

INDUSTRIAL

LXR 100

Femtosecond laser source

Who we are:

At Luxinar we have a singular focus:

Developing laser technology to enhance our world.

Like a laser that channels light into a single, powerful beam, we focus on improving the lives of our customers. We have a single manufacturing location. We have a single point of contact at our regional offices which are located in the same time zone and speak the same language as our customers. These allow us to create solutions to meet every single challenge.

Luxinar is now using its technology expertise to offer a cutting edge femtosecond laser. To date, we have an installed base of over 18000 lasers worldwide in industrial applications environments.

Luxinar – INGENUITY AMPLIFIED



At your service:

Technical support

The Luxinar service team is comprised of technical specialists, passionate and knowledgeable about laser sources. Each team member has an in-depth understanding of laser technology, our products, as well as a wealth of experience of lasers working in a multitude of industries and environments.

Our dedicated, highly skilled and experienced service technicians located in Europe, China, Korea and the USA are on hand to provide the following support:

- Troubleshooting
- Product documentation
- System maintenance
- Spare parts identification
- Integration support



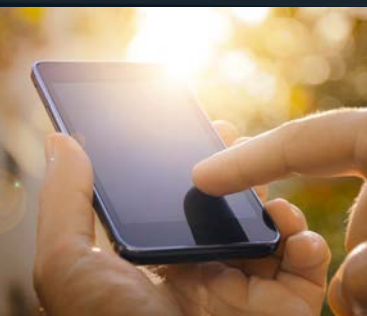
Applications laboratories:

Could a laser be used to improve your manufacturing process? We can help you to find out by testing samples of your material or product.

Our applications lab facilities are open to both new and existing customers and OEMs. Our laboratories are well equipped to carry out a range of processes including cutting, marking, engraving, drilling, ablation and more.

We offer rapid sample turnaround times, detailed application reports, and complimentary advice from our experienced applications engineers. Whatever your process, we can help you to determine the best laser for your application; contact us to find out more.

We carry out application tests using your actual product samples. Guided by your objectives, we will try to replicate the conditions of your application as closely as possible in the lab. Upon completion, you will receive a detailed report outlining our findings, along with some laser-processed samples for your evaluation. Most application tests can be completed within 10 days.



“Developing laser technology to enhance our world”

LXR 100 – Femtosecond laser, a patented laser technology from Luxinar

The LXR 100 incorporates innovative technologies and designs:

- A large dynamic range of pulse repetition frequencies and pulse energies to enable application-specific optimisation
- A synchronisation signal for precise control in dynamic applications
- Burst mode and pulse-on-demand for efficient processing and application optimisation
- Detailed diagnostic/fault finding information via: web interface; PC application; optional mobile control unit
- An integrated alignment beam and safety shutter to ease integration
- Wavelength options available at 515nm and 343nm
- An auxiliary drive and chilling unit as standard

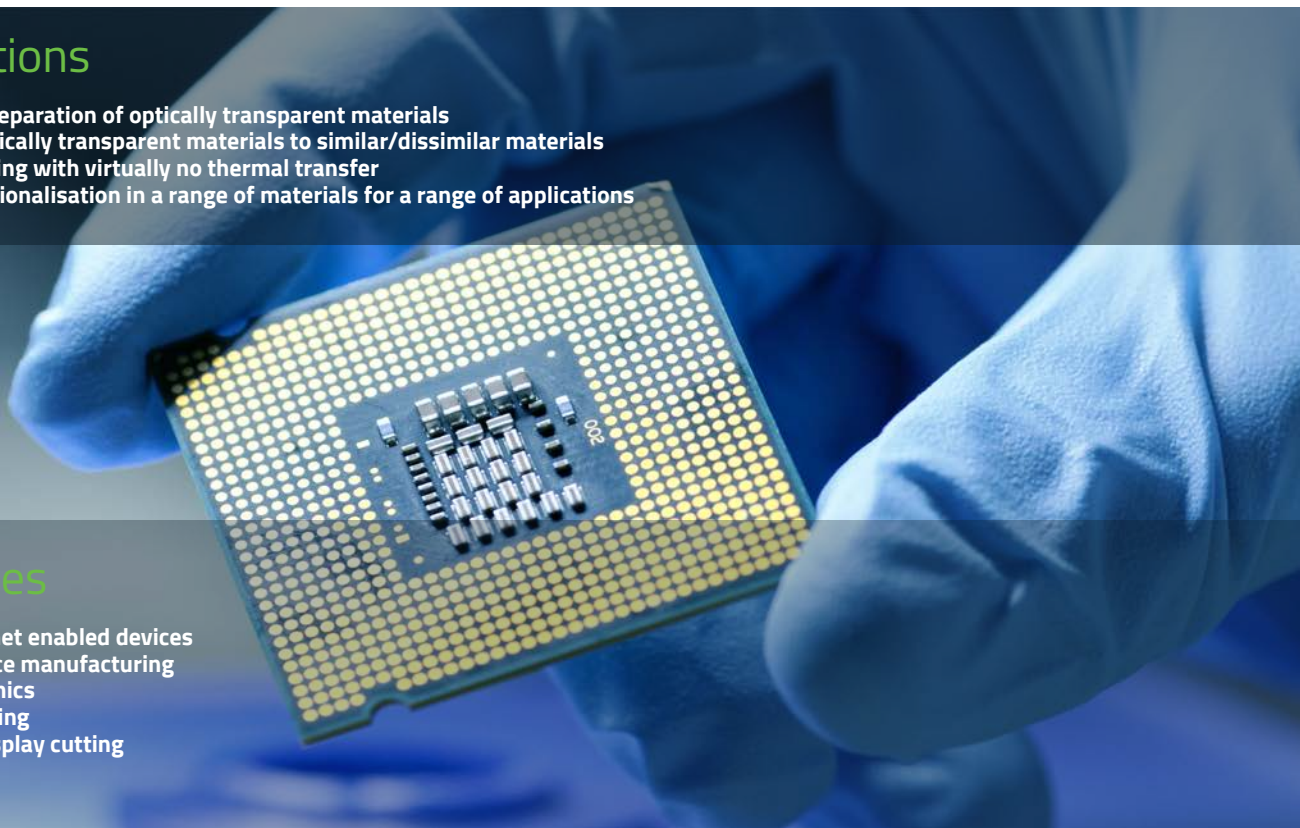


Applications

- High-speed separation of optically transparent materials
- Joining of optically transparent materials to similar/dissimilar materials
- Micromachining with virtually no thermal transfer
- Surface functionalisation in a range of materials for a range of applications

Industries

- Mobile internet enabled devices
- Medical device manufacturing
- Microelectronics
- Micromachining
- Flat panel display cutting



Specifications of LXR 100

Wavelength	1030nm*
Pulse width	900 ± 100fs
Rated power range	0–100W
Pulse frequency	Single shot – 40MHz
Minimum shipment power	120W
Maximum rated pulse energy	100µJ
Guaranteed pulse energy at shipment	120µJ
Power stability	1%rms
Beam diameter	3.0 ± 0.25mm -1/e ² at laser output aperture
Beam quality factor	M ² < 1.3
Divergence (full angle, far-field)	<600µrad
Pointing stability	< ± 50µrad
Polarisation	Linear (perpendicular to base), purity > 100:1
Mains requirements	200V–240V, single phase 50/60Hz 4.5kW maximum input power
Weight	100kg (laser head) 140kg (chiller, DC PSU, controller DC PSU)
Sealing	IP66

*Options at 515nm and 343nm are available. Please contact your local representative for more details.

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Please note that while every effort has been made to ensure that the data given in this document is accurate, due to a policy of continuous improvement, the information, figures, illustrations, tables, specification and schematics contained herein are subject to change without notice.



Class 4 Invisible laser radiation.

Avoid eye or skin exposure to direct or scattered radiation