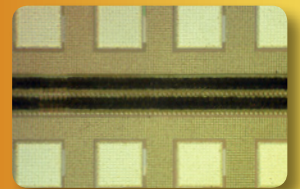
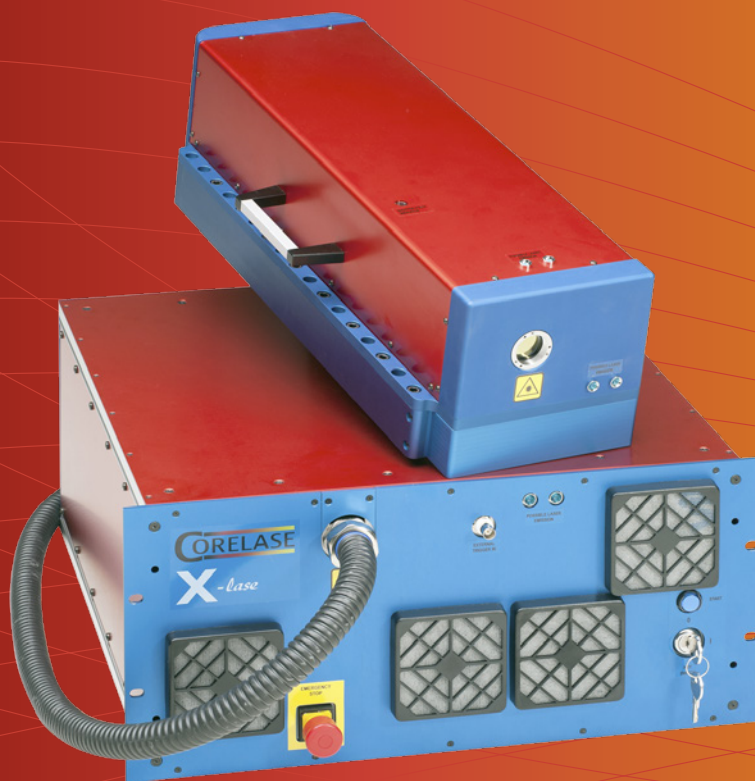


X-LASE SERIES

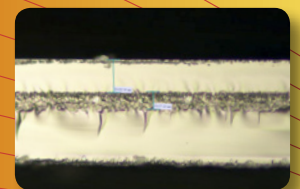
INDUSTRIAL PICOSECOND FIBER LASERS



LOW-K GROOVING



Al ON PET ABLATION



SAPPHIRE SCRIBING



GLASS-GLASS WELDING



GLASS-METAL-GLASS WELDING



X-LASE 24-6

PRECISE ABLATION WITH SPEED



X-LASE CoreScriber

PROCESSING EXCELLENCE FOR TRANSPARENT MATERIALS

COLD ABLATION

The X-LASE 24-6's **picosecond pulses** with **high peak power** enable cold ablation process where work pieces are processed with minimal thermal load.

ALL-FIBER DESIGN

Corelase's **all-fiber technology** enables following features: **rugged industrial design, delivery fiber** and **compact size. Easy integration** makes X-LASE 24-6 a perfect tool for high precision micromachining.

INCREASED PRODUCTIVITY

X-LASE 24-6's **high repetition rates** (up to 4MHz), high average power and **outstanding beam quality** offer market leading combination of high process speeds, productivity and yield for high value-added processing for solar cells, semiconductors, electronics and displays.

PATENTED PROCESSES

X-LASE CoreScriber is a picosecond pulsed fiber laser designed specifically for Corelase's two revolutionary process innovations: **CoreScribe™** and **CoreBond™**. Corelase is actively developing laser processes, like **CoreScribe™** for scribing transparent materials and **CoreBond™** for welding transparent materials.

SUPERIOR THROUGHPUT

CoreScriber's **high repetition rates** (up to 10MHz) enable market leading processing speeds. For example X-LASE CoreScriber with **CoreScribe™** process enables to increase your sapphire scribing throughput at least by 50% compared to any other method.

EXCELLENT QUALITY

Picosecond pulses combined with patented **CoreScribe™** and **CoreBond™** processes enable high quality processing, which increases your yields. Valuable benefit when trying to decrease the manufacturing costs of for example MEMS or LED devices.

SPECIFICATIONS

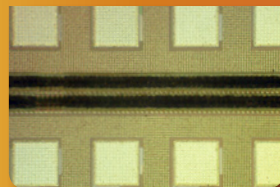
CONTROL, LASER AND COOLING UNIT:

Average power (measured at collimated beam):	24 W (max)
Pulse energy (measured at collimated beam):	6 µJ (max)
Average pulse energy stability:	< 5% (measured over 12 hours)
Pulse width:	20–30 ps, 50% level
Repetition rates:	1, 2, 3 and 4 MHz
Center wavelength	1060 ± 20 nm
Polarization:	Random
Beam quality M ² (collimated beam)	< 1.4 (Typically 1.2)
Operating voltage and frequency:	196–240 VAC, 50/60Hz
Physical dimensions of control and laser unit:	19"/5HU/463 mm
Weight of control and laser unit:	~ 22 kg
Physical dimensions of processing head:	189 mm x 500 mm x 155 mm (wh)
Weight of processing head:	~ 16 kg
Delivery cable (control unit to processing head) length:	2 m
Computer interface:	Ethernet, RS232
Cooling of pump lasers:	Water

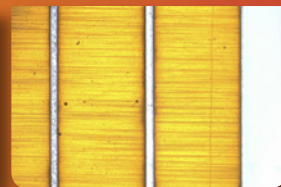
OPTIONS

- Focused beam output
- Autofocusing
- Burst mode

APPLICATIONS



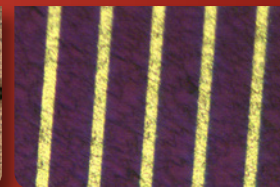
LOW-K GROOVING



AL ON PET ABLATION



PLATINUM CUTTING



SIN ABLATION

SPECIFICATIONS

CONTROL, LASER AND COOLING UNIT:

Average power (measured at collimated beam):	24 W (max)
Pulse energy (measured at collimated beam):	6 µJ (max)
Average pulse energy stability:	< 5% (measured over 12 hours)
Pulse width:	20–30 ps, 50% level
Repetition rates:	4, 6, 8 and 10 MHz
Center wavelength	1060 ± 20 nm
Polarization:	Random
Beam quality M ² (collimated beam)	< 1.4 (Typically 1.2)
Operating voltage and frequency:	196–240 VAC, 50/60Hz
Physical dimensions of control and laser unit:	19"/5HU/463 mm
Weight of control and laser unit:	~ 22 kg
Physical dimensions of processing head:	189 mm x 500 mm x 155 mm (wh)
Weight of processing head:	~ 16 kg
Delivery cable (control unit to processing head) length:	2 m
Computer interface:	Ethernet, RS232
Cooling of pump lasers:	Water

OPTIONS

- Microspot optics
- Autofocusing
- Burst mode

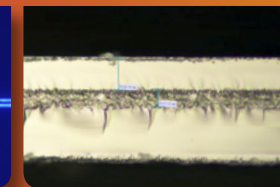
APPLICATIONS



GLASS SCRIBING



GLASS-METAL-GLASS WELDING



SAPPHIRE SCRIBING



GLASS-GLASS WELDING

X-LASE SERIES

APPLICATIONS

- Transparent material scribing
- Transparent material welding
- Thin film patterning/ablation
- Cutting
- Drilling
- Optical, hard and decorative coatings

BENEFITS

- Patented processes
- Excellent quality
- Superior throughput
- Cold ablation
- Robust for industrial use
- Increased productivity

FEATURES

- All-fiber design
- Scalable output power up to 24 W
- Wide range of repetition rates up to 10 MHz
- Ultra short pulse length, 20–30ps
- Single mode (typical $M^2 = 1.2$)
- Fiber delivery



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We reserve the right to introduce improvements to the product without prior notice.