

Applications

- MALDI-TOF mass spectroscopy
- MALDI Imaging
- Bioreaders
- Ion trap mass spectroscopy
- LIF spectroscopy
- Time-resolved spectroscopy
- Micro-LIBS
- Laser ablation
- Microstructuring
- Dissecting cells under the microscope
- Laser acoustics
- Detector calibration
- Pump source for dye lasers
- Amplification of ultra-short laser pulses
- Technological applications
such as laser induced bonding,
hardening and cleaning

Accessories

- Fiber couplings and fibers
- μ -Joule Meter PEM 250 / PEM 500
- Dye lasers / SHG
- Trigger converter TWE

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for industrial
demands
Lasers in the
fs-range

Interaction of light and matter –
induced and analyzed with lasers
and measuring systems of LTB



MNL 100
Mini-Nitrogen-Laser

MNL 300
Low cost Nitrogen Laser

MNL 330
High Rep. Rate Nitrogen Laser

Wavelength	337.1 nm	337.1 nm	337.1 nm
Pulse energy max.	225 µJ	85 µJ	40 µJ (up to 20 Hz)
Pulse width (FWHM)	3 ns	3 ns	3 ns
Peak power	75 kW	28 kW	10 kW
Repetition rate max.	60 Hz	80 Hz	300 Hz
Pulse energy @ max. rep. rate	135 µJ	75 µJ	28 µJ
Average power max.	8 mW	6 mW	8.4 mW
Stability	2 %	2 %	2 %
Warranty - standard version	60 million / 2 years	40 million / 2 years	200 million / 2 years
Warranty - long life version	120 million / 3 years	60 million / 3 years	
Dimensions	321 x 95 x 95 mm ³	300 x 87 x 87 mm ³	300 x 87 x 87 mm ³
Weight	3.5 kg	2.8 kg	2.8 kg

MNL 100
Our Marathon laser -
for highest demands on
efficiency and reliability

The ideal OEM UV-light source
for applications in the field of
industrial detection methods and
scientific research

- Long operational life through a sealed discharge cartridge in metal-ceramic technology
- High precision through a directly switching solid state power switch
- Longlife version with 120 million pulses / 3 years warranty
- Integrated laser controller for easy incorporation in different applications
- Patented and certified CE,ETL-INTERTEK (UL,CSA,VDE,Semco) ROHS, FDA

Options:
Energy monitor, beam attenuator unit, fiber coupling and fibers, dye lasers / SHG

Low-cost UV-laser,
rugged and easy to use,
for various applications

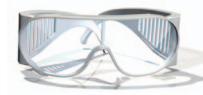
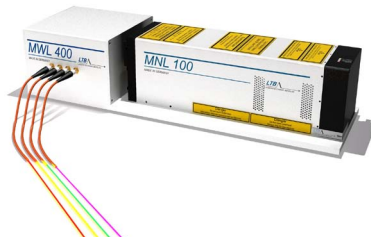
- Long operational life through a sealed discharge cartridge in metal-ceramic technology
- High precision through a directly switching solid state power switch
- Warranty up to 60 million pulses / 3 years
- Maintenance-free
- High quality alternative to all other low-cost UV-lasers
- Only an external trigger signal required to run the laser

Options:
Fiber coupling + fibers,
dye lasers

UV-laser with high repetition
rate for high-throughput
applications

- Long operational life through a sealed discharge cartridge in metal-ceramic technology
- High precision through a directly switching solid state power switch
- Only an external trigger signal required to run the laser
- Maintenance-free
- Alternative to flash lamps due to the high rep. rate, the easy-to-use operation and the low purchase price

Options:
Fiber coupling + fibers,
dye lasers



Dye Laser UDL / Frequency Doubler SHG

400-950/205-400 nm
30 % conversion efficiency
follows the pump laser
30 % conversion efficiency
60 Hz
depending on the pump laser
depending on the pump laser
3 %
2 years

MWL 400 Multi-Wavelength Laser

337nm + 3 x VIS, e.g. 488/530/650
10 µJ @ each output
follows the pump laser
3 kW @ each output
300 Hz
depending on the pump laser
depending on the pump laser
3 %
2 years

Wavelength
Pulse energy
Pulse width (FWHM)
Peak power max.
Max. repetition rate
Pulse energy @ max. rep. rate
Average power max.
Stability
Warranty

145 x 100 x 100 mm³
200 x 200 x 100 mm³ with SHG
1.5 kg

115 x 250 x 170 mm³
1.5 kg

Dimensions
Weight

Pulsed miniature dye lasers/SHG for the UV-VIS-NIR tuning

- compact, modular, efficient, easy to use
- manual and automated wavelength tuning
- 10 mm quartz dye cells, no dye circulators required
- Lifetime of dye solution in the dye cells typ. 6 months
- Wavelength range extension through SHG (205 nm - 950 nm)
- MNL nitrogen lasers, but also excimer or Nd:YAG lasers (with pulse energies up to 30 mJ) are well suited as pump lasers.

Options:
Energy monitor, beam attenuator unit, fiber coupling and fibers

Compact multi-wavelength laser with 4 outputs - 337 nm and 3 x VIS-NIR with fiber couplings

- compact, modular, efficient, easy to use
- 4 wavelengths are provided simultaneously or sequentially at 1 or at 4 outputs
- Wavelengths in the range between 360 and 950 nm can be chosen
- Coupling into fibers of Ø100 - 1000 µm (> 70 %)
- Alternative to flash lamps - used in combination with filters or monochromator - due to the high variability, the easy-to-use operation and the low purchase price

Options:
Fibers from Ø100 µm up to 1000 µm

LTB Lasertechnik Berlin GmbH

established in 1990, is an innovative developer and manufacturer of short-pulse lasers in the whole optical spectral range, different spectrometers and laser-based measuring technique, marketing its products world-wide.

We provide you:

* Laser sources for the industrial analytics and medical diagnostics

* Highest-resolution spectrometers for the development and production of lasers, esp. diode lasers and laser diodes, and for the laser lithography

* Laser-based measuring technique for the spectroscopic material analysis, process analytics and medical diagnostics (LIF and LIBS)