

XENON™ **X-1100**

High-Energy Pulsed Light R&D System

Unique Photonic System that Delivers Broadband High-Intensity Light

The XENON X-1100 is the only low-cost benchtop Pulsed Light system that enables researchers to more easily characterize new processes using XENON's proven technology.

Researchers and scientistis at R&D laboratories around the world now have a new tool for experimenting with high-energy Pulsed Light. This ability to deliver high peak optical power in fractions of seconds is an enabler for new innovation in a diverse range of technologies, markets and research areas.

XENON, the world leader in Pulsed Light, has created the X-1100 system, a low-cost benchtop research tool that boasts powerful performance and functionality yet is simple to use. Any application that requires intense light to do work such as photonic curing, sterilization and sintering can benefit from the broadband photonic source offered by the X-1100. This compact system allows users to experiment with Pulsed Light in small area applications with the confidence in reusing the data in defining larger scale or production systems offered by XENON. Unlike lasers that are limited to narrow wavelengths and point illumination, the X-1100 works as an area illumination and is broad spectrum.



SYSTEM HIGHLIGHTS

- The lowest cost high-energy Pulsed Light system on the market
- Benchtop design with small footprint, and connects to standard mains voltage
- A high-intensity light delivering up to 9 Joules/cm² of radiant energy/pulse
- Sets up in minutes, with multiple user screens featuring a simple-to-follow graphical user interface (GUI)
- R&D tool to assist researchers, scientists and engineers to uncover new applications for high-energy Pulsed Light

An array of accessories completes the solution

A family of lamp housings, sample chambers and a linear stage are available to assist the researcher in using the X-1100 to investigate Pulsed Light. To provide for different treatment areas, the family of lamp housings include linear, spiral and U-shaped lamps of different lengths. All housings contain a lamp, reflector and filter in an air cooled environment, and are available with 3 or 6-meter cables that can be quickly connected to the X-1100 rear panel plug.

Shown in the photo (bottom) is model **LH-912** lamp housing mounted on model **LC-916** lamp chamber. These stainless steel models provide shielding from the intense light and heat normally generated with Pulsed Light. In addition, a safety interlock prevents the lamp from flashing when the chamber door is open. The LC-916 also features a slide-out shelf that lets researchers use small laboratory samples to achieve proof-of-principle validation and establish process variables.



Versatility and ease of use: a winning combination

The X-1100 delivers light with a broad continuous spectrum which includes deep ultraviolet, visible and far infrared making it an ideal tool for challenging photonic applications where either high photon energies in the UV region or broad solar-like light is required. This benchtop unit is easy to setup and operate thanks to its intuitive graphical touchscreen interface and simple plug-in connectors. A careful attention to detail in the X-1100 has created a system that is elegant, functional and safe.





The X-1100 arrives **ready-to-pulse** and plugs into a standard 115v or 220v outlet.

The X-1100 generates highintensity Pulsed Light which is precisely controlled. The system allows adjustment of the pulse peak radiant power and the duration. The system can calculate the theoretical energy set by the user and also measure the actual pulse using a built-in oscilloscope. Sequences of pulses with varying on and off times can also be created to enable more complex energy delivery schemes. Storing and retrieving these recipes, user access control and event logging are standard features of the X-1100.





Configuring pulse profiles and sequencing is done on a single screen.





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POLYTEC GmbH Tel: +49 (72 43) 604 1730 Polytec-Platz 1 - 7 Fax: +49 (72 43) 6 99 44

D -76337 Waldbronn E-Mail: ot@polytec.de GERMANY www.polytec.de

Graph displays measured lamp V and I for each pulse, with pulse energy.