



# UVblade

## Laser Lift-Off Processing

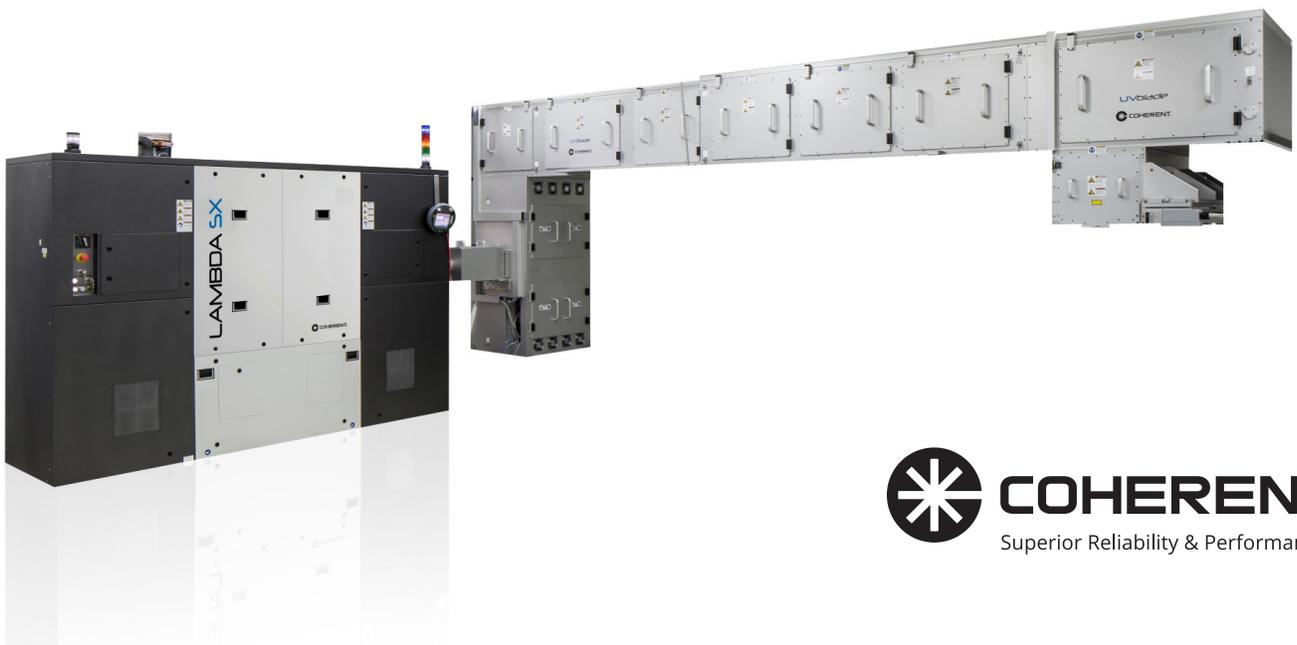
UVblade gently detaches delicate polymer-based displays of all types from their rigid glass carriers. Laser Lift-Off separation is the enabling technology in manufacturing flexible displays. UVblade is available at variable line beam lengths supporting fast and effective separation of substrates and wafers.

### FEATURES & BENEFITS

- Cost effective solutions for Laser Lift-Off (LLO) separation
- Pulse on Demand (POD)
- Unmatched beam utilization
- Scalability in line lengths and energy density
- Flexible system footprint

### APPLICATIONS

- Laser Lift-Off Separation of Wafers and Displays
- Unique Lift-Off Solution for Transparent and Colorless Polyimide (CPI)

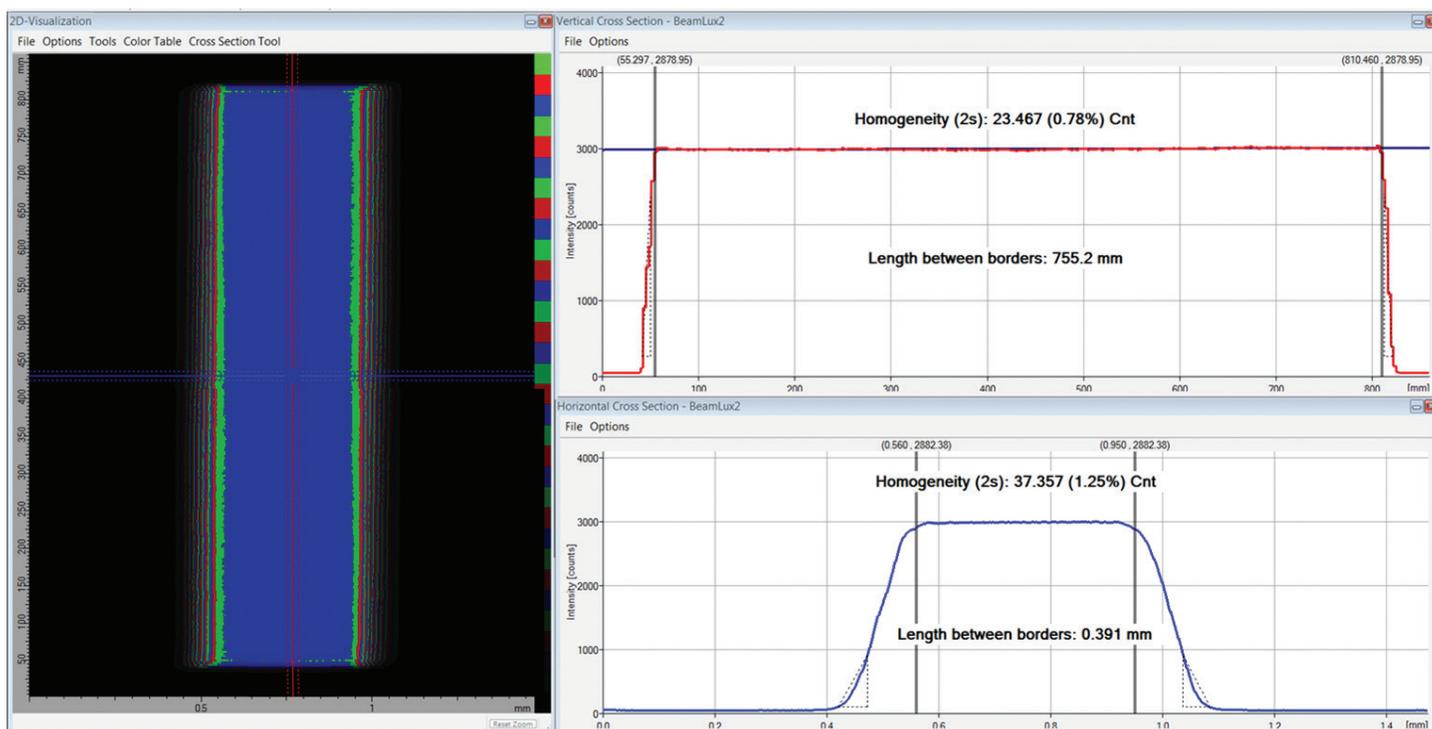


SPECIFICATIONS <sup>1</sup>	UVblade 250	UVblade 380	UVblade 465	UVblade 750	UVblade 750HP	UVblade 1000
Wavelength (nm)	308	308	308	308	308	308
Laser Pulse Energy (mJ)	580	1000	1000	1000	2000	2000
Repetition Rate (Hz)	200	600	600	600	600	600
Energy Density (mJ/cm <sup>2</sup> ) (at 96%)	370	450	360	340	320	315
Beam Length (mm)	250	380	465	750	750	950
Beam Width (μm) (at 96%)	400	400	400	250	500	400
Homogeneity Long Axis (% , 2σ)	1.8	1.8	1.8	1.8	1.8	1.8
Depth of Focus (μm)	±200	±200	±150	±100	±150	±100

<sup>1</sup> Large number of system combinations enabling optimum throughput, CoO and CAPEX.

## UVblade Performance

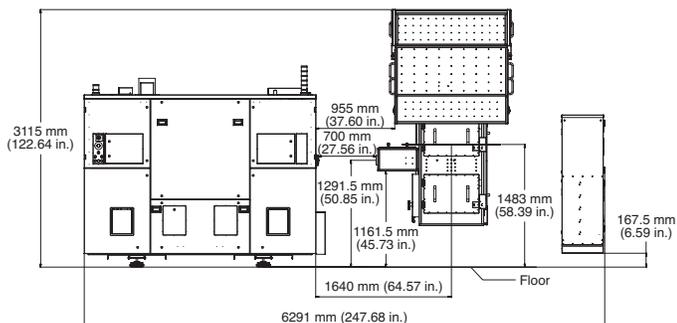
Example of UVblade 750 2D-beam profile, short and long axis cross sections in the substrate plane.



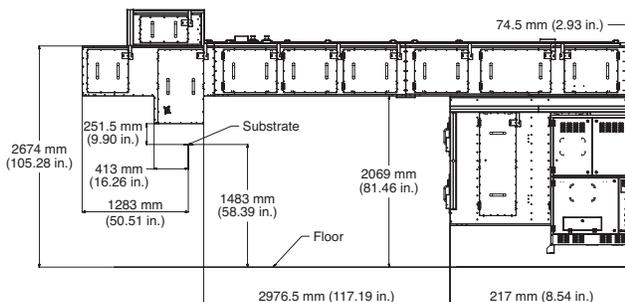
## MECHANICAL SPECIFICATIONS

### UVblade 1000

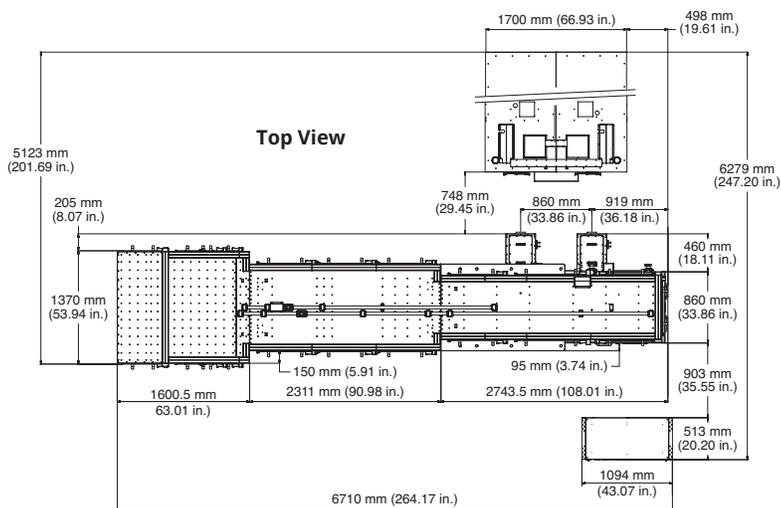
Front View



Side View



Top View



Coherent, Inc.,  
 5100 Patrick Henry Drive Santa Clara, CA 95054  
 p. (800) 527-3786 | (408) 764-4983  
 f. (408) 764-4646

[tech.sales@coherent.com](mailto:tech.sales@coherent.com) [www.coherent.com](http://www.coherent.com)

Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all UVblade Systems. For full details of this warranty coverage, please refer to the Service section at [www.coherent.com](http://www.coherent.com) or contact your local Sales or Service Representative. MC-022-16-0M0120Rev.C Copyright ©2020 Coherent, Inc.

