

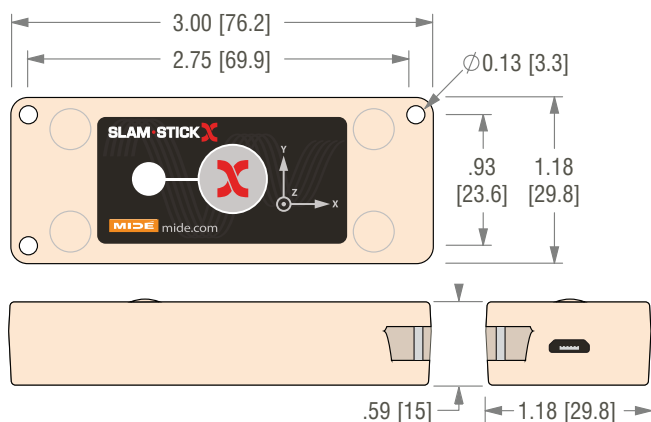
FEATURES

- Embedded Triaxial Accelerometer
- Configurable Sampling Rate up to 20 kHz
- Temperature & Pressure Sensors Included
- Time Stamped Data with Local Calendar Time
- Manual & Automatic Start/Trigger Modes
- Rechargeable Battery Life of Over 4 Hours
- Lightweight (40 grams)
- USB Interface for Set-Up & Data Download
- Analysis Software Included
- Temperature Compensating Accelerometer
- 5th Order Hardware Anti-Aliasing Filter

APPLICATIONS

- Structural Analysis
- Equipment Testing and Evaluation
- Structural Health Monitoring
- Determine Mechanical Resonances
- Research and Development
- Impact Detection
- Bearing Monitoring
- Shipping and Transportation Monitoring
- Automotive Diagnostics

PRODUCT DIMENSIONS



DESCRIPTION

The Slam Stick X is a data logger capable of measuring acceleration in all three axes while also measuring temperature and pressure. The logger is available in $\pm 25g$ and $\pm 100g$ ranges and can sample at up to 20kHz.

Its lightweight design (40 grams) and large surface area (3.5 in²) minimize mass loading and enable adhesive mounting using the double sided tape recommended by Midé. Its rugged enclosure, and wide temperature operating range (-40°C to 80°C) enables the Slam Stick X to perform in many harsh environments.

A micro-USB receptacle allows for quick and easy connection to a computer where data can be analyzed with Midé's provided software package - Slam Stick Lab. The software also enables configuration of the device to meet a variety of customer needs. Triggers for data capture include time delays, calendar date/time wake up and acceleration, temperature or pressure trigger.

Midé offers a calibration certification upon request.

SPECIFICATIONS

Accelerometer	LOG-0002-025G	LOG-0002-100G	Notes
Range	±25 g	±100 g	Higher Acceleration Ranges Available upon Request
Sampling Rate: Maximum Minimum	20 kHz 100 Hz	20 kHz 100 Hz	Selectable with Provided Software
Amplitude Response			
Within ±5% Accuracy (X, Y Axis)	2 to 4000 Hz	2 to 4000 Hz	
Within ±5% Accuracy (Z Axis)	2 to 3000 Hz	2 to 3000 Hz	
Transverse Sensitivity	<15 %	<15 %	
Natural Frequency	>10000 Hz	>10000 Hz	Natural Frequency of Embedded Accelerometer
Bandwidth	>6000 Hz	>6000 Hz	Bandwidth of Embedded Accelerometer
Broadband Noise	± 0.02 g	±0.04 g	
Resolution	0.0008 g	0.003 g	16-bit
Anti-Aliasing Filter	5 th Order Hardware Butterworth		Linear Phase & Software Tunable

Temperature and Pressure Sensors		
Sampling Rate	0.15% of Accelerometer Sampling Rate	
Temperature Accuracy	±1.0°C	-30°C to +80°C
Temperature Resolution	0.0625°C	12-bit
Pressure Relative Accuracy	±0.1 kPa	-10°C to +50°C
Pressure Resolution	1.5 Pa	20-bit

Environmental		
Operating Temperature	-40°C to +80°C	
Accurate Temperature ¹	-20°C to +60°C	Accelerometer Accuracy is within ±5%
Storage Temperature	-30°C to +40°C	25°C is Recommended to Preserve Battery Life
Recharging Temperature	0°C to +45°C	
Humidity	0 to 95 %RH	Non-condensing
Shock Limit	>500 g	5,000 g Shock Limit for Embedded Accelerometer

Physical		
Mass	40 grams	
Dimensions	0.50" x 1.18" x 3.00"	See Product Dimensions for Axis Direction
Case Material	Polycarbonate/ABS	
Mounting Torque	3 lbf-in	Mounting with Double-Sided Tape is Preferred

Miscellaneous		
Battery Life w/ 20 kHz Sampling Rate	>4 Hours	Longer Life Achievable w/ Lower Sampling Rate
Storage Capacity	2 GB (5 hours recording @ 20 kHz)	More Time Available at Lower Sampling Rate

Analysis/Configuration Software Specifications		
Compatible Operating Systems	Windows	Program Files included on Device ²
Interface	Micro USB	Micro USB Cable included with Purchase
Maximum # of Data Samples	>500 Million	Analysis of Data is Available during Import

¹The onboard temperature sensor compensates for variations in accelerometer sensitivity with temperature.

²The software will run faster if these files are copied onto the PC.

SOFTWARE OVERVIEW & FEATURES

Multiple Plots: Simultaneously analyze data from several sensor channels. Plots can also be rearranged in the window for comparison.

Formatting: Ability to change individual plot colors. User can name specific devices and include device notes.

Statistics: FFT and spectrograms can be generated for every sensor channel. Rolling maximum, minimum, and mean can be plotted. Absolute maximum, minimum, as well as sampling rate and range of each sensor channel is provided.

Logger Configuration: Configure the sampling frequency, anti-aliasing cutoff frequency, oversampling, calendar wake, time delay, recording duration, and g-level / temperature / pressure triggers.

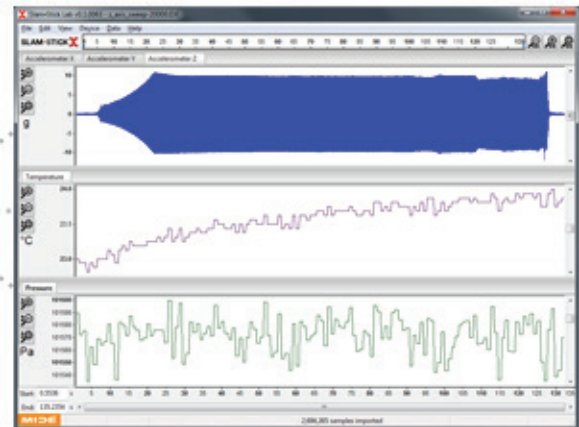
Export Data: Ability to export all data in a CSV format for use with Excel, MATLAB, or other analysis software packages. FFT and Spectrogram can also be exported. The time range of exported data is user selectable.

Scaling: User defined viewable time range and scrolling available.

VIBRATION

TEMPERATURE

PRESSURE



ORDERING INFORMATION

The part numbering of the Slam Stick X specifies the measurement range of the accelerometer. The standard ranges available include $\pm 25g$ and $\pm 100g$;

but higher ranges are available upon request. The analysis software, USB cable, mounting tape and user manual are included with each purchase.

Part Number	Product Description
LOG-0002-025G	± 25 g Acceleration, Temperature & Pressure Data Logger. <i>Included: Analysis Software, USB cable, and User Manual</i>
LOG-0002-100G	± 100 g Acceleration, Temperature & Pressure Data Logger <i>Included: Analysis Software, USB cable, and User Manual</i>
Calibration Certification	N.I.S.T Traceable Calibration Certificate <i>Accelerometer Amplitude Response from 20 Hz to 5000 Hz</i>