

### Features

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

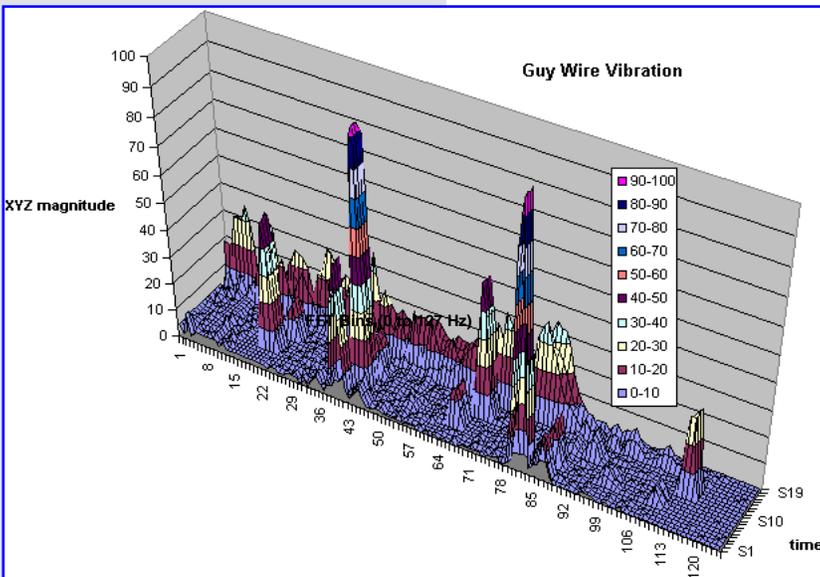
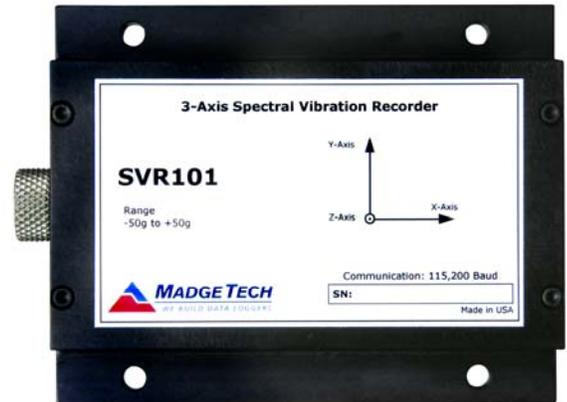
### Applications

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

The SVR101 is a self-contained data logger engineered to record accelerations for spectral analysis of vibration and peaks. This device is ideal for endurance testing, machinery failure detection, and vehicle vibration monitoring.

The SVR101 records and time-tags 3-axis vibrations and peaks to provide a history of shock/vibration conditions. The device measures and computes real-time spectral data using an FFT (Fast Fourier Transform) from 0 to 128 Hertz. To make efficient use of memory, the SVR101 only takes data when the (user preset) trigger level is exceeded. The minimum sampling rate is 2 seconds and the device can display peak X, Y, and Z shock data, vector sum for data evaluated, up to 4 hours.

The SVR101 is a critical instrument for quantifying and understanding vibrations and shocks in many applications. From transportation to automotive design, motor failure detection to mechanical resonance, the SVR101 can go to remote places, operate from battery, and store the data in non-volatile memory.



### MadgeTech Data Recorder Software

The guy wire vibration graph was exported to Excel® and made into a 3-D graph.

The Windows®-based software package 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.

## SVR101 SPECIFICATIONS\*

<b>Acceleration Sensor:</b> MEMS Semiconductor	<b>Real Time Recording:</b> May be used with PC to monitor and record instantaneous acceleration in real time
<b>Acceleration Range:</b> ±50g	<b>Calibration:</b> Digital calibration through software
<b>Acceleration Resolution:</b> 0.05g	<b>Calibration Date:</b> Automatically recorded within device
<b>Calibrated Accuracy:</b> ±1g	<b>Battery Type:</b> 9V battery <b>user replaceable</b>
<b>Sampling Rate:</b> 256Hz (decimated to 128Hz)	<b>Battery Life:</b> 60 hours typical with 9V lithium battery
<b>FFT Range:</b> 0 to 128 (1Hz bins)	<b>Power Consumption:</b> 25mA (average) recording, <40µA idle @ 25°C
<b>FFT Window Period:</b> 2 seconds	<b>Data Format:</b> Time stamped frequency bins, peak acceleration, average and peak vector sum
<b>FFT Sample Period:</b> 2 seconds to 14,400 seconds (4 hrs)	<b>Time Accuracy:</b> ±1 minute/month (at 20°C, RS232 port not in use)
<b>Memory:</b> 16Mbit (3,971 samples)	<b>Computer Interface:</b> PC serial or USB, 115,200 baud
<b>Reading Rate:</b> 2 seconds up to 4 hours	<b>Software:</b> XP SP3/Vista/Windows 7
<b>Start Modes:</b> Software programmable immediate start or delay start up to 7 days in advance	<b>Operating Environment:</b> -20 to +60 °C, 0 to 95 %RH non-condensing
	<b>Dimensions:</b> 1.0" x 3.5" x 4.4" (26mm x 89mm x 112mm)
	<b>Weight:</b> 12 oz (340 g)
	<b>Materials:</b> Anodized Aluminum
	<b>Approvals:</b> CE

**BATTERY WARNING:** DISCARD USED BATTERY PROMPTLY. KEEP OUT OF REACH OF CHILDREN. DO NOT DISPOSE OF IN FIRE, RECHARGE, PUT IN BACKWARDS, DISASSEMBLE, OR MIX WITH OTHER BATTERY TYPES. MAY EXPLODE, FLAME OR LEAK AND CAUSE PERSONAL INJURY.

## SOFTWARE FEATURES

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

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY. CONTACT OMNI INSTRUMENTS LTD FOR DETAILS. INFO@OMNI.UK.COM

## ORDERING INFORMATION

<u>Model</u>	<u>Description</u>
SVR101	±50g Spectral Vibration Recorder
IFC110	Software, manual and RS232 interface cable
IFC200	Software, manual and USB interface cable
NIST	N.I.S.T. Calibration Certificate
U9VL-J	Replacement battery for SVR101

### ASK ABOUT OUR OTHER DATA RECORDERS

Temperature	Pulse/Event/State
Humidity	Low Level Current
Pressure	Low Level Voltage
pH	RF Transmitters
Level	Intrinsically Safe
Shock	Spectral Vibration
LCD Display	