PHOTON+™
DYNAMIC SIGNAL ANALYZER

USB 2.0 POWERED REAL-TIME ANALYZER FOR NOISE AND VIBRATION ANALYSIS

Ultra-portable, PHOTON+ comes with 2 to 4 inputs, an output, and a tachometer input.

No separate power supply is required as PHOTON+ is powered via the host PC's USB port.

A full range of easy-to-use software applications is available for noise and vibration, FFT analysis, order tracking and rotating machinery analysis and automated production line testing.
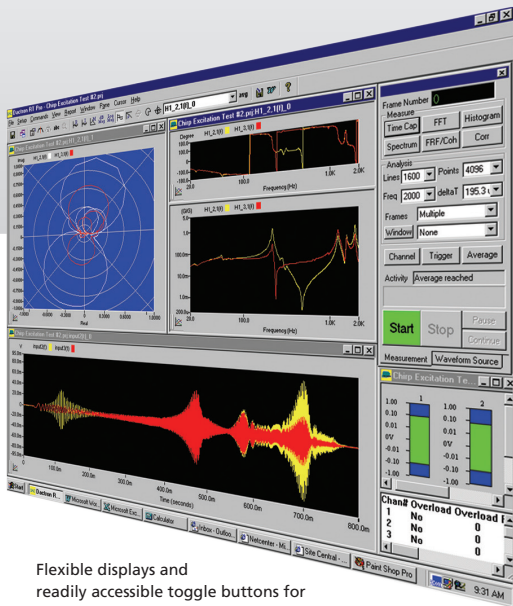
KEY BENEFITS

▸ Portable and weighing less than 8 oz (227 g) for field or lab use as a vibration analyzer, FFT analyzer or signal analyzer

▸ Powered by PC's USB interface for the ultimate in convenience and performance

▸ Data recording, post-processing, and real-time measurements all available with only one click

▸ Fast Real-time processing for quick setup, instant results, and on-site data verification

▸ Tape recorder functionality with a new level of accuracy

▸ High-precision FFT Analyzer: 24-bit with full anti-alias protection

▸ Extremely low measurement noise floor make PHOTON+ ideal for low level acoustic and vibration tests

▸ Industry standard BNC connectivity to transducers

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Brüel & Kjær

PHOTON+ makes any notebook or tablet PC an instrument-quality portable analyzer for multi-channel noise and vibration analysis.

Flexible displays and readily accessible toggle buttons for measurement setup and control makes it easy to get results fast

ALL-IN-ONE INSTRUMENT

Whether noise and vibration testing takes you to the field or the lab, PHOTON+ provides an integrated solution for data recording, post-processing, and real-time analysis.

It's a fast real-time analyzer...

Fast real-time processing combined with quick measurement setup, gives you results instantly, and makes it possible to validate data quality while in the field.
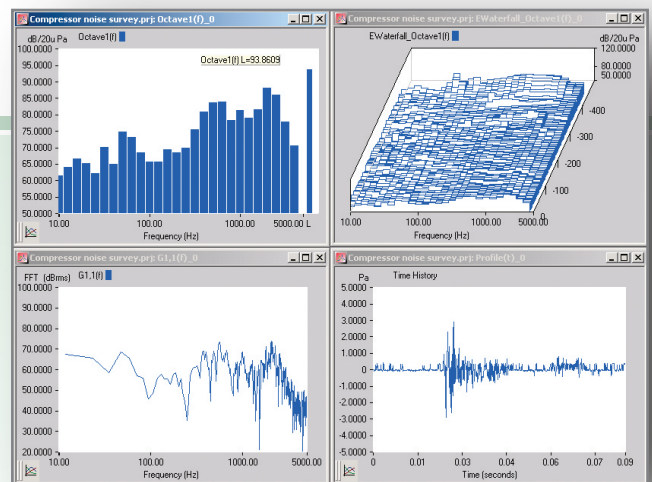
It's a high-end data recorder...

PHOTON+ with Data Recorder software provides the convenience of traditional tape recorders, with features such as voice annotation, plus high-accuracy performance. And one click takes you from recording to post-processing to accelerate the time from data acquisition to analysis results.

It's a powerful post-processor...

After you have recorded data to disk in the field, you can return to your office and use RT Pro™ to play back and analyze the data as if making live measurements.

PHOTON+ APPLICATIONS

▸ Modal Testing

▸ Order Tracking

▸ Spectrum Analysis

▸ Waveform Recording

▸ In-vehicle Data Acquisition

▸ Rotating Machinery Analysis

▸ Transient Capture and SRS

▸ Waterfalls & Spectrograms

▸ Real-time Octave Analysis

Real-time 1/3-octave spectra and simultaneously acquired averaged FFT spectra provide powerful acoustic analysis capabilities. The octave filters meet ANSI S1.11-1986 specifications up to 20 kHz

ULTRA PORTABLE

A compact, light and rugged design make PHOTON+ ideal for testing in-vehicle, in-flight, or anywhere that you need to make measurements. Since the USB connection supplies power, you will not have to carry along a power supply or batteries for PHOTON+. Also, you can place PHOTON+ up to 16.4 feet (5 metres) from the PC for a more convenient test setup. Using USB hubs as repeaters can extend placement of PHOTON+ from the PC to up to 98.4 feet (30 metres).

INSTRUMENT QUALITY

The instrument-quality design of PHOTON+ gives you exceptional accuracy and fidelity for all acquired or generated signals. The 115 dB dynamic range allows resolution of signals that differ in amplitude by a ratio of over 560,000 to 1. All inputs have both analog and digital filters, providing complete alias protection and ensuring full data integrity. Programmable gain stages on the inputs provide input voltage ranges from 10 mV to 10 V. This design, together with the 24-bit resolution, provides an extremely low noise floor, which is often required for acoustic measurements, and high accuracy for all measurements.
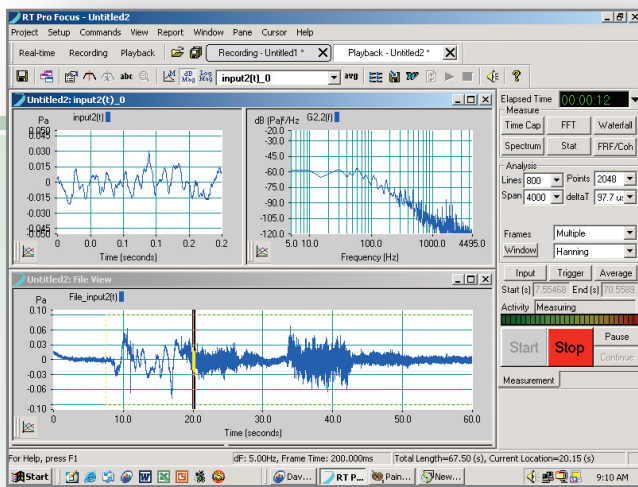
An embedded DSP in PHOTON+ performs all measurement and signal-processing tasks in real-time, freeing the PC to give maximum responsiveness and fast graphics. You can analyze data, prepare test reports, and instantly transmit reports and data via email all while acquiring new data.
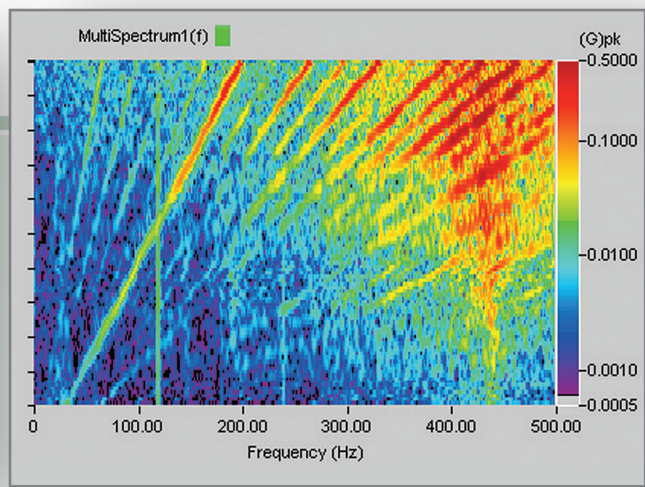
EASY TO SET UP AND USE

Simply plug the supplied USB cable into your PC's USB 2.0 port and PHOTON+, load software, and you are ready to test. Unlike PCMCIA or Firewire devices, there is no tedious configuration process. USB devices auto-configure in a heartbeat.

The intuitive, instrument-like operation of RT Pro lets you spend your time getting results – not trying to master a complex user interface. All software packages are designed and optimized for a specific noise and vibration application. So you will always have the right tools to tackle your measurement tasks.

The job is not finished until the test report is delivered. RT Pro assists you in this task with tools that rapidly generate professional, electronic reports. At the click of an icon, Quick Report automatically opens a Microsoft Word document and inserts all data plots.

Review and analyze data on-line and simultaneously through-put data to disk

Spectrogram plots aid on-line diagnosis of the sources of rotating machinery vibration problems

SYSTEMS

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PHOTON+ WITH RT PRO SOFTWARE

Included hardware:

▸ 2 inputs, 1 waveform source, 1 tachometer, USB cable

Included software:

▸ RT Pro software for real-time measurements, Data Recorder software, Waveform Recorder, and RT Pro Playback software for post-processing, NET-Integrator, Run-Time License

Hardware Options

▸ 845-084100
Single Channel Analog Input
(add 1 or 2 inputs to the base system)

SOFTWARE

DSA-300
RT PRO ADVANCED ANALYSIS PACKAGE

Includes:

▸ Environmental Data Reduction (SRS Analysis)
▸ Acoustic Analysis (1/1- and 1/3-octave spectra).
▸ Real-time Order Tracking Analysis
▸ Swept Sine Measurement
▸ Automated Test Software
▸ Order Tracking for RT Pro Playback
▸ Acoustic Analysis for RT Pro Playback
▸ SRS Analysis for RT Pro Playback

Other Options

▸ NET-103-02
NET-Integrator ActiveX Application Interface

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