

Powerful portable Analysis

# SignalCalc<sup>®</sup> Mobilyzer



4 - 32 channels, up to 8 sources,  
2 - 8 tachometer channels

120 - 150 dB dynamic range

49 kHz analysis bandwidth  
97 kHz optional

**SignalCalc**

Dynamic

Signal

Analyzers

**Mobilyzer**

powered by

# ABACUS



# SignalCalc<sup>®</sup>

Dynamic Signal Analyzers



Redefining portability with power

SignalCalc Mobilizer brings you 32 channels of realtime analysis for all your noise and vibration measurements:

## **dp** Standard Features

- Auto Power Spectrum
- Transfer Function (FRF)
- Synchronous Average
- Correlation
- Histogram
- Realtime Zoom

## **dp** Optional:

Multiple Input Multiple Output (MIMO)  
Shock Response Spectrum (SRS)  
Drop Test  
Stepped Sine  
RPM Based Measurements  
Order Tracking  
Demodulation  
Rotordynamics  
Balancing  
Waterfall and Spectrogram  
Realtime Octave  
Acoustic Intensity  
Sound Quality - Loudness  
Disk Recording, Analysis and DAC Playback  
QC / Event Capture  
Environmental Data Reduction, Notching Prediction, Alarm & Abort



With its small size, light weight, and DC power option, the Mobilyzer is truly mobile. With up to 32 input channels, 8 output channels, and 8 tachometer channels, it is able to address large applications. Delivering a realtime rate of 49kHz, and over 120dB dynamic range, it is the analyzer that makes no compromises for being portable.

## Dedicated designers, dedicated measuring instrument

Some of the world's most sophisticated cameras have their heads in the clouds. Pointing down through the belly of a helicopter, they record every detail of the earth below, even through night and cloud cover. The wind tosses the aircraft around, the rotating blades and engine introduce intense vibration. How can any camera possibly hold its focus on the details of the scene below? The stabilization of the camera in this chaotic environment is possible only because of comprehensive measurement and analysis in flight and back at the design office.

Mobilyzer is made for precise measurements in demanding environments, and it doesn't travel only by air. Mobilyzer is in demand for in-car use by automotive manufacturers and component suppliers to facilitate noise and vibration testing.

Mobilyzer also comes on board submarines for underwater tests and ships of all sizes from aircraft carriers to boats studying whale songs.



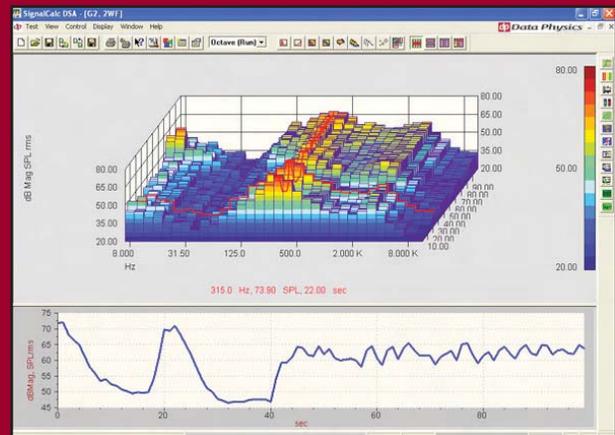
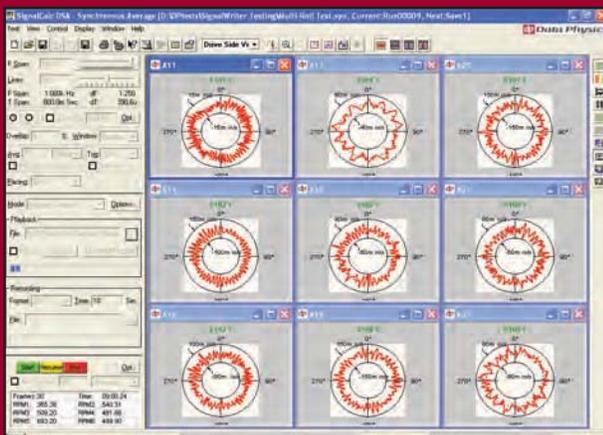
# SignalCalc Mobilyzer

Advanced solution for noise & vibration analysis

Every analyzer makes promises. Smaller, faster, more powerful, more portable, more connected, less trouble, more intuitive .... The proof is in going out and making the measurements, out in the world where cables are tangled and signals are noisy, where you're not sure what you're looking for but you have to get the data anyway because there's only one chance. The proof is in making realtime measurements while recording raw data to disk. No more guesswork, no blind recording. The proof is in countless re-analysis back at your desk.

## Comprehensive Measurements

The modular software allows you to select only those measurements you need from an extensive range covering general FFT analysis, data recording and playback analysis, environmental testing, structural analysis, acoustics, machinery diagnostics and production/QC testing.



## Effective Analysis Tools

The SignalCalc Mobilyzer user interface provides intuitive organization of control panels and flexible display of results. Control panels contain setup parameters arranged according to function such as Channels Table or Sampling Parameters. Extensive use of color differentiates signals, grids, cursors and text. Statistical information including rms, max, min, and mean can be displayed with the data. User annotation and cursor markers identify key points in the data.



# Mobilyzer

## Powerful Portable Analysis

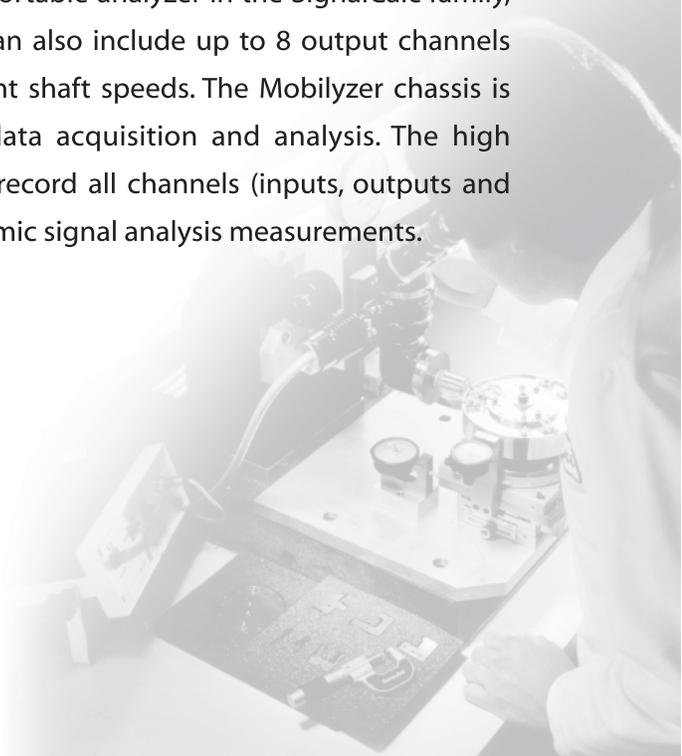
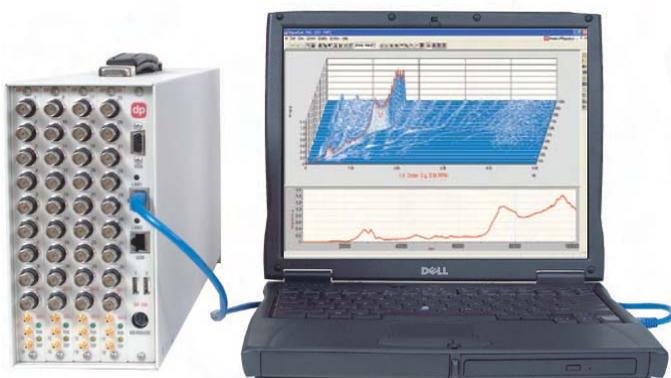
### Modern Architecture

#### Distributed DSP Power

Mobilyzer runs on ABACUS dynamic signal analysis hardware, a compact network peripheral that brings the power of distributed DSP architecture to the field and laboratory. ABACUS distributes the processing load to achieve high speed, high quality signal analysis, and interfaces to a notebook or desktop computer via a standard Ethernet connection. The ABACUS chassis contains a Pentium CPU controlling multiple data acquisition and signal processing modules. The architecture is optimized for efficiency by dedicating a high speed DSP to each group of channels. This ensures that processing speed is maintained at the same high rate regardless of the number of channels in use.

#### Modular and Expandable

With the introduction of Abacus, Mobilyzer, the mid-range portable analyzer in the SignalCalc family, can now be configured from 4 to 32 input channels. You can also include up to 8 output channels (signal sources) and 8 tachometers for measuring 8 different shaft speeds. The Mobilyzer chassis is available with DC power making it ideal for in-vehicle data acquisition and analysis. The high performance delivered by Abacus allows the Mobilyzer to record all channels (inputs, outputs and tachometers) to disc while making a variety of realtime dynamic signal analysis measurements.





Discover more at [www.dataphysics.com](http://www.dataphysics.com)

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Data Physics has been supplying high performance test and measurement solutions for over 20 years. With the addition of a full line of electrodynamic shakers to complement its vibration controllers and dynamic signal analyzers, Data Physics is a total solution supplier for noise and vibration applications.

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