

## Technology News



### Portable, Low cost Data Acquisition Systems

**ROGA-Instruments** offer a broad range of Measurement systems for measurement and data analysis. **ROGA** Instruments products ranges from Data recorders, Front end solutions, Analyzers, Data loggers and software to system solutions for sound and oscillation measurement technology, process automation, common measurement tasks and special applications, sound and vibration analysis, long term and high speed data acquisition, secured storing of measured data, real-time analysis, vibration observation, control applications, and engine control. The complete hardware and software turn key solutions for challenging measurement, observation and analysis tasks of industrial and military customers is also provided by **ROGA**.

**Structural Solutions Private Limited** exclusively represents **ROGA** Instruments-Germany in **INDIA**. **STRUCTURAL SOLUTIONS PRIVATE LIMITED** is a certified professional engineering company engaged in offering high end technology-intensive products and system solutions to Indian Industry for Sound & Vibration Measurement, Acquisition & Analysis



### Portable Data Acquisition systems

#### Plug.n.DAQ

Plug.n.DAQ is a compact two channel in/out data acquisition device for recording and analysis which also supports IEPE sensors such as microphone & accelerometers. Filters on the input and output and instrumentation-quality amplifiers ensure reliable 16-bit data with a bandwidth up to 24KHz per channel and simultaneous sampling



#### Features :

- USB interface and requires no driver installation.
- Directly supports IEPE type sensors in addition to AC inputs.
- The outputs may be used for monitoring, playback or signal generation.
- SPDIF I/O is supported allowing the raw data of measurements to be recorded to the hard disk or the DAT tape.
- A 16-bit Data acquisition system with simultaneous sampling.
- Highly flexible and may be used with all software packages supporting audio devices.
- It comes in a rugged aluminum housing, prepared to go wherever the measurement job requires.

The **Dewetron 6.3 Software** provided along with the **DAQ** has many advanced features making analysis simple. Within a few minutes you will be customizing your own displays, acquiring data to disk, exporting it and printing it in full color.

#### Features of Dewetron 6.3 Software :

- Can Perform FFT analysis with averaging and overlapping up to 75 %, and a 1/3rd octave display is also possible
- Beautiful on-line displays
- Capture direct to your Hard drive
- Save/load unlimited setups
- Export to variety of formats Excel, Matlab, ASCII
- Ability to replay data freely on the recorder, overview, and FFT screen - just as you can with the video screen
- Function Generator and analog output support
- Includes Scope, Overview & Status Signal features

#### Technical Data

##### INPUT

- |                      |                           |
|----------------------|---------------------------|
| • No. Of Channels    | 2                         |
| • Inputs Supported   | Analog, AC, IEPE          |
| • Input ranges       | 0.1V, 1V, 10 V            |
| • Bandwidth          | 3.5 Hz to 24 kHz (-3 dB)  |
| • Sampling Frequency | 32 kHz, 44.1 kHz & 48 kHz |
| • Absolute accuracy  | 2% typical                |
| • Gain accuracy      | 0.2% or better            |
| • Distortion         | < 0.05%                   |
| • S/N                | 90 dB                     |
| • Aliasing rejection | -70dB                     |

##### OUTPUT

- |  |  |
|--|--|
| • Output Range                                 | 1 V, 100 Ohm   |
| • Bandwidth                                    | 0.5Hz 24KHz (-3 dB, 48 KHz FS)                                 |
| • Absolute accuracy                            | 2% typical   |
| • Distortion                                   | < 0.02%  |
| • S/N  | > 90 dB  |
| • SPDIF in/out                                 | 48 KHz, 44.1 KHz, 32 KHz                                       |
| • Sampling rates (simultaneous sampling 16bit) | 48 KHz, 44.1 KHz, 32 KHz, 22.05 KHz, 16 KHz, 11.025 KHz, 8 KHz |

- Powered by USB

##### OTHERS

- Usable temperature range +/- 0 to +50 °C
- Dimensions : 82 (w) x 150 (d) x 32 (h) mm
- Weight Approx.: 150 grams
- Operating Systems supported: Win ME, 2K, XP, Linux , MacOS

#### Accelerometer: 338B35

- Sensitivity: ( $\pm 15\%$ ) 100 mV/g (10.2 mV/(m/s<sup>2</sup>))
- Measurement Range:  $\pm 50$  g pk ( $\pm 491$  m/s<sup>2</sup> pk)
- Frequency Range: ( $\pm 5\%$ ) 1 to 2000 Hz
- Temperature Range -54 to 121 °C
- Cable : 10 ft Low noise coaxial Cable.

## RogaDAQ208

**RogaDAQ208** is a high performance portable Data Acquisition Device. It features two high quality, high speed, simultaneous sampling inputs, eight auxiliary inputs, two configurable RPM-inputs and additional digital I/Os.



The main inputs of the **RogaDAQ208** are simultaneously sampled precision analog inputs for recording dynamic signals. Each channel features instrumentation quality preamplifiers with selectable gain, AC or DC coupling and constant current sensor supply for directly supporting IEPE-type sensors.

In addition, the **RogaDAQ208** is equipped two highly flexible RPM inputs featuring individual pulse width counters, yielding RPM and phase relative to the main channels.

In a complex measurement application it is often necessary to measure the main channel inputs in correlation with other data. For this purpose, the **RogaDAQ208** features eight auxiliary analog channels along with four digital I/Os. Other data such as temperature, pressure, status signals and control signals can therefore be handled in context with the main signals.

Due to the **RogaDAQ208s** innovative design it is possible to reprogram the **RogaDAQ208** to support customer specific applications. The **RogaDAQ208** is delivered with a ready to run Analyzer software. It supports visualization of all channels and spectral analysis of the main channels. Export of raw data to TAFFmat, ASCII and CSV format for further analysis and presentation. The high quality and practical features make the RogaDAQ208 a reliable and powerful tool for all your signal analysis needs.

Complete range of data recorders, analyzers, data loggers, sensors, and software to system solutions for sound and oscillation measurement, data acquisition, real-time analysis, will be offered in Indian Rupees or in Foreign Exchange by **Structural Solutions Private Limited**

## Technical Data:

### Analog Inputs

- BNC-inputs 2, for analog signals ( $\pm 10$  V max.)
- Simultaneously sampling 2
- Resolution 24 Bit
- Sampling rate 50 kHz max.
- Programmable gain preamp 1/10/100
- Selectable AC- or DC-coupling
- Self adjusting Anti-Aliasing filter
- Accuracy  $\pm 0,1$  dB
- Dynamic Range  $> 100$  dB,
- THD  $< 0,005\%$
- Frequency Response  $\pm 0,05$  dB
- Channel deviation  $< 0,01$  dB ,  $< 0,05^\circ$
- Channel separation  $> 85$  dB

### Auxiliary Analog Inputs

- Analog voltage inputs 8, multiplexed on DB25 connector
- ADC 16 Bit, 100 kHz sampling rate

### Analog Output

- Analog Output 1,  $\pm 10$  V on DB25 connector
- D/A converter 16 Bit, max.

### RPM / Pulse Inputs

- RPM/ Pulse Inputs 2,  $\pm 25$  V on DB25 connector
- Trigger Level adjustable from -25V to +25V with 16bit resolution
- Edge up/down programmable
- Resolution  $< 16$  ns

### Digital I/O

- Digital LVTTTL I/Os 4
- Separately configurable
- Max. I/P voltage 15 V
- O/P Voltage VOL max. 0.4V, VOH min 2,4V at 2 mA

### Sonstiges

- Analog-Devices ADSP-2186M 64 MHz DSP
- USB 2.0 & 1.1 conform Plug & Play Interface
- 8 – 30 Volt DC (230 Volt AC-Adapter included)
- Aluminum housing 170 mm x 113 mm x 31 mm

➡ For further product & application details please contact:

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