

Experts in Shock and Vibration Measuring Systems

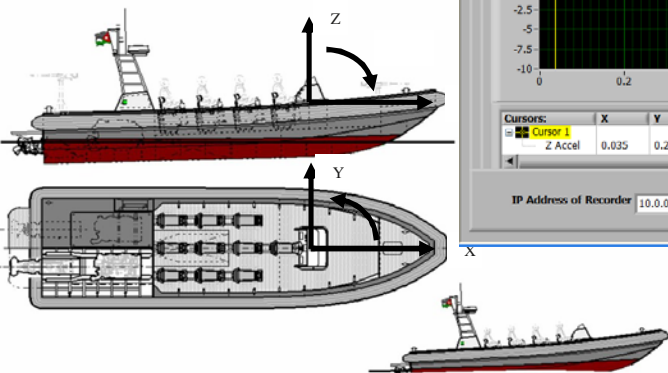
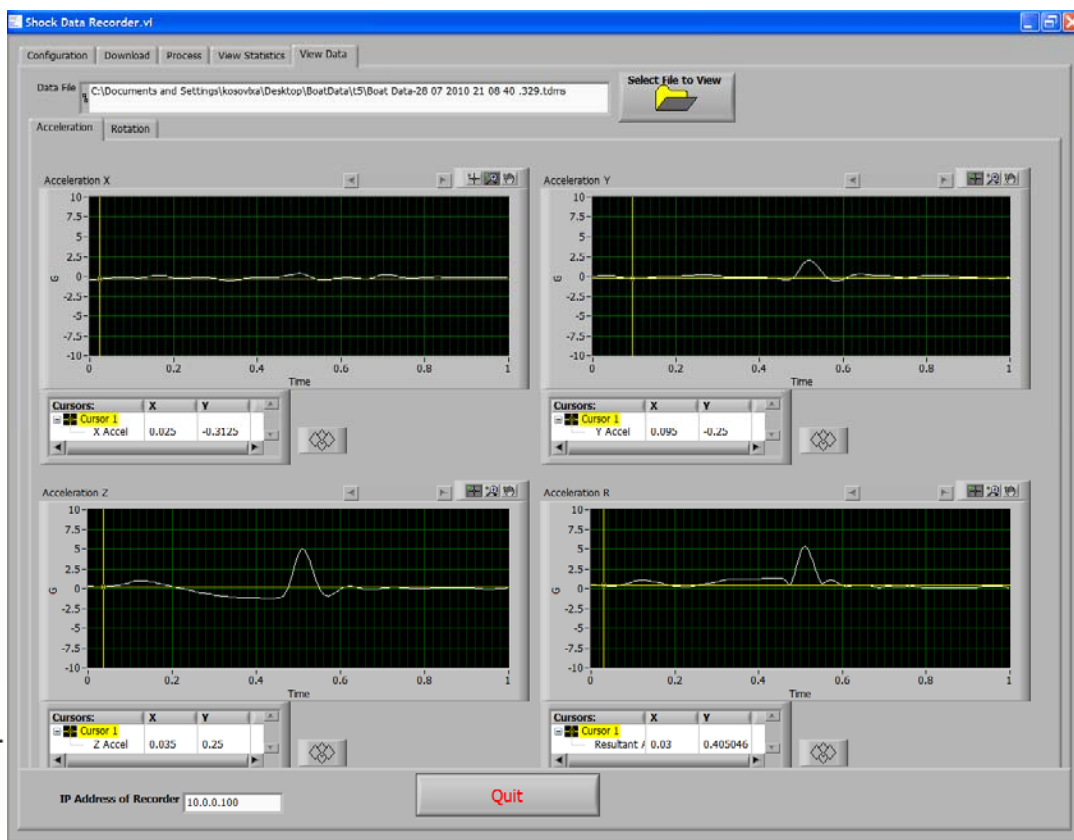
### Key Features

- **Continuous Real Time Measurement**
  - Always on
  - Embedded FPGA Processor
  - Full Event Capture
  - Min 12 Bit Precision
  - Up to 32 Channels
  - Digital/Analog I/O
  - System Readily Integrates with Other Measurement Applications
- **Rugged Sealed Package**
  - Waterproof
  - Shock Resistant
  - Operates from Standard 24 Volt Vehicle Power
- **User Interface**
  - PC Configuration and Visualization Software
  - Ethernet Download
  - Occupant Exposure Statistics Calculated
  - Data Archival



### 6 Degree-of-Freedom Impact Measurement

- Continuously monitor linear and rotational impact
- Separate 6 DoF sensor package
- Trigger on user settable threshold
- Record full impact event waveform
- User selectable pre and post trigger
- Record thousands of events
- Filter unwanted signal components
- Display Data with cursor function
- Calculate impact peak and energy levels
- Display Histogram table
- Export data to Excel



Item	Functionality
PC Requirement	Windows XP Professional Service Pack 3 Pentium III Processor or higher Minimum 1GB of RAM Minimum 500MB of hard drive space for application
Device setup	User settable parameters: <ul style="list-style-type: none"> <li>• Time and date (UTC)</li> <li>• Sampling frequency</li> <li>• Trigger level</li> <li>• Post-trigger event duration</li> <li>• Pre-trigger duration</li> </ul>
Data downloading	Download data from device and to clear the data storage onboard device
Processing of data	These are the operations performed on downloaded data files: <ul style="list-style-type: none"> <li>• Calculation of rotational acceleration wave forms</li> <li>• Calculation of maximum amplitude of events in selected set of files and energy under the trigger pulse waveforms for each degree of freedom in each file</li> </ul>
Data viewing	Select data file and display information in all linear and rotational axis <ul style="list-style-type: none"> <li>• 3 graphs display linear acceleration for each axis</li> <li>• 3 graphs display rotational acceleration for each axis</li> <li>• 12 tables display the distribution of peak acceleration and area under the trigger impulse waveform for each of the 6 degrees-of-freedom of acceleration.</li> </ul>
Data export	Data may be saved in .csv files for manipulation in EXCEL

Item	Specification
Measurement type	6 DOF (3 translational, 3 rotational)
Measurement range	Up to 100g
Sampling rate	Selectable 200 – 2000Hz in 1Hz increments (with proper anti-aliasing filter)
ADC resolution	Minimum 12 bits
Trigger level	Selectable from 2g in 0.1g increments to 100g
Event duration	1 to 2000ms in 10ms increments
Frequency of Events	Up to 40/minute
Duration of Usage	min 6 hrs/day, 21 days/month
Recording Time	min 1 month
Pre trigger time	1 to 500ms in 1ms increments
Enclosure	Waterproof (IP67 or NEMA 6P)
Power	24 VDC @ 1A maximum (Vehicle Power)
Power interrupt features	Program and data stored in non-volatile memory. When power is restored, the device returns to normal operation.
Size	160 cubic inches (approximately 10 x 8 x 2 inches)
Connectors	Power/Ethernet/Sensor
Weight	64 oz.
Data storage	Minimum 165 MB nonvolatile
Device mounting	Adaptable Shock Isolation