

The most advanced, versatile and
easy-to-use UV LED spot curing system

OmniCure[®] LX405S

Provides high UV irradiance and fast on-demand curing for
precision bonding and device assembly



- Faster component assembly with industry leading power and irradiance
- Flexibility to bond a wide variety of UV curing adhesives
- Superior versatility with advanced control and highly efficient LED cooling
- Improved process consistency with a single solution for multiple applications
- Piece-of-mind with a simple 3 year LED warranty
- Reduced manufacturing costs with improved production efficiency & reliability



LUMEN DYNAMICS
PUTTING YOU IN CONTROL

OmniCure[®]
UV Bonding • In Control



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OmniCure®

LX405S

Utilizing advanced UV LED technology, the OmniCure® LX405S spot curing system has been specially designed to accelerate the rate of UV curing in a manufacturing process with high power efficiency and superior control.

The LX405S provides manufacturers with a robust solution that offers real time temperature monitoring and protection to maximize the usable life time of each UV LED head.

With the ability to control up to four UV LED heads simultaneously or independently, the LX405S provides superior versatility in process design for complex bonding operations or multiple workstations.

Designed with an intuitive user interface, the LX405S offers three quick configuration modes that include options for timer control, power level adjustment and head temperature display.

FEATURES	BENEFITS
<p>Latest UV LED technology to provide high irradiance at different wavelengths:</p> <ul style="list-style-type: none"> • 9,500mW/cm² (typical) at 365nm • 12,400mW/cm² (typical) at 385nm • 9,000mW/cm² (typical) at 400nm 	<p>Reduced manufacturing costs with improved production efficiency & reliability while supporting a wide variety of UV curing adhesives</p>
<p>Full Control of up to four UV LED heads simultaneously or independently</p>	<p>Maximum flexibility for manufacturing setups where single or multiple foot pedals are needed to control a number of curing stations simultaneously</p>
<p>Precise monitoring and regulation of UV light exposure time (+/- 0.1 seconds) and intensity level (+/- 1%) of up to four different UV LED heads</p>	<p>Repeatability in UV curing assembly manufacturing processes for consistent and highest product quality</p>
<p>Highly efficient and Intelligent UV LED heads with extra cooling capability</p>	<p>Maximum UV LED head power efficiency, long term reliability and extended lifetime</p>
<p>UV LED head temperature on display in real time</p>	<p>Process optimization for UV LED output power efficiency</p>
<p>Customized multi-phase curing processes directly from the LX405S controller</p>	<p>Ease of use while eliminating the need for an external control unit</p>

Overview of Accessories Available

Interchangeable/Replaceable Focusing Lens Options

UV LED HEADS

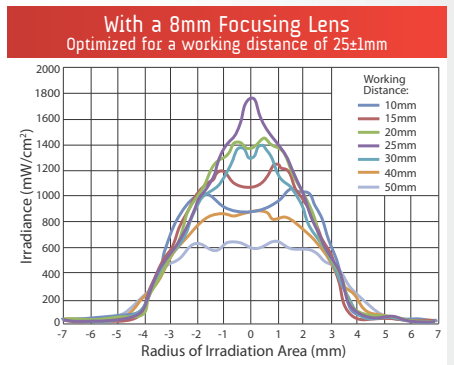
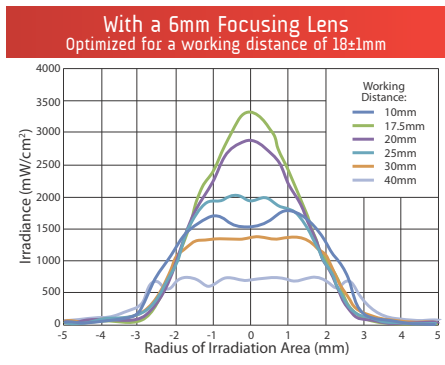
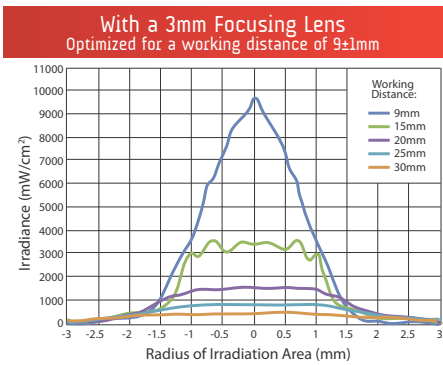
The LED Heads have been uniquely designed for highly efficient cooling to maximize continuous operation without over-heating. This will minimize costly downtime and extend the life of the LED Heads, resulting in low cost of ownership and convenience that manufacturers can rely on. Due to its superior design, when properly clamped, the head may be used continuously while remaining cool.



FOCUSING LENSES

OmniCure® UV LED Heads use replaceable focusing lenses that offer the flexibility essential to meet the spot size and irradiance level required for a specific application.

Beam profiles for the OmniCure® 365nm UV LED MAX heads with the 3mm, 6mm and 8mm lenses are illustrated below. Additional lens sizes (10mm, 12mm), beam profiles and technical information are available on the OmniCure® website (www.LDGI-OmniCure.com) or please contact us for further information.



UV LED LIGHT METER

The OmniCure® LED Light Meter can measure power and irradiance by selecting a specific wavelength on the meter that corresponds to the wavelength of the UV LED source. This enables manufacturers to achieve greater accuracy with ease of use while maintaining reliable and controlled UV assembly processes. (NIST, NRC Traceable)



USER INTERFACE GENERAL SPECIFICATIONS

UV LED Heads	Up to 4 interchangeable individual heads
Interface Controls	Mode selection, up/down buttons, head selection, and start/stop
Manual Mode Control	Programmable trigger mode: <ul style="list-style-type: none"> Countdown Mode: Range programmable from 999.9s to 0.1s, in 0.1s intervals Count Up Mode: User controlled timing via the front panel or foot pedals
External Trigger Control	Programmable trigger mode: <ul style="list-style-type: none"> Countdown Mode: Range programmable from 999.9s to 0.1s, in 0.1s intervals Count Up Mode: User controlled timing via the front panel or foot pedals
Intensity Level Control	15%-100% (with 1% increments)
Head Actuation Button	Control start or stop of UV LED emission
Foot Pedal Ports	4 foot pedal ports to control start or stop of the LED Emission
LED Indicators	Indicates Timer Control, Level, Trigger Mode and UV Emission (UV ON)
Key Switch	Turn on/off controller
External Unit Controller Input (PLC Port)	PLC port allowing external control and monitoring: Start/stop, intensity level adjustment, timer mode selection, lock front panel interface, and alarm signals
UV LED Head Over Temperature Protection	Cutoff temperatures 365nm MAX heads: 60°C, 385nm MAX heads: 60°C, 400nm heads: 60°C
Controller Dimensions and Weight	W x L x H : 7.5" (191mm) x 6.6" (167mm) x 2.8" (72mm) 2.15 lbs (0.98 kg)



Front View

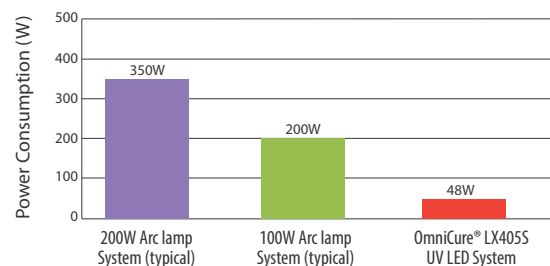


Back View

Foot Pedal Channel Control

	CH1	CH2	CH3	CH4
FP1 Mode	FP1	FP2	FP3	FP4
FP2 Mode	FP1 Controls CH 1, 2 Simultaneously		FP3	FP4
FP3 Mode	FP1 Controls CH 1, 2, 3 Simultaneously			FP4
FP4 Mode	FP1 Controls All Channels Simultaneously			
FP5 Mode	FP1 Controls CH 1, 2 Simultaneously		FP3 Controls CH 3, 4 Simultaneously	
FP6 Mode	FP1 Sequentially Exposes CH 1,2,3,4			

LX 405S Energy Efficiency OmniCure® LX405S vs Typical UV Arc Lamp Systems



LX405S offers energy savings and is eco-friendly. OmniCure® LX405S UV LED curing system consumes about 75% less energy than a typical UV arc lamp curing system.



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