

Features

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

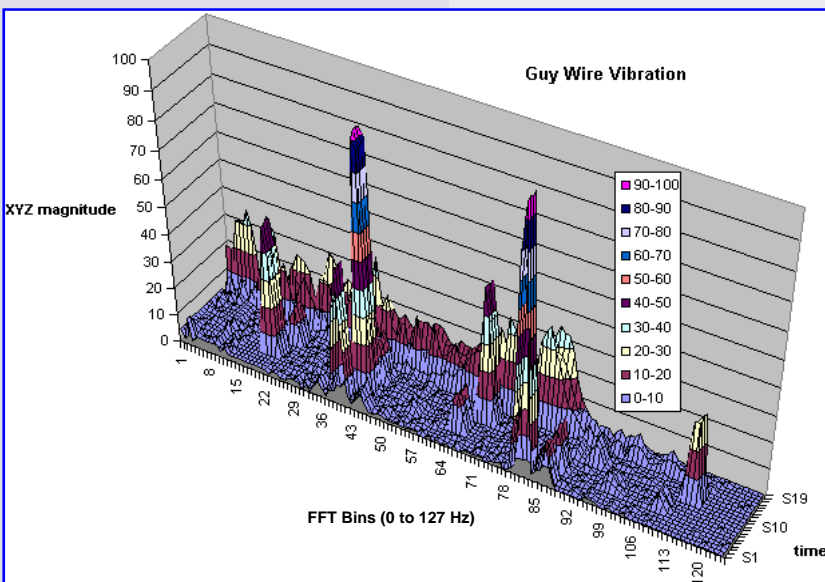
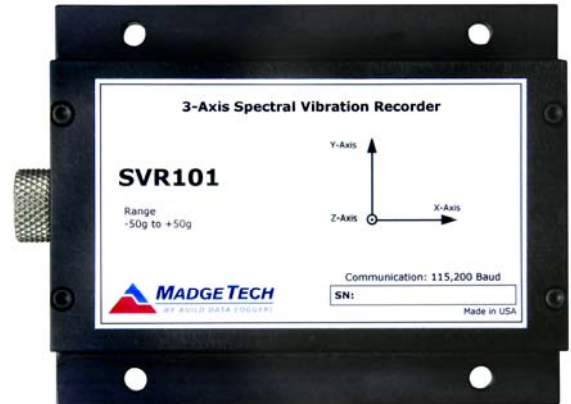
Applications

- 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*

Acceleration Sensor: MEMS Semiconductor
Acceleration Range: $\pm 50g$
Acceleration Resolution: 0.05g
Calibrated Accuracy: $\pm 1g$

Sampling Rate: 256Hz (decimated to 128Hz)
FFT Range: 0 to 128 (1Hz bins)

FFT Window Period: 2 seconds
FFT Sample Period: 2 seconds to 14,400 seconds (4 hrs)
Memory: 16Mbit (3,971 samples)

Reading Rate: 2 seconds up to 4 hours
Start Modes: Software programmable immediate start or delay start up to 7 days in advance

Real Time Recording: May be used with PC to monitor and record instantaneous acceleration in real time
Calibration: Digital calibration through software
Calibration Date: Automatically recorded within device
Battery Type: 9V battery **user replaceable**
Battery Life: 60 hours typical with 9V lithium battery
Power Consumption: 25mA (average) recording, $<40\mu A$ idle @ 25°C
Data Format: Time stamped frequency bins, peak acceleration, average and peak vector sum
Time Accuracy: ± 1 minute/month (at 20°C, RS232 port not in use)
Computer Interface: PC serial or USB, 115,200 baud
Software: Windows 95/98/ME/NT/2000/XP/Vista based software
Operating Environment: -20 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)
Materials: Anodized Aluminum
Approvals: 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

<p>Multiple Graphs: Simultaneously analyze data from several units or deployments; easily switch to a single data series</p> <p>Real-Time Recording: Collect and display data in real-time while continuing to log</p> <p>Graphical Cursor: One click displays readings by time, value, parameter or sample number</p> <p>Data Table: Instantly access tabular view for detailed dates, times, values, and annotations</p> <p>Scaling Options: Autoscale function fits data to the screen, or allows user to manually enter their own values</p> <p>Formatting Options: Change colors, line styles, plotting options, show or hide channels quickly</p>	<p>Statistics: Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button</p> <p>Export Data: Export data in a variety of common formats, or switch to Excel® with a single click</p> <p>Calibration: Automatically calculate and store calibration parameters</p> <p>Logger Configuration: Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID</p> <p>Communications: Automatically sets up communications port, or lets user select configuration</p> <p>Printing: Automatically print graphical or tabular data</p>
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*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY.

ORDERING INFORMATION

Model	Description	
SVR101	$\pm 50g$ 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	



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