

SYSTEM HIGHLIGHTS

- Max Pulse Energy Output: 18kJ
- Touch Screen Operator Interface
- Wide Pulse Duration: 100-5000 μ s
- Wide Treatment Area Lamp Housing Option
150 x 150 mm – model LH-150
- Uniformity 3%

APPLICATIONS

- Semiconductor Wafer Treatment
- Printed Electronics Sintering
- Rapid Annealing

GENERAL DESCRIPTION

The S-2210 pulsed light system is designed to treat wide areas with high intensity pulsed light for applications requiring high uniformity. The system is compact making it practical for scaling for larger areas or higher throughput by the integration of multiple racks. Pulsed light photonic curing, at ambient temperature, offers a significant increase in processing speed not possible when using traditional oven thermal curing.



Software Programmable Pulse Energies

The operator touch screen allows quick programming 1 to 40 individual pulse energies, enabling processing a range of nano-inks and pastes on heat sensitive substrates as well as photovoltaic thin films. Once pulse profiles are selected, the user can configure unique pulse sequences. Over 100 pulse profiles and unique pulse sequences can be stored and recalled at any time.



Lamp Spectra

The S-2210 is ordered with a XENON high energy pulse light lamp mounted in an enclosed housing providing a broadband spectrum from 190 to 1100 nanometers. Lamps are available with different spectral cutoffs and are interchangeable among systems, so profiles can be transferred easily for use in full-scale production.

Configure a system for your process

Wide-area multi-lamp housings available for use with the S-2210 electronics include model LH-150. Lamp housings are sealed and air cooled, positioned up to 6-meters away from the S-2210 electronics rack, in a user process system.

Model	# Lamps	Treatment Area (mm)	Optical Energy
LH-150	4	150x150	15 J/cm ²

S-2210 Specifications

System Units	Electronics Rack Operator Touch Screen	Lamp Housing Interlock	Access cover OPEN, Prevents Flashing
Pulsed Light		Lamp Current Display	
Max energy output	18kJ Total	Horizontal display	8 μ s to 50 sec/division
Max power output	3kW	Vertical display	4A to 256A/division
Pulse duration range	100 to 5000 μ s	General	
Delay between pulses	100 ms, min	Temperature	0 - 40°C (32-104°F)
Lamp Voltage	1000-3000 volts	Relative Humidity	10 - 90% (non-condensing)
Number of pulses in sequence	1 - 40	Power	200-240 V _{rms} , Single or Split Phase, 50/60Hz, 23A
Pulse sequence	Single, Sequence, Burst, Continuous	Rack Dimensions	45 1/4" x 23 3/8" x 31 5/8" (HWD)
User Controls		Touch Screen Dimensions	12.1" diagonal
Lamp HV Enable	ON/OFF	Weight	500 lbs.
Lamp Trigger Enable	ON/OFF		
Lamp Flash	RUN/STOP		
Mains AC Power Switch	ON/OFF		
High Voltage	ON/OFF		

Specifications subject to change without notice.

Leading the exploration of Pulsed Light

XENON has pioneered Pulse Light technology for more than 50 years, and is a leading provider of innovative, high performance systems for industrial, medical and research applications.

Printed Electronics

XENON sintering solutions rapidly sinter conductive inks at room temperature, making it possible to print on heat-sensitive flexible substrates such as PET and paper, flexible materials such as cloth and plastic, and heat-sensitive substrates using metallic inks based on nanometers derived from silver, gold, and lower-cost copper.

Semiconductor Thin Film

The search for low-cost growth technologies and processing methods for semiconductor thin films is an area of increasing interest, especially in photovoltaics. Pulsed Light systems are applied to create localized heating in under 1ms, allowing films to be processed under atmospheric conditions, avoiding the need for inert or vacuum environments.



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