



### 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 vibration analyzer ideal for low level acoustic and vibration tests
- Industry standard BNC connectivity to transducers

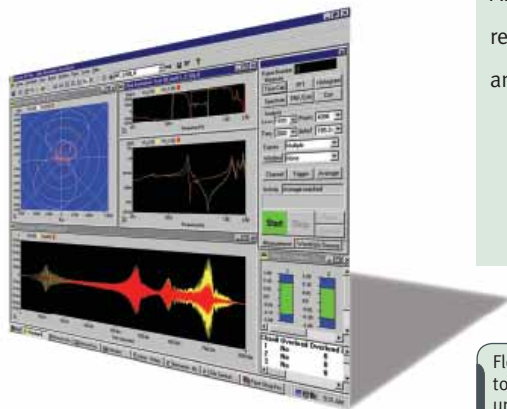
## PHOTON+™ DYNAMIC SIGNAL ANALYZER

USB 2.0 Powered Real-Time Analyzer for Noise and Vibration Analysis

Ultra-portable, the *PHOTON+* Dynamic Signal Analyzer 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. Its real-time rate as an FFT Analyzer is 84 KHz on all four channels. A full range of easy to use software applications are available for noise and vibration, FFT analysis, order tracking and rotating machinery analysis, sound quality, and automated production line testing.



## USB Powered and Ultra-Portable



**PHOTON + MAKES ANY NOTEBOOK OR TABLET PC AN INSTRUMENT-QUALITY PORTABLE ANALYZER FOR MULTI-CHANNEL NOISE AND VIBRATION ANALYSIS.**

### 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...**

The *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.

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

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

### 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
- Sound Quality

### Ultra Portable

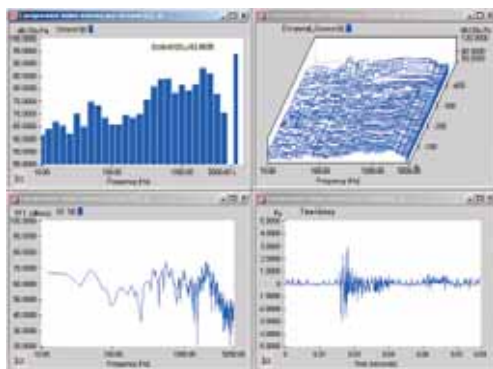
A compact, light and rugged design make *PHOTON +* ideal for testing in-vehicle, in-flight, or anywhere that you need to make measurements. Since the USB connection supplies power, you will not have to carry along a power supply or batteries for the *PHOTON +*. Also, you can place the *PHOTON +* up to 16.4 feet (5 meters) from the PC for a more convenient test setup. Using USB hubs as repeaters can extend placement of the *PHOTON +* from the PC to up to 98.4 feet (30 meters). USB hubs provide the added flexibility to connect multiple analyzers to a single PC and run them from a single user interface using Multi-Photon technology.

## USB Powered and Ultra-Portable

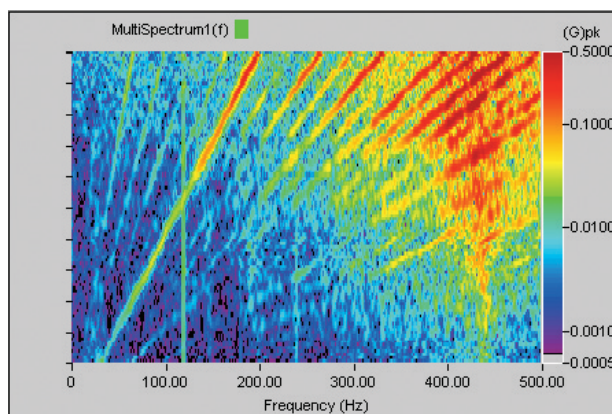
### Instrument-Quality

The instrument-quality design of the *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 the *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.



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



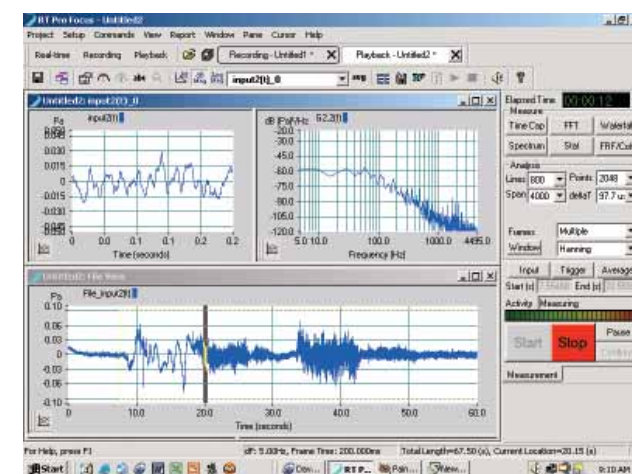
Spectrogram plots aid on-line diagnosis of the sources of rotating machinery vibration problems.

### Easy to Set Up and Use

Simply plug the supplied USB cable into your PC's USB 2.0 port and the *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 Windows Vista/XP 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. Even better, "active" data plots allow you to re-scale, zoom, or cursor any data within the Word report document!



Review and analyze data on-line and simultaneously throughput data to disk.



## PHOTON + – The Ultra-portable Solution for Vibration and Noise Analysis

### Hardware

#### PHOTON + Dynamic Signal Analyzer

- 2 input channels - voltage and ICP®
- 1 output (waveform source) channel
- 1 tachometer
- USB interface port and cable

#### Options

- One Channel Analog Input Module (add one or two channels to the base 2-channel unit)



### Software

#### Dynamic Signal Analysis Applications

- *RT PRO* Signal Analysis and Waveform Source Software *RT PRO* includes Zoom Acquisition, Modal Data Acquisition, Waveform Recorder (disk throughput), and Data Recorder (tape recorder functions), Advanced Graphics (waterfall, spectrogram & color contour plots), RPM Spectrum Processing, and Deep Memory Capture modules

#### Application Options

- Environmental Data Reduction (SRS)
- Acoustic Analysis (1/3 and 1/1 octave)
- Real-time Order Tracking Analysis
- Swept Sine Measurement

#### Application Extensions

- Automated Test Software
- Real Time Data Exchange

#### Other Options

- *RT PRO* Playback (data post processing)
  - RPM Spectrum Processing for Playback
  - Order Tracking for Playback
  - Acoustic Analysis for Playback
  - SRS Analysis for Playback
  - Programmable Digital Filters for Playback
  - Sound Quality Playback
- Re-Calibration Software
- Signal Reader (ActiveX commands to read binary files)

#### Networked Enabled Test Options

- - NET-Integrator (ActiveX tools)
- - NET-Integrator Run-time license

### Also available from Dactron

*Focus II* is a portable Dynamic Signal Analyzer for real-time measurement and signal analysis with 4 to 20 inputs and 2 outputs. Syncing two *Focus II* units makes it possible to build a vibration analyzer with up to 40 simultaneous inputs plus two additional outputs. The USB 2.0 interface provides easy PC connectivity and high speed disk throughput. As an FFT analyzer, the real-time signal analysis frequency is up to 42 kHz for all channels. Optional strain gauge and thermocouple input modules bridge the gap between a data acquisition system and an FFT analyzer to give a single instrument that acts simultaneously as a data recorder and a realtime analyzer for noise and vibration analysis.



Focus II Dynamic Signal Analyzer.

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