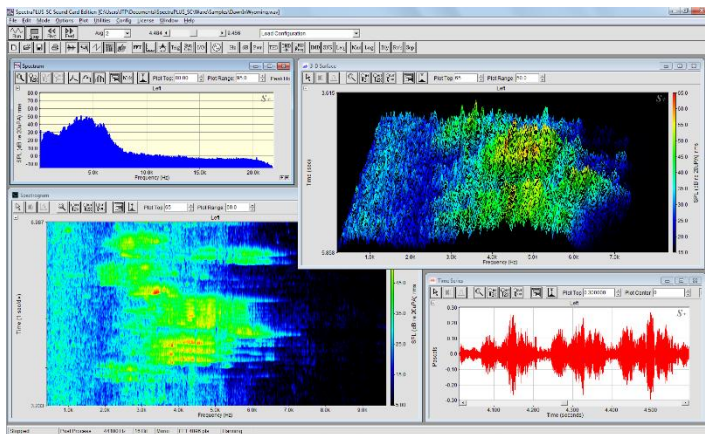
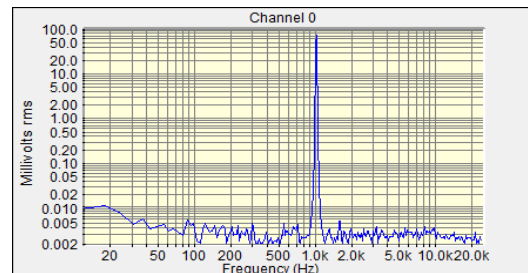


음향 소음 진동 분석

SPECTRAPLUS®

Cost effective signal processing solutions for your acoustics and vibration test and measurement needs

SpectraPLUS - a series of powerful spectrum analysis software solutions providing real time, recording and post processing of up to 16 analog input channels and up to 2 output channels.



A selection of data acquisition hardware modules are available with IEPE power, calibrated inputs and outputs, and a wide range of channels and sampling rates.



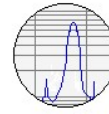
- Real Time FFT Analysis of live input
- Record, Playback and Post Process
- Signal Generation
- Narrowband FFT to 1,048,576 points
- Octave Analysis (1/1 to 1/96 octave)
- Time Series, Spectrum, Spectrogram
- 3-D Surface, Phase, RPM
- Distortion Analysis
- Transfer Functions, Order Analysis
- Acoustic Tools: RT60, Leq
- Automation Tools



Pioneer Hill Software

24460 Mason Rd NW Poulsbo WA 98370
 (360) 697-3472 tel
 (360) 824-6031 fax

SpectraPLUS-RT Features and Specifications



SPECTRAPLUS®

- ◆ Maximum Sampling Rate: 200 kHz (hardware dependent)
- ◆ Frequency Span: 0 to 1/2 of selected sampling rate
- ◆ Sampling Precision: 8, 16 or 24 bit (hardware dependent)
- ◆ Maximum Channels: 2
- ◆ Mode - Real Time
- ◆ Recorder/Playback utility – record and playback from wave files
- ◆ Displays: Spectrum
- ◆ Data Views: Popup window of underlying data values.
- ◆ Spectral Overlays: Up to 6 simultaneous overlay traces, unlimited save and retrieve from hard disk
- ◆ Composite overlay: average of any selected overlays or the difference between any two overlays.
- ◆ Display Zoom: Arbitrary Zoom In to any portion of overall frequency or time span
- ◆ Auto Scaling
- ◆ Cursor Measurements: Absolute, Differential (Ctrl key) and Harmonic cursors (Shift key)
- ◆ Smoothing Window: Hanning
- ◆ Averaging: Off/Fast/Medium/Slow/Forever
- ◆ Peak Hold: live peak hold with selectable timeout
- ◆ Amplitude Axis Scaling: Linear, Logarithmic or Log Magnitude plus Power Spectral Density (PSD) option
- ◆ Frequency Axis Scaling: Narrowband Linear, Narrowband Logarithmic, 1/1 or 1/3 Octave
- ◆ Narrowband FFT size: 16384 points
- ◆ Spectral Weighting: Flat, A, B, C ANSI weighting curves
- ◆ Markers: Up to 6 user defined markers with user customizable labels
- ◆ Amplitude Calibration: V, mV, dBV, dBmV, dBu, SPL or PA (in air or water), psi, acceleration or custom units
- ◆ Signal Generator: Pink Noise, White Noise, 1 kHz Tone, Multiple Tones, Frequency Sweep, Frequency Step, Level Sweep
- ◆ Color Printing: plus annotation, comments, and margin control
- ◆ Clipboard support: tabular data and bitmap images



SPECTRA**DAQ-200**

SpectraDAQ-200 is a precision data acquisition sound card optimized for test and measurement applications. Designed specifically for use with SpectraPLUS it features fixed gain steps for easy calibration to the transducer sensitivity, IEPE power for accelerometers or microphones, and standard BNC connectors. It is housed in a rugged metal case and powered by USB 3.0.

Excellent Performance

The A/D and D/A converters are state of the art and provide incredible dynamic range and extremely low distortion.

Direct Calibration

The input channels provide 4 fixed gain steps. This allows SpectraPLUS to be calibrated directly to volts, millivolts or to the transducer sensitivity providing quick and accurate calibration for microphones, accelerometers and other sensors.

IEPE Power

Accelerometers, microphones and hydrophones often use IEPE powered sensors; IEPE power is a 4ma constant current supply that is built-in to the input circuitry of the module. It is enabled via the SpectraPLUS software. IEPE is also known as ICP (*trademarked by PCB electronics*).



| | |
|--|---|
| Input Voltage Ranges (software selectable) | +/-10V, +/-2.5, +/-625mV, +/-156mV |
| Sampling Rate | Up to 192kHz |
| Sampling Precision | 24 bit |
| Input Channels and connectors | 2 input channels, 2 BNC (single ended) |
| Input Impedance | 1 Meg Ohm |
| IEPE power (software selectable) | 4ma constant current |
| Frequency Response – Inputs | 4 Hz to 92 kHz (-1dB) |
| Frequency Response - Outputs | 4 Hz to 22 kHz (-1dB), 22 kHz to 80 kHz (+/-4dB) |
| Low Frequency cutoff | 2 Hz (-3dB) |
| Total Harmonic Distortion (THD) | < 0.002% (0.5 Vrms signal level, 2.5 V gain) |
| Spurious Free Dynamic Range | > 95 dB |
| Noise Floor (terminated inputs) | < -110 dBVrms |
| Channel Separation | > 90 dB |
| Output Voltage | +/-1.4 V (1 Vrms) |
| Output Channels and connectors | 2 output channels (1 BNC mono, 1 3.5 mm stereo jack) |
| Digital I/O | 3 Input, 3 Output (RJ45 connectors) |
| Drivers (Vista/Win7/8/10, x32 and x64) | MME (Windows Multimedia Extensions) ASIO (Steinberg Audio Stream Input/Output) |
| PC Interface | USB 3.0 (cable included) |
| Operating Power | USB 3.0 (650ma at 5V) |
| Input voltage protection | > +/-30 V |
| Operating Temperature range | 0 to 50 C |
| Dimensions | 5.5 x 3 x 1 in (140 x 77 x 26 mm) |
| Weight | 9 oz (250 grams) |
| Warranty | 1 year |

For more information, please visit Pioneer Hill Software at www.spectraplus.com

Pricing, availability and specifications are subject to change without notice