

# SignalCalc<sup>®</sup> Dynamic Signal Analyzers



ACE

Mobilyzer

Savant

powered by  
**ABACUS**<sup>™</sup>



# SignalCalc<sup>®</sup>

Dynamic Signal Analyzers



Data Physics SignalCalc dynamic signal analyzers provide highly accurate measurements in the time, frequency, amplitude, and order domains.

## **dp** Intensive & Scalable DSP Power

SignalCalc analyzers are more than just acquisition devices. Every analyzer in the SignalCalc family is powered by DSPcentric hardware, each capable of realtime measurement and analysis at its maximum bandwidth. When making measurements at lower bandwidths the DSP is busy providing the digital filtering and decimation necessary for alias protection. The DSP in the ACE maintains realtime measurements at 94 kHz on up to 4 channels without participation of the host PC. The embedded DSP allows the Abacus to make realtime measurements at 97 kHz from 4 channels to 1024 channels. SignalCalc analyzers guarantee gap free measurements under all circumstances, even when the host PC is used.

## **dp** Comprehensive Application Coverage

The large range of measurement and analysis software solutions cater to every application in dynamic signal analysis. The modularity allows you to configure a system with only the software required for your application - optimum performance for minimum investment.

### General FFT analysis

- Auto Power Spectrum
- Transfer Function (FRF)
- Synchronous Average
- Transient Capture
- Correlation
- Histogram
- Realtime Zoom
- Data Recording and Playback Analysis
- Data Export
- Report Generation

### Production and Process Test

- Event Capture
- Quality Control

### Machinery Diagnostics

- RPM Based Measurements
  - Order Tracking
  - Demodulation
  - Waterfall/Spectrogram
  - Rotordynamics
  - Balancing
- ### Structural Analysis
- Impact Testing
  - Multiple Input Multiple Output (MIMO)
  - SRS Analysis
  - Stepped Sine

### Environmental Test

- Environmental Data Reduction
- Alarm & Abort
- Notching Prediction
- Drop Shock Test

### Acoustics

- Real Time Octave
- Sound Power
- Sound Quality
- Acoustic Intensity

*SignalCalc dynamic signal analyzers offer connectivity across networks and applications, consistency of the intuitive user interface design across all products, and compatibility of data and results with industry standards ensuring efficient interchange with other popular design and analysis programs.*

# ACE

## SignalCalc ACE

The new SignalCalc ACE weighs just over pound, and packs an unprecedented signal processing punch: four input channels, two output channels, one tachometer channel, 40 kHz standard realtime rate (94kHz optional), and over 120 dB dynamic range.

- 4 input channels, 2 sources, 1 tachometer
- 120 dB dynamic range
- 40 kHz realtime rate (94 kHz optional)
- USB 2.0 bus powered



ACE transforms any Notebook computer into a high precision dynamic signal analyzer, one that can travel with you and work professionally -- even in the absence of line power.



# Mobilyzer

## SignalCalc Mobilyzer

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

- 8-32 input channels, 2-8 sources, 2-8 tachometer channels
- 120 dB dynamic range
- 49 kHz analysis bandwidth, 97 kHz optional



Create a



powered by

# ABACUS

# Savant

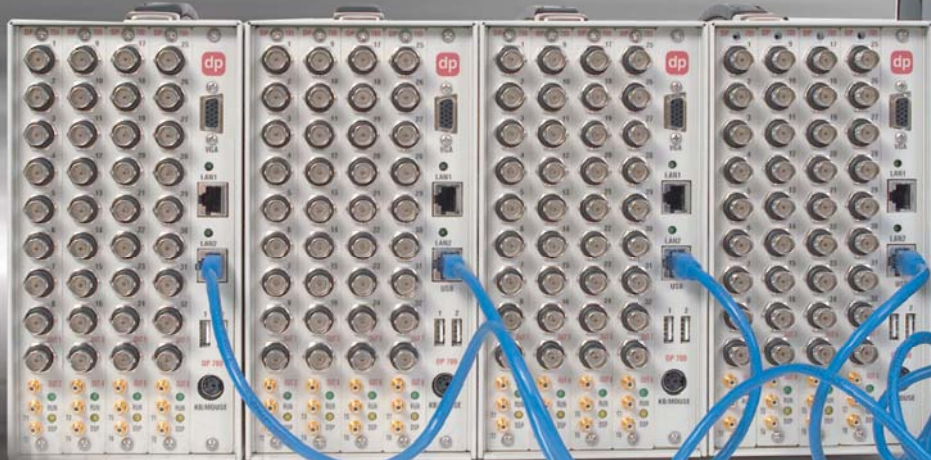
## SignalCalc Savant

SignalCalc Savant maintains realtime analysis, accurate cross channel measurement and recording to disk at maximum bandwidth for thousand channel systems. Savant makes no compromises in bandwidth or accuracy for any size of system. The distributed architecture further allows you to place data acquisition close to the measuring transducers thereby eliminating the error due to mismatched transducer cables.

- 40-1024 input channels or more
- 120 dB dynamic range
- 49 kHz analysis bandwidth

# Power in Numbers

## thousand channel system





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

### Data Physics Corporation

1741 Technology Drive, Suite 260, San Jose, CA 95110  
TEL: (408) 437-0100 FAX: (408) 437-0509

1984 - 2009

25 YEARS of

Test & Measurement  
INNOVATION

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.

## Data Physics Worldwide

### Data Physics (UK) Ltd.

South Road  
Hailsham  
East Sussex  
BN27 3JJ, United Kingdom  
TEL: +44-(0)-1323-846464  
FAX: +44-(0)-1323-847550

### Data Physics (Deutschland) GmbH

Theodor Heuss Strasse 21  
D-61118 Bad Vilbel  
Deutschland  
TEL: +49-(0)-6101-50-95-61  
FAX: +49-(0)-6101-50-95-62

### Data Physics (France) S.A.

22 Rue Jean Bart  
78960 Voisins le Bretonneux  
France  
TEL: +33-(0)-1-39-30-50-60  
FAX: +33-(0)-1-39-30-50-79

### Data Physics (Bharat) Pvt. Ltd.

411, 15th Cross  
2nd Block, Jayanagar  
Bangalore - 560011, India  
TEL: +91-80-2656-5810  
FAX: +91-80-2656-2609

### Data Physics (China)

Suite 7B, Zhao Feng Universe Building  
1800 Zhong Shan Road West,  
Shanghai, China 200235  
P.R. China 20003  
TEL: +86 -21-621-86533  
TEL: +86 -21-644-00712  
FAX: +86-21-644-00960