

USV-X4 USB Sound Vibration-X4

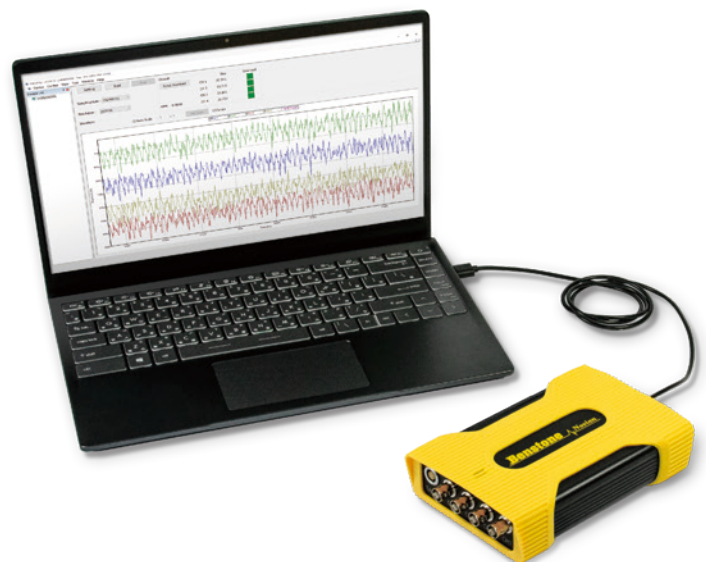


Features

- Plug and play / Powered by USB
- Input range $\pm 5V(\text{peak})$ / $\pm 20V(\text{peak})$
- Provide API including C++, C#, VB, LabVIEW
- One PC can use multiple USV-X4 at same time
- Provide free utility software for setting operation and raw-data measurement to assist in troubleshooting

Introduction

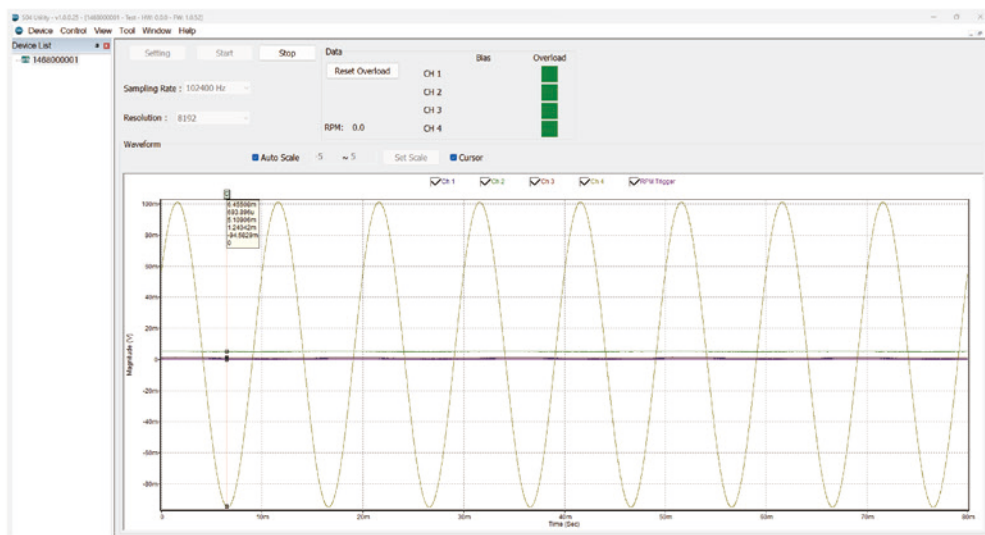
USV-X4 is a PC-based 4-channel real-time acquisition hardware, specially designed for advanced measurement of vibration and noise. Acquiring data by connecting to a PC through USB cable, USC-X4 can work alone without external power charging. USV-X4 can achieve high-level dynamic range and excellent resolution by adopting precision 24-bits sigma-delta ADC. The maximum sampling rates are up to 102.4 kHz for each vibration channel. These 4 vibration channels and an additional rotating-speed channel are all synchronous. USV-X4 comes with a basic C++, C#, VB, and LabVIEW function library (API). Users can conduct various data analysis and diagnosis through self-written or optional software functions.





Application

Through reliable data acquisition, the raw data is recorded to the computer hard drive via Type-C USB 3.1. The data can be analyzed to obtain various analytical charts including the overall, FFT, Envelope, PSD, FRF, Order Tracking, Orbit, Waterfall, Octave, and others.

It is suitable for measurement and analysis of noise, vibration, motion, current, voltage and other signals in a variety of applications, such as structural modal analysis, dynamic balance correction, vehicle NVH testing, factory or indoor environment test, shipment quality inspection, shaft order tracking, R&D testing and fault diagnosis. More advanced analysis functions can be obtained with MATLAB or our optional software "NOVIAN".



Hardware Specification

Vibration Input Number	4 Channel (BNC connector)	
Vibration Input Range	±5V(peak) / ±20V(peak)	
Maximum Sampling rate	102.4 kS/s	
AD Converter	24 bit Delta-Sigma ADC	
Vibration channel Coupling	AC/DC/IEPE	
IEPE Charging	3.0mA	
AC Cut-off Frequency	-3dB at 0.5Hz	
Transmission Interface	USB 3.1, Type-C connector	
Power Interface	USB 3.1, Type-C connector	
Power	3.5W (Max.) @ 5V ,0.7A	
Operating Temperature	-10 deg C to + 50 deg C	
Speed Input Channel	1 Channel (6-pin LEMO connector)	
Speed Input Range	10-300,000 RPM	
Speed Input Type	3.3V TTL (±20V Range)	
Speed Input Power	5V @ 100mA	
Housing Material	Silicone and aluminum	
Dimension	H170 * W112 * D39 mm	
Weight	430 grams	



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