Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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SLAM·STICK™

Shock Impact Vibration Data Logger

Free Analysis Software - click here for web page

Simple and Easy to Use

Small and Lightweight

High Speed - 3.2 KHz Sampling Rate

Rechargeable

Characterizes Vibration Profile for Energy Harvesting Applications

Dust Proof Enclosure

Simple Analysis & Configuration Software

Characterizing Energy Harvesting Vibrations

Equipment Installation Verification

Vibration Characterization for Damping Purposes

Condition Based Maintenance

Equipment Monitoring

Bearing Monitoring

The Slam Stick™ is a high speed ultra portable rechargeable data logger capable of measuring acceleration in all three axes. The device uses a USB Port for on the fly configuring, charging and downloading of data. Simple configuration software allows users to tailor the device to their specific needs.

The configuration options include an adjustable delay time before each measurement, different measurement durations, and a trigger based on a pre-determined acceleration level. Free analysis software allows for complete vibration characterization enabling the user to determine the frequency content of their given vibration.

The Slam Stick™ can be used for many different applications including energy harvesting vibration characterization, modal surveys and equipment monitoring. Simply configure the device for your application, mount the device on your vibrating structure, hit the button and download the data to your computer.

TOP VIEW

2.71 [68.834]

1.47 [37.338]

0.91 [23.114]

SIDE VIEW

0.34 [8.636]

0.18 [4.572]
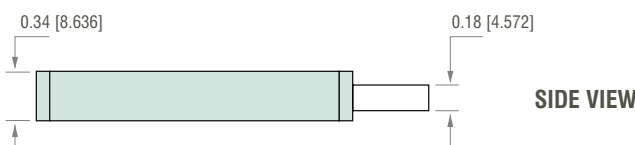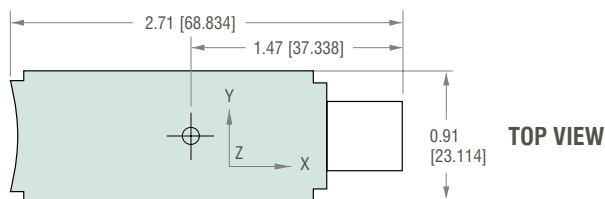
* Dimensions in Inches [Millimeters]

Accelerometer	LOG-0001	
Range	±16 g	
Sampling Rate: Maximum | Minimum	3.2 kHz | 100 Hz	
Amplitude Response Within ±5% Accuracy (X, Y)	0 to 300 Hz	
Amplitude Response Within ± 5% Accuracy (Z Axis)	0 to 500 Hz	
Transverse Sensitivity	< 10%	
Natural Frequency	> 6000 Hz	
Bandwidth	0 to 1000 Hz	
Noise Density	430μg/√Hz for Z Axis, 290μg/√Hz for X, Y Axis	
Resolution	13-bit (~3.9mg/LSB)	

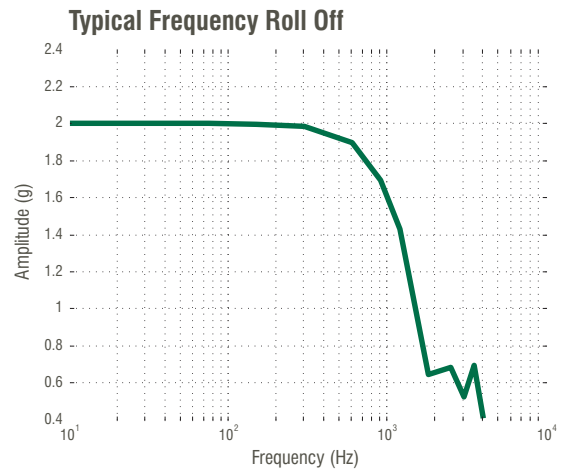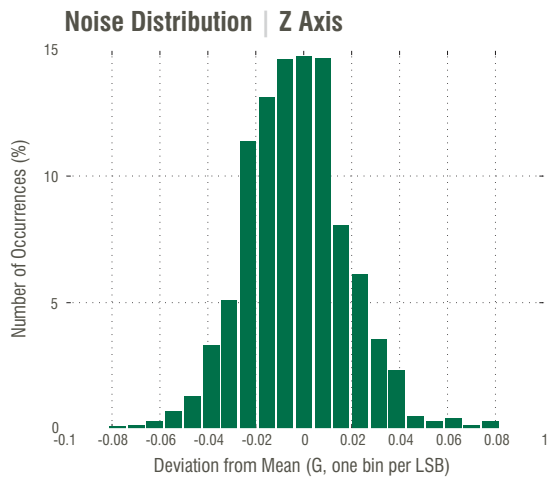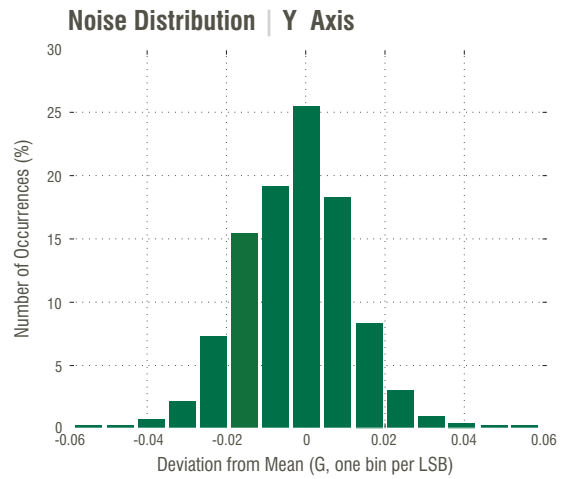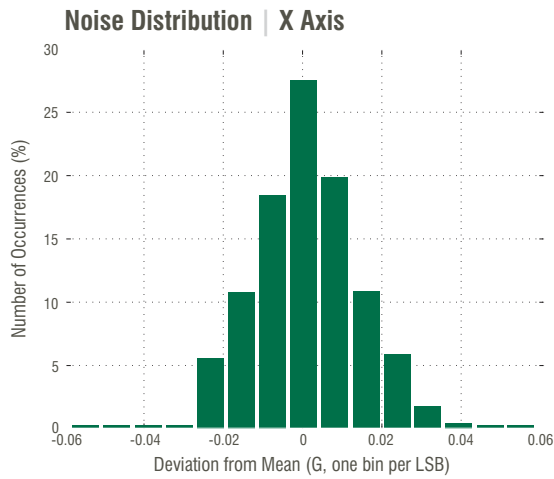| Environmental		
Operating Temperature	-40°C to +80°C	
Accurate Temperature[1]	-20°C to +60°C	Accelerometer Accuracy is within ±5%
Storage Temperature	-30°C to +40°C	25°C is Recommended to Preserve Battery Life
Recharging Temperature	0°C to +45°C	
Humidity	0 to 95 %RH	Non-condensing
Shock Limit	>100 g	10,000g Raw Accelerometer Shock Rating

Physical		
Mass	16 grams	
Dimensions	0.34" x 0.91" x 2.71"	See Product Dimensions for Axis Direction
Case Material	Polycarbonate/ABS	

Miscellaneous		
Battery Life	>15 Minutes @ 3.2 kHz Sampling >90 Minutes @ 100 Hz Sampling	
Battery Lifetime	2 years	Battery needs to be charged at a minimum twice a year
Storage Capacity	16 MB (~ 8.4 million samples)	15 Minutes recording @ 3.2 kHz, or 7 hours @ 100 Hz

Analysis/Configuration Software Specifications		
Compatible Operating Systems	Windows	
Interface	USB	
Maximum # of Data Samples	>500 Million	Analysis of Data is Available during Import

Software-Main Features	
Statistics	FFT and spectrograms can be generated for every sensor channel. Absolute maximum, minimum, as well as sampling rate and range of each sensor channel is provided.
Logger Configuration	Configure the sampling frequency, calendar wake, time delay, recording duration, and g-level 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.

Part Number	Product Description
LOG-0001	±16 g Acceleration, Data Logger. Included: Analysis Software.

Noise Distribution | X Axis

Noise Distribution | Y Axis

Noise Distribution | Z Axis

Typical Frequency Roll Off

For the noise measurement, a sample Slam Stick recording was taken at room temperature with no vibrations present. The plots above represent the distribution of noise in the recorded data for each axis. This distribution is approximately Guassian, with the majority of samples falling very close to the correct value and less frequent outliers falling further from the correct value. This distribution is typical of random noise present in any measurement.

Frequency roll off data was taken by exciting the Slam Stick at a constant amplitude (1 gee in this case) over a range of frequencies from 10 Hz to 3200 Hz. The measured vibration amplitude from the Slam Stick was then plotted versus frequency. Note that the roll off is severe after ~500 Hz in the Z axis. This roll off occurs at ~300 Hz in the X and Y axes. Different devices performed differently after this frequency and amplitude data should not be trusted when above this frequency. Frequency data is not impacted by this roll-off.