

FEATURES

- ❖ Records vibration frequencies, peak acceleration, temperature
- ❖ Real-time FFT
- ❖ User settable trigger levels
- ❖ High speed download
- ❖ Programmable start time
- ❖ Built-in accelerometers

APPLICATIONS

- ❖ Transportation / shipping
- ❖ Machinery failure detection
- ❖ Detect mechanical resonances
- ❖ Endurance testing
- ❖ Wind resonance on structures and supports
- ❖ Vehicle vibration
- ❖ Race Car diagnostics
- ❖ Materials research

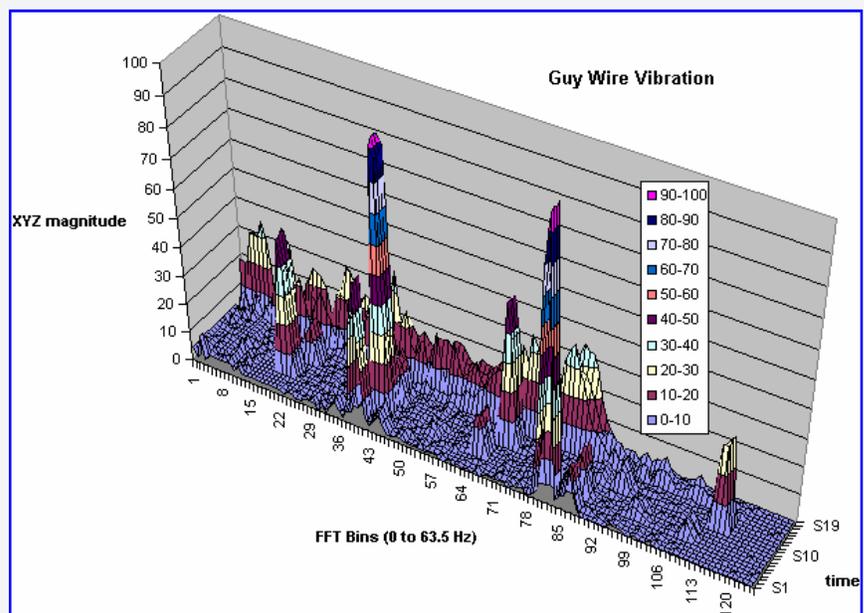
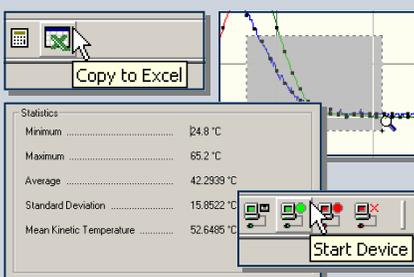


The **Spectral Vibration Recorder (SVR)** is a self-contained device engineered to record acceleration data for spectral analysis of vibration and peaks. This device will record and time tag 3-axis vibrations and peaks to provide a history of shock/vibration conditions. It also records temperature once every sample period. The SVR measures and computes real-time spectral data using an FFT (Fast Fourier Transform) from 0 to 63.5 Hertz. To make efficient use of memory, the SVR only takes data when the (user preset) trigger level is exceeded. The basic data window is 2 seconds but the XYZ magnitude data can be averaged over longer sample periods of up to 2 hours.

The SVR and the MadgeTech Data Recorder Software makes data retrieval quick and easy. Simply connect the SVR to an empty com port on the PC (via the IFC-110 interface cable). Once offloaded to a PC, the information can be graphed, analyzed and presented using the MadgeTech software or easily exported to a 3-D graph in Excel.

SOFTWARE

MadgeTech's Data Recorder Software is an easy to use Windows-based software package that allows the user to effortlessly collect, display and analyze data. A variety of powerful tools allow you to examine, export, and print professional looking data with just a click of the mouse.



Spectral Vibration Recorder SPECIFICATIONS

Acceleration Range: ±50 g	Calibration: Digital calibration through software
Acceleration Resolution: 0.1g (12-bit)	Calibration Date: Automatically recorded within device
Calibrated Accuracy: ±1 g	Power: 9V battery and/or 6 to 12VDC external power
Trigger Range: 0 to 50g (XYZ magnitude)	User Replaceable Battery: 48 hours typical with 9V lithium battery
Sampling Rate: 256 Hz (decimated to 128Hz)	Power Consumption: 25mA (average) recording, <1mA idle
FFT Range: 0 to 63.5 Hz in 128 ½ Hz bins (significant math errors occur at 0-1.5Hz)	Data Format: Time stamped frequency bins, peak acceleration, average and peak vector sum, temperature
FFT Window Period: 2 seconds	Time Accuracy: ±1 minute/month (at 20 °C, RS232 port not in use)
FFT Sample Period: 2 seconds to 7,200 seconds (2 hrs)	Computer Interface: PC serial or RS232C COM, 115,200 baud
Memory: 16Mbit FLASH (7,595 samples)	Software: Windows 95/98/ME/NT/2000/XP based software
Start Time: Software programmable start time and date. Up to 7 days in advance	Temperature Channel: Accuracy: ±0.5 °C @ 25°C, Resolution: 0.1 °C
Real Time Recording: May be used with PC to monitor and record instantaneous acceleration in real time	Operating Environment: -20 °C to +60 °C, 0 to 95 %RH non-condensing
	Dimensions: 1.0" x 3.5" x 4.4" (26mm x 89mm x 112mm)
	Weight: 12 oz (340 g)

BATTERY WARNING: MAY LEAK AND/OR FLAME IF OPENED, RECHARGED, CONNECTED IMPROPERLY, OR DISPOSED OF IN FIRE

SOFTWARE FEATURES

Multiple Graphs: Simultaneously analyze data from several units or deployments; easily switch to a single data series	Statistics: Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button
Real-Time Recording: Collect and display data in real-time while continuing to log	Export Data: Export data in a variety of common formats, or switch to Excel with a single click
Graphical Cursor: One click displays readings by time, value, parameter or sample number	Calibration: Fully digital calibration function automatically stores parameters in device
Data Table: Instantly access tabular view for detailed dates, times, values, and annotations	Logger Configuration: Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID
Scaling Options: Autoscale function fits data to the screen, or allows user to manually enter their own values	Communications: Automatically sets up communications port, or lets user set configuration
Formatting Options: Change colors, line styles, plotting options, show or hide channels in an instant	Printing: Automatically print graphical or tabular data

*Specifications are subject to change without notice. Specific warranty and remedy limitations apply. Call 1-603-456-2011 or go to www.madgetech.com for details.

ORDERING INFORMATION

Model	Description
SVR101	Spectral Vibration Recorder
IFC110	Software, manual and 9-pin computer interface cable
U9VL-J	9V lithium replacement battery

ASK ABOUT OUR OTHER DATA RECORDERS

Temperature	Voltage
Humidity	Current
Pressure	Submersible
pH	Intrinsically Safe
Level	RF Transmitters
Shock/Vibration	Multi-parameter
Pulse/Event	Wind/Rain



201 Route 103 West - PO Box 50 · Warner, NH 03278
 Phone: (603) 456-2011 · Fax: (603) 456-2012
info@madgetech.com · www.madgetech.com