optical Sensor
- Selector button for plane 1 or plane 2
- Cable with USB connector (45cm)
- Weight: 230g

### 2 Accelerometer
- Dinamyc Impact Shock: 80g peak (max shock 5000g)
- Freq. response (+/- 3dB): 0.32 - 13000 Hz
- Freq. response (+/- 5%): 2 - 10000 Hz
- Sensitivity: 100 mV/g +/- 10%
- Transverse sensitivity: < 5%
- Power supply: 18-30 V / 3-8 mA
- Short-circuit protection
- Operation temp.: −10 - 50 °C
- Protection grade: IP 67, III
- Impact resistance: IEC 60028-27
- Standard 2-Pin MIL connector
- Magnetic Base w/neodymium magnet
- Weight: 50g
- Stainless steel body

### Laser Optical Sensor
- Analogic output / Range: 1 - 5000 Hz
- Power and current supply: 5V, 20 - 30 mA.
- Voltage drop: <0.4 V
- Short circuit, Reverse Voltage and Over-Voltage (15V for 1min) protection
- Operation distance: up to 15 m
- Operating temp.: −10 - 50 °C
- Storing temp.: −40 - 85 °C
- Protection grade: IP 67, III
- Impact Resistance: IEC 60028-27
- Weight: 60 g
- Nylamid body

### Accessories
- 3-axis Accelerometer
  - Is the ideal sensor to measure simultaneously the X, Y, Z axis for 3D analysis, dual functions and data collector in routes.
  - *Requires a 4 channel interface

- Digital Scale
  - 200 g, 500 g & 1000 g

- 4-Ch Interface
  - 4 Channel Interface measures with a max sample rate of 44100 Hz. Supports 4 monoaxis accelerometers or 1 triaxis accelerometer and 1 laser optical sensor
  - Weight: 220 g
  - Dimensions: 129x84x19 mm

**Software highlights**
- Displacement: 0.5 um to 30 mm (0.02 to 1200 mils)
- Velocity: 0.002 to 3000 mm/s (0.0001 to 120 in/s)
- Acceleration: 0.0001 to 100 G’s PP
- Lines of resolution: > 1,000,000
- FFT windows: Rectangular, Hanning, Hamming, Flaptop, Blackman, CosSum, Bartlett, Kaiser
- Measures: 0-Peak, Peak to Peak, RMS

**Cables & Installation CD**

**Calibrator**

**Soft Case & Magnetic Stand**

*Only M10 & M30