841-PE-USB

VIRTUAL OPTICAL POWER AND ENERGY METER

The Model 841-PE-USB is a Power Meter with a USB connection to use a computer as the monitor, allowing the user to access the full computing power of the computer.

COMPATIBLE DETECTORS

- All Newport photodiode detectors with DB15 connectors (818 series, 918D series, etc.)
- 919P series thermopile detectors
- 919E series pyroelectric detectors
- PEPS series power/energy, position sensors (to be released soon)
- LIAD series lock-in amplifier detectors (to be released soon)

PMMANAGER APPLICATION SOFTWARE

PMManager is a powerful application software controlling and taking measurement data. It turns a PC into a laser power multi-channel analysis workstation. The PMManager software features include: extensive graphic display of data, advanced measurement processing, data logging for future review, printing of graphs and data, and the ability to connect additional devices during active measurements.
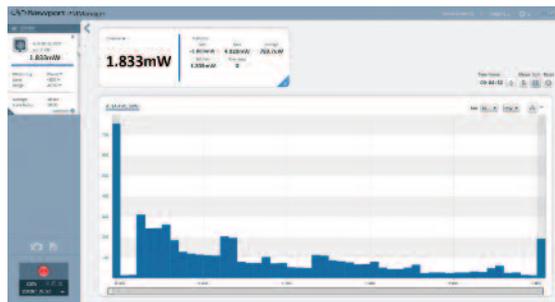

Features and benefits

- Compatible with Windows XP/7/8/10 32 & 64 bit

- Small Form Factor

- USB interface with Powerful PMManager Software

- 15 Hz Analog output

- Multiple power meters run on a single PC

IDEAL FOR MEASUREMENT AUTOMATION AND PRODUCTION

The all new 841-PE-USB Power & Energy Meter utilizes a PC as a powerful virtual power meter control system. When the equipment space is tight or you need to control multiple power meter channels, 841-PE-USB is an ideal solution. It not only has a USB output, but it also has a0 - 1 V analog output. Installation of the application is simple and takes care of the USB driver installation.

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DIRECTLY ACCESS ALL DETECTOR PARAMETERS

All detector parameters are directly accessible from PMManager. Major parameters are available on the detector information window, and further functions are available by clicking 'Functions' button.

EXTENSIVE GRAPHIC DISPLAYS

Various graphics displays are available in PMManager such as Line Plot, Histogram, Bar chart, and Simulated Analog Needle. Multiple data sets on one graph or separate graphs on the same screen are possible.

DATA LOGGING FOR FUTURE REVIEWS

- Can be displayed graphically or saved in text format
- Log data based on the time interval or on the number of data points
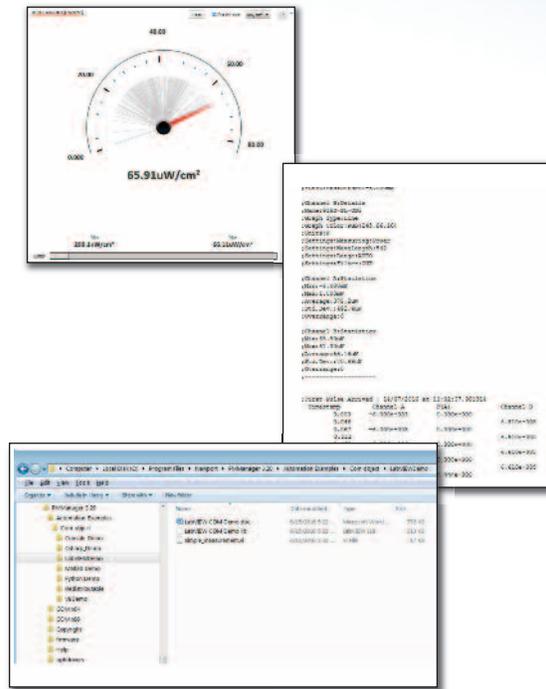- Easily exported to an Excel spreadsheet

COM OBJECT

The PMManager software package also includes a COM object, which allows system integrators to integrate the measurement expertise of Newport equipment with in-house legacy analysis packages.

Demo client applications in VB.NET 2010, VC#.NET 2010, MatLab, and LabVIEW 2013 are provided with the PMManager installation and can be found in C:\Program Files\Newport\PMManager 3.xx\Automation Examples\Com object. A console application is provided as well.

ADVANCED MEASUREMENT PROCESSING

- Power/Energy Density, Scale Factor, Normalize against a reference
- Multi-channel comparisons
- User defined mathematical equations: channels A/B, (A-B)/C etc.
- Position & size measurement with PEPS sensors

SPECIFICATIONS

Number of Channels	1
Compatible Detectors	919P, PEPS, 918D, 818, 919E, LIAD
Communication Interfaces	USB
Analog Output	0-1 Volt with 0.3mV (0.03%) resolution. 100 ohms impedance
Accuracy	±0.25% ±20pA for thermopiles and photodiodes ±0.25% for pyroelectrics
Power Requirements	USB powered
Dimensions	68 x 117 x 32 mm
CE Certified	compliant
Weight	0.425kg
Analog Input Range	15nA - 1.5mA full scale in 16 ranges for thermopiles and photodiodes 0 - 6V full scale for pyroelectrics
Dynamic Range	9 decades (1:109)
Sampling Rate	15 Hz for thermopiles and photodiodes - 10 kHz for pyroelectrics
Resolution	18 bits plus sign for thermopiles and photodiodes 12 bits no sign (0.025% resolution) for pyroelectrics
Noise	500nV or 1.5pA + 0.0015% of input range @3Hz for thermopiles and photodiodes 2mV for pyroelectrics

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