2 CHANNELS Acceleration, Velocity, Displacement.
frequency response 20 KHz, SD Card real time data recorder

VIBRATION SPECTRUM ANALYZER

Model : BVB-8208SD ***ISO-9001, CE, IEC1010***

Lutron

LUTRON ELECTRONIC

The Art of Measurement

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frequency response 20 KHz SD Card real timedata recorder

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Model : BVB-8208SD

FEATURES

* Vibration Meter Mode : 2 Channels vibration measurement input : One display screen shows all 2 channels of Acceleration, Velocity, Displacement values at the same time.
* FFT Analyzer Mode : 1. Real-time analysis frequency 20 kHz. 2. Time waveform display and spectrum display with up to 1024 spectral lines. 3. Vibration waveform data recording function. Data are stored in WAVE file format on SD memory card.
* Built-in clock and Calendar, save real time data information into SD memory card. Sampling time can be set from 2 to 3600 seconds.
* Data file can be downloaded to the Excel, extra software is no need.
* Waveform can be saved into BMP file, easy operation and it is useful for the further analysis.
* High/low-pass filter setting
* Graph display X axis Y axis zooming/moving function.
* Instantaneous value measurement.
* exponetial averaging value measurement.
* Time information : Year, Month, Date, Hour, Minute and Second.
Measure range Acceleration : 200.00 m/s2. Velocity : 200.00 mm/s. Displacement (p-p) : 1.999 mm.
* Max Hold, Peak Value, Data Hold, Max./Min..
* SD memory card capacity : Max. 512 GB.
* TFT LCD display : 320 x 240 pixel, Graphic LCD.
* RS232/USB computer interface
* Powered by DC 1.5V (UM-3/AA) x 8 PCs batteries (Alkaline type) or DC 9V adapter.

Electrical Specification

Circuit	Custom one-chip of microprocessor LSI circuit.		
Display	LCD size : 81.4 X 61 mm (3.2 X 2.4 inch) Dot Matrix LCD (320 X 240 pixels).		
Measurement	Velocity, Acceleration, Displacement		
Function	*Acceleration, Velocity :* RMS, Peak, Max Hold. *Displacement :* p-p (peak-peak), Max Hold p-p.		
Unit	*Measurement*	*Metric*	*Imperial*
	Accele	m/s^2, g	ft/s^2,
	Velocity	mm/s, cm/s	inch/s
	Displacement	mm	inch
Frequency range	3 Hz to 1 KHz * *Sensitivity relative during the the frequency range meet ISO 2954 Refer to table 1, page 28*		
	3 Hz to 20 KHz : * *for other aplication example ISO 2372 – Vibration severity application Refer to table 1, page 28*		
Circuit	Exclusive microcomputer circuit.		
Peak Measurement	*Acceleration, Velocity :* To measure and update the peak value. *Displacement :* To measure and update the peak to peak (p-p) value.		
Max Hold Measurement	*Acceleration, Velocity :* To measure and update the max. peak value.		
	Displacement : To measure and update the max. peak to peak (p-p) value.		
Zero Button	Under Acceleration (RMS) measurement, sensor motionless , press two Buttons (3-5, 3-7, Fig. 1) >3 seconds.		
Max. Hold Reset Button	Under Max. hold measurement, press two Buttons (3-5, 3-7, Fig. 1) >3 seconds.		
Datalogger Sampling Time Setting range	Auto	1 second to 3600 seconds @ *Sampling time can set to 1 second, but memory data may loss.*	
	Manual	Push the data logger button once will save data one time. @ *Set the sampling time to 0 second.* @ *Manual mode, can also select the 1 to 99 position (Location) no.*	

Memory Card	SD memory card Max. 512 GB.
Data error no.	≦ 0.1 % no. of total saved data typically.
Data Hold	Freeze the display reading. * *Only available for the RMS function.*
Memory Recall	Maximum & Minimum value. * *Only available for the RMS function.*
Data Output	RS 232/USB PC computer interface. * *Connect the optional RS232 cable UPCB-02 will get the RS232 plug.* * *Connect the optional USB cable USB-01 will get the USB plug.*
Sampling Time of Display	Approx. 1 second.
Operating Temperature and Humidity	0 to 50 ℃. Less than 85% R.H.
Power Supply	* Alkaline or heavy duty DC 1.5 V battery (UM3, AA) x 8 PCs, or equivalent. * DC 9V adapter input. (AC/DC power adapter is optional).
Power Current	Normal operation (w/o SD card save data and LCD Backlight is OFF) : *Approx. DC 300 mA.* When SD card save the data and LCD Backlight is ON) : *Approx. DC 350 mA.*
Weight	*Meter :* 1049 g/ 2.32 LB (includes batteries). *Probe with cable and magnetic base :* 99 g/0,22 LB
Dimension	*Meter :* 225 X 125 X 64 mm(8.86 X 4.92 X 2.52 inch) *Vibration sensor probe:* Round 16 mm Dia. x 37 mm. Cable length : 1.2 meter.
Accessories Included	* Instruction manual..... 1 PC * Hard carrying case(CA-07A)..... 1 PC * Vibration sensor with cable..... 2 PC * Magnetic base..... 2 PC
Optional Accessories	SD Card AC to DC 9V adapter. USB cable, USB-01. RS232 cable, UPCB-02. Data Acquisition software,SW-816-32WIN.

Electrical Specifications (23±5 ℃)

Acceleration (RMS, Peak, Max Hold)

Unit	m/s^2
Range	0.5 to 199.9 m/s^2
Resolution	0.01 m/s^2
Accuracy	±(5 % + 2 d) reading *@ 160 Hz, 80 Hz, 23 ± 5 ℃*
Calibration Point	50 m/S^2 (160 Hz)

Unit	g *@ 1 g = 9.8 m/s^2*
Range	0.05 to 20.39 G
Resolution	0.01 G
Accuracy	±(5 % + 2 d) reading *@ 160 Hz, 80 Hz, 23 ± 5 ℃*
Calibration Point	50 m/S^2 (160 Hz)

Unit	ft/s^2
Range	2 to 656 ft/s^2
Resolution	1 ft/s^2
Accuracy	±(5 % + 2 d) reading *@ 160 Hz, 80 Hz, 23 ± 5 ℃*
Calibration Point	50 m/S^2 (160 Hz)

Remark :
RMS : To measure the true RMS value.
Peak : To measure and update the peak value.
Max. Hold : To measure and update the max. peak value.

Velocity (RMS, Peak, Max Hold)

Unit	mm/s
Range	0.5 to 199.9 mm/s
Resolution	0.01 mm/s
Accuracy	±(5 % + 2 d) reading *@ 160 Hz, 80 Hz, 23 ± 5 ℃*
Calibration Point	50 mm/s (160 Hz)

Unit	cm/s
Range	0.05 to 19.99 cm/s
Resolution	0. 01 cm/s
Accuracy	±(5 % + 2 d) reading *@ 160 Hz, 80 Hz, 23 ± 5 ℃*
Calibration Point	50 mm/s (160 Hz)

Unit	inch/s
Range	0.02 to 7.87 inch/s
Resolution	0.01 inch/s
Accuracy	±(5 % + 2 d) reading *@ 160 Hz, 80 Hz, 23 ± 5 ℃*
Calibration Point	50 mm/s (160 Hz)

Remark :
RMS : To measure the true RMS value.
Peak : To measure and update the peak value.
Max. Hold : To measure and update the max. peak value.

Displacement (p-p, Max Hold p-p)

Unit	mm
Range	1.999 mm
Resolution	0.001 mm
Accuracy	±(5 % + 2 d) reading *@ 160 Hz, 80 Hz, 23 ± 5 ℃*
Calibration Point	0.141 mm (160 Hz)

Unit	inch
Range	0.078 inch
Resolution	0.001 inch
Accuracy	±(5 % + 2 d) reading *@ 160 Hz, 80 Hz, 23 ± 5 ℃*
Calibration Point	0.141 mm (160 Hz)

Remark :
p-p : p-p = Peak to Peak
To measure the Peak to Peak value.
Max. Hold p-p :
To measure and update the max. Peak to Peak value.

* Spec. tested under the environment RF Field Strength less than 3 V/M & frequency less than the 30 MHz only.